1.1.3.3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses

S. No.	Details	Page No.
1.	**Academic Year : 2015 - 2016**	
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	Department of Electrical and Electronics Engineering	9-12
	Department of Electronics and Communication Engineering	13-35
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2.	**Academic Year : 2016 - 2017**	
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3.	**Academic Year : 2017 - 2018**	
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	Department of Electrical and Electronics Engineering	101-105
	Department of Electronics and Communication Engineering	106-124
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4.	**Academic Year : 2018 - 2019**	
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	Department of Electrical and Electronics Engineering	147-151
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5.	**Academic Year : 2019 - 2020**	
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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

Circular

Academic Year :	2015 – 2016 (OOD)	Date :	08.07.2015

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2015 – 2016 (ODD) for first year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Mobile Application Development using Android	Mr.M.Jawahar Mr.R.Venkatesan
2.	Unix and Network Commands	Mr. M.Jaganathan Mrs. R.Deepika

HOD 8/7/15

Dr. M. VENKATESAN, M.E., Ph.D.,
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Department of Computer Science and Engineering

Value Added Course – Syllabus

Mobile Application Development using Android

The course covers the topics you need to review for the Mobile Application Development using Android exam including:

MODULE 1: The Android Platform 6

Introduction to the Android platform and the Android Studio IDE, Android components, Activities.

MODULE 2: User Interface Design 6

Intents, Activity lifecycle, UI Design: Widgets and Layouts, UI Events, Event Listeners.

MODULE 3: Graphics Support in Android 7

Drawables, Basics of Material Design, 2D graphics: Canvas/Drawing using a view.

MODULE 4: Multimedia in Android 8

Audio playback and MediaPlayer, SoundPool.

MODULE 5:Networking support 7

Basics of networking in Android, AsyncTask, HttpURLConnection.

Total:34 Hours

Course Co-ordinator

VAC Co-ordinator

HOD

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Department of Computer Sciences and Engineering

Value Added Course – Syllabus

UNIX and Network Commands

The course covers the topics you need to review for the UNIX and Network Commands exam including:

Module I: The UNIX File system and Shell Intro

The Shell: Executing commands and command options- Interactive features: job control, history-The UNIX file system-File Utilities (cp, mv, rm, etc.)comm, cmp, diff-Tree walking: find, xargs-Editors: vi, emacs

Module II: Processes, Filters, Shell Scripting

UNIX Processes- Pipes- Signals-Process Utilities (ps, kill, wait, sleep)-Filters: cat, head, tail, sort, uniq-Variables – Loops – Functions - Quoting – Shell as an interpreter; pattern matching; ; redirection; pipes; command substitution; shell variables, environment variables , Keywords, Assignment Statements, read , echo ,Shell scripts and execution methods, Setting positional parameters (set command), Shift , met characters , arithmetic operators, logical and relational operators, Test Command: Numerical Test, File Test and String Test; Control Flow through if, case ; Loops ; while, until , for

Module III: Programming Tools, Networking, HTTP, CGI

Programming Tools (Make, nmake, gmake, rcs, cvs, sccs, ar, tar, cpio, pax, RPM, autoconfig, dbx, gdb) - Introduction to Networking – HTML - WWW – CGI - Internet Protocol - Web servers – HTTP -Forms

Module IV: sed AND awk

Syntax for sed , regular expressions, Addressing: sed commands , Modify a File with sed , metacharacters, Inserting / Deleting/Printing Text/Lines , Substitution , Multiple edits, reading from file and writing to file, quit command Introduction to sed scripting ; Syntax for awk , working of awk, Input from files, Input from commands, Formatting output-print and print function , concept of record and field in awk .

Module V: SYSTEM ADMINISTRATION

Adding and Removing Users, Starting up and Shutting down the System, Disk Management, File System Mounting and Unmounting, Monitoring System Usage, Ensuring System Security.

Total: 30 Hour

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23/10/15

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

Circular

Academic Year :	2015 – 2016 (EVEN)	Date :	21.01.2016

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2015 – 2016 (EVEN) for first year and second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Oracle Database 11g SQL Fundamentals	Mr. V.Prakasham Mr.V.Gopinath
2.	Hands on Training on C	Mr. P.Sumathi Mrs.V.Thangamani

21/1/16

HOD

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Department of Computer Science and Engineering

ACADEMIC YEAR: 2015-2016

VALUE ADDED COURSE ON "Oracle Database 11g SQL Fundamentals"

SYLLABUS

The course covers the topics you need to review for the Network Virtualization exam including:

Module 1: Relational databases & SQL and PL/SQL interface 7

Relational databases -Elements of SQL- About database connections -About bind variables-Using SQL developer-Using SQL*plus-Using application express

Module 2: Select statement and Restricting data with the where clause 6

Select statement -Using alias names - About logical operators -Equality operator -Boolean operators-Null & between operators-Is [not] null operator-[not] between operator-Finding text strings-[not] like operator-Regexp_like()-In operator

Module 3: Sorting and Functions 7

About the order by clause -Multiple column sorts-Specifying the sort sequence-About null values within sorts-Using column aliases - Using rowed-Using rownum-Using the functions-Sysdate-User & uid-Using the dual table-Session time zone function

Module 4: Join and Operators 7

About joins -Inner join-Reflexive join-Non-key join-Outer join- About the set operators -Set operator examples

Module 5: Data Aggregation and building a simple SQL *Plus reports 7

About summary groups -Finding groups within the base tables-Selecting data from the base tables-Selecting groups from the result table- Format column output with column-Defining report breaks with break -Produce subtotals with compute

Total: 34 Hours

COURSE COORDINATOR	VAC COORDINATOR	HOD/CSE
[Mr.V.GOPINATH ,AP/CSE Mr.V.PRAKASHAM ,AP/CSE]	[Mr.V.PRAKASHAM ,AP/CSE]	[Dr. B.KALAAVATHI]

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Department of Computer Science and Engineering

ACADEMIC YEAR 2015 - 2016

VALUE ADDED COURSE ON

"Hands on Training on C"

SYLLABUS

The course covers the topics you need to review for the **Hands on Training on C**

exam including:

Module 1:Basics of Computer Hardware and Software 6

Basics of Computer Architecture- Processor, Memory, Input& Output devices Application Software & System software: Compilers, interpreters, High level and low level languages Introduction to structured approach to programming, Flow chart Algorithms, Pseudo code (bubble sort, linear search - algorithms and pseudocode)

Module 2: Program Basics Basic structure of C program 6

Character set, Tokens, Identifiers in C, Variables and Data Types , Constants, Console IO Operations, printf and scanf Operators and Expressions- Control Flow Statements: If Statement, Switch Statement, Unconditional Branching using goto statement, While Loop, Do While Loop, For Loop, Break and Continue statements

Module 3: Arrays and strings 6

Arrays Declaration and Initialization, 1-Dimensional Array, 2-Dimensional Array String processing: In built String handling functions (strlen, strcpy, strcat and strcmp, puts, gets) Linear search program, bubble sort program, simple programs covering arrays and strings

Module 4: Working with functions 6

Introduction to modular programming, writing functions, formal parameters, actual parameters Pass by Value, Recursion, Arrays as Function Parameters structure, union, Storage Classes, Scope and life time of variables, simple programs using functions

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Module 5: Pointers and Files Basics of Pointer 6

Pointers and Files Basics of Pointer: declaring pointers, accessing data though pointers, NULL pointer,array access using pointers, pass by reference effect File Operations: open, close, read, write, append Sequential access and random access to files: In built file handlingfunctions (rewind() ,fseek(), ftell(), feof(), fread(), fwrite()), simple programs covering pointers and files.

Total:30 Hours

V. Thangamani 11/3/16
COURSE COORDINATOR
[Mrs.P.Sumathi]
[Mrs.V.Thangamani]

11/3/16
VAC COORDINATOR
[Mr.V.Prakasham]

11/3/16
HOD
[Dr.B.Kalaavathi]

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TIRUCHENGODE – 637 215

Department of Electrical and Electronics Engineering

DATE: 08.07.2015

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering is organising Value Added / Short Term Course on the following topics for the academic year 2015 – 2016. In this regard the following faculty members are requested to frame syllabus for the Value Added / Short Term Course.

S.No.	Title of the Value Added / Short Term Course	Faculty Incharge
1.	NI Multisim circuits Simulation	Mr. T. Srihari
		Mr. A. Murugesan
2.	Exploring C	Dr. P. Veena
		Mr. T. Srihari
		Mr.S.Surya Prakash
3.	Basic PLC Programming	Mrs. R. Sacithraa
		Mr. T. Arvind

HoD/EEE

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	NI Multisim Circuits Simulation

Syllabus Framed by: Mr. T. Srihari, Mr. A. Murugesan

SYLLABUS

INTRODUCTION

Multisim is widely used in academia and industry for circuits education, electronic schematic design and SPICE simulation. NI Multisim (formerly MultiSIM) is an electronic schematic capture and simulation program which is part of a suite of circuit design programs, along with NI Ultiboard. Multisim is one of the few circuit design programs to employ the original Berkeley SPICE based software simulation.

SIMULATION CIRCUITS

Use electronic circuit analysis software (Multisim) to draw schematics and / or analyze circuits. Given circuit specifications, apply knowledge learned in the course to design and build following circuit.

- Digital circuits
- Encoder and Decoder
- Counter and Shift register
- Multiplexer and De-multiplexer
- The Op Amp Comparator
- The Non-inverting Voltage Amplifier
- The Inverting Voltage Amplifier
- The Op Amp Differential Amplifier
- The Summing Amp
- The Subtracting Amp
- Parallel-Series and Series-Series Negative Feedback
- The Operational Trans-conductance Amplifier
- The Triangle-Square Generator
- The Wien Bridge Oscillator
- The Integrator
- The Differentiator
- The D to A Converter
- The Linear Regulator

Total number of hours : 30

Prepared by

Approved By

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course on

COURSE	Exploring C

Syllabus Framed By: Dr. P. Veena, Mr. T. Srihari, Mr.S.Surya Prakash

SYLLABUS
Module-1 Introduction to programming, Structure of C program , C programming, Data Types, Input/output statements, Assignment statements , Decision making statements Module -2 Switch statement -,Looping statements, Introduction to Arrays: Declaration, Initialization , One dimensional array, Two dimensional arrays, String operations: length, compare, concatenate Module-3 Introduction to functions: Function prototype, function definition, function call, Pointer operators , Pointer arithmetic ,Arrays and pointers, Nested structures ,Pointer and Structures , Array of structures, Files , Types of file processing: Sequential access, Random access , Sequential access file. Module-4 Example Program: Matrix Operations (Addition, Scaling, Determinant and Transpose), Example Program: Sorting of names , Parameter passing: Pass by value, Pass by reference, Example Program using structures and pointers, Example Program: Finding average of numbers stored in sequential access file , Random access file. .
Total number of hours : 45

Prepared by

Approved By

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	PLC PROGRAMMING

Syllabus Framed by: Mrs. R. Sacithraa, Mr. T. Arvind

SYLLABUS
INTRODUCTION Programmable Logic Controllers (PLCs): Introduction; definition & history of the PLC; Principles of Operation; Various Parts of a PLC: CPU & programmer/ monitors; PLC input & output modules; Solid state memory; the processor; I/O modules; power supplies, PLC advantage & disadvantage; PLC versus Computers, PLC Application.
PLC HARDWARE COMPONENTS The I/O section, Discrete I/O Modules, Analog I/O Modules, Special I/O Modules, I/O specifications, The CPU, Memory design, Memory Types, Programming Devices, Selection of wire types and size
PROGRAMMING TIMERS AND COUNTERS Mechanical Timing relay, Timer instructions, ON delay timer instruction, Off-Delay timer instruction, Retentive Timer, Cascading Timers. Counter Instructions, Up-counter, down counter, Up and Down counter, Cascading counters, Incremental encoder counter applications, Combining counter and timer functions, High Speed counter instruction
PROGRAM LOGIC CONTROLLER AND PLC APPLICATIONS Bit Logic Instructions: NO, NC, Set, Reset, rising edge Pulse, Falling Edge Pulse, RS, SR, NOP, OUTPUT Industrial network : CAN (Controller area network), Device net, Control net, Ethernet/IP, Modbus, Fieldbus, Profibus-PA/DP, SCADA (Supervisory control & data acquisition), HMI (Human Machine Interface), Two-axis, three axis robot control with PLC
Total number of hours : 30

Prepared by

Approved By

HoD / EEE

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Project Based learning using "MATLAB"

Date –
July 3rd to 5th &
July 11th to 12th,
2015

Topics to be covered

- ✓ Basics of MATLAB
- ✓ MATLAB Functions
- ✓ Programming with examples
- ✓ Toolboxes
- ✓ Simulink and Hardware Interfacing

Venue: Digital Signal Processing Laboratory

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2015-2016	**Date:**	01.07.2015

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Project Based Learning using MATLAB"** for the benefit of final year students. The course is scheduled from 03.07.2015 to 05.07.2015 and 11.07.2015 to 12.07.2015 for five days at Digital Signal Processing Laboratory. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr.R.Venkadesh, Prof/ECE
2. Mr. S.Boopathy, AP/ECE
3. Mr.S.Deepak, AP/ECE
4. Mr.V.Arun, AP/ECE

Coordinator

1/7/15

HoD

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Department of Electronics and Communication Engineering

Academic Year:2015 - 2016

Value Added Course – "Project Based Learning Using Matlab"

SYLLABUS

Module 1 – Basics of MATLAB **6 Hours**

MATLAB User Interface – Working with MATLAB data types- Creating matrices and arrays

Module 2 – MATLAB Functions **6 Hours**

Operator and Control statements – Using Scripts and functions- Data import and export- Using the graphical feature

Module 3 – Programming with examples **6 Hours**

Basic looping–Basic Branching–Array and Matrix–Basic Graphic applications–User defined functions

Module 4 – Toolboxes **6 Hours**

Signal Processing – Image Acquisition Toolbox- Image Processing –Neural Network

Module 5 – Simulink and Hardware Interfacing **6 Hours**

Using Kits: Lego-Raspberry Pi

Total Hours: 30

Coordinator **Convener**

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Department of Electronics and Communication Engineering

Value Added Course

On

PROJECT BASED LEARNING USING MATLAB

SCHEDULE

Date: 03.07.2015 – 05.07.2015

11.07.2015 – 12.07.2015

DAY	DATE	TIMING	TOPIC
DAY 1	03.07.2015	9.15 to 10.15 am	Introduction
		10.15 to 11.15 am	MATLAB User Interface
		11.30 to 12.30 pm	MATLAB User Interface
		1.30 to 2.30 pm	MATLAB data types
		2.30 to 3.30 pm	Creating matrices and arrays
		3.30 to 4.30 pm	Creating matrices and arrays
DAY 2	04.07.2015	9.15 to 10.15 am	Operator and Control statements
		10.15 to 11.15 am	Operator and Control statements
		11.30 to 12.30 pm	Using Scripts and functions
		1.30 to 2.30 pm	Using Scripts and functions
		2.30 to 3.30 pm	Data import and export
		3.30 to 4.30 pm	Using the graphical feature
DAY 3	05.07.2015	9.15 to 10.15 am	Basic looping
		10.15 to 11.15 am	Basic Branching
		11.30 to 12.30 pm	Array and Matrix
		1.30 to 2.30 pm	Array and Matrix
		2.30 to 3.30 pm	Basic Graphic applications
		3.30 to 4.30 pm	User defined functions
DAY 4	11.07.2015	9.15 to 10.15 am	Signal Processing Toolbox
		10.15 to 11.15 am	Image Acquisition Toolbox
		11.30 to 12.30 pm	Image Acquisition Toolbox
		1.30 to 2.30 pm	Image Processing Toolbox
		2.30 to 3.30 pm	Image Processing Toolbox
		3.30 to 4.30 pm	Neural Network Toolbox
DAY 5	12.07.2015	9.15 to 10.15 am	Using Kit:Lego
		10.15 to 11.15 am	Using Kit:Lego
		11.30 to 12.30 pm	Using Kit:Lego
		1.30 to 2.30 pm	Using Kit: Raspberry Pi
		2.30 to 3.30 pm	Using Kit: Raspberry Pi
		3.30 to 4.30 pm	Using Kit: Raspberry Pi

Course Coordinator

Convener

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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Guidance about Opportunities in IT Industry

DATE:
04.08.2015
TO
08.08.2015

Topics to be covered

- ✓ **Module 1: Verbal Reasoning**
- ✓ **Module 2: Non-Verbal Reasoning**
- ✓ **Module 3: Quantitative Aptitude & Resume Preparation**
- ✓ **Module 4: Soft Skills Development**
- ✓ **Module 5: Technical and HR Interview**

Venue: ECE Seminar Hall

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2015 - 2016	**Date:**	20.07.2015

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Guidance about Opportunities in IT Industry"** for the benefit of Third & Final year students. The course is scheduled from 04.08.2015 to 08.08.2015 in ECE Seminar Hall. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr.R.Nandakumar, HoD/ECE
2. Mr.P.Govindaraju, AP/ECE
3. Mrs.W.Devapriya, AP/ECE
4. Mr.P.Premkumar, AP/ECE

P. Govindaraju 20/07/15
Coordinator

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20/7/15
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KSRIET

Department of Electronics and Communication Engineering

Academic Year:2015-2016

Value added course -"*Guidance about Opportunities in IT Industry*"

Syllabus

Module 1: Verbal Reasoning 6

General Mental Ability- Analogy, Classification, Series Completion, Coding – Decoding, Blood Relations, Puzzle Test, Sequential Output Tracing, Direction Sense Test, Logical Venn Diagrams, Alphabet Test, Number, Ranking & Time Sequence Test, Mathematical Operations, Logical Sequence of Words, Arithmetical Reasoning.

Logical Reasoning- Logic, 1-Statement – Arguments, 2-Statement – Assumptions, Statement – Course of action, Statement – Conclusions, Deriving Conclusions from passages, Miscellaneous logical puzzles.

Module 2: Non-Verbal Reasoning 6

Series, Analogy, Classification, Analytical reasoning, Mirror images, Water images, Embedded figures, Completion of incomplete pattern, Figure matrix, Paper folding, Paper cutting.

Module 3: Quantitative Aptitude & Resume Preparation 6

Data Interpretation, Inequalities, Percentages, Number Series, Arithmetic Aptitude, Profit and Loss, Simple Interest and Compound Interest, Age Problems, Work And Time, Time & Speed, Probability, Mensuration, Permutation and Combination - Resume Preparation

Module 4: Soft Skills Development 6

Communication, Teamwork, Adaptability, Problem-Solving, Creativity, Work Ethic, Interpersonal Skill, Time Management, Leadership

Module 5: Technical and HR Interview 6

Technical skills for IT Industry - Tips for HR Interview

Total Hours: 30

P. Vijaya 20/01/15

Coordinator

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20/1/15

Convener

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Department of Electronics and Communication Engineering

Value Added Course on "*Guidance about Opportunities in IT Industry*"

SCHEDULE

Date: 04-08August 2015

Day	Date	Timing	Topic
Day 1	04.08.15	9.15-10.15a.m	General Mental Ability- Analogy, Classification, Series Completion, Coding – Decoding, Blood Relations, Puzzle Test
		10.15-11.15a.m	Sequential Output Tracing, Direction Sense Test, Logical Venn Diagrams, Alphabet Test
		11.30-12.30p.m	Number, Ranking & Time Sequence Test, Mathematical Operations, Logical Sequence of Words
		1.30-2.30p.m	Arithmetical Reasoning
		2.30-3.30p.m	Logical Reasoning- Logic, 1-Statement – Arguments, 2-Statement – Assumptions, Statement –
		3.30-4.30p.m	Course of action, Statement – Conclusions, Deriving Conclusions from passages, Miscellaneous logical puzzles.
Day 2	05.08.15	9.15-10.15a.m	Series, Analogy, Classification
		10.15-11.15a.m	Analytical reasoning
		11.30-12.30p.m	Mirror images
		1.30-2.30p.m	Water images
		2.30-3.30p.m	Embedded figures
		3.30-4.30p.m	Completion of incomplete pattern
		5.00-6.00p.m	Figure matrix, Paper folding, Paper cutting.
Day 3	06.08.15	9.15-10.15a.m	Data Interpretation, Inequalities, Percentages, Number Series, Arithmetic Aptitude,
		10.15-11.15a.m	Profit and Loss, Simple Interest and Compound Interest
		11.30-12.30p.m	Simple Interest and Compound Interest
		1.30-2.30p.m	Age Problems, Work And Time, Time & Speed, Probability
		2.30-3.30p.m	Mensuration, Permutation and Combination
		3.30-4.30p.m	Resume Preparation
Day 4	07.08.15	9.15-11.15a.m	Communication, Teamwork, Adaptability
		11.30-12.30p.m	Problem-Solving, Creativity
		1.30-2.30p.m	Work Ethic, Interpersonal Skill
		2.30-4.30p.m	Time Management, Leadership
Day 5	08.08.15	9.15-12.30a.m	Technical skills for IT Industry
		1.30-4.30p.m	Tips for HR Interview

P. [signature] 20/07/15

Course Coordinator

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NAMAKKAL DT. TAMIL NADU.

[signature] 20/7/15

Convener

KSR INSTITUTE FOR ENGINEEERING AND TECHNOLOGY

(Affiliated to Anna University, Chennai & Approved by AICTE, New Delhi)
KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Industrial Exposure in Embedded Environment

Topics to be covered

1. Introduction to Advance Processor and Controllers
2. Discussion about Embedded Communication Protocols
3. Technical Specifications and Applications of ARM Processors
4. Introduction and programming of Embedded C
5. Implementation of Real Time project in LPC2148 using Embedded C , Idea about Industry Projects in Advanced Processors.

DATE – 14.12.2015 to 15.12.2015, 06.01.2016 to 08.01.2016

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K S R INSTITUTE FOR ENGINEEERING AND TECHNOLOGY

TIRUCHENGODE – 637215

(Affiliated to Anna University – Chennai)

Department of Electronics and Communication Engineering

Circular

Academic year:	2015-2016	Date:	8.12.15

The Department of Electronics and Communication Engineering has planned to conduct value added course on "**Industrial Exposure in Embedded Environment**" for the benefit of Third year students. The course is scheduled from **14.12.2015 to 15.12.2015, 06.01.2016 to 08.01.2016 for 32 hours at Embedded lab. All the students are asked to attend the course.**

The following faculty members will handle the session:

1. Ms.K.Geetha
2. Mr.N.Ramkumar
3. Mr.T.Marthandan
4. Mr.T.Senthil

Coordinator

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HoD

K S R INSTITUTE FOR ENGINEEERING AND TECHNOLOGY

TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Academic Year:2015-2016

Value added course -"Industrial Exposure in Embedded Environment"

Syllabus

Module 1: Introduction to Advance Processor and Controllers 6

Introduction to Microprocessor and Microcomputer Architecture-Architecture of 8085 Processor-Pin Configuration Of 8085 - Bus Organization -Basic Instruction Sets.

Module 2: Discussion about Embedded Communication Protocols 7

Types of Communication Protocols in Embedded Systems-Inter System Communication Protocols-Types of Inter System Communication Protocols-USB Communication Protocols-UART Communication Protocols-USART Communication Protocol-Intra System Communication Protocols-Serial Peripheral Interface (SPI) Communication Protocols-Controller Area Network (CAN) Communication Protocol-Advantages of CAN Communication Protocols and Disadvantages of CAN Communication Protocol

Module 3: Technical Specifications and Applications of ARM Processors 6

Fundamentals of ARM instructions- Introduction to THUMB and ARM Programming-Exception and Interrupt handling schemes-Features and applications of ARM Processors

Module 4: Embedded System 7

Programming Embedded Systems- Factors for Selecting the Programming Language-Introduction to Embedded C Programming Language-Difference between C and Embedded C-Basics of Embedded C Program-Basic Structure of an Embedded C Program (Template for Embedded C Program-Different Components of an Embedded C Program-Basic Embedded C Program-Example of Embedded C Program

Module 5: Implementation of Real Time project in LPC2148 using Embedded C, Idea about Industry Projects in Advanced Processors 6

LPC2148 Microcontroller -Features -Block diagram -GPIO, Interrupts,Timers, PLL, ADC/DAC,PWM-RTC interfacing and programming , Protocols such as UART, CAN, I2C & SPI Implementation in C

Total Hour:32

Coordinator

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K S R INSTITUTE FOR ENGINEEERING AND TECHNOLOGY

TIRUCHENGODE – 637215

(Accredited to NBA, New Delhi and Affiliated to Anna University, Chennai)

Department of Electronics and Communication Engineering

Value Added Course on "Industrial Exposure in Embedded Environment"

SCHEDULE

Date: 14.12.2015 to 15.12.2015, 06.01.2016 to 08.01.2016

Day	Date	Timing	Topic
Day 1	14.12.2015	9.15-10.15a.m	Introduction to Microprocessor
		10.15-11.15a.m	Introduction to Microcomputer Architecture
		11.30-12.30p.m	Architecture of 8085 Processor
		1.30-2.30p.m	Architecture of 8085 Processor--Basic Instruction Sets.
		2.30-3.30p.m	Pin Configuration of 8085
		3.30-4.30p.m	Bus Organization
Day 2	15.12.2015	9.15-10.15a.m	Types of Communication Protocols in Embedded Systems
		10.15-11.15a.m	Inter System Communication Protocols-Types of Inter System Communication Protocols
		11.30-12.30p.m	USB Communication Protocols-UART Communication Protocols
		1.30-2.30p.m	USART Communication Protocol
		2.30-3.30p.m	Intra System Communication Protocols-Serial Peripheral Interface (SPI) Communication Protocols
		3.30-4.30p.m	Controller Area Network (CAN) Communication Protocol
		5.00-6.00p.m	Advantages of CAN Communication Protocols and Disadvantages of CAN Communication Protocol
Day 3	06.01.2016	9.15-10.15a.m	Fundamentals of ARM instructions
		10.15-11.15a.m	Introduction to THUMB Programming
		11.30-12.30p.m	Introduction to ARM Programming
		1.30-2.30p.m	Exception and Interrupt handling scheme
		2.30-3.30p.m	Features of ARM Processors
		3.30-4.30p.m	Applications of ARM Processors
Day 4	07.01.2016	9.15-10.15a.m	Programming Embedded Systems- Factors for Selecting the Programming Language
		10.15-11.15a.m	Introduction to Embedded C Programming Language

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		11.30-12.30p.m	Difference between C and Embedded C
		1.30-2.30p.m	Basics of Embedded C Program
		2.30-3.30p.m	Basic Structure of an Embedded C Program (Template for Embedded C Program
		3.30-4.30p.m	Different Components of an Embedded C Program-Basic Embedded C Program
		5.00-6.00p.m	Example of Embedded C Program
Day 5	08.01.2016	9.15-10.15a.m	LPC2148 Microcontroller
		10.15-11.15a.m	Features -Block diagram
		11.30-12.30p.m	GPIO, Interrupts,Timers, PLL, ADC/DAC,PWM
		1.30-2.30p.m	RTC interfacing and programming
		2.30-3.30p.m	Protocols such as UART, CAN, I2C
		3.30-4.30p.m	SPI Implementation in C

Course Coordinator

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Convener

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

5 DAYS VALUE ADDED COURSE

On

JAVA AND NETWORKING

16.12.2015
To
21.12.2015

Topics to be covered

- Introduction-Java Environment
- Package
- GUI Programming
- Basic networking concepts
- Introduction to servers and network security

@ Computer Networks Laboratory, ECE DEPARTMENT

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2015-2016	**Date:**	10.12.2015

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"JAVA AND NETWORKING"** for the benefit of Final year students. The course is scheduled from 16.12.2015 to 21.12.2015 for five days. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr.N.K.Shankar, AP /ECE
2. Ms.J.Dhivya, AP/ECE
3. Mr.K.Venkatachalam, AP/ECE
4. Ms.B.Latha, AP/ECE

10/12/15
Coordinator

14/12/15
HoD

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
TIRUCHENGODE – 637215

Department of Electronics and Communication Engineering

Academic year:2015-2016

VALUE ADDED COURSE - JAVA AND NETWORKING

SYLLABUS

Core Java and Advanced Java

Module 1 **6 Hours**

1.1 Introduction
1.2 Programming language Types and Paradigms
1.3 Why Java ? and Flavors of Java
1.4 Java Designing Goal and Role of Java Programmer in Industry

2. The Java Environment:
2.1 Installing Java and Java Program Development
2.2 Java Source File Structure, Compilation, Executions.

3. Basic Language Elements:
3.1 Lexical Tokens, Identifiers, Keywords, Literals, Comments ,Primitive Datatypes, Operators Assignments.

4. Object Oriented Programming
4.1 Class Fundamentals , Object & Object reference
4.2 Object Life time & Garbage Collection, Creating and Operating Objects
4.3 Constructor & initialization code block, Access Control, Modifiers, methods Nested
4.4 Inner Class &Anonymous Classes ,Abstract Class & Interfaces Defining Methods
4.5 Argument Passing Mechanism , Method Overloading, Recursion, Dealing with Static Members, Finalize() Method, Native Method. Use of "this " reference
4.6 Use of Modifiers with Classes & Methods, Design of Accessors and Mutator Methods Cloning Objects, shallow and deep cloning, Generic Class Types.

Module 2 **6 Hours**

5. Extending Classes and Inheritance
5.1 Use and Benefits of Inheritance in OOP, Types of Inheritance in Java
5.2 Inheriting Data members and Methods , Role of Constructors in inheritance , Overriding Super Class Methods ,Use of "super"
5.3 Polymorphism in inheritance ,Type Compatibility and Conversion Implementing interfaces.

6. Package
6.1 Organizing Classes and Interfaces in Packages , Package as Access Protection
6.2 Defining Package ,CLASSPATH Setting for Packages , Making JAR Files for Library Packages Import and Static Import Naming Convention For Packages.

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7. Exception Handling:

7.1 The Idea behind Exception ,Exceptions & Errors ,Types of Exception

7.2 Control Flow In Exceptions, JVM reaction to Exceptions ,Use of try, catch, finally, throw, throws in Exception Handling

7.3 In-built and User Defined Exceptions, Checked and Un-Checked Exceptions.

8. Array & String :

8.1 Defining an Array, Initializing & Accessing Array, Multi –Dimensional Array

8.2 Operation on String, Mutable & Immutable String, Using Collection Bases Loop for String

8.3 Tokenizing a String, Creating Strings using StringBuffer .

9. Thread :

9.1 Understanding Threads, Needs of Multi-Threaded Programming

9.2 Thread Life-Cycle, Thread Priorities ,Synchronizing Threads, Inter Communication of Threads ,Critical Factor in Thread –DeadLock,

Module 3 **6 Hours**

10. A Collection of Useful Classes

10.1 Utility Methods for Arrays ,Observable and Observer Objects , Date & Times

10.2 Using Scanner Regular Expression, Input/Output Operation in Java(java.io Package),Streams and the new I/O Capabilities

10.3 Understanding Streams, The Classes for Input and Output, The Standard Streams, Working with File Object, File I/O Basics

10.4 Reading and Writing to Files, Buffer and Buffer Management, Read/Write Operations with File Channel, Serializing Objects .

11. GUI Programming

11.1 Designing Graphical User Interfaces in Java, Components and Containers, Basics of Components, Using Containers

11.2 Layout Managers, AWT Components, Adding a Menu to Window, Extending GUI Features Using Swing Components, Java Utilities (java.util Package)

11.3 The Collection Framework : Collections of Objects , Collection Types, Sets , Sequence, Map, Understanding Hashing, Use of ArrayList & Vector.

12. Event Handling

12.1 Event-Driven Programming in Java, Event- Handling Process, Event- Handling Mechanism

12.2 The Delegation Model of Event Handling, Event Classes, Event Sources, Event Listeners, Adapter Classes as Helper Classes in Event Handling.

13. Database Programming using JDBC

13.1 Introduction to JDBC,JDBC Drivers & Architecture, CURD operation Using JDBC, Connecting to non-conventional Databases.

14. Java Server Technologies

Servlet

14.1 Web Application Basics, Architecture and challenges of Web Application

14.2 Introduction to servlet, Servlet life cycle, Developing and Deploying Servlets, Exploring Deployment , Descriptor (web.xml), Handling Request and Response.

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Networking

Module 4 **6 Hours**

1. **Introduction about Computer**
   - 1.1 Basics of computer
   - 1.2 Organization of computer
   - 1.3 Software and hardware
   - 1.4 Input/output devices.

2. **Basic networking concepts,**
   - 2.1 Network topologies:LAN, WAN, MAN, PAN, CAN.
   - 2.2 Networking Model
   - 2.3 The OSI model
   - 2.4 TCP/ IP Model
   - 2.5 Network adapters.
   - 2.6 Introducing protocols.
   - 2.7 Cabling and troubleshooting.

3. **Introduction to various networking devices:**
   - 3.1 Routers
   - 3.2 Switches
   - 3.3 Modems.
   - 3.4 Hubs etc.
   - 3.5 Wired and Wireless technology.

Module 5 **6 Hours**

4. **Network basic and configuration:**
   - 4.1 Setting IP addresses
   - 4.2 Sharing files and folders
   - 4.3 Network troubleshooting
   - 4.4 PING test, ipconfig etc.

5. **Introduction to servers and network security**
   - 5.1 Types of servers: Files servers, Email Servers, Proxy servers etc.
   - 5.2 Basics of Internet and Intranet
   - 5.3 Types of Internet connections: Dialup, Broadband, Leased Line, Wi-Fi, Wi- Max, 2G, 3G, 4G
   - 5.4 WWW, E-mails, Search Engines, Social Networking. Cloud application.
   - 5.5 Audio-video Conferencing, Voice over Internet Protocol (VOIP).
   - 5.6 Recovery and backup, Essential security measures

Total Hours: 30

10/5/15
Coordinator

10/5/15
Convener

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TIRUCHENGODE – 637215

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VALUE ADDED COURSE

On

JAVA AND NETWORKING

PROGRAMMING SCHEDULE

Date: 16.12.2015 TO 21.12.2015

S. No.	DATE	TOPIC	RESOURCE PERSON
1	16.12.2015	• Introduction-Java Environment • Basic Language Elements • Object-Oriented Programming	Mr. N.K. Shankar
2	17.12.2015	• Package • Exception Handling • Array and String • Thread	Mr. K. Venkatachalam
3	18.12.2015	• A collection of useful classes • GUI Programming • Event Handling • Database programming using	Ms. B. Latha
4	19.12.2015	• Networking-Introduction about computer • Basic networking concepts • Introduction to various	Ms. J. Dhivya
5	20.12.2015	• Network basic and configuration • Introduction to servers and network security	Mr. N.K. Shankar

10/12/15
Coordinator

16/12/15
Convener

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TIRUCHENGODE

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

FIVE DAYS VALUE ADDED COURSE

On

"FRONT END DESIGN OF DIGITAL CIRCUIT USING VERILOG HDL"

Date:
16.12.15
To
21.12.15

Topics to be covered

- ✓ **Introduction to Digital VLSI Systems Design**
- ✓ **Review of Digital Systems Design**
- ✓ **Design of Combinational and Sequential Circuits Using Verilog**
- ✓ **Writing a Test Bench for the Design**
- ✓ **Simulation of Designs – Modelsim Tool**

Venue: VLSI DESIGN LABORATORY, ECE DEPARTMENT

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**

Circular

Academic year:	2015-2016	**Date:**	12.12.2015

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Front End Design of Digital Circuit Using Verilog HDL"** for the benefit of Third year students. The course is scheduled from 16.12.2015 to 21.12.2015 for five days at VLSI Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. G. Gowtham Raj AP/ECE
2. Mr. R. Tamilmani AP/ECE
3. Mr. K. R. Gokulanand AP/ECE
4. Mrs. S. Gomathi AP/ECE

Coordinator 12/12/15

HoD 12/12/15

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KSR INSTITUTE FOR ENGINEEERING AND TECHNOLOGY
TIRUCHENGODE – 637215

Department of Electronics and Communication Engineering

VALUE ADDED COURSE

Academic Year: 2015 - 2016

FRONT END DESIGN OF DIGITAL VLSI CIRCUITS USING VERILOG HDL

SYLLABUS

1. Introduction to Digital VLSI Systems Design — **6 Hours**

- Evolution of VLSI Systems
- Applications of VLSI Systems
- Processor Based Systems
- Embedded Systems

2. Review of Digital Systems Design — **6 Hours**

- Numbering Systems
- Arithmetic Logic Unit
- Programmable Logic Devices
- Digital System Design Using SSI/MSI Components

3. Design of Combinational and Sequential Circuits Using Verilog — **6 Hours**

- Introduction to Hardware Design Language
- Design of Combinational Circuits
- Verilog Modeling of Sequential Circuits
- Coding Organization

4. Writing a Test Bench for the Design — **6 Hours**

- Modeling a Test Bench
- Test Bench for Combinational Circuits
- Test Bench for Sequential Circuits

5. Simulation of Designs – Modelsim Tool — **6 Hours**

- VLSI Design Flow
- Design Methodology
- Synthesis of Designs – Synplify Tool

Total Hours: 30

GGR 12/12/15
Coordinator

12/12/15
Convener

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TIRUCHENGODE – 637215

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VALUE ADDED COURSE

ON

"FRONT END DESIGN OF DIGITAL CIRCUIT USING VERILOG HDL"

SCHEDULE

Date: 16.12.2015 – 21.12.2015 **Venue: VLSI Lab**

S.NO.	DATE	TOPIC	RESOURCE PERSON
1	16.12.2015	Introduction to Digital VLSI Systems Design	Mr. G. Gowtham Raj
2	17.12.2015	Review of Digital Systems Design	Mr. R. Tamilmani
3	18.12.2015	Design of Combinational and Sequential Circuits Using Verilog	Mr. K. R. Gokulanand
4	19.12.2015	Writing a Test Bench for the Design	Mrs. S. Gomathi
5	21.12.2015	Simulation of Designs – Modelsim Tool	Mr. G. Gowtham Raj

12/12/15
Course Coordinator

Convener

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TIRUCHENGODE-637 215,
NAMAKKAL Dt, TAMIL NADU.

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Department of Mechanical Engineering

Circular

Academic Year :	2015 – 2016 (OOD)	Date :	02.06.2015

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2015 – 2016 (OOD) for final year & third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1	CATIA	Mr.M.Kalidhas (United CAD) Mr.E.S.Palanivel Mr.M.Sakthivel Ms.G.Anitha
2	CREO - INDUSTRIAL DESIGN	Mr.K.Jagadeesan Mr A.Premkumar Mr A.V.T.Shubhash Mr K.Gopalakrishnan Mr R.Nirmalraja Mr M.V.Shanmugam
3	SOLID WORKS	Mr.L.Selvakumar (United cad) Mr.M.Kalidhas (United cad) Mr.G.Gowrisankar Mr.M.Sathish kumar
4	ANSYS	Mr.M.Sambath Kumar Mr.K.Vetriselvan Mr.S.Rajkumar Mr.M.Ashok Kumar

Dr. M. VENKATESAN, M.E., Ph.D.
PRINCIPAL,
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K.S.R. KALVI NAGAR,
TIRUCHENGODE-637 215,
NAMAKKAL Dt, TAMIL NADU.

HOD 2/6/15

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CATIA-SYLLABUS

S.NO	TOPICS		Hours
1	INTRODUCTION	Introduction to CAD/CAM/CAE, CATIA Software Features, Software Fundamentals, Applications.	8
2	SKETCH CONSTRAINTS	Profile Toolbar Operation Toolbar Geometric constraints, Dimensional constraints,Animate constraints.	6
3	SKETCH BASED FEATURES DRESS UP FEATURES	Hole, Rib, Slot, Combined Solid, Stiffener, Multi Section Solid, Remove Multi Section Solid. Fillet, Chamfer, Draft, Shell, Drafted Filleted Pad, Drafted Filleted Pocket, Thickness	7
4	REFERENCE FEATURES	Reference Plane, Reference Line, Reference Point	4
5	ASSEMBLY	Assembly constraints, Bottom- up approach. Top- down approach, Exploded view.	4
6	MECHANISMS	Introduction to Kinematics, Applying Joints, Assembly Constraints Conversion.	5
7	SURFACE MODELLING SHEET METAL DESIGN	Wireframe Elements, Surfaces Toolbar. Operations Toolbar. Walls,Rolled Walls, Bending, Cutting and Stamping.	8

COORDINATOR

2/6/16

Dr..M. VENKATESAN, M.E., Ph.D.,
PRINCIPAL,
K S R INSTITUTE FOR
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K.S.R. KALVI NAGAR,
TIRUCHENGODE-637 215,
NAMAKKAL Dt, TAMIL NADU.

Total Period: 42

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the Creo for Industrial Design for design including:

Module 1: INTRODUCTION TO CREO PARAMETRIC 8

Introduction to Creo Parametric Feature-Based Nature Bidirectional Associative Property Parametric Nature System Requirements Getting Started with Creo Parametric- Important Terms and Definitions File Menu Options- Managing Files- Menu Manager Model Tree -Understanding the Functions of the Mouse Buttons- Ribbon Toolbars Navigator

Module 2: CREATING SKETCHES IN THE SKETCH MODE 8

The Sketcher Environment-Working with a Sketch in the Sketch Mode-Drawing a Sketch Using tools available in the Sketch Tab-Dimensioning the Sketch-Dimensioning the Basic Sketched Entities-Working with Constraints-Resolve Sketch Dialog Box- Deleting the Sketched Entities -Trimming the Sketched Entities- Mirroring the Sketched Entities.

Module 3: OPTIONS AIDING CONSTRUCTION OF PARTS 8

Options Aiding Construction of Parts-Creating Holes-Creating Rounds-Creating Chamfers-Understanding Ribs-Editing Features of a Model-Creating Feature Patterns-Copying Features-Mirroring a Geometry-Creating a Section of a Solid Model

Module 4: ASSEMBLY MODELING 9

Assembly Modelling -Important Terms Related to the Assembly Mode-Creating Top-down Assemblies-Creating Bottom-up Assemblies-Assembling Components-Modifying the Components of an Assembly-Creating the Exploded State

Module 5: SURFACE MODELING 10

Surface Modelling-Creating Surfaces in Creo Parametric-Creating Surfaces the Using the Style Environment of Creo Parametric-Surface Editing Tools Mirroring-Freestyle modelling environment-Invoking the Sheet metal Mode-Introduction to Sheet metal Walls-Creating the Bend Feature Creating the Unbend Feature

Total: 43 Hours

COORDINATOR

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&

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DASSAULT SYSTEMES

SOLIDWORKS SCHEDULE

S.NO	TOPICS	No.of hours
1	Introduction	8
2	Sketcher	
3	Base Features	
4	Reference Features	
5	Engineering Features	12
6	Special Features	
7	Advanced Modeling	
8	Base Features	
9	Special Features	8
10	Advance features	
11	Applying standard mates	
12	Applying advanced mates	
13	Applying mechanical mates	
14	Creating features	12
15	Editing features	
16	Generating Drawing Views	
17	Inserting Annotations	

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Total Period: 40

COORDINATOR 12/6/15

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the ANSYS including:

Module 1: Introduction to ANSYS 6

System requirements Starting ANSYS Workbench 14.0 -ANSYS Workbench 14.0 GUI -Working on a Project- Units in ANSYS Workbench ANSYS -Workbench Database and File format Changing the unit system Components of the system

Module 2: Solid Modelling Fundamentals 7

Overview Introduction, Extrusion, Revolution, Sweep, Sketching-Placed Features and Assembly-Introduction, Adding a hole, Adding a round, Adding a chamfer, Patterns, Assembly, Alternate solid modeller

Module 3: Modelling techniques Defining Material Properties 8

Surface and Line models-Creating and Adding Materials- Assigning Material to the Beam Assigning Material to the Clamp -Assigning Material to the Assembly

Module 4: Static Structural Analysis 9

Introduction to Static Structural Analysis Pre-processing, Solution, Post-processing Cantilever Beam Plate with a central circular holes and square slot Pressure vessel, Bracket, Clevis assembly Chapter

Module 5: Surface and Line Model &Thermal Analysis 10

Sheet with circular hole-plane stress Pressure vessel and Bracket Line body model-Important terms used in thermal analysis -Types of thermal analysis- Steady state thermal analysis of Car Disk Brake Rotor Heat sink Transient thermal analysis of Piston-Thermal stress-uniform temperature change-Thermal stress in a cylinder

Total: 40 Hours

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COORDINATOR

KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
Circular			
Academic Year :	2015 – 2016 (EVEN)	Date :	02.12.2015

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2015 – 2016 (EVEN) for second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1	AUTOCAD	Mr.P.Gopinath AP/MECH Mr.S.Ponnusamy AP/MECH Mr.R.Surendran AP/MECH Mr.R.Vasanthakumar AP/MECH

HOD

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the **AutoCAD** including:

Module 1: INTRODUCTION TO AUTOCAD 6

AutoCAD Screen Components- Drawing Area Command -Window Navigation bar Status bar AUTOCAD Introduction-Software Requirements- Files handling in CAD- Draw toolbar- Modify toolbar- Dimensioning toolbar- Opening an Existing Drawing- Quitting AutoCAD

Module 2: Introduction to OF Tool bars 7

Functional keys and properties - Layers and leaders- Tool menu customization- Geometric constraints- Dimension constraints- Drawing Lines in AutoCAD- Invoking tools Using Dynamic INPUT/Command- Prompt Coordinate Systems

Module 3: Starting With Advanced Sketching 8

Drawing Arcs- Drawing Rectangles -Drawing Ellipses- Drawing Regular Polygon- Drawing Polylines Placing Points -Drawing Infinite Lines Writing a Single Line Text- Working with Layers- Object Properties- Drafting Settings dialog box

Module 4: Editing Sketched Objects 9

Editing Sketches- Moving the Sketched Objects -Copying the Sketched Objects- Creating Multiple Copies Creating a Single Copy Offsetting Sketched Objects- Rotating Sketched Objects Scaling the Sketched Objects -Filleting the Sketches- Chamfering the Sketches- Trimming the Sketched Objects Extending the Sketched Objects- Stretching the Sketched Objects -Lengthening the Sketched Objects -objects Text Mirroring

Module 5: Isometric Drawings 8

Isometric drawings- Extrusion-View, visual styles and orbit- Solid (3D) modelling- Solid editing operations- Rendering and scenes

Total: 38 Hours

COORDINATOR

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2015 – 2016	Date :	21.05.2015

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2015 – 2016 (ODD) for final year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Multimedia Programming	Ms.M.Dhurgadevi Mr.S.Arun Prasath Mr. R.Sivaraj
2.	Python Programming	Ms.S.Russia Ms.G.Malathy Mr.M.Selvakumar

21/5/15

HOD

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Department of Information Technology

Academic Year : 2015- 2016 (ODD)

Value Added Course – "Multimedia Programming"

Syllabus

Module 1: Introduction to Multimedia 8

What is Multimedia, Elements of Multimedia in detail, Linear and Non-Linear Multimedia, Uses of Sound and Typography in Multimedia.

Module 2: Authoring Tools 8

Introduction to Authoring Tools, Different types of Authoring Tools, Designing outputs using various authoring tools, Study of Media platforms related to authoring tools like print and electronics.

Module 3: Visual Communication using Multimedia 7

What is Visual Communication, Use of Authoring tools in Visual Communication, Principles of Gestalt theory, Introduction to Color theory, Storytelling through multimedia.

Module 4: Introduction to Internet Technology 6

How internet works, Defining LAN, WAN and WWW , Uses of Internet , Understanding IP address, ISP and role of Browser , Internet protocol (http, https, ftp, smtp, pop).

Module 5: Emerging Multimedia Technologies 5

Study of New Media platforms like Websites and Apps

Total: 34 Hours

12/6/15

Coordinator

12/6/15

HOD

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Department of Information Technology

Academic Year : 2015- 2016 (ODD)

Value Added Course – "Python Programming"

Syllabus

Module 1- ALGORITHMIC PROBLEM SOLVING 7

Algorithms, building blocks of algorithms (statements, state, control flow, functions), notation (pseudo code, flow chart, programming language), algorithmic problem solving, simple strategies for developing algorithms (iteration, recursion). Illustrative problems: find minimum in a list, insert a card in a list of sorted cards, guess an integer number in a range, Towers of Hanoi

Module 2: DATA, EXPRESSIONS, STATEMENTS 7

Python interpreter and interactive mode; values and types: int, float, boolean, string, and list; variables, expressions, statements, tuple assignment, precedence of operators, comments; modules and functions, function definition and use, flow of execution, parameters and arguments; Illustrative programs: exchange the values of two variables, circulate the values of n variables, distance between two points.

Module 3: CONTROL FLOW, FUNCTIONS 8

Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: state, while, for, break, continue, pass; Fruitful functions: return values, parameters, local and global scope, function composition, recursion; Strings: string slices, immutability, string functions and methods, string module; Lists as arrays. Illustrative programs: square root, gcd, exponentiation, sum an array of numbers, linear search, binary search

Module 4: LISTS, TUPLES, DICTIONARIES 6

Lists list operations, list slices, list methods, list loop, mutability, aliasing, cloning lists, list parameters; Tuples: tuple assignment, tuple as return value; Dictionaries: operations and methods; advanced list processing - list comprehension; Illustrative programs: selection sort, insertion sort, merge sort, histogram.

Module 5: FILES, MODULES, PACKAGES 6

Files and exception: text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules, packages; Illustrative programs: word count, copy file.

Total: 34 Hours

Coordinator 11/6/15

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HOD

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2015 – 2016	Date :	18.11.2015

This to inform that it has been planned to organize value added course on the following topic for the academic year 2015 – 2016 (EVEN) for second year students. Also the following faculty members are requested to frame syllabus for the value added course and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Data Analytics with R	Ms. S.Abinaya Ms.M.Soundariya Ms.P.Shanmugapriya

HOD

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Department of Information Technology

Academic Year : 2015- 2016 (EVEN)

Value Added Course – "Data Analytics with R"

Syllabus

Module 1: Introduction to R Programming 8

The various kinds of data types in R and its appropriate uses, the built-in functions in R like: seq(), cbind (), rbind(), merge(), knowledge on the various subsetting methods, summarize data by using functions like: str(), class(), length(), nrow(), ncol(), use of functions like head(), tail(), for inspecting data, Indulge in a class activity to summarize data, dplyr package to perform SQL join in R

Module 2: Data Manipulation in R 8

The various steps involved in Data Cleaning, functions used in Data Inspection, tackling the problems faced during Data Cleaning, uses of the functions like grepl(), grep(), sub(), Coerce the data, uses of the apply() functions

Module 3: Data Visualization in R 8

Understanding on Data Visualization, graphical functions present in R, plot various graphs like tableplot, histogram, Boxplot, customizing Graphical Parameters to improvise plots, understanding GUIs like Deducer and R Commander, introduction to Spatial Analysis

Module 4: Exploratory Data Analysis 6

Understanding the Exploratory Data Analysis(EDA), implementation of EDA on various datasets, Boxplots, whiskers of Boxplots. understanding the cor() in R, EDA functions like summarize(), llist(), multiple packages in R for data analysis, the Fancy plots like the Segment plot, HC plot in R

Module 5: Anova and Sentiment Analysis 6

Anova, Sentiment Analysis

Total: 36 Hours

Coordinator

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DEPARTMENT OF MATHEMATICS

KSRIET

CIRCULAR

Academic Year: 2015 – 2016 **Date: 21.12.2015**

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2015 – 2016 for all the First year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	QUANTITATIVE APTITUDE	M.S. Vijayaraj, AP/Maths S. Selvarasu, AP/Maths N. Selvaraj, AP/Maths A. Jayakumar, AP/Maths N. Kumaravel, AP/Maths P. Devisri, AP/Maths P. Sivakumar, AP/Maths K. Suresh, AP/Maths M. Thiagarajan, AP/Maths

21/12/15

HoD/Maths

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DEPARTMENT OF MATHEMATICS

VALUE ADDED COURSE on

"QUANTITATIVE APTITUDE"

Academic Year: 2015 – 2016 **Batch: 2015 – 2019**

Date: 04.01.2016 to 09.01.2016

SYLLABUS

Course Objectives:

To enhance the problem solving skills, to improve the basic mathematical skills and to help students who are preparing for any type of competitive examinations.

Arithmetic Quantitative Abilities:

Time and Work – Time Speed Distance – Boats and Streams – Pipes and Cisterns – Problems on Ages – Problems on Clocks – Problems on Calendar – Problems on Directions – Probability – Percentage.

Total No. of Hours: 30 Hours

Learning Outcomes:

On successful completion of the course the students will be able to:

- ✓ Understand the basic concepts of Quantitative Ability
- ✓ Understand the basic concepts of Logical Reasoning Skills
- ✓ Solve campus placements aptitude papers covering Quantitative Ability and Logical Reasoning
- ✓ Compete in various competitive exams like CAT, GATE, BANK etc.

Reference:

- ➢ Quantitative Aptitude by Dr. R S Aggarwal

2/1/16

VAC Co-ordinator

2/1/16

HoD/Maths

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KSRIET	KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Computer Science and Engineering		
Circular			
Academic Year :	2016 – 2017 (ODD)	**Date :**	12.07.2016

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2016 – 2017 (ODD) for second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	VMWare Data Center Virtualization	Mr.R.Gopal Mrs.V.Thangamani

HOD 12/7/16

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Tiruchengode, Namakkal – 637215

(Accredited by NBA, Affiliated to Anna University, Chennai)

Department of Computer Science and Engineering

ACADEMIC YEAR : 2016-2017

VALUE ADDED COURSE ON "VMWARE DATACENTER VIRTUALIZATION"
SYLLABUS

The course covers the topics you need to review for the Vmware Datacenter Virtualization exam including:

Module 1: Identify and Explain the Concept of Data Center Virtualization 6

Explain Data Center Virtualization.- Differentiate Physical and Virtual Data Center Components. - Identify Data Center Virtualization Benefits. - **Tools:** Virtualization Basics - VMware sphere 6.0 Overview - The Business Value of Virtualization - Business and Financial Benefits of Virtualization

Module 2: Identify Challenges that can be resolved with VMware vSphere with Operations Management 6

Identify VMware vSphere Editions.- Identify common management challenges.- Identify common scalability challenges.- Identify common optimization challenges. Tools:- Compare vSphere Editions- VMware vSphere Essentials Kit and Essentials Plus Kit Datasheet- The Business Value of Virtualization- Business and Financial Benefits of Virtualization

Module 3: Identify and Understand Virtual Infrastructure Object Status 6

Identify different virtual infrastructure objects within the vSphere Web Client.- Differentiate visual status indicators for various object states and conditions.- Describe actions that can be taken on objects given a specific state of condition.

Module 4: Perform Virtual Machine Operations 6

Differentiate the power states of a virtual machine.- Configure startup options for virtual machines running on a host.- Manage the power operations of a virtual machine.- Manage the power operations of a vApp.- Install a guest OS to an existing virtual machine.- Manage removable media.

Module 5: Monitor Virtual Machine and ESXi Host Status 8

Install the Client Integration Plug-in.- Install the VMware Remote Console.- Install and/or Upgrade VMware Tools.

Total: 32 Hours

09/16 09/16

Course Coordinator **VAC Coordinator** **HOD/CSE**

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KSRIET	KS R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Computer Science and Engineering		
	Circular		
Academic Year :	2016 – 2017 (EVEN)	**Date :**	08.01.2017

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2016 – 2017 (EVEN) for first, second & third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Mobile Application Development	Dr.B.Kalaavathi Mr.R.Venkatesan
2.	Oracle / SQL Fundamentals	Mr. V.Gopinath Mr.K.Sriramkumar
3.	Fundamentals of OOPS Programming	Ms.D.Kavinya Ms.N.Sharmila

HOD 1/1/17

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(Affiliated to Anna University, Chennai)
Department of Computer Science and Engineering

Value Added Course – Syllabus

Mobile Application Development

The course covers the topics you need to review for the Mobile Application Development Exam including:

Module 1: Introduction to Mobile Applications: 6

Native and web applications - Mobile operating systems and applications - Mobile Databases. Android: History of Android - Android Features – OSS – OHA - Android Versions and compatibility - Android devices - Prerequisites to learn Android — Setting up software – IDE - XML.

Module 2: Android development: 7

Java - Android Studio – Eclipse – Virtualization – APIs and Android tools – Debugging with DDMS – Android File system – Working with emulator and smart devices - A Basic Android Application - Deployment.

Module 3: Android Services: 7

Simple services – Binding and Querying the service – Executing services.- Broadcast Receivers: Creating and managing receivers – Receiver intents – ordered broadcasts. Content Providers: Creating and using content providers – Content resolver. Working with databases: SQLite – coding for SQLite using Android – Sample database applications – Data analysis.

Module 4: Android User Interface: 6

Android Layouts – Attributes – Layout styles - Linear – Relative – Table – Grid – Frame. Menus: Option menu – context menu - pop-up menu – Lists and Notifications: creation and display.

Module 5: Publishing and Internationalizing mobile applications: 7

Live mobile application development: Game, Clock, Calendar, Convertor, Phone book. App Deployment and Testing: Doodlz app – Tip calculator app – Weather viewer app.

Total: 33 Hours

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03/2/17

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Department of Computer Science and Engineering

ACADEMIC YEAR :2016-2017 **BATCH : 2015-2019**

VALUE ADDED COURSE ON "ORACLE/SQL FUNDAMENTALS"

SYLLABUS

The course covers the topics you need to review for the ORACLE/SQL FUNDAMENTALS exam including:

MODULE 1: SQL FUNDAMENTALS 7

Introduction – Installation and getting started – Fundamental SQL statements-CREATE – Exercise one Create DB and Table- INSERT - Import data from File - Exercise two Inserting and Importing SELECT statement - SELECT DISTINCT – WHERE - Logical Operators – Exercise three SELECT and WHERE – UPDATE – DELETE – ALTER- Exercise for Updating table

MODULE 2: DATA HANDLING AND FUNCTIONS 7

Oracle Tables - Create Table- Create Table - Alter Table - Drop Table- Global & Temp Tables Local Temp Tables

MODULE 3: ORACLE QUERY 6

Oracle Queries - Oracle Select - Oracle Insert - Oracle Insert All- Oracle Update- Oracle Delete truncate Table

MODULE 4: ORACLE CLAUSES 7

Oracle Clause - Oracle DISTINCT- Oracle FROM- Oracle ORDER BY - Oracle GROUP BY- Oracle HAVING - Oracle Operators - Oracle Union Oracle Union All Oracle Intersect Oracle Minus.

MODULE 5: ORACLE OPERATORS AND ORACLE JOINS 7

Oracle Union - Oracle Union All - Oracle Intersect - Oracle Minus- Oracle Joins -Inner Join Outer Join-Equi Join-Self Join-Cross Join- Anti Join -Semi Join

Total: 34 Hours

31/03/17
Course Co-ordinator

31/03/17
VAC Co-ordinator

31/3/17
HOD

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Department of Computer Science and Engineering

Value Added Course – Syllabus

Fundamentals of OOPS Programming

ACADEMIC YEAR: 2016-2017 BATCH : 2016-2020

The course covers the topics you need to review for the Web ethical hacking exam including:

MODULE 1: INTRODUCTION TO OOPS 7

Need for OOP Paradigm, Procedural programming vs object oriented programming, object oriented concepts. Functions: Main function, function prototyping, inline functions, reference variables, call by reference ,Defaults arguments, function overloading, Math library functions. Class: Difference between C structure and class, specifying a class, Defining member functions: inside and outside class, scope resolution operator.

MODULE 2: ARRAYS AND CONSOLE IO OPERATIONS 7

Array within a class, array of objects, Static data members and member functions, Object as function arguments, returning objects, Friend function, memory allocation for objects, pointer to members, pointer to object, this pointer local classes.

MODULE 3: OBJECT ORIENTED PROGRAMMING IN JAVA 6

Constructor and destructor: Constructor, types of constructors: default, parameterized and copy Constructor, constructor overloading, constructor with default parameter, dynamic initialization of objects, destructor

MODULE 4: OPERATOR OVERLOADING 7

Operator overloading and Type Conversion: Defining operator overloading, overloading unary and binary operator, Data Conversion: Basic to User Defined , User defined to basic, Conversion from one user-defined to other.

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MODULE 5: INHERITANCE AND POLYMORPHISM 7

Inheritance and polymorphism: Base class, derived class, visibility modes, derivation and friendship, Types of Inheritance, virtual function binding, pure virtual functions,

Total: 34 Hours

19/5/17 19/5/17

Course Co-ordinator

19/5/17

VAC Co-ordinator

19/5/17

HOD

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TIRUCHENGODE — 637 215

Department of Electrical and Electronics Engineering

DATE 03.06.2016

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering is organizing Value Added / Short Term Course on the following topics for the academic year 2016 - 2017. In this regard the following faculty members are requested to frame syllabus for the Value Added / Short Term Course.

S.No.	Title of the Value Added / Short Term Course	Faculty Incharge
1	Multisim circuits Simulation	Mr. T. Srihari
		Mr. A. Murugesan
2	Projects using Raspberry Pi	Mr. A. Murugesan
		Mrs. K. Meenatchi
3	AutoCAD Electrical	Mr. C. Santhakumar
		Mr. M. A. Stephenraj

HoD / EEE

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	NI Multisim Circuits Simulation

Syllabus Framed by: Mr. T. Srihari, Mr. A. Murugesan

SYLLABUS

INTRODUCTION

Multisim is widely used in academia and industry for circuits education, electronic schematic design and SPICE simulation. NI Multisim (formerly MultiSIM) is an electronic schematic capture and simulation program which is part of a suite of circuit design programs, along with NI Ultiboard. Multisim is one of the few circuit design programs to employ the original Berkeley SPICE based software simulation.

SIMULATION CIRCUITS

Use electronic circuit analysis software (Multisim) to draw schematics and / or analyze circuits. Given circuit specifications, apply knowledge learned in the course to design and build following circuit.

- Digital circuits
- Encoder and Decoder
- Counter and Shift register
- Multiplexer and De-multiplexer
- The Op Amp Comparator
- The Non-inverting Voltage Amplifier
- The Inverting Voltage Amplifier
- The Op Amp Differential Amplifier
- The Summing Amp
- The Subtracting Amp
- Parallel-Series and Series-Series Negative Feedback
- The Operational Trans-conductance Amplifier
- The Triangle-Square Generator
- The Wien Bridge Oscillator
- The Integrator
- The Differentiator
- The D to A Converter
- The Linear Regulator

Total number of hours : 30

Prepared by

Approved By

HoD / EEE

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NAMAKKAL DT. TAMIL NADU.

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course on

COURSE	Projects using Raspberry Pi

Syllabus Framed By: Mr. A. Murugesan, Mrs. K. Meenatchi

SYLLABUS
Introduction to Raspberry Pi Different Models of Raspberry Pi - Why Raspberry Pi - Peripherals of Raspberry Pi - Different Operating Systems for Raspberry pi - Getting Started With NOOBS - Booting for the First time. **Setting Up for a Perfect Pi Experience** Operation Procedures - Do's and Don'ts - Updating Pi to Latest softwares - Setting various Options and Personalizing - First introduction to the LINUX terminal - Connecting to the Network and Troubleshooting. **Getting Familiar with the GPIO Pins of your Pi** Pin numbering Formats- The Voltage hazard Information - The LED Interfacing - General information on other pins and their functionality - The First Button Interface with Raspberry Pi. **Setting Up Pi to be Accessed Remotely.** Remote Computing Basics - Connecting Raspberry Pi to a Remote Access Client - Using Raspberry Pi Remotely – Obstacle detection – light controller - LED Indication for Email.
Total number of hours : 30

Prepared by

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	AutoCAD Electrical

Syllabus Framed By: Mr. C. Santhakumar, Mr. M.A. Stephenraj,

Syllabus
INTRODUCTION Department intro., AutoCADIntro., Co-OrdinateSystems, Typesof Co-Or. System, Units,Limits,Line, Move, Erase.
HOME RIBBON Draw ToolCircle,Arc.ModifyTools– Copy, Offset, Function Keys.Rectangle, Mirror,Boundary, Array, Rotate. Modifytools– Scale, Stretch, Trim and Extend.
Draw tool – ConstructionLine, Ray, Spline, Polyline, Rev. Cloud, Ellipse, EllipseArc, PolygonModifyTools–Break at Point, Break, Join, Chamfer,Fillet, Blend Curves, ExplodeDonut, Fill Mode, Solid, Pan, Object Selection Method,Properties Tool Bar,LTS, LWT, Match Properties Dimension Tool BarText, TextStyle, MirrorText, Spelling, Table, Table Style, Hatch Gradient,Layers. AttributeTools
PROJECT MANAGER Intro. Of Project Manager, WorkingwithProject Manager,Insert Component, Drawing_ Adding, Creating, Drawing Properties, ConnectingAComponent.
SCHEMATIC RIBBON InsertingLibrarySymbol,Insert Wires, Multiple WireBus.InsertingOneLine Circuit, Power Feed Circuit, ModifyWires, WireLayers, WireTypes.
PLC Generate PLCLayout Module, PLC ParametricSelection, ModuleLayout.SymbolBuilder, CircuitBuilder, SaveCircuittolcon Menu.Insert PLC, Section Modules, EditModule PLC DatabaseFile
CONNECTION DIAGRAM Point to Point ConnectionIntro. To Connector, Grouping Wires, Conversion Tool, Convert Text, Convert Wire, Special Explode.
PANEL LAYOUT Foot prints, Edit FP'S,Align FP'S, Creatingown FP'S. REPORTS Types of Reports, Generate Panel&Schematic Reports Isometric, Multileader Intro. To 3D,3D primitives, WCS, UCS, Region, Extrude, Press Pull Modelingtools – Primitive, Revolve,Sweep, Loft, Union, Intersect, Subtract.
Total Number of Hours : 60

Prepared by

Approved By

HoD / EEE

Dr.M. VENKATESAN, M.E., Ph.D.,
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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

on

NETWORKS AND SECURITY

Topics to be covered

08.01.2017
To
29.01.2017

- ✓ **Introduction about Computer**
- ✓ **Basic networking concepts**
- ✓ **Introduction to various networking devices**
- ✓ **Network basic and configuration**
- ✓ **Introduction to servers and network security**

Venue: Networks Laboratory

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**

Circular

Academic year:	2016-2017	**Date:**	04.01.2017

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"NETWORKS AND SECURITY"** for the benefit of Final year students. The course is scheduled from 08.01.2017, 21.01.2017, 22.01.2017, 28.01.2017 and 29.01.2017 for five days at Networks Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. S. Nandhakumar AP /ECE
2. Ms. K.J. Uma AP/ECE
3. Mr.S. Boopathy, AP/ECE
4. Mr.H. Senthil kumar, AP/ECE

Coordinator

HoD

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY, TIRUCHENGODE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value added course

On

NETWORKS AND SECURITY

Academic year: 2016-2017

SYLLABUS

Module 1 - Introduction about Computer **6 Hours**

Basics of computer-Organization of computer-Software and hardware-Input/output devices E-mails, Search Engines, Social Networking.

Module 2 - Basic networking concepts **6 Hours**

Network topologies: LAN, WAN, MAN, PAN, CAN.-Networking Model-The OSI model-TCP/ IP Model-Network adapters.-Introducing protocols.-Cabling and troubleshooting.

Module 3 - Introduction to various networking devices **6 Hours**

Routers-Switches-Modems-Hubs -Wired and Wireless technology Cloud application.-Audio-video Conferencing,-Recovery and backup, Essential security measures.

Module 4 - Network basic and configuration **6 Hours**

Setting IP addresses - Sharing files and folders - Network troubleshooting- PING test, IP config etc, Voice over Internet Protocol (VOIP).

Module 5 - Introduction to servers and network security **6 Hours**

Types of servers: Files servers, Email Servers, Proxy servers etc.-Basics of Internet and Intranet-Types of Internet connections: Dialup, Broadband, Leased Line, Wi-Fi, Wi- Max, 2G, 3G, 4G-WWW.

Total Hours: 30

Coordinator **Convener**

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Department of Electronics and Communication Engineering

Value added course

On

NETWORKS AND SECURITY

SCHEDULE

Date: 08.01.2017 – 29.01.2017

DAY	DATE	TIMING	TOPIC
DAY 1	08.01.2017	9.15 to 10.15 am	Basics of computer
		10.15 to 11.15 am	Organization of computer
		11.30 to 12.30 pm	Software
		1.30 to 3 pm	Hardware
		3.15 to 4.45 pm	Input/output devices.
DAY 2	21.01.2017	9.15 to 10.15 am	Network topologies: LAN, WAN, MAN, PAN, CAN.
		10.15 to 11.15 am	Networking Model & The OSI model
		11.30 to 12.30 pm	TCP/ IP Model & Network adapters
		1.30 to 3 pm	Introducing protocols.
		3.15 to 4.45 pm	Cabling and troubleshooting.
DAY 3	22.01.2017	9.15 to 10.15 am	Routers
		10.15 to 11.15 am	Switches
		11.30 to 12.30 pm	Modems.
		1.30 to 3 pm	Hubs
		3.15 to 4.45 pm	Wired and Wireless technology.
DAY 4	28.01.2017	9.15 to 10.15 am	Setting IP addresses
		10.15 to 11.15 am	Sharing files and folders
		11.30 to 12.30 pm	Sharing files and folders
		1.30 to 3 pm	Network troubleshooting
		3.15 to 4.45 pm	PING test, IP config etc.
DAY 5	29.01.2017	9.15 to 10.15 am	Types of servers: Files servers, Email Servers, Proxy servers etc. Basics of Internet and Intranet
		10.15 to 11.15 am	Types of Internet connections: Dialup, Broadband, Leased Line, Wi-Fi, Wi- Max, 2G, 3G, 4G
		11.30 to 12.30 pm	WWW, E-mails, Search Engines, Social Networking. Cloud application
		1.30 to 3 pm	Audio-video Conferencing, Voice over Internet Protocol (VOIP).
		3.15 to 4.45 pm	Recovery and backup, Essential security measures

Course Coordinator

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Convener

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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Programming in MSP430

Topics to be covered

- ✓ **Module 1 - Introduction**
- ✓ **Module 2 – MSP430 Basics**
- ✓ **Module 3 - GPIO, Timers, Interrupts and Low Power Modes**
- ✓ **Module 4 - Analog to Digital Converters – ADCs, Digital Interfaces**
- ✓ **Module 5 - UART and Wireless Communications with CC2500**

Date:
04.01.2017 to 07.01.2017,
10.01.2017 to 12.01,2017,
17.01.2017 & 18.01.2017

Venue: DSP Lab

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Department of Electronics and Communication Engineering

Circular

Academic year:	2016 - 2017	Date:	02.01.2017

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Programming in MSP430"** for the benefit of Final year students. The course is scheduled from 04.01.2017 to 07.01.2017, 10.01.2017 to 12.01,2017, 17.01.2017 & 18.01.2017 in DSP Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr.R.Nandakumar, HoD/ECE
2. Mr.P.Govindaraju, AP/ECE
3. Mrs.W.Deva priya, AP/ECE
4. Mr.A.Prabakaran, AP/ECE

2/1/17

Coordinator

HoD 2/1/17

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Department of Electronics and Communication Engineering

Academic Year:2016 - 2017

Value added course – "Programming in MSP430"

SYLLABUS

Module 1 - Introduction 6

Introduction to Microcontrollers - List of Hardware needed: EZ430-F2013 USB Stick Development Tool, EZ430-RF2500, Experimenter Boards, FET Debugger, Custom Hardware - Software needed for programming.

Module 2 – MSP430 Basics 6

Data Types and Numeric Representation, Hexadecimal for MSP430, Conversion of Numbers, Digital Operations, Manipulating Module Registers, XOR Operator, ASCII, Internal Oscillators, External Crystals, Clock Sources, Clock Signals, Basic Clock Module in EZ430-RF2500, Considerations for using clocks.

Module 3 - GPIO, Timers, Interrups and Low Power Modes 6

Introduction - Pin Multiplexing – Switches - Debouncing - LEDs - Bit banging - Accuracy - Interrupts - Low Power Modes - Exiting Low Power Modes.

Module 4 - Analog to Digital Converters – ADCs, Digital Interfaces 6

Introduction - ADC Parameters - ADC Resolution - ADC Sampling Frequency - ADC Example - Temperature and Voltage - ADC Clock - ADC Modes - Serial Peripheral Interface (SPI) - Configuring SPI - Using SPI for Communications

Module 5 - UART and Wireless Communications with CC2500 6

Hardware Connection - UART connectivity on the MSP430F1611 - UART connectivity on the MSP430F2274 - Using UART - Configuring the UART - Selecting the UART Function for Pins - Enabling UART RX and TX - Select the character format - Selecting A Clock - Setting the Baud Rate Generator - Enabling the Module - Enabling Interrupts - Configuring the Host Computer - Sending and Receiving Information with the UART.

Total Hours: 30

21/1/17

Coordinator

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21/1/17

Convener

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Department of Electronics and Communication Engineering

Value added course

On

Programming in MSP430

SCHEDULE

Date: 04.01.2017 to 07.01.2017, 10.01.2017 to 12.01.2017, 17.01.2017 & 18.01.2017

DAY	DATE	TIMING	TOPIC
DAY 1	04.01.2017 (AN)	01.30 – 02.30pm	Introduction to Microcontrollers
		02.30 – 03.30pm	List of Hardware needed: EZ430-F2013 USB Stick Development Tool
		04.00 – 05.00pm	EZ430-RF2500
DAY 2	05.01.2017 (AN)	01.30 – 02.30pm	Experimenter Boards
		02.30 – 03.30pm	FET Debugger, Custom Hardware
		04.00 – 05.00pm	Software needed for programming
DAY 3	06.01.2017 (AN)	01.30 – 02.30pm	Data Types and Numeric Representation
		02.30 – 03.30pm	Hexadecimal for MSP430, Conversion of Numbers
		04.00 – 05.00pm	Digital Operations, Manipulating Module Registers, XOR Operator, ASCII
DAY 4	07.01.2017	09.00 – 10.30am	Internal Oscillators, External Crystals, Clock Sources
		10.45 – 12.15am	Clock Signals, Basic Clock Module in EZ430-RF2500, Considerations for using clocks
		01.30 – 03.30pm	Introduction - Pin Multiplexing
		03.30 – 05.30pm	Switches - Debouncing - LEDs
DAY 5	10.01.2017 (AN)	01.30 – 02.30pm	Bit banging - Accuracy
		02.30 – 03.30pm	Interrupts, Low Power Modes - Exiting Low Power Modes
		04.00 – 05.00pm	Introduction - ADC Parameters - ADC Resolution
DAY 6	11.01.2017 (AN)	01.30 – 02.30pm	ADC Sampling Frequency
		02.30 – 03.30pm	ADC Example - Temperature and Voltage
		04.00 – 05.00pm	ADC Clock - ADC Modes
DAY 7	12.01.2017 (AN)	01.30 – 02.30pm	Serial Peripheral Interface (SPI)
		02.30 – 03.30pm	Configuring SPI, Using SPI for Communications
DAY 8	17.01.2017 (AN)	01.30 – 02.30pm	Hardware Connection - UART connectivity on the MSP430F1611
		02.30 – 03.30pm	UART connectivity on the MSP430F2274 - Using UART - Configuring the UART
		04.00 – 05.00pm	Selecting the UART Function for Pin

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DAY 9	18.01.2017 (AN)	01.30 – 02.30pm	Enabling UART RX and TX - Select the character format - Selecting A Clock
		02.30 – 03.30pm	Setting the Baud Rate Generator - Enabling the Module - Enabling Interrupts
		04.00 – 05.00pm	Configuring the Host Computer - Sending and Receiving Information with the UART

Coordinator

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Department of Electronics and Communication Engineering

Organizes

Value added course

On

Marker spaces in Open source platform

Date:
07.07.2016, 09.07.2016,
10.07.2016, 23.07.2016 &
24.07.2016

Topics to be covered

Introduction To Open Source Platform And Arduino Uno

Programming In C And Arduino Uno Hardware Connection

15 project in Real Time Application Using Embedded System Concepts

Interfacing LCD, LED, Relays, Transistor, Stepper & DC Motor

Timers and its various modes

Hands-on Training

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637 215 **DEPARTMENT OF** **ELECTRONICS AND COMMUNICATION ENGINEERING**		
Circular			
Academic Year	2016-2017	**Date**	04.07.2016

The Department of Electronics and Communication Engineering has planned to conduct value added course on "Marker Spaces in Open Source Platform" for the benefit of Second year students. The course is scheduled from 07.07.2016, 09.07.2016, 10.07.2016, 23.07.2016 & 24.07.2016 at Embedded and MPMC Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr.P.V.N.Reddy, Prof/ECE
2. Mr.G.Gowthamraj, AP/ECE
3. Mr.R.Tamilmani, AP /ECE
4. Mr.K.R.Gokulanand, AP /ECE

Coordinator 4/7/16

HoD 4/7/16

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KSRIET

Department of Electronics and Communication Engineering

Academic Year: 2016 - 2017

Value Added Course – "Marker Space in Open Source Platform"

SYLLABUS

Module 1. Introduction To Open Source Platform And Arduino Uno **6 Hours**

1.1 Introduction to the Open Source Platform
1.2 Introduction to Embedded Systems
1.3 Introduction to Arduino lino
1.4 Program for Arduino lino
    1.4.1. Basics Declaration
    1.4.2. Basic Programs

Module 2. Discussion about fundamentals **6 Hours**

2.1 Installation of Arduino lino Tool
2.2 Simulation
2.3 Creating Embedded Programs
2.4 Debugging
2.5 Example Programs

Module 3. Accessing I/O Ports **7 Hours**

3.1 Input Configuration
3.2 Output Configuration
3.3 Pins Current Limitations
3.4 Hardware Connection of Pins

Module 4. Interfacing LCD, LED, Relays, Transistor, Stepper & DC Motor **7 Hours**

4.1 Switch Interfacing with Arduino lino
4.2 Introduction To LCD
    4.2.1 Creating Schematics for LCD
    4.2.2 LCD Interfacing
4.3 Introduction To LED
4.4 Relay Interfacing
4.5 Programs on Single LED
4.6 Glowing multiple LED Using Switches
4.7 Displaying Message on LCD
4.8 Introduction To DC Motor
    4.8.1 DC Motor Interfacing
    4.8.2 Concepts around Stepper Motor

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Module 5. Timers and its various modes **6 Hours**

5.1 Timer Concept
- 5.1.1 Timer_1
- 5.1.2 Timer_2
- 5.1.3 Timer_3

5.2 Timer as Counter
5.3 Hardware Interrupt
5.4 Software Interrupt
5.5 Interrupt handler

Total Hours:32

G. Gowthan Raj 7/7/16.
Coordinator

Convener

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KSRIET

Department of Electronics and Communication Engineering

Value added course

On

Marker Spaces in open Source Platform

SCHEDULE

Date: 07.07.2016 to 09.07.2016, 10.07.2016, 23.07.2016 & 24.07.2016

DAY	DATE	TIMING	TOPIC
DAY 1	**07.07.2016**	9.15 to 10.15 am	Introduction to embedded systems - Components of embedded system
		10.15 to 11.15 am	Advantages and applications of embedded systems - Examples of real time embedded systems and how they are manufactured industry ready
		11.30 to 12.30 pm	Different Microcontroller Architectures (CISC, RISC, ARISC)
		1.30 to 2.30 pm	Internal Resources & Hardware Chips in Details
		2.30 to 4.00 pm	History of AVR Microcontrollers and Features
DAY 2	**09.07.2016**	9.15 to 10.15 am	Memory Architectures (RAM/ROM)
		10.15 to 11.15 am	Introduction to ARDUINO, ARDUINO History and Family
		11.30 to 12.30 pm	Programming in Embedded-C
		1.30 to 2.30 pm	Concepts of C language
		2.30 to 4.00 pm	General Hardware Interfacings: LED's, Switches
DAY 3	**10.07.2016**	9.15 to 10.15 am	Seven Segment Display, Multi Segment Displays, Relays (AC Appliance Control)
		10.15 to 11.15 am	LCD, Buzzer, IR Sensors, Other Digital Sensors
		11.30 to 12.30 pm	Introduction to sensors and actuators
		1.30 to 2.30 pm	Connection and working with different sensors, such as Humidity to ARDUINO board
		2.30 to 4.00 pm	Proximity, IR Motion, Accelerometer sensors to ARDUINO board
DAY 4	**23.07.2016**	9.15 to 10.15 am	Sound sensors, Light Distance, Pressure, Thermal sensors to ARDUINO board
		10.15 to 11.15 am	Reading various sensor data on serial monitor and LCD Display
		11.30 to 12.30 pm	Functioning of actuator
		1.30 to 2.30 pm	Reading data from analog and digital sensors on Serial Monitor/LCD Monitor

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		2.30 to 4.00 pm	Work with LED Controlled by Switch/potentiometer
DAY 5	**24.07.2016**	9.15 to 10.15 am	7 segment displays
		10.15 to 11.15 am	Connecting relays to ARDUINO Board
		11.30 to 12.30 pm	Connecting servomotors to ARDUINO Board
		1.30 to 2.30 pm	Work with 5V/3V Power supply using voltage regulator IC's.
		2.30 to 4.00 pm	Projects on ARDUINO Based Embedded systems

G. Gowtham Rao
7/7/16.

Course Coordinator

7/7/16

Convener

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Application of MATLAB for signal Communication and Image Processing

Date: 7.7.16, 9.7.16, 10.7.16, 23.7.16, 24.7.16

Topics to be covered

- ✓ Introduction signal Communication and Image Processing
- ✓ Data analysis in MATLAB
- ✓ Signal Analysis in MATLAB
- ✓ Image Analysis in MATLAB
- ✓ Application of MATLAB for signal Communication and Image Processing

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY TIRUCHENGODE – 637 215 DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING		
Circular			
Academic Year	2016-2017	**Date**	04.07.2016

The Department of Electronics and Communication Engineering has planned to conduct value added course on "Application of MATLAB for signal Communication and Image Processing" for the benefit of Third year students. The course is scheduled from 7.7.16, 9.7.16, 10.7.16, 23.7.16, 24.7.16 at DSP &VLSI Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr.R.Venkadesh
2. Mr.S.Boopathy
3. Mr.S.Deepak
4. Mr.V.Arun

Coordinator

HoD

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TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Academic Year:2016-2017

Value added course -"Application of MATLAB for signal Communication and Image Processing"

Syllabus

Module 1: Introduction to Data, Signal, and Image Analysis with MATLAB **6**

Introduction-Data analysis in MATLAB- Signal Analysis in Matlab- Image Analysis in Matlab-. Application of MATLAB for signal Communication and Image Processing

Module 2: Data analysis in MATLAB **6**

Loading and Inspecting Datasets-Detecting Outliers-Histogram plots-Scatter plots-PCA-Smartphone activity classifier-Predicting Fuel Efficiency Using Regression Trees-Predicting Fuel Efficiency Using Gaussian Process Regression

Module 3: Signal Analysis in Matlab **6**

Signals as Time Dependent Data-Signal Interpolation-Audio Analysis-Convolution Filtering-Signal Frequency Analysis-Sampling and Aliasing-Reverse Audio (practice exercise)-Spectrum plotting (practice exercise)-Filter Quality Analysis (practice exercise)

Module 4: Image Analysis in Matlab **6**

Image Representation-Image Resampling-Image Intensity & Color Distributions-Image Filtering-Image Segmentation-Cropping (practice exercise)-Color Images (practice exercise)-Motion1 (practice exercise)-Convex Hull (practice exercise)-Dilation and Erosion (practice exercise)

Module 5: Application of MATLAB for signal Communication and Image Processing **6**

Agriculture -Multimedia Security- Remote sensing-Computer Vision- Medical Applications -Biometric Verification

Total Hour:30

Coordinator

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TIRUCHENGODE – 637215

(Accredited to NBA, New Delhi and Affiliated to Anna University, Chennai)

Department of Electronics and Communication Engineering

Value Added Course on "Application of MATLAB for signal Communication and Image Processing"

SCHEDULE

Date: 7.7.16, 9.7.16, 10.7.16, 23.7.16, 24.7.16

Day	Date	Timing	Topic
Day 1	7.7.16	9.15-10.15a.m	Introduction
		10.15-11.15a.m	Data analysis in MATLAB
		11.30-12.30p.m	Signal Analysis in Matlab
		1.30-2.30p.m	Image Analysis in Matlab
		2.30-3.30p.m	Application of MATLAB for signal Communication
		3.30-4.30p.m	Application of Image Processing
Day 2	9.7.16	9.15-10.15a.m	Loading and Inspecting Datasets
		10.15-11.15a.m	Detecting Outliers-Histogram plots
		11.30-12.30p.m	Scatter plots-PCA
		1.30-2.30p.m	Smartphone activity classifier
		2.30-3.30p.m	Predicting Fuel Efficiency Using Regression Trees
		3.30-4.30p.m	Predicting Fuel Efficiency Using Gaussian Process Regression
Day 3	10.7.16	9.15-10.15a.m	Signals as Time Dependent Data
		10.15-11.15a.m	Signal Interpolation-Audio Analysis-Convolution Filtering
		11.30-12.30p.m	Signal Frequency Analysis
		1.30-2.30p.m	Sampling and Aliasing
		2.30-3.30p.m	Reverse Audio (practice exercise
		3.30-4.30p.m	Spectrum plotting (practice exercise)
Day 4	23.7.16	9.15-10.15a.m	Image Representation
		10.15-11.15a.m	Image Resampling & Image Intensity
		11.30-12.30p.m	Color Distributions
		1.30-2.30p.m	Image Filtering-Image Segmentation
		2.30-3.30p.m	Cropping (practice exercise)
		3.30-4.30p.m	Color Images (practice exercise)-Motion1 (practice exercise)-Convex Hull (practice exercise)-Dilation and Erosion (practice exercise)
Day 5	24.7.16	9.15-10.15a.m	Agriculture
		10.15-11.15a.m	Multimedia Security
		11.30-12.30p.m	Remote sensing-Computer Vision
		1.30-2.30p.m	Medical Applications
		2.30-3.30p.m	Biometric Verification
		3.30-4.30p.m	

D. Deepak 23/7/16.

Course Coordinator

Convener

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Department of Mechanical Engineering

Circular

Academic Year :	2016 – 2017 (OOD)	Date :	18.05.2016

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2016 – 2017 (OOD) for third year and second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	AUTOCAD	Mr.P.Gopinath Mr.S.Ponnusamy Mr.R.Surendran Mr.E.S.Palanivel
2.	CREO -INDUSTRIAL DESIGN	Mr.M.Sambath Kumar Mr.K.Vetriselvan Mr.S.Rajkumar Mr.M.Ashok Kumar
3.	SOLID WORKS	Mr.L.Selvakumar (United CAD) Mr.M.Kalidhas (United CAD) Mr.G.Gowrisankar Mr.M.Sathish kumar

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HOD 18/5/16

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the **AutoCAD** including:

Module 1: INTRODUCTION TO AUTOCAD 6

AutoCAD Screen Components- Drawing Area Command -Window Navigation bar Status bar AUTOCAD Introduction-Software Requirements- Files handling in CAD- Draw toolbar- Modify toolbar- Dimensioning toolbar- Opening an Existing Drawing- Quitting AutoCAD

Module 2: Introduction to OF Tool bars 7

Functional keys and properties - Layers and leaders- Tool menu customization- Geometric constraints- Dimension constraints- Drawing Lines in AutoCAD- Invoking tools Using Dynamic INPUT/Command- Prompt Coordinate Systems

Module 3: Starting With Advanced Sketching 8

Drawing Arcs- Drawing Rectangles -Drawing Ellipses- Drawing Regular Polygon- Drawing Polylines Placing Points -Drawing Infinite Lines Writing a Single Line Text- Working with Layers- Object Properties- Drafting Settings dialog box

Module 4: Editing Sketched Objects 9

Editing Sketches- Moving the Sketched Objects -Copying the Sketched Objects- Creating Multiple Copies Creating a Single Copy Offsetting Sketched Objects- Rotating Sketched Objects Scaling the Sketched Objects -Filleting the Sketches- Chamfering the Sketches- Trimming the Sketched Objects Extending the Sketched Objects- Stretching the Sketched Objects -Lengthening the Sketched Objects -objects Text Mirroring

Module 5: Isometric Drawings 8

Isometric drawings- Extrusion-View, visual styles and orbit- Solid (3D) modelling- Solid editing operations- Rendering and scenes

Total: 38 Hours

COORDINATOR

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the Creo for Industrial Design for design including:

Module 1: INTRODUCTION TO CREO PARAMETRIC 7

Introduction to Creo Parametric Feature-Based Nature Bidirectional Associative Property Parametric Nature System Requirements Getting Started with Creo Parametric- Important Terms and Definitions File Menu Options- Managing Files- Menu Manager Model Tree -Understanding the Functions of the Mouse Buttons- Ribbon Toolbars Navigator

Module 2: CREATING SKETCHES IN THE SKETCH MODE 8

The Sketcher Environment-Working with a Sketch in the Sketch Mode-Drawing a Sketch Using tools available in the Sketch Tab-Dimensioning the Sketch-Dimensioning the Basic Sketched Entities-Working with Constraints-Resolve Sketch Dialog Box- Deleting the Sketched Entities - Trimming the Sketched Entities- Mirroring the Sketched Entities.

Module 3: OPTIONS AIDING CONSTRUCTION OF PARTS 8

Options Aiding Construction of Parts-Creating Holes-Creating Rounds-Creating Chamfers-Understanding Ribs-Editing Features of a Model-Creating Feature Patterns-Copying Features-Mirroring a Geometry-Creating a Section of a Solid Model

Module 4: ASSEMBLY MODELING 9

Assembly Modelling -Important Terms Related to the Assembly Mode-Creating Top-down Assemblies-Creating Bottom-up Assemblies-Assembling Components-Modifying the Components of an Assembly-Creating the Exploded State

Module 5: SURFACE MODELING 10

Surface Modelling-Creating Surfaces in Creo Parametric-Creating Surfaces the Using the Style Environment of Creo Parametric-Surface Editing Tools Mirroring-Freestyle modelling environment-Invoking the Sheet metal Mode-Introduction to Sheet metal Walls-Creating the Bend Feature Creating the Unbend Feature

Total: 43 Hours

COORDINATOR

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DASSAULT SYSTEMES

SOLIDWORKS SCHEDULE

S.NO	TOPICS	No.of hours
1	Introduction	8
2	Sketcher	
3	Base Features	
4	Reference Features	
5	Engineering Features	12
6	Special Features	
7	Advanced Modeling	
8	Base Features	
9	Special Features	8
10	Advance features	
11	Applying standard mates	
12	Applying advanced mates	
13	Applying mechanical mates	
14	Creating features	12
15	Editing features	
16	Generating Drawing Views	
17	Inserting Annotations	

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Total Period: 40

COORDINATOR 18/6/16

KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
	Circular		
Academic Year :	2016 – 2017 (EVEN)	**Date :**	02.12.2016

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2016 – 2017 (EVEN) for final year and second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	CATIA	Mr. M.Kalidhas (United CAD) Mr. A.Mohanraj Mr. R.Siby Mr. K.Vijay
2.	ANSYS	Mr.M.Sambath Kumar Mr.K.Vetriselvan Mr.S.Rajkumar Mr.M.Ashok Kumar
3.	COMPUTER NUMERICAL CONTROL (CNC)	Mr.P.Chakravarthi Mr.T.Prabhu

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CATIA-SYLLABUS

S.NO	TOPICS		Hours
1	**INTRODUCTION**	Introduction to CAD/CAM/CAE, CATIA Software Features, Software Fundamentals, Applications.	8
2	**SKETCH CONSTRAINTS**	Profile Toolbar Operation Toolbar Geometric constraints, Dimensional constraints, Animate constraints.	6
3	**SKETCH BASED FEATURES DRESS UP FEATURES**	Hole, Rib, Slot, Combined Solid, Stiffener, Multi Section Solid, Remove Multi Section Solid. Fillet, Chamfer, Draft, Shell, Drafted Filleted Pad, Drafted Filleted Pocket, Thickness	7
4	**REFERENCE FEATURES**	Reference Plane, Reference Line, Reference Point	4
5	**ASSEMBLY**	Assembly constraints, Bottom- up approach. Top- down approach, Exploded view.	4
6	**MECHANISMS**	Introduction to Kinematics, Applying Joints, Assembly Constraints Conversion.	5
7	**SURFACE MODELLING SHEET METAL DESIGN**	Wireframe Elements, Surfaces Toolbar. Operations Toolbar. Walls,Rolled Walls, Bending, Cutting and Stamping.	8

Total Period: 42

COORDINATOR 12/16

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the ANSYS including:

Module 1: Introduction to ANSYS 6

System requirements Starting ANSYS Workbench 14.0 -ANSYS Workbench 14.0 GUI -Working on a Project- Units in ANSYS Workbench ANSYS -Workbench Database and File format Changing the unit system Components of the system

Module 2: Solid Modelling Fundamentals 7

Overview Introduction, Extrusion, Revolution, Sweep, Sketching-Placed Features and Assembly-Introduction, Adding a hole, Adding a round, Adding a chamfer, Patterns, Assembly, Alternate solid modeller

Module 3: Modelling techniques Defining Material Properties 8

Surface and Line models-Creating and Adding Materials- Assigning Material to the Beam Assigning Material to the Clamp -Assigning Material to the Assembly

Module 4: Static Structural Analysis 9

Introduction to Static Structural Analysis Pre-processing, Solution, Post-processing Cantilever Beam Plate with a central circular holes and square slot Pressure vessel, Bracket, Clevis assembly Chapter

Module 5: Surface and Line Model &Thermal Analysis 10

Sheet with circular hole-plane stress Pressure vessel and Bracket Line body model-Important terms used in thermal analysis -Types of thermal analysis- Steady state thermal analysis of Car Disk Brake Rotor Heat sink Transient thermal analysis of Piston-Thermal stress-uniform temperature change-Thermal stress in a cylinder

Total: 40 Hours

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Department of Mechanical Engineering

Value Added Course – Computer Numerical Control (CNC) Syllabus

S. No	Topic	Hours
1	**INTRODUCTION** ➢ Intro to CAD/CAM/CAE ➢ History &Features of CNC ➢ Software fundamentals Terminology	8
2	**GRAPHICAL USER INTERFACE & COORDINATE SYSTEMS** Coordinate Systems - Absolute& Relative coordinates	8
3	**CNC LATHE** **BASICS OF CNC LATHE** ➢ Tool Changing, Billet Setting & Axis **BASICS CODES** ➢ G codes - G00, G01, G02, etc ➢ M codes - M00, M01, M02, etc ➢ Letters relations	6
4	**CNC MILLING** **BASICS OF CNC MILLING** ➢ Tool Changing, Billet Setting & Axis **SIMPLE OPERATION** ➢ Linear movement &Circular movement **OTHER OPERATION** ➢ Mirror, Sub program call, Pocketing, &Drilling	8

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Total Period: 34

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2016 – 2017	Date :	03.06.2016

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2016 – 2017 (ODD) for final year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Search Engine Optimization with Google Analytics & Web Master Tools	Ms.M.Dhurgadevi Ms.P.Shanmugapriya Ms. R.Subapriya Mr.P.S.Prakash Kumar
2.	Computer Vision and Image Processing	Ms.S.Russia Dr.G.Malathy Mr.M.Selvakumar Ms.K.G.Lavanya

3/6/16

HOD

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Department of Information Technology

Academic Year : 2016- 2017 (ODD)

Value Added Course – "Search Engine Optimization with Google Analytics and Web Mater Tools"

Syllabus

Module 1: Introduction to SEO 7

What is search engines- Difference between portal and search engines-How search engines work-What is SEO-SEO techniques (On page and Off page)-Difference between White hat, Black hat and Grey hat SEO-What is the need of SEO - Things to consider before starting SEO of any website-What is Ranking How Google rank a website -Get familiar with the basic terms like crawlers, robots and spiders -How to choose a best search engine.

Module 2: Keyword Research 7

Introduction to Keyword research-How and why to choose right keywords-Different types of keywords -How to do Keyword analysis - Keywords density analysis -Tools for keyword research - Competition analysis -Localized keywords research.

Module 3: Off Page Optimization 7

Introduction to Off page optimization-Local marketing of websites on the basis of locations of link building and its types -Directory submission-Blog and article submission-Forum posting -Forum signatures and commenting-Free classifieds-Classifieds Social Media optimization techniques-Introduction posting -Press release submission -Video submission-Business listing submission-Guest blog -Local SEO (Local business listing)-Detail knowledge on Link building and back links- Social bookmarking-Photo & Video –Sharing Document Sharing -Content Marketing and its importance - Question and answers -Web 2.0 submission.

Module 4: Webmaster / Search Console 7

Sign up for webmaster account-Verifying website under Google Search Console-Introduction on webmaster-Effect on inner page ranking through inner linking-Understanding queries and Average keyword position-Search Appearance -How to improve website quality and performance by using information in search –console Google Index -Search Traffic-Google My Business-Google Crawling.

Module 5: Things not to do in SEO 7

Black Hat SEO -Try to avoid Grey Hat SEO-Exact-match Anchor text-Keyword Stuffing - Spam comments-Duplicate content and cloaking -Unnatural links-Domain and Keyword Cloaking - Intrusive Interstitial Ads-3rd party "Paid" links-Article spinners-Automated link building-Doorway Page, bots, spam, Link Baiting-Link and article directories-Duplicate Content and Cloaking-Paid / spam blogging.

Total: 35 Hours

M Dey 24/06/2016

Coordinator

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P. 24/6/16

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Department of Information Technology

Academic Year : 2016- 2017 (OOD)

Value Added Course – "Computer Vision and Image Processing"

Syllabus

Module 1: Introduction 7

Background, definition, Origin of DIP, Digital image representation, fundamental steps in image processing, elements of digital image processing systems, image acquisition, storage, processing, communication and display.

Module 2: Digital Image Fundamentals 7

Structure of the human eye, image formation, brightness adaptation and discrimination, a simple image model, uniform and non-uniform sampling and quantization, Labeling. Relations, equivalence and transitive closure, distance measures, imaging geometry.

Module 3: Image Enhancement in the Spatial Domain 6

Image Enhancement in the spatial domain: Basic gray level transformations, histogram processing, Enhancement using arithmetic/logic operations, Basics of spatial filtering-comparison between smoothing and sharpening spatial filters.

Module 4: Image in the Frequency Domain and Image Compression 6

1D Fourier transform-2D Fourier transform and its Inverse-Smoothing & sharpening frequency domain filters (Ideal, Butterworth, Gaussian)-homomorphic filtering. Fundamentals-Image compression, Error-free compression, Huffman coding, block coding, constant area coding, variable length coding, bit-plane coding, lossless predictive coding- lossy predictive coding, transform coding.

Module 5: Machine Vision 6

Introduction, definition, Active vision system, Machine vision components, hardware's and algorithms, image function and characteristics, identification, industrial robot control, mobile robot application, Competing technologies, CCD line scan and area scan sensor, Videcon and other cameras, Triangulation geometry, resolution passive and active stereo imaging, laser scanner, data processing.

Total: 32 Hours

22/6/16

Coordinator

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22/6/16

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2016 – 2017	Date :	05.12.2016

This to inform that it has been planned to organize value added course on the following topic for the academic year 2016 – 2017 (EVEN) for second year students. Also the following faculty members are requested to frame syllabus for the value added course and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Python for Data Science	Mr. R.Naresh Mr. P.Rajakumar Mr.S.Arun Prasath

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Department of Information Technology

Academic Year : 2016 - 2017 (EVEN)

Value Added Course – "Python for Data Science"
Syllabus

Module 1: Data Science Overview 6

Fundamentals of Data Science-The Many Paths to Data Science-Data Science Algorithms- Cloud for Data Science-Foundations of Big Data- Hadoop-Data Science Skills & Big Data-Applications of Data Science

Module 2: Data, Expressions, Statements 6

Python interpreter and interactive mode-values and types: int, float, boolean, string, and list-variables-xpressions-statements-tuple assignment-precedence of operators-comments-modules and functions-function definition and use-flow of execution-parameters and arguments

Module 3: Control Flow, Functions 6

Conditionals: Boolean values and operators-onditional (if)-alternative (if-else)-chained conditional (if-elif-else)-Iteration: state-while-for-break-continue-pass-Fruitful functions-return values-parameters-local and global scope-function composition-recursion-Strings: string slices-immutability-string functions and methods-string module; Lists as arrays

Module 4: Lists, Tuples, Dictionaries 6

Lists: list operations-list slices-list methods-list loop-mutability-aliasing-cloning lists-list parameters--Tuples: tuple assignment-tuple as return value-Dictionaries: operations and methods-advanced list processing–list comprehension

Module 5: Files, Modules, Packages 6

Files and exception: text files-reading and writing files-format operator-command line arguments-errors and exceptions-handling exceptions-modules-packages

Total: 30 Hours

26/12/2016

Coordinator

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26.12.16

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY, TIRUCHENGODE – 637 215

DEPARTMENT OF MATHEMATICS

KSRIET

CIRCULAR

Academic Year: 2016 – 2017 **Date: 05.12.2016**

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2016 – 2017 for all the First year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	QUANTITATIVE APTITUDE	A. Jayakumar, AP/Maths S. Selvarasu, AP/Maths N. Selvaraj, AP/Maths N. Kumaravel, AP/Maths P. Devisri, AP/Maths P. Sivakumar, AP/Maths K. Suresh, AP/Maths

5/12/16

HoD/Maths

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DEPARTMENT OF MATHEMATICS

KSRIET

VALUE ADDED COURSE on

"QUANTITATIVE APTITUDE"

Academic Year: 2016 – 2017 **Batch: 2016 – 2020**

Date: 19.12.2016 to 24.12.2016

SYLLABUS

Course Objectives:

To enhance the problem solving skills, to improve the basic mathematical skills and to help students who are preparing for any type of competitive examinations.

Arithmetic Quantitative Abilities:

Time and Work – Time Speed Distance – Boats and Streams – Pipes and Cisterns – Problems on Ages – Problems on Clocks – Problems on Calendar – Problems on Directions – Probability – Percentage.

Total No. of Hours: 30 Hours

Learning Outcomes:

On successful completion of the course the students will be able to:

- ✓ Understand the basic concepts of Quantitative Ability
- ✓ Understand the basic concepts of Logical Reasoning Skills
- ✓ Solve campus placements aptitude papers covering Quantitative Ability and Logical Reasoning
- ✓ Compete in various competitive exams like CAT, GATE, BANK etc.

Reference:

- ➢ Quantitative Aptitude by Dr. R S Aggarwal

14/12/16

VAC Co-ordinator

14/12/16

HoD/Maths

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Department of Computer Science and Engineering

Circular

Academic Year :	2017 – 2018 (ODD)	Date :	28.06.2017

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2017 – 2018 (ODD) for second & final year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Software Testing Tools	Mr.V.Prakasham Mr.V.Gopinath
2.	Hardware Troubleshooting & Photoshop	Mr.V.Prakasham Mr.S.Karthikeyan

HOD 28/6/17

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Tiruchengode, Namakkal– 637215
(Affiliated to Anna University, Chennai)
Department of Computer Science and Engineering

ACADEMIC YEAR 2017 - 2018

VALUE ADDED COURSE ON "SOFTWARE TESTING TOOLS"

SYLLABUS

The course covers the topics you need to review for the Software Testing Toolsexam including:

Module 1:Manual Testing Life Cycle Implementation 6

Introduction-Importance of software systems-Common problems in software development-Why software has bugs?-What is quality?-Testing objectives-What are error, bug, defect, mistake, false and flaw.

Module 2: SDLC Implementation 6

Feasibility study/Requirement Gathering-Analysis, Designing, Coding, Testing-Delivery and Maintenance

Module 3: Software Development Models 6

Waterfall Model-Incremental Model-Prototype Model/Use and Through Model-Spiral Model-V-Model-W-Model-Agile Testing Implementation-Agile-SCRUM

Module 4: Kinds of Testing 6

Un-Conventional Testing-Conventional Testing-Black Box Testing-White Box Testing-Gray Box Testing

Module 5: Test Measurement Techniques and Metric Collection 6

Importance of Test Metrics-Testing Data used for Metrics-Different Types Metrics

Total: 30 Hours

COURSE COORDINATOR
[Mr.V.Prakasham]
[Mr.V.Gopinath]

VAC COORDINATOR
[Mr.V.Prakasham]

HOD/CSE
[Dr.B.Kalaavathi]

Dr. M. VENKATESAN, M.E., Ph.D.,
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ACADEMIC YEAR: 2017-2018

VALUE ADDED COURSE ON "Hardware Troubleshooting & Photoshop"
SYLLABUS

The course covers the topics you need to review for the Network Virtualization exam including:

MODULE 1: HARDWARE BASICS **6**

Introduction to computer hardware, components of mother boards, Power supply units, Storage devices, Input devices, Output devices.

MODULE 2: HARDWARE TROUBLE SHOOTING **6**

Hardware Trouble Shooting: Printers, floppy drive, Microphone, Scanner, Network, CDROM, Hard disk drive, Monitor, Mother Board, Sound Card, Video Card.

MODULE 3: BASIC NETWORKING **6**

Introduction to networks, different layers in networks, internet & web concepts, network security, Software & hardware issues in networking, Transmission medium –wired communication, wireless communication, satellite communication, PSTN-first generation, Modern Network Techniques, Internet Standardization.

MODULE 4: COMMON WINDOWS PROBLEM & TROUBLESHOOTING, PC ASSEMBLING **7**

Installation of new Software, Running slow, Running error. Running error, Runtime error, Turn off without warning, fatal exception error, General protection fault, Security-Viruses, Worms, Spam. Steps for assembling a PC, Assembling a hard disc drive in a cabinet, connecting the cables from the SMPS to motherboard, Software Trouble Shooting:- Dos, XP, 2000.

MODULE 5: PHOTOSHOP **7**

Introduction and Getting Started using Photoshop CS6, Working with Images, Resizing and Cropping Images, Layers, Painting in Photoshop.

Total: 32 Hours

01/09/17
COURSE COORDINATOR
[Mr.S.KARTHIKEYAN ,SYSTEM/ADMIN
Mr.V.PRAKASHAM ,AP/CSE]

01/09/17
VAC COORDINATOR
[Mr.V.PRAKASHAM ,AP/CSE]

1/9/17
HOD/CSE
[Dr. B.KALAAVATHI]

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Department of Computer Science and Engineering

Circular

Academic Year :	2017 – 2018 (EVEN)	Date :	21.12.2017

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2017 – 2018 (EVEN) for first & third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Introduction To Internet of Things	Dr.B.Kalaavathi Mr.K.Gowsic
2.	OOPS in Python	Mr.R.Venkatesan Mr.R.Gopal

HOD 21/12/17

Dr., M. VENKATESAN, M.E., Ph.D.,
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Department of Computer Science and Engineering

ACADEMIC YEAR 2017-18

VALUE ADDED COURSE ON "Introduction to Internet of Things"

SYLLABUS

The course covers the topics you need to review for the Network Virtualization exam including:

Module 1: Vision and Introduction to IoT 6

M2M to IoT-The Vision-Introduction, From M2M to IoT, M2M towards IoT-the global context, A use case example, Differing Characteristics.

Module 2: Understand IoT Market perspective 7

M2M to IoT – A Market Perspective– Introduction, Some Definitions, M2M Value Chains, IoT Value Chains, An emerging industrial structure for IoT, The international driven global value chain and global information monopolies.

Module 3: Data and Knowledge Management and use of Devices in IoT Technology 6

M2M and IoT Technology Fundamentals- Devices and gateways, Local and wide area networking, Data management, Business processes in IoT, Everything as a Service(XaaS), M2M and IoT Analytics, Knowledge Management.

Module 4: Real World IoT Design Constraints 6

IoT Reference Architecture- Introduction, Functional View, Information View, Deployment and Operational View, Other Relevant architectural views. Real-World Design Constraints- Introduction, Technical Design constraints-hardware is popular again, Data representation and visualization, Interaction and remote control.

Module 5: Automation Vision and Future Scope 7

Commercial Building Automation – Introduction, Case study: phase one-commercial building automation today, Case study: phase two- commercial building automation in the future.

Total: 32 Hours

Course Co-ordinator 29/12/17

V.A.C. Coordinator

HOD 29/12/17

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ACADEMIC YEAR 2017-18
VALUE ADDED COURSE ON "OOPs in Python"

SYLLABUS

The course covers the topics you need to review for the OOPs in Python exam including:

Module 1 – Python fundamentals and Branching Statement	7
Introducing Python, Python fundamentals, Built in types, control statements, operator basics, Understanding Python blocks, Python programs using control structures, Python execution model.	
Module 2 - Data types to design programs	7
Numbers, strings, Lists, List slicing (sublist), set, tuples, working with sequences, dictionaries, type conversion, type comparisons, and implementation using different data types of python.	
Module 3 - Functions, files, database handling in python programming.	7
Function definition and execution, functions with arguments and return values, advanced function calling, Modules, Packages, working with Files.	
Module 4 - object oriented features supported by Python	7
Basics of Object Oriented programming, Creating and using a class, class attributes, class methods, objects , constructor and destructor functions , special methods, class inheritance, Exception handling.	
Module 5 - data structures and searching, sorting techniques using python	7
Searching and sorting using python, Hashing, Binary tree, Binary search trees, tree traversals, implementing search tree operations using python.	

Total: 35 hours

R. Venkat 9/4/18
Course Co-ordinator

9/4/18
VAC Co-ordinator

9/4/18
HOD

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TIRUCHENGODE — 637 215

Department of Electrical and Electronics Engineering

DATE 02.06.2017

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering is organizing Value Added / Short Term Course on the following topics for the academic year 2017 - 2018. In this regard the following faculty members are requested to frame syllabus for the Value Added / Short Term Course.

S.No.	Title of the Value Added / Short Term Course	Faculty Incharge
1	PCB Designing and Fabrication	Mr. C. Santhakumar
		Mr. C. Sivakumar
2	PLC programming	Mrs. R. Sacithraa
		Mr. T. Arvind
3	Multisim circuits Simulation	Mr. T. Srihari
		Mr. A. Murugesan
4	AutoCAD Electrical	Mr. C. Santhakumar
		Mr. M. A. Stephenraj

HoD / EEE

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	PCB DESIGNING

Syllabus Framed By: Mr. C. Santhakumar, Mr. C. Sivakumar

SYLLABUS
INTRODUCTION PCB, About Eagle, and Schematic: Placing a component, connecting the components, Creating & Editing New Component, Creating A New Library, Converting Schematic To PCB, and Comparing PCB With Schematics.
DESIGNING OF PCB: Introduction, placing the patters, editing the patterns, drawing & editing the tracks, Tool Panel, Symbol Layers
LIBRARY MANAGEMENT Creating Device Manager, Managing Device Manager, Creating Symbols, Creating Footprints, Connecting Symbols and Footprints, Electrical Rules Check, Checking Errors, Clearing Errors, Approval of Errors
FABRICATION OF PCB: Student requirements for fabricating PCB: i. Soldering Ion Setup ii. Copper Glad Board (Single Sided 10cm*15cm) iii. Components for the Circuit iv. Photo Sheet(180 GSM, 1 Sheet) v. Emery Sheet(220 GSM, 1 Sheet) vi. Iron Box
Total number of hours : 30

Prepared by

Approved By

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	PLC PROGRAMMING

Syllabus Framed by: Mrs. R. Sacithraa, Mr. T. Arvind

SYLLABUS
INTRODUCTION Programmable Logic Controllers (PLCs): Introduction; definition & history of the PLC; Principles of Operation; Various Parts of a PLC: CPU & programmer/ monitors; PLC input & output modules; Solid state memory; the processor; I/O modules; power supplies, PLC advantage & disadvantage; PLC versus Computers, PLC Application.
PLC HARDWARE COMPONENTS The I/O section, Discrete I/O Modules, Analog I/O Modules, Special I/O Modules, I/O specifications, The CPU, Memory design, Memory Types, Programming Devices, Selection of wire types and size
PROGRAMMING TIMERS AND COUNTERS Mechanical Timing relay, Timer instructions, ON delay timer instruction, Off-Delay timer instruction, Retentive Timer, Cascading Timers. Counter Instructions, Up-counter, down counter, Up and Down counter, Cascading counters, Incremental encoder counter applications, Combining counter and timer functions, High Speed counter instruction
PROGRAM LOGIC CONTROLLER AND PLC APPLICATIONS Bit Logic Instructions: NO, NC, Set, Reset, rising edge Pulse, Falling Edge Pulse, RS, SR, NOP, OUTPUT Industrial network : CAN (Controller area network), Device net, Control net, Ethernet/IP, Modbus, Fieldbus, Profibus-PA/DP, SCADA (Supervisory control & data acquisition), HMI (Human Machine Interface), Two-axis, three axis robot control with PLC
Total number of hours : 30

Prepared by

Approved By

HoD / EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	NI Multisim Circuits Simulation

Syllabus Framed by: Mr. T. Srihari, Mr. A. Murugesan

SYLLABUS

INTRODUCTION

Multisim is widely used in academia and industry for circuits education, electronic schematic design and SPICE simulation. NI Multisim (formerly MultiSIM) is an electronic schematic capture and simulation program which is part of a suite of circuit design programs, along with NI Ultiboard. Multisim is one of the few circuit design programs to employ the original Berkeley SPICE based software simulation.

SIMULATION CIRCUITS

Use electronic circuit analysis software (Multisim) to draw schematics and / or analyze circuits. Given circuit specifications, apply knowledge learned in the course to design and build following circuit.

- Digital circuits
- Encoder and Decoder
- Counter and Shift register
- Multiplexer and De-multiplexer
- The Op Amp Comparator
- The Non-inverting Voltage Amplifier
- The Inverting Voltage Amplifier
- The Op Amp Differential Amplifier
- The Summing Amp
- The Subtracting Amp
- Parallel-Series and Series-Series Negative Feedback
- The Operational Trans-conductance Amplifier
- The Triangle-Square Generator
- The Wien Bridge Oscillator
- The Integrator
- The Differentiator
- The D to A Converter
- The Linear Regulator

Total number of hours : 30

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	AutoCAD Electrical

Syllabus Framed By: Mr. C. Santhakumar, Mr. M.A. Stephenraj,

Syllabus
INTRODUCTION Department intro., AutoCADIntro., Co-OrdinateSystems, Typesof Co-Or. System, Units,Limits,Line, Move, Erase.
HOME RIBBON Draw ToolCircle,Arc.ModifyTools– Copy, Offset, Function Keys.Rectangle, Mirror,Boundary, Array, Rotate. Modifytools– Scale, Stretch, Trim and Extend.
Draw tool – ConstructionLine, Ray, Spline, Polyline, Rev. Cloud, Ellipse, EllipseArc, PolygonModifyTools–Break at Point, Break, Join, Chamfer,Fillet, Blend Curves, ExplodeDonut, Fill Mode, Solid, Pan, Object Selection Method,Properties Tool Bar,LTS, LWT, Match Properties Dimension Tool BarText, TextStyle, MirrorText, Spelling, Table, Table Style, Hatch Gradient,Layers. AttributeTools
PROJECT MANAGER Intro. Of Project Manager, WorkingwithProject Manager,Insert Component, Drawing_ Adding, Creating, Drawing Properties, ConnectingAComponent.
SCHEMATIC RIBBON InsertingLibrarySymbol,Insert Wires, Multiple WireBus.InsertingOneLine Circuit, Power Feed Circuit, ModifyWires, WireLayers, WireTypes.
PLC Generate PLCLayout Module, PLC ParametricSelection, ModuleLayout.SymbolBuilder, CircuitBuilder, SaveCircuittolcon Menu.Insert PLC, Section Modules, EditModule PLC DatabaseFile
CONNECTION DIAGRAM Point to Point ConnectionIntro. To Connector, Grouping Wires, Conversion Tool, Convert Text, Convert Wire, Special Explode.
PANEL LAYOUT Foot prints, Edit FP'S,Align FP'S, Creatingown FP'S. REPORTS Types of Reports, Generate Panel&Schematic Reports Isometric, Multileader Intro. To 3D,3D primitives, WCS, UCS, Region, Extrude, Press Pull Modelingtools – Primitive, Revolve,Sweep, Loft, Union, Intersect, Subtract.
Total Number of Hours : 60

Prepared by

Approved By

HoD / EEE

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

INTERNET OF THINGS USING RASPBERRY PI

18.12.2017
To
02.01.2018

Topics to be covered

- IoT Design Methodology
- IoT and the Maker Movement
- Introduction Internet Gateway Device
- Implementation Process
- IoT Applications

@ Embedded & Project Laboratory, ECE DEPARTMENT

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2017-2018	**Date:**	11.12.2017

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"IOT Using Raspberry pi"** for the benefit of Final year students. The course is scheduled from 18.12.2017 to 22.12.2017, 26.12.2017 to 29.12.2017 and 02.01.2018 for ten days Afternoon Sessions at Embedded and Project Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr. N.R.Rajalakshmi, ASP/ECE
2. Mr. G.Gowthamraj, AP/ECE
3. Mr.R.Tamilmani, AP/ECE
4. Mr. K.R. Gokulanand, AP/ECE

N.R. 11/12/17
Coordinator

11/12/17
Convener

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KSRIET

Department of Electronics and Communication Engineering

Academic Year:2017 - 2018

Value Added Course – "Internet of Things Using Raspberry Pi"

SYLLABUS

1. **IoT Design Methodology** — **6 Hours**
   - Purpose and requirements of the system
   - Internet connection Model B only: LAN (Ethernet) cable
   - USB mouse
   - Powered USB hub
   - Internet connection, Model A or B: USB WiFi adaptor
   - Attributes of Virtual Entities

2. **IoT and the Maker Movement** — **6 Hours**
   - create customer loyalty and drive profits to the bottom line
   - Connecting the Raspberry Pi to the Outside World - GPIO Pins
   - Connecting to a Sensor to Detect Motion
   - The Parallax PIR Motion Sensor
   - Bonding the Raspberry Pi and the Sensors
   - The Python Programming Language

3. **Internet Gateway Device** — **6 Hours**
   - Port Linux operating system on Raspberry Pi
   - Modify Linux to work with Our Prototype
   - Developed Python Library for Communication of RPI with Xbee ZB
   - Wrote Program from sensors
   - Device controlling
   - Create WI-FI functionality on RPI for Internet Connection

4. **Implementation Process** — **6 Hours**
   - Setting up Raspberry Pi
   - Hello World: First Coding from Pi
   - Turning on LED: Hello World of Hardware
   - Programming the LED with Python
   - IoT - fying the LED: Remote-controlling from Web Interface
   - Subscribing the Data to Pi

5. **IoT Applications** — **6 Hours**
   - Smart Home Applications.
   - Weather security and temperature cam
   - The working doctor who props with raspberry pi
   - Sensually an air quality monitoring hat
   - Beer and wine fridge of awesomeness
   - Raspberry pi Internet doorbell

Total Hours: 30

N. R. 11/12/17
Course Coordinator

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Convener

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Department of Electronics and Communication Engineering

Value added course

On

INTERNET OF THINGS USING RASPBERRY PI

SCHEDULE

Date: 18.12.2017 – 02.01.2018

DAY	DATE	TIMING	TOPIC
DAY 1	18.12.2017	1.30 to 2.30 pm	Purpose and requirements of the system
		2.30 to 3.30 pm	Internet connection Model B only: LAN (Ethernet)
		3.30 to 4.30 pm	USB mouse
DAY 2	19.12.2017	1.30 to 2.30 pm	Powered USB hub
		2.30 to 3.30 pm	Internet connection, Model A or B: USB WiFi
		3.30 to 4.30 pm	Attributes of Virtual Entities
DAY 3	20.12.2017	1.30 to 2.30 pm	create customer loyalty and drive profits
		2.30 to 3.30 pm	Connecting the Raspberry Pi to the Outside World
		3.30 to 4.30 pm	Connecting to a Sensor to Detect Motion
DAY 4	21.12.2017	1.30 to 2.30 pm	The Parallax PIR Motion Sensor
		2.30 to 3.30 pm	Bonding the Raspberry Pi and the Sensors
		3.30 to 4.30 pm	The Python Programming Language
DAY 5	22.12.2017	1.30 to 2.30 pm	Port Linux operating system on Raspberry Pi
		2.30 to 3.30 pm	Modify Linux to work with Our Prototype
		3.30 to 4.30 pm	Developed Python Library for Communication RPI
DAY 6	26.12.2017	1.30 to 2.30 pm	Wrote Program from sensors
		2.30 to 3.30 pm	Device controlling
		3.30 to 4.30 pm	Create WI-FI functionality on RPI for Internet
DAY 7	27.12.2017	1.30 to 2.30 pm	Setting up Raspberry Pi
		2.30 to 3.30 pm	Hello World: First Coding from Pi
		3.30 to 4.30 pm	Turning on LED: Hello World of Hardware
DAY 8	28.12.2017	1.30 to 2.30 pm	Programming the LED with Python
		2.30 to 3.30 pm	IoT - fying the LED: Remote-controlling from Web
		3.30 to 4.30 pm	Subscribing the Data to Pi
DAY 9	29.12.2017	1.30 to 2.30 pm	Smart Home Applications.
		2.30 to 3.30 pm	Weather security and temperature cam
		3.30 to 4.30 pm	The working doctor who props with raspberry pi
DAY 10	02.01.2018	1.30 to 2.30 pm	Sensually an air quality monitoring hat
		2.30 to 3.30 pm	Beer and wine fridge of awesomeness
		3.30 to 4.30 pm	Raspberry pi Internet doorbell

N.R. 18/12/17
Course Coordinator

18/12/17
Convener

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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

"Project Based Learning in Embedded System Design using ARDUINO Platform"

Topics to be covered

- ✓ Module 1: Embedded System design: Basics
- ✓ Module 2: Learning Arduino Platform
- ✓ Module 3: Basic sensors and actuators using Arduino
- ✓ Module 4: Controlling embedded system based devices using Arduino
- ✓ Module 5: Project Based on embedded system design using Arduino board

DATE:
08.07.2017 –
23.07.2017

Venue: Embedded Lab and Project Lab

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2017 - 2018	**Date:**	04.07.2017

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Project Based Learning in Embedded System Design using ARDUINO Platform"** for the benefit of Third year students. The course is scheduled from 08.07.2017, 09.07.2017, 16.7.2017, 22.7.2017 and 23.07.2017 for five days in Embedded Lab and Project Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. S.Karthik, AP/ECE
2. Mr.K.Venkatachalam, AP/ECE
3. Mrs.K.J.Uma, AP/ECE
4. Mrs.P.Vidhya, AP/ECE

Coordinator

HoD

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value added course

On

Project Based Learning in Embedded System Design using ARDUINO Platform

SYLLABUS

Module 1 - Embedded System design: Basics [7]

Introduction to embedded systems - Components of embedded system - Advantages and applications of embedded systems - Examples of real time embedded systems and how they are manufactured industry ready - Different Microcontroller Architectures (CISC, RISC, ARISC) - Internal Resources & Hardware Chips in Details - History of AVR Microcontrollers and Features - Memory Architectures (RAM/ROM).

Module 2 - Learning Arduino Platform [7]

Introduction to ARDUINO, ARDUINO History and Family - Programming in Embedded-C, Concepts of C language - General Hardware Interfacings: LED's, Switches, Seven Segment Display, Multi Segment Displays, Relays (AC Appliance Control), LCD, Buzzer, IR Sensors, Other Digital Sensors.

Module 3 - Basic sensors and actuators using Arduino [7]

Introduction to sensors and actuators - Connection and working with different sensors, such as Humidity, Proximity, IR Motion, Accelerometer, Sound, Light Distance, Pressure, Thermal etc to ARDUINO Board - Reading various sensor data on serial monitor and LCD Display - Functioning of actuator.

Module 4 - Controlling embedded system based devices using Arduino [7]

Reading data from analog and digital sensors on Serial Monitor/LCD Monitor - Work with LED Controlled by Switch/potentiometer, 7 segment displays - Connecting relays and servomotors to ARDUINO Board - Work with 5V/3V Power supply using voltage regulator IC's.

Module 5 - Project Based on embedded system design using Arduino board [7]

Projects on ARDUINO Based Embedded systems: ARDUINO based home automation, ARDUINO Based Solar Street Light system, ARDUINO Based Alarm Clock, ARDUINO Based Car Parking System.

Total Hours: 35

Coordinator

Convener

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ENGINEERING AND TECHNOLOGY,
K. S. R. KALVI NAGAR,
TIRUCHENGODE-637 215,
NAMAKKAL Dt, TAMIL NADU.

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637215

(Affiliated to Anna University, Chennai)

Department of Electronics and Communication Engineering

Value added course

On

Project Based Learning in Embedded System Design using ARDUINO Platform

SCHEDULE

Date: 08.07.2017 to 23.07.2017

DAY	DATE	TIMING	TOPIC
DAY 1	08.07.2017	9.15 to 10.15 am	Introduction to embedded systems - Components of embedded system
		10.15 to 11.15 am	Advantages and applications of embedded systems - Examples of real time embedded systems and how they are manufactured industry ready
		11.30 to 01.00 pm	Different Microcontroller Architectures (CISC, RISC, ARISC)
		02.00 to 03.30 pm	Internal Resources & Hardware Chips in Details
		03.30 to 04.30 pm	History of AVR Microcontrollers and Features
		05.00 to 06.30 pm	Memory Architectures (RAM/ROM)
DAY 2	09.07.2017	9.15 to 10.15 am	Introduction to ARDUINO, ARDUINO History and Family
		10.15 to 11.15 am	Programming in Embedded-C
		11.30 to 01.00 pm	Concepts of C language
		02.00 to 03.30 pm	General Hardware Interfacings: LED's, Switches
		03.30 to 04.30 pm	Seven Segment Display, Multi Segment Displays, Relays (AC Appliance Control)
		05.00 to 06.30 pm	LCD, Buzzer, IR Sensors, Other Digital Sensors
DAY 3	16.07.2017	9.15 to 10.15 am	Introduction to sensors and actuators
		10.15 to 11.15 am	Connection and working with different sensors, such as Humidity to ARDUINO board
		11.30 to 01.00 pm	Proximity, IR Motion, Accelerometer sensors to ARDUINO board
		02.00 to 03.30 pm	Sound sensors, Light Distance, Pressure, Thermal sensors to ARDUINO board
		03.30 to 04.30 pm	Reading various sensor data on serial monitor and LCD Display
		05.00 to 06.30 pm	Functioning of actuator
DAY 4	22.07.2017	9.15 to 10.15 am	Reading data from analog and digital sensors on Serial Monitor/LCD Mon
		10.15 to 11.15 am	Work with LED Controlled by Switch/potentiometer
		11.30 to 01.00 pm	7 segment displays
		02.00 to 03.30 pm	Connecting relays to ARDUINO Board
		03.30 to 04.30 pm	Connecting servomotors to ARDUINO Board
		05.00 to 06.30 pm	Work with 5V/3V Power supply using voltage regulator IC's.

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DAY 5	23.07.2017	9.15 to 10.15 am	Projects on ARDUINO Based Embedded systems
		10.15 to 11.15 am	ARDUINO based home automation
		11.30 to 01.00 pm	ARDUINO Based Solar Street Light system
		02.00 to 03.30 pm	ARDUINO Based Car Parking System
		03.30 to 04.30 pm	ARDUINO Based Alarm Clock
		05.00 to 06.30 pm	Projects on ARDUINO Based Embedded systems

Coordinator

Convener

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KSR Kalvi Nagar,Tiruchengode-637215 Namakkal(Dt.)

KSRIET

Department of Electronics and Communication Engineering

Organizes

Value added Course

ON

Cisco Certified Network Associate(CCNA)

Topics To Be Covered

- Networking basis
- IP address
- Security
- Static Routing
- Dynamic Routing protocol
- WAN protocols
- IPV6
- Switching
- Hands-on: NS2 Simulation tool

24.12.2017 &25.12.2017
30.12.2017 & 31.12.2017
7.01.2018

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637 215 DEPARTMENT OF **ELECTRONICS AND COMMUNICATION ENGINEERING**

Circular

Academic Year	2017-2018	**Date**	18.12.2017

The Department of Electronics and Communication Engineering has planned to conduct value added course on **"CISCO Certified Network Associate"** for the benefit of Final year students. The course is scheduled from 24.12.2017, 25.12.2017, 30.12.2017, 31.12.2017 & 7.1.2018at Networks and Embedded Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr.S.Nandhakumar, AP/ECE
2. Ms.E.L.Dhivyapriya, AP/ECE
3. Mr.A.Ravi,AP/ECE
4. Ms.R.LeelavathiAP/ECE

18.12.17
Coordinator

18/12/17
HoD

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TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Academic Year:2017-2018

Value added course -"CISCO Certified Network Associate"

Syllabus

Module 1:Networking basis 7

OSI and TCP/IP models - TCP and UDP protocols-Network topologies-Firewalls-Access points-Wireless controllers-DNS lookup operation.

Module 2:IP address 7

IPv4 address types -Unicast-Broadcast-Multicast -IPv6 address types -Global unicast-Unique local-Link local-Multicast-Anycast-troubleshoot IPv6 addressing.

Module 3:Routing 7

Routing concepts - Routing table - Static routing - Dynamic routing - Distance vector - link state routing protocols- OSPF- RIP-EIGRP.

Module 4: Switching and Security 8

Switching concepts-Frame switching-Ethernet frame format-spanning multiple switches-Cryptography-Encryption-Decryption-Public key- private key-Cipher text- Plain text.

Module 5: Hands-on: NS2 Simulation tool 7

LAN -TCP- UDP-Distance vectorrouting protocols- Encryption-Decryption

Total Hour:36

Coordinator

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(Accredited to NBA, New Delhi and Affiliated to Anna University, Chennai)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course on "CISCO Certified Network Associate"

SCHEDULE

Date:24.12.2017, 25.12.2017, 30.12.2017 , 31.12.2017 & 7.1.2018

Day	Date	Timing	Topic
Day 1	24.12.2017	9.00-10.30a.m	Networking basis
		10.45-12.30p.m	Network topologies
		1.30-2.30p.m	OSI and TCP/IP models
		2.45-4.30p.m	TCP and UDP protocols
		4.45-5.45p.m	
Day 2	25.12.2017	9.00-10.30a.m	IP address
		10.45-12.30p.m	IPv4 address types
		1.30-2.30p.m	IPv6 address types
		2.45-4.30p.m	Troubleshoot IPv6 addressing
		4.45-5.45p.m	
Day 3	30.12.2017	9.00-10.30a.m	Routing
		10.45-12.30p.m	Static routing
		1.30-2.30p.m	Dynamic routing
		2.45-4.30p.m	OSPF
		4.45-5.45p.m	
Day 4	31.12.2017	9.00-10.30a.m	Switching concepts
		10.45-12.30p.m	Frame switching
		1.30-2.30p.m	Security
		2.45-4.30p.m	Cryptography
		4.45-6.45p.m	
Day 5	7.1.2018	9.00-10.30a.m	LAN
		10.45-12.30p.m	TCP& UDP
		1.30-2.30p.m	Distance vector routing protocols
		2.45-4.30p.m	Encryption - Decryption
		4.45-5.45p.m	

21/12/17

Course Coordinator

21/12/17

Convener

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Speed Maths-"Maths or Magic

Date:8.7.17,9.7.17,
15.7.17 & 22.7.17,
23.7.17

Topics to be covered

1. Arithmetic
2. Algebra
3. Geometry
4. Menstruation and Data Interpretation
5. Trigonometry

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY TIRUCHENGODE – 637 215 DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING		
Circular			
Academic Year	2017-2018	**Date**	04.07.2017

The Department of Electronics and Communication Engineering has planned to conduct value added course on ***"Speed Maths-"Maths or Magic"*** for the benefit of Second year students. The course is scheduled from 8.7.17, 9.7.17, 16.7.17 & 22.7.17, 23.7.17 at Math & Project Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1.Dr.A.N.Nandakumar

2.P.Govindaraju

3.P.Premalatha

4.J.Divakaran

04/07/17

Coordinator

4/7/17

HoD

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TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Academic Year:2017-2018

Value added course -"*Speed Maths-"Maths or Magic*"

Syllabus

Module 1: Arithmetic 6

Number System- Permutation and Combination- Probability- Simple Interest & Compound Interest-Mixture and Alligation- Pipes and Cisterns- Time and Work- Average- Ratio & Proportion- Time and Distance- Partnership Business- Profit, Loss and Discount- Percentage- Square roots- Fractions and Decimals

Module 2: Algebra 6

Discovering expressions, equations and functions-Exploring real numbers-How to solve linear equations-Visualizing linear functions-Formulating linear equations-Linear inequalitites-Systems of linear equations and inequalities-Exponents and exponential functions.

Module 3: Geometry 6

Quadrilaterals- Triangle and its various kinds of centers- Congruence and similarity of triangles- Regular Polygon- Right Prism & Hemispheres- Circle and its chords, tangents- Angles subtended by chords of a circle- Common tangents to two or more circles- Right Circular Cone- Sphere- Cylinder- Right Circular Cylinder- Rectangular Parallelepiped- Regular Right Pyramid with Triangular base or Square base

Module 4: Menstruation and Data Interpretation 6

Two-dimensional (2D) and Three-dimensional (3D) Mensuration-Frequency Polygon-Histogram- Pie-Chart.

Module 5: Trigonometry 6

Degree and Radian Measures-Trigonometric Ratios- Complementary Angles- Height and Distance- Standard Identities

Total Hour: 30

08/07/17

COORDINATOR

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KSRIET

Department of Electronics and Communication Engineering

Academic Year:2017-2018

Value added course -"Speed Maths-"Maths or Magic"

Summary Report

S.No	Particulars	Details
1.	Name of the course	Speed Maths-"Maths or Magic
2.	Course contents	Enclosed
3.	Course Outcomes	At the end of the course, the students will be able to : • Solve and analyse the basic aptitude questions
4.	Relevant POs & PSOs	PO1, PO3, PO4, PO5, PO6, PO11, PO12 , PSO 1, PSO 2.
5.	Course Coordinator	1.Dr.A.N.Nandakumar 2.P.Govindaraju 3.P.Premalatha 4.J.Divakaran
6.	Course Duration (Hrs)	30
7.	Date	8.7.17, 9.7.17, 16.7.17 & 22.7.17, 23.7.17
8.	Participant Detail& strength	84
9.	Feedback from Students	Excellent-31 Very Good-25 Good-18 Satisfactory-10

23/07/17

Course Coordinator

Convener

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Department of Electronics and Communication Engineering

Value Added Course on "Speed Maths-Maths or Magic"

SCHEDULE

Date:8.7.17,9.7.17,16.7.17 & 22.7.17, 23.7.17

Day	Date	Timing	Topic
Day 1	8.7.17	9.15-10.15a.m	Number System- Permutation and Combination-
		10.15-11.15a.m	Probability- Simple Interest & Compound Interest-Mixture and Alligation- Pipes and Cisterns
		11.30-12.30p.m	Time and Work- Average- Ratio & Proportion-
		1.30-2.30p.m	Time and Distance
		2.30-3.30p.m	Partnership Business
		3.30-4.30p.m	Profit, Loss and Discount- Percentage- Square roots
		4.45-5.45p.m	Fractions and Decimals
Day 2	9.7.17	9.15-10.15a.m	Discovering expressions, equations and functions
		10.15-11.15a.m	Exploring real numbers-How to solve linear equations
		11.30-12.30p.m	Visualizing linear function
		1.30-2.30p.m	Formulating linear equations
		2.30-3.30p.m	Linear inequalitites
		3.30-4.30p.m	Systems of linear equations and inequalities
		4.45-5.45p.m	Exponents and exponential functions
Day 3	16.7.17	9.15-10.15a.m	Quadrilaterals- Triangle and its various kinds of centers
		10.15-11.15a.m	Congruence and similarity of triangles- Regular Polygon
		11.30-12.30p.m	Right Prism & Hemispheres- Circle and its chords, tangents
		1.30-2.30p.m	Angles subtended by chords of a circle- Common tangents to two or more circles
		2.30-3.30p.m	Right Circular Cone- Sphere- Cylinder- Right Circular Cylinder-
		3.30-4.30p.m	Rectangular Parallelepiped
		4.45-5.45p.m	Regular Right Pyramid with Triangular base or Square base
Day 4	22.7.17	9.15-10.15a.m	Two-dimensional (2D) and Three-dimensional (3D) Mensuration

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		10.15-11.15a.m	
		11.30-12.30p.m	
		1.30-2.00p.m	Frequency Polygon
		2.00-2.30p.m	Histogram
		2.30-3.00p.m	Pie-Chart.
Day 5	23.7.17	9.15-10.15a.m	Degree Measures
		10.15-11.15a.m	RadianMeasures
		11.30-12.30p.m	Standard Identities
		1.30-2.00p.m	Trigonometric Ratios
		2.00-2.30p.m	Complementary Angles
		2.30-3.00p.m	Height and Distance

23/07/17

Course Coordinator

23/7/17

Convener

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
Circular			
Academic Year :	2017 – 2018 (OOD)	**Date :**	15.05.2017

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2017 – 2018 (OOD) for final year ,Third & second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	AUTOCAD	Mr.L.Selvakumar(United cad) Mr.M.kannan(United cad) Mr.S.Baskaran Mr.D.Ramkumar
2.	CREO - INDUSTRIAL DESIGN	Mr.K.Gopalakrishnan Mr.M.V.Shanmugam Mr.K.Vijay Mr.A.M.Ramkumar
3.	CREO - AUTOMATION AND PRODUCTION	Mr.R.Nirmalraja Mr.G.Gowrisankar Mr.A.V.T Shubhash

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HoD 15/5/17

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the **AutoCAD** including:

Module 1: INTRODUCTION TO AUTOCAD 6

AutoCAD Screen Components- Drawing Area Command -Window Navigation bar Status bar AUTOCAD Introduction-Software Requirements- Files handling in CAD- Draw toolbar- Modify toolbar- Dimensioning toolbar- Opening an Existing Drawing- Quitting AutoCAD

Module 2: Introduction to OF Tool bars 7

Functional keys and properties - Layers and leaders- Tool menu customization- Geometric constraints- Dimension constraints- Drawing Lines in AutoCAD- Invoking tools Using Dynamic INPUT/Command- Prompt Coordinate Systems

Module 3: Starting With Advanced Sketching 8

Drawing Arcs- Drawing Rectangles -Drawing Ellipses- Drawing Regular Polygon- Drawing Polylines Placing Points -Drawing Infinite Lines Writing a Single Line Text- Working with Layers- Object Properties- Drafting Settings dialog box

Module 4: Editing Sketched Objects 9

Editing Sketches- Moving the Sketched Objects -Copying the Sketched Objects- Creating Multiple Copies Creating a Single Copy Offsetting Sketched Objects- Rotating Sketched Objects Scaling the Sketched Objects -Filleting the Sketches- Chamfering the Sketches- Trimming the Sketched Objects Extending the Sketched Objects- Stretching the Sketched Objects -Lengthening the Sketched Objects -objects Text Mirroring

Module 5: Isometric Drawings 8

Isometric drawings- Extrusion-View, visual styles and orbit- Solid (3D) modelling- Solid editing operations- Rendering and scenes

Total: 38 Hours

COORDINATOR 6/6/17

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Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the CREO FOR INDUSTRIAL DESIGN for design including:

Module 1: INTRODUCTION TO CREO PARAMETRIC 7

Introduction to Creo Parametric Feature-Based Nature Bidirectional Associative Property Parametric Nature System Requirements Getting Started with Creo Parametric- Important Terms and Definitions File Menu Options- Managing Files- Menu Manager Model Tree -Understanding the Functions of the Mouse Buttons- Ribbon Toolbars Navigator

Module 2: CREATING SKETCHES IN THE SKETCH MODE 8

The Sketcher Environment-Working with a Sketch in the Sketch Mode-Drawing a Sketch Using tools available in the Sketch Tab-Dimensioning the Sketch-Dimensioning the Basic Sketched Entities-Working with Constraints-Resolve Sketch Dialog Box- Deleting the Sketched Entities - Trimming the Sketched Entities- Mirroring the Sketched Entities.

Module 3: OPTIONS AIDING CONSTRUCTION OF PARTS 8

Options Aiding Construction of Parts-Creating Holes-Creating Rounds-Creating Chamfers-Understanding Ribs-Editing Features of a Model-Creating Feature Patterns-Copying Features-Mirroring a Geometry-Creating a Section of a Solid Model

Module 4: ASSEMBLY MODELING 9

Assembly Modelling -Important Terms Related to the Assembly Mode-Creating Top-down Assemblies-Creating Bottom-up Assemblies-Assembling Components-Modifying the Components of an Assembly-Creating the Exploded State

Module 5: SURFACE MODELING 10

Surface Modelling-Creating Surfaces in Creo Parametric-Creating Surfaces the Using the Style Environment of Creo Parametric-Surface Editing Tools Mirroring-Freestyle modelling environment-Invoking the Sheet metal Mode-Introduction to Sheet metal Walls-Creating the Bend Feature Creating the Unbend Feature

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Total: 43 Hours

COORDINATOR

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the Creo for Automation and production including:

Module 1: Advance Part Modeling 6

Advanced Selection Techniques - Advanced Datum Features - Advanced Sketching Techniques - Create advanced holes - Create advanced drafts and ribs - Create advanced shells - Create advanced rounds and chamfers - Use relations and parameters - Create advanced blends

Module 2: Assembly Design 7

Use advanced component selection - Use advanced assembly constraints - Create and use component interfaces - Utilize intelligent fasteners Extension (IFX) - Create and use flexible components - Restructure and mirror assemblies - Use assembly features and shrink wrap - Replace components in an assembly

Module 3: Creo Simulation & Structural Analysis 8

Introduction to Creo Simulate - Theoretical Foundations - Structural Mechanics - Simulation Models - Explore materials and material properties - Understand and use structural constraints - Understand and use structural loads – Meshing - Understand convergence - Run structural analyses

Module 4: Flexible Modeling 9

Understand Flexible Modeling basics - Apply shape surface selection - Perform flexible transform operations on geometry - Use the various transform options - Attach and remove geometry

Module 5: Behavioural Modeling 8

Apply the behavioral modeling process and concepts - Create measurement analysis features - Creating Model Property Features - Creating Analysis Features - Conducting Design Studies and Optimizing Models.

Total: 38 Hours

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COORDINATOR

KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
Circular			
Academic Year :	2017 – 2018 (EVEN)	**Date :**	25.11.2017

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2017 – 2018 (EVEN) for final year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	SOLID WORKS	Dr.P.Murugesan Dr.R.Mani Mr P.Gopinath Mr A.Mohanraj
2.	CCP-PIPING	Mr.M.Kannan (United CAD) Mr.S.Rahul Mr.M.Kannan (United CAD) Mr. V.K.Vasanth Mr. K.Kavin raj

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HoD 25/11/17

KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY

&

UNITED CADD SOLUTION Private Limited

DASSAULT SYSTEMES

SOLIDWORKS Syllabus

S.NO	TOPICS	No.of hours
1	Introduction	8
2	Sketcher	
3	Base Features	
4	Reference Features	
5	Engineering Features	12
6	Special Features	
7	Advanced Modeling	
8	Base Features	
9	Special Features	8
10	Advance features	
11	Applying standard mates	
12	Applying advanced mates	
13	Applying mechanical mates	
14	Creating features	12
15	Editing features	
16	Generating Drawing Views	
17	Inserting Annotations	

Total Period: 40

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COORDINATOR

UNITED CADD SOLUTION Private Limited &

KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY

PIPING SCHEDULE

S. No	Topic	Hours
1	Introduction • Pipingsoftware • PDS / PDMS /P&ID • Introduction to CAESARII • Scope & Responsibilities of Piping Engineer Features of CAESAR II • CAESAR I Iinterface • Fundamentals of Pipe Design • Piping standards	6
2	Basics parameters • Caesar IIConfiguration • Node no. &names • Pipe dia. & standard schedule pipe wall(Wt/Sch) • Temperature &pressure Basic operation • Routing • Joints & Fittings • Equipment	6
3	Plant modelling • Inputdata • Createdesign • Edit model • Navigation tools Visualization • Standard tools • Display options • Cutting plane	6
4	Purpose of stress analysis • Theory offailure • Loadcases • Materialselection • Code Compliance for ASMEB31.3	8
5	Isometric Drawing Extraction	8

Total Period: 34

COORDINATOR 26/10/13

Dr. M. VENKATESAN, M.E., Ph.D.,
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KSRIET

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2017 – 2018	Date :	02.06.2017

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2017 – 2018 (ODD) for final year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Introduction to Parallel Programming in OpenMP	Dr. G.Malathy Ms. S.Abinaya Mr. P.Rajakumar
2.	IoT	Ms. R.Subapriya Mr. R.Naresh Mr.M.Selvakumar Mr.P.S.Prakash Kumar

HOD

Dr., M. VENKATESAN, M.E., Ph.D.,
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Department of Information Technology

Academic Year : 2017- 2018 (ODD)

Value Added Course – "Introduction to Parallel Programming in OpenMP"
Syllabus

Module 1: Introduction to Parallel Programming 7

Needs for parallel computations. Challenges of parallel programming. Overview of Parallel System Architectures Overview of some parallelsystems. Multiprocessors and multicomputers. Network topologies. Computer system classification. Clusters.

Module 2: Modeling and Analysis of Parallel Computations 8

Efficiency characteristics of parallel computation: speedup, efficiency, scalability. Modeling the computations in the form of the "operation-operand" graph. Model analysis: determining the parallel method execution time,

Module 3: Aggregating the computation model 6

Estimating the maximum possible parallelization, computational load balancing. The Amdahl's and Gustavson-Barsis's laws. Aggregating the computation model.

Module 4: Parallel Programming with MPI 7

Overview of the MPI standard. Point-to-point communication operations. Synchronous and asynchronous modes of data transmission. Collective operations. Derived data types. Process management. Logical topologies. Case studies: matrix computations, solving partial differential equations.

Module 5: Principles of Parallel Algorithm Design 6

Parallel program modeling. Development stages: computation partitioning, analyzing the information dependencies, scaling and distributing computations among the processors. Case study: solving the gravitational problem of *N* bodies.

Total: 34 Hours

Coordinator 23/6/17

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HOD 23/6/17

KSRIET

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Department of Information Technology

Academic Year : 2017- 2018 (ODD)

Value Added Course – "IoT"

Syllabus

Module 1: FUNDAMENTALS OF IoT 7

Evolution of Internet of Things – Enabling Technologies – IoT Architectures: oneM2M, IoT World Forum (IoTWF) and Alternative IoT Models – Simplified IoT Architecture and Core IoT Functional Stack – Fog, Edge and Cloud in IoT – Functional Blocks of an IoT Ecosystem – Sensors, Actuators, and Smart Objects – Open Hardware Platforms for IoT

Module 2: IoT PROTOCOLS – I 7

IoT Access Technologies: Physical and MAC Layers, Topology and Security of IEEE 802.15.4, 1901.2a, 802.11ah and LoRaWAN – Network Layer: Constrained Nodes and Constrained Networks – Optimizing IP for IoT: From 6LoWPAN to 6Lo.

Module 3: IoT PROTOCOLS – II 7

Routing over Low Power and Lossy Networks (RPL) – Application Transport Methods: Application Layer Not Present, Supervisory Control and Data Acquisition (SCADA) – Application Layer Protocols: CoAP and MQTT – Service discovery – mDNS.

Module 4: CLOUD, FOG AND DATA ANALYTICS FRAMEWORKS 7

Cloud and Fog Topologies – Cloud Services Model – Fog Computing – Structured versus Unstructured Data and Data in Motion Vs Data in Rest – Role of Machine Learning – No SQL Databases – Hadoop Ecosystem – Apache Kafka, Apache Spark – Edge Streaming Analytics and Network Analytics – Security in IoT – CISCO IoT System – IBM Watson IoT Platform

Module 5: APPLICATIONS 7

Smart and Connected Cities: Street Layer, City Layer, Data Center Layer and Services Layer, Street Lighting, Smart Parking Architecture and Smart Traffic Control – Smart Transportation – Connected Cars.

Total: 35 Hours

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M. Sel
Coordinator 23/6/17

HOD

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2017 – 2018	Date :	15.11.2017

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2017 – 2018 (EVEN) for first year and second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Arduino	Ms.M.Soundariya Mr.P.S.Prakash Kumar Ms. R.Subapriya Ms.K.G.Lavanya
2.	PHP & MySQL	Dr.S.Russia Ms.M.Dhurgadevi Mr.S.Arun Prasath

15.11.17

HOD

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Department of Information Technology

Academic Year : 2017- 2018 (EVEN)

Value Added Course – "Arduino"

Syllabus

Module 1: Introduction 7

Introduction to embedded system - Understanding Embedded System - Overview of basic electronics and digital electronics. - Microcontroller vs. Microprocessor - Common features of Microcontroller - Comparison between the two - Different types of microcontrollers.

Module 2: Getting Started with Arduino 7

Introduction to Arduino - Pin configuration and architecture - Device and platform features. - Concept of digital and analog ports. - Familiarizing with Arduino Interfacing Board - Introduction to Embedded C and Arduino platform

Module 3: Arduino data types 6

Review of Basic Concepts - Variables and constants - Operators Control Statements - Arrays - Functions

Module 4: Arduino i/o Functions 6

Pins Configured as INPUT - Pull-up Resistors - Pins Configured as OUTPUT - pinMode() Function digitalWrite() Function - analogRead() function - Arduino Interrupts

Module 5:Arduino Time 8

Incorporating Arduino timedelay() function - delay Microseconds() function - millis() function - micros() functionArduino Displays -Working with Serial Monitor - Line graph via serial monitor - Interfacing a 8 bit LCD to Arduino - Fixed one line static message display - Running message display - Using the LCD Library of Arduino.

Total: 34 Hours

Soundariya.M 7/12/17

Coordinator

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HOD

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Department of Information Technology

Academic Year : 2017- 2018 (EVEN)

Value Added Course – "PHP & MySQL"

Syllabus

Module 1: Basic SQL 6

Simple Database schema- data types- table definitions (create, alter)- different DML operations (insert, delete, update)- basic SQL querying (select and project) using where clause- arithmetic & logical operations- SQL functions(Date and Time, Numeric, String conversion).

Module 2: Entity Relationship Model 6

Introduction- Representation of entities- attributes- entity set- relationship- relationship set- constraints- sub classes- super class- inheritance- specialization- generalization using ER Diagrams.

Module 3: Advanced SQL 6

Creating tables with relationship- implementation of key and integrity constraints- nested queries- sub queries- grouping- aggregation- ordering- implementation of different types of joins- view(updatable and non-updatable), relational set operations

Module 4: Basic PHP 6

Evaluation of Php- Basic Syntax- Defining variable and constant Php- Data type Operator and Expression- Capturing Form Data Dealing with Multi-value filed Generating File uploaded form Redirecting a form after submission- Making Decisions Doing Repetitive task with looping Mixing Decisions and looping with Html

Module 5: Function and String 6

What is a function- Define a function- Call by value and Call by reference- Recursive function- Creating and accessing String Searching & Replacing String- Formatting String- String Related Library function

Module 6: Array and Working with file Directories 6

Anatomy of an Array- Creating index based and Associative array- Accessing array Element- Looping with Index based array -Looping with associative array using each() and for each()- Library function -Understanding file& directory -Opening and closing a file- Coping ,renaming and deleting a file -Working with directories -Building a text editor -File Uploading & Downloading

Total: 36 Hours

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20/1/18

Coordinator

20/1/18

HOD

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY, TIRUCHENGODE – 637 215

DEPARTMENT OF MATHEMATICS

KSRIET

CIRCULAR

Academic Year: 2017 – 2018 **Date: 03.01.2018**

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2017 – 2018 for all the First year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	QUANTITATIVE APTITUDE	A. Jayakumar, AP/Maths N. Selvaraj, AP/Maths N. Kumaravel, AP/Maths P. Sivakumar, AP/Maths K. Suresh, AP/Maths R. Kavitha, AP/Maths R. Kulandaivelu, AP/Maths

3/1/18

HoD/Maths

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DEPARTMENT OF MATHEMATICS

KSRIET

VALUE ADDED COURSE on

"QUANTITATIVE APTITUDE"

Academic Year: 2017 – 2018 **Batch: 2017 – 2021**

Date: 18.01.2018 to 24.01.2018

SYLLABUS

Course Objectives:

To enhance the problem solving skills, to improve the basic mathematical skills and to help students who are preparing for any type of competitive examinations.

Arithmetic Quantitative Abilities:

Time and Work – Time Speed Distance – Boats and Streams – Pipes and Cisterns – Problems on Ages – Problems on Clocks – Problems on Calendar – Problems on Directions – Probability – Percentage.

Total No. of Hours: 30 Hours

Learning Outcomes:

On successful completion of the course the students will be able to:

- ✓ Understand the basic concepts of Quantitative Ability
- ✓ Understand the basic concepts of Logical Reasoning Skills
- ✓ Solve campus placements aptitude papers covering Quantitative Ability and Logical Reasoning
- ✓ Compete in various competitive exams like CAT, GATE, BANK etc.

Reference:

- ➢ Quantitative Aptitude by Dr. R S Aggarwal

10/1/18 10/1/18

VAC Co-ordinator **HoD/Maths**

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KSRIET	KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Computer Science and Engineering		
Circular			
Academic Year :	2018 – 2019 (ODD)	**Date :**	15.07.2018

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2018 – 2019 (ODD) for first & third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	SQL – Fundamentals	Mr.M.Jaganathan
2.	Mean Stack development(Angular JS, React JS and node JS)	Mr.M.P.Jagadeesan

HOD 17/7/18

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Tiruchengode, Namakkal – 637215

(Affiliated to Anna University, Chennai)

Department of Computer Science and Engineering

ACADEMIC YEAR :2018-2019

VALUE ADDED COURSE ON "SQL-FUNDAMENTALS"

SYLLABUS

Batch:2017-2021

The course covers the topics you need to review for the SQL Fundamentals exam including:

Module 1: Relational Databases & Data Models **6**

About Data Models-About The Relational Model-The Electronics Data Model-About The Relational Dbms.

Module 2: Selection & Setup Of The Database Interface **6**

Considering Available Tools-Selecting The Appropriate Tool- Oracle Net Database Connections -Oracle Paas Database Connections -Setup Sql Developer -Setup Sql*Plus-Setup Jdeveloper

Module 3: Using The Database Interface **6**

About Bind & Substitution Variables - Using Sql Developer - Using Sql*Plus

Module 4: Introduction To The Sql Language **6**

About The Sql Language - Characteristics Of Sql - Introducing Sql Using Select - Sql Rules

Module 5: The Select Statement **6**

The Select Statement - Distinct / Unique Keyword - Using Alias Names

Total: 30 Hours

Course Co-ordinator	VAC Co-ordinator	HOD/CSE
[Mr.M.JAGANATHAN AP/CSE]	[Mr.V.PRAKASHAM, AP/CSE]	[Dr.B.KALAAVATHI,HOD/CSE]

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(Approved by AICTE, New Delhi Affiliated to Anna University, Chennai)
Department of Computer Science and Engineering

ACADEMIC YEAR 2018 - 2019

VALUE ADDED COURSE ON

"MEAN STACK DEVELOPMENT(ANGULAR JS, REACT JS AND NODE JS)"

SYLLABUS

The course covers the topics you need to review for the Mean Stack Development (Angular JS, React JS and Node JS)exam including:

Module 1 – HTML 6

Introduction to HTML -Browsers and HTML - Editor's Offline and Online - Tags, Attribute and Elements - Doctype element - Comments - Headings, Paragraphs,Formatting text - Lists and Links - Images , Table

Module 2 - CSS 6

Introduction CSS - Applying CSS to HTML - Selectors, properties and values - CSS Colors, Backgrounds - CSS Box Model - CSS Margins,Padding,Borders - CSS Text and Font Properties - CSS General Topics

Module 3 – Javascript6

Introduction to JavaScript - Applying JavaScript (internal, external) - Understanding JS Syntax - Introduction to Document and Window Object - Variables, Operators - Data Types,Num Type Conversion - Math,String Manipulation - Objects,Arrays - Date and Time - Conditional Statements - Switch Case - Looping in JS - Functions

Module 4 – ReactJS 6

Introduction - Templating using JSX - Components, State and Props - Lifecycle of Components - Rendering List, Portals - Error Handling - Routers - Redux, Redux Saga - Immutable.js - Service side rendering - Unit testing - Webpack

Module 5 - Node.js 6

Node.js overview - Node.js – basics and setup - Node.js console - Node.js command utilities - Node.js modules - Node.js concepts - Node.js events - Node.js with Express.js - Node.js database access

COURSE COORDINATOR	VAC COORDINATOR	HOD/CSE
[Mr.M.P.Jagadeesan]	[Mr.V.Prakasham]	[Dr.B.Kalaavathi]

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KSRIET	KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Computer Science and Engineering		
Circular			
Academic Year :	2018 – 2019 (EVEN)	**Date :**	19.12.2018

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2018 – 2019 (EVEN) for Second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Fundamentals of Java Programming	M.Jawahar
2.	Data Science	Mr.M.P.Jagadeesan

HOD 19/12/18

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Department of Computer Science and Engineering

ACADEMIC YEAR 2018 - 2019

VALUE ADDED COURSE ON

"FUNDAMENTALS OF JAVA PROGRAMMING"

SYLLABUS

The course covers the topics you need to review for the Fundamentals of Java Programming exam including:

Module 1:An Introduction to Java Programming 6

What Is Java? -Java's Past, Present, and Future -Why Learn Java? -Java Is Platform-Independent-Java Is Object-Oriented -Java Is Easy to Learn -Getting Started with-Programming in Java -Getting the Software -Applets and Applications -Creating a Java Application-Creating a Java Applet

Module 2: Object-Oriented Programming and Java 6

Thinking in Objects: An Analogy -Objects and Classes-Behavior and Attributes -Attributes -Behavior -Creating a Class-Inheritance, Interfaces, and Packages Inheritance-Creating a Class Hierarchy -How Inheritance -Single and Multiple Inheritance -Interfaces and Packages-Creating a subclass

Module 3: Java Basics 6

Statements and Expressions-Declaring Variables -Notes on Variable -Variable Types -Assigning Values to Variables Comments-Literals -Number Literals-Boolean Literals -Character Literals String Literals -Expressions and Operators -Arithmetic -Incrementing and Decrementing Comparisons-Logical Operators -Bitwise Operators -Operator Precedence -String Arithmetic

Module 4: Working with Objects 6

Creating New Objects -Using *new* -What *new* Does -A Note on Memory Management -Accessing and Setting Class and Instance Variables -Getting Values -Changing Values Class Variables -Calling Methods -Class Methods-References to Objects -Casting and Converting Objects and Primitive Types -Odds and Ends -Comparing Objects -Copying Objects -Determining the Class of an Object-The Java Class Libraries

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Module 5: Arrays, Conditionals, and Loops 6

Arrays -Declaring Array Variables-Creating Array Objects-Accessing Array Elements Changing Array Elements -Multidimensional Arrays-Block Statements -*if* Conditionals-The Conditional Operator -*switch* Conditionals -*for* Loops -*while* and *do* Loops -*while* Loops-*do...while* Loops - Breaking Out of Loops-Labeled Loops

Total:30 Hours

04/01/19

COURSE COORDINATOR
[Mr.M.Jawahar]

04/01/19

VAC COORDINATOR
[Mr.V.Prakasham]

HOD/CSE
[Dr.B.Kalaavathi]

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Department of Computer Science and Engineering

ACADEMIC YEAR: 2018-2019

VALUE ADDED COURSE ON "Data Science"
SYLLABUS

The course covers the topics you need to review for the Network Virtualization exam including:

Module 1: Data Handling and Descriptive Statistics 7

Converting a.txt file into .xlsx - Types of Data - Central Tendency Measures -Frequency Distribution-Dispersion Measures-Skewness and Mean-Covariance and Correlation-Scatter plots-How to make sense of Data

Module 2: Probability and Distributions 6

Importance of Probability for DS -Revision of Probability Concepts-Conditional Probability-Dependent and Independent Events-Bayes' Formula-Uniform and Binomial Distribution-Normal and Lognormal Distribution- p values False Positive and False Negative

Module 3: Sampling, Estimation and Hypothesis Testing 6

Sampling Distribution -Central Limit Theorem-Standard Error-Confidence Intervals-Sample Size Determination-Hypothesis Testing Steps-Type I and Type II Errors-P-value Revisit-Student's t-Distribution-F Distribution-Chi-Square Distribution-All the above wrt Applicability and with Data Sets-Sampling Biases

Module 4: Linear Regression Fundamentals 7

Scatter Plot and Correlation -Applicability of Linear Regression-Dependent and Independent Variable-Assumptions behind Linear Regression-Linear Regression on Excel-Interpret the slope and the intercept-Calculations of predicted value-Understand SEE, Coefficient of Determination, Confidence Intervals-Significance of the Regression Model- -Limitations of Regression Analysis

Module 5: Linear Regression Advanced 6

Multiple Regression: Step-wise and Simultaneous Regression Adjusted Rsquared -Anova Table Analysis-Dummy variables Heteroskedasticity -Serial correlation-Multi-co linearity-model Mis-specifications

Total: 32 Hours

M.P. Jagadeesan 28/2/19

COURSE COORDINATOR
[Mr. M.P JAGADEESAN]

28/2/19

VAC COORDINATOR
[Mr.V.PRAKASHAM ,AP/CSE]

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28/2/19

HOD/CSE
[Dr. B.KALAAVATHI]

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

Department of Electrical and Electronics Engineering

DATE: 28.05.2018

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering is organising Value Added / Short Term Course on the following topics for the academic year 2018 – 2019. In this regard the following faculty members are requested to frame syllabus for the Value Added / Short Term Course.

S.No.	Title of the Value Added / Short Term Course	Faculty Incharge
1.	Projects using Raspberry Pi	Mr. A. Murugesan
		Mrs. K. Meenatchi
2.	NI Multisim circuits Simulation	Dr. T. Srihari
		Mr. A. Murugesan
3.	PCB Designing	Mr. C. Santhakumar
		Mr. C. Sivakumar
4.	AUTOCAD Electrical	Mr. C. Santhakumar
		Mr. M.A. Stephenraj

HoD/EEE

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TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course on

COURSE	Projects using Raspberry Pi

Syllabus Framed By: Mr. A. Murugesan, Mrs. K. Meenatchi

SYLLABUS
Introduction to Raspberry Pi Different Models of Raspberry Pi - Why Raspberry Pi - Peripherals of Raspberry Pi - Different Operating Systems for Raspberry pi - Getting Started With NOOBS - Booting for the First time. **Setting Up for a Perfect Pi Experience** Operation Procedures - Do's and Don'ts - Updating Pi to Latest softwares - Setting various Options and Personalizing - First introduction to the LINUX terminal - Connecting to the Network and Troubleshooting. **Getting Familiar with the GPIO Pins of your Pi** Pin numbering Formats- The Voltage hazard Information - The LED Interfacing - General information on other pins and their functionality - The First Button Interface with Raspberry Pi. **Setting Up Pi to be Accessed Remotely.** Remote Computing Basics - Connecting Raspberry Pi to a Remote Access Client - Using Raspberry Pi Remotely – Obstacle detection – light controller - LED Indication for Email.
Total number of hours : 30

Prepared by

Approved By

HoD / EEE

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	NI Multisim Circuits Simulation

Syllabus Framed by: Dr. T. Srihari, Mr. A. Murugesan

SYLLABUS

INTRODUCTION

Multisim is widely used in academia and industry for circuits education, electronic schematic design and SPICE simulation. NI Multisim (formerly MultiSIM) is an electronic schematic capture and simulation program which is part of a suite of circuit design programs, along with NI Ultiboard. Multisim is one of the few circuit design programs to employ the original Berkeley SPICE based software simulation.

SIMULATION CIRCUITS

Use electronic circuit analysis software (Multisim) to draw schematics and / or analyze circuits. Given circuit specifications, apply knowledge learned in the course to design and build following circuit.

- Digital circuits
- Encoder and Decoder
- Counter and Shift register
- Multiplexer and De-multiplexer
- The Op Amp Comparator
- The Non-inverting Voltage Amplifier
- The Inverting Voltage Amplifier
- The Op Amp Differential Amplifier
- The Summing Amp
- The Subtracting Amp
- Parallel-Series and Series-Series Negative Feedback
- The Operational Trans-conductance Amplifier
- The Triangle-Square Generator
- The Wien Bridge Oscillator
- The Integrator
- The Differentiator
- The D to A Converter
- The Linear Regulator

Total number of hours : 30

Prepared by

Approved By

HoD / EEE

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	PCB DESIGNING

Syllabus Framed By: Mr. C. Santhakumar, Mr. C. Sivakumar

SYLLABUS
INTRODUCTION PCB, About Eagle, and Schematic: Placing a component, connecting the components, Creating & Editing New Component, Creating A New Library, Converting Schematic To PCB, and Comparing PCB With Schematics.
DESIGNING OF PCB: Introduction, placing the patters, editing the patterns, drawing & editing the tracks, Tool Panel, Symbol Layers
LIBRARY MANAGEMENT Creating Device Manager, Managing Device Manager, Creating Symbols, Creating Footprints, Connecting Symbols and Footprints, Electrical Rules Check, Checking Errors, Clearing Errors, Approval of Errors
FABRICATION OF PCB: Student requirements for fabricating PCB: i. Soldering Ion Setup ii. Copper Glad Board (Single Sided 10cm*15cm) iii. Components for the Circuit iv. Photo Sheet(180 GSM, 1 Sheet) v. Emery Sheet(220 GSM, 1 Sheet) vi. Iron Box
Total number of hours : 30

Prepared by

Approved By

Dr. M. VENKATESAN, M.E., Ph.D HoD / EEE
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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	AutoCAD Electrical

Syllabus Framed By: Mr. C. Santhakumar, Mr. M.A. Stephenraj,

Syllabus
INTRODUCTION Department intro., AutoCADIntro., Co-OrdinateSystems, Typesof Co-Or. System, Units,Limits,Line, Move, Erase.
HOME RIBBON Draw ToolCircle,Arc.ModifyTools– Copy, Offset, Function Keys.Rectangle, Mirror,Boundary, Array, Rotate. Modifytools– Scale, Stretch, Trim and Extend.
Draw tool – ConstructionLine, Ray, Spline, Polyline, Rev. Cloud, Ellipse, EllipseArc, PolygonModifyTools–Break at Point, Break, Join, Chamfer,Fillet, Blend Curves, ExplodeDonut, Fill Mode, Solid, Pan, Object Selection Method,Properties Tool Bar,LTS, LWT, Match Properties Dimension Tool BarText, TextStyle, MirrorText, Spelling, Table, Table Style, Hatch Gradient,Layers. AttributeTools
PROJECT MANAGER Intro. Of Project Manager, WorkingwithProject Manager,Insert Component, Drawing_ Adding, Creating, Drawing Properties, ConnectingAComponent.
SCHEMATIC RIBBON InsertingLibrarySymbol,Insert Wires, Multiple WireBus.InsertingOneLine Circuit, Power Feed Circuit, ModifyWires, WireLayers, WireTypes.
PLC Generate PLCLayout Module, PLC ParametricSelection, ModuleLayout.SymbolBuilder, CircuitBuilder, SaveCircuittolcon Menu.Insert PLC, Section Modules, EditModule PLC DatabaseFile
CONNECTION DIAGRAM Point to Point ConnectionIntro. To Connector, Grouping Wires, Conversion Tool, Convert Text, Convert Wire, Special Explode.
PANEL LAYOUT Foot prints, Edit FP'S,Align FP'S, Creatingown FP'S. REPORTS Types of Reports, Generate Panel&Schematic Reports Isometric, Multileader Intro. To 3D,3D primitives, WCS, UCS, Region, Extrude, Press Pull Modelingtools – Primitive, Revolve,Sweep, Loft, Union, Intersect, Subtract.
Total Number of Hours : 60

Prepared by

Approved By

HoD / EEE

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**

Circular

Academic year:	2018-2019	**Date:**	17.12.2018

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Cisco Certified Network Associate (CCNA)"** for the benefit of Third year students. The course is scheduled from 22.12.2018 to 30.12.2018 for five days at Networks and Embedded Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. S.Nandhakumar, AP/ECE
2. Ms. E.L.Dhivyapriya, AP/ECE
3. Mr. B.Vinothkumar, AP/ECE
4. Mrs. M.Shrikalaa, AP/ECE

17/12/18
Coordinator

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17/12/18
HoD

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KSR Kalvi Nagar, Tiruchengode-637 215 Namakkal (Dt.)

KSRIET
Where future begins...

Department of Electronics and Communication Engineering

Organizes

Value added Course

ON

Cisco Certified Network Associate(CCNA)

Topics To Be Covered

- Network fundamentals
- LAN Switching Technologies
- Routing Technologies
- WAN Technologies
- Infrastructure services

22.12.2018
to
30.12.2018

Venue: Networks & Embedded Lab

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K S R Institute For Engineering and Technology, Tiruchengode

Department of Electronics and Communication Engineering

Academic Year 2018 - 2019

CCNA VALUE ADDED COURSE – SYLLABUS

Module I-Network Fundamentals **6 Hours**

1.1 Compare and contrast OSI and TCP/IP models
1.2 Compare and contrast TCP and UDP protocols
1.3 Describe the impact of infrastructure components in an enterprise network
- 1.3.a Firewalls
- 1.3.b Access points
- 1.3.c Wireless controllers

1.4 Describe the effects of cloud resources on enterprise network architecture
- 1.4.a Traffic path to internal and external cloud services
- 1.4.b Virtual services
- 1.4.c Basic virtual network infrastructure

1.5 Compare and contrast collapsed core and three-tier architectures
1.6 Compare and contrast network topologies
- 1.6.a Star
- 1.6.b Mesh
- 1.6.c Hybrid

Module 2-LAN Switching Technologies **6 Hours**

2.1 Describe and verify switching concepts
- 2.1.a MAC learning and aging
- 2.1.b Frame switching
- 2.1.c Frame flooding
- 2.1.d MAC address table

2.2 Interpret Ethernet frame format
2.3 Troubleshoot interface and cable issues (collisions, errors, duplex, speed)
2.4 Configure, verify, and troubleshoot VLANs (normal/extended range) spanning multiple switches
- 2.4.a Access ports (data and voice)
- 2.4.b Default VLAN

2.5 Configure, verify, and troubleshoot interswitch connectivity
- 2.5.a Trunk ports
- 2.5.b Add and remove VLANs on a trunk
- 2.5.c DTP, VTP (v1&v2), and 802.1Q
- 2.5.d Native VLAN

2.6 Configure, verify, and troubleshoot STP protocols
- 2.6.a STP mode (PVST+ and RPVST+)
- 2.6.b STP root bridge selection

Module 3-Routing Technologies **6 Hours**

3.1 Describe the routing concepts
- 3.1.a Packet handling along the path through a network
- 3.1.b Forwarding decision based on route lookup
- 3.1.c Frame rewrite

3.2 Interpret the components of a routing table
- 3.2.a Prefix

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- 3.2.b Network mask
- 3.2.c Next hop
- 3.2.d Routing protocol code
- 3.2.e Administrative distance
- 3.2.f Metric
- 3.2.g Gateway of last resort

3.3 Describe how a routing table is populated by different routing information sources
- 3.3.a Admin distance

3.4 Configure, verify, and troubleshoot inter-VLAN routing
- 3.4.a Router on a stick
- 3.4.b SVI

3.5 Compare and contrast static routing and dynamic routing

3.6 Compare and contrast distance vector and link state routing protocols

Module 4-WAN Technologies **6 Hours**

4.1 Configure and verify PPP and MLPPP on WAN interfaces using local authentication

4.2 Configure, verify, and troubleshoot PPPoE client-side interfaces using local authentication

4.3 Configure, verify, and troubleshoot GRE tunnel connectivity

4.4 Describe WAN topology options
- 4.4.a Point-to-point
- 4.4.b Hub and spoke
- 4.4.c Full mesh
- 4.4.d Single vs dual-homed

4.5 Describe WAN access connectivity options
- 4.5.a MPLS
- 4.5.b Metro Ethernet
- 4.5.c Broadband PPPoE
- 4.5.d Internet VPN (DMVPN, site-to-site VPN, client VPN)

4.6 Configure and verify single-homed branch connectivity using eBGP IPv4 (limited to peering and route advertisement using Network command only)

Module 5-Infrastructure Services **6 Hours**

5.1 Describe DNS lookup operation

5.2 Troubleshoot client connectivity issues involving DNS

5.3 Configure and verify DHCP on a router (excluding static reservations)
- 5.3.a Server
- 5.3.b Relay
- 5.3.c Client
- 5.3.d TFTP, DNS, and gateway options

5.4 Troubleshoot client- and router-based DHCP connectivity issues

5.5 Configure, verify, and troubleshoot basic HSRP
- 5.5.a Priority
- 5.5.b Preemption
- 5.5.c Version

5.6 Configure, verify, and troubleshoot inside source NAT
- 5.6.a Static
- 5.6.b Pool
- 5.6.c PAT

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Department of Electronics and Communication Engineering

Value added course

On

Cisco Certified Network Associate (CCNA)

SCHEDULE

Date: 22.12.2018 – 30.12.2018

DAY	DATE	TIMING	TOPIC
DAY 1	22.12.2018	9.15 to 10.15 am	Compare and contrast OSI and TCP/IP models
		10.15 to 11.15 am	Compare and contrast TCP and UDP protocols
		11.30 to 12.30 am	Describe the impact of infrastructure components
		1.30 to 2.30 pm	Describe the effects of cloud resources architecture
		2.30 to 3.30 pm	Compare and contrast collapsed core and three-tier
		3.30 to 4.30 pm	Compare and contrast network topologies
DAY 2	23.12.2018	9.15 to 10.15 am	Describe and verify switching concepts
		10.15 to 11.15 am	Interpret Ethernet frame format
		11.30 to 12.30 am	Troubleshoot interface and cable issues
		1.30 to 2.30 pm	Configure, verify, and troubleshoot VLANs
		2.30 to 3.30 pm	Configure, verify, and troubleshoot interswitch
		3.30 to 4.30 pm	Configure, verify, and troubleshoot STP protocols
DAY 3	25.12.2018	9.15 to 10.15 am	Describe the routing concepts
		10.15 to 11.15 am	Interpret the components of a routing table
		11.30 to 12.30 am	Describe routing table is populated by sources
		1.30 to 2.30 pm	Configure, verify, and troubleshoot inter-VLAN
		2.30 to 3.30 pm	Compare and contrast static routing and dynamic
		3.30 to 4.30 pm	Compare and contrast distance vector and link state
DAY 4	29.12.2018	9.15 to 10.15 am	Configure and verify PPP and MLPPP
		10.15 to 11.15 am	2 Configure and troubleshoot PPPoE client-side
		11.30 to 12.30 am	Configure and troubleshoot tunnel connectivity
		1.30 to 2.30 pm	Describe WAN topology options
		2.30 to 3.30 pm	Describe WAN access connectivity options
		3.30 to 4.30 pm	Configure single-homed branch connectivity
DAY 5	30.12.2018	9.15 to 10.15 am	Describe DNS lookup operation
		10.15 to 11.15 am	Troubleshoot client connectivity issues DNS
		11.30 to 12.30 am	Configure and verify DHCP on a router
		1.30 to 2.30 pm	Troubleshoot client- and router-based DHCP
		2.30 to 3.30 pm	Configure, verify, and troubleshoot basic HSRP
		3.30 to 4.30 pm	Configure inside source NAT

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KSRIET

Department of Electronics and Communication Engineering

Organizes

Value Added Course

On

"ESIM Open Source Tool"

Topics to be covered

- Module 1: Create Circuit Schematic and Perform Circuit Simulation
- Module 2: Create PCB Layout
- Module 3: Advanced Features – Model Builder & Subcircuit Builder
- Module 4: NGHDL
- Module5: Circuit Simulation Project

DATE:
11.08.2018 -
02.09.2018

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Department Of Electronics and Communication Engineering

Circular

ACADEMIC YEAR:	2018-2019	DATE:	09.08.2018

The department of Electronics and Communication Engineering has planned to conduct value added course on "**ESim Open Source Tool**" for the benefit of II-ECE students. The course is scheduled from 11.08.2018 to 12.08.2018, 25.08.2018 to 26.08.2018 and 02.09.2018 for 30 hours at Devices and LIC Lab. All the students are asked to attend the course.

The following faculty members will handle the session.

1. Mr.T.Senthil,AP/ECE
2. Ms.B.Latha,AP/ECE
3. Mr.V.Praveen Kumar, AP/ECE
4. Mr.R.Pradeep, AP/ECE

T. Se 9/8/18

Coordinator

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Department Of Electronics And Communication Engineering

Value Added Course

On

ESIM OPEN SOURCE TOOL

Syllabus

Module 1: Create Circuit Schematic and Perform Circuit Simulation 6

Generate netlists for simulation and PCB design – perform Electric Rules Check(ERC) – Create new components using Library Editor – Analog, digital and mixed signal circuit simulations – Perform AC,DC,DC operating point and transient analyses.

Module 2: Create PCB Layout 6

Design multiplayer PCB layouts – Create custom footprints or modify the existing footprints per requirement – Export the design in formats such as Gerber, PDF, SVG and several other formats.

Module 3: Advanced Features – Model Builder & Subcircuit Builder 6

Create /upload spice model for semiconductor devices – Modify or edit existing spice models for semiconductor devices - Create a new subcircuit at schematic level - Edit existing subcircuits down to schematic level.

Module 4: NGHDL 6

Using NGHDL, user can create custom digital models using VHDL language from simple multiplexers, counters to microcontrollers and ASICs, any custom component in the digital domain can be realized using the NGHDL tool - The created digital model can be used in either mixed-mode circuit or a standalone circuit operating in digital domain - NGHDL gives user the liberty to edit existing models supplied with eSim as per their needs, either for experimenting new ideas or to change the model as per their specific requirement - working towards including the support for simulations involving micro-controllers.

Module5: Circuit Simulation Project 6

Make available a large number of Circuit Simulation examples through crowd sourcing - Create a database of device models and subcircuits that can be distributed to other users - Form a community of users who can contribute and take advantage of the resources available.

Total: 30 Hours

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Coordinator

11/8/18
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Department Of Electronics And Communication Engineering

Value Added Course

on

ESIM OPEN SOURCE TOOL

Schedule

Date: 11.08.2018 – 2.09.2018

DAY	DATE	TIMING	TOPIC
DAY 1	11.08.2018	9.15 to 11.15 am	Generate netlists for simulation and PCB design – perform Electric Rules Check(ERC)
		11.30 to 12.30 pm	Create new components using Library Editor
		1.30 to 2.30 pm	Analog, digital and mixed signal circuit simulations
		2.30 to 4.30 pm	Perform AC,DC,DC operating point and transient analyses
DAY 2	12.08.2018	9.15 to 11.15 am	Design multiplayer PCB layouts
		11.30 to 12.30 pm	Create custom footprints or modify the existing footprints per requirement
		1.30 to 2.30 pm	Create custom footprints or modify the existing footprints per requirement
		2.30 to 4.30 pm	Export the design in formats such as Gerber, PDF, SVG and several other formats
DAY 3	25.08.2018	9.15 to 10.15 am	Create /upload spice model for semiconductor devices
		10.15 to 11.15 am	Modify or edit existing spice models for semiconductor devices
		11.30 to 12.30 pm	Create a new subcircuit at schematic level
		1.30 to 2.30 pm	Create a new subcircuit at schematic level
		2.30 to 4.30 pm	Edit existing subcircuits down to schematic level.

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DAY 4	26.08.2018	9.15 to 11.15 am	Using NGHDL, user can create custom digital models using VHDL language from simple multiplexers, counters to microcontrollers and ASICs, any custom component in the digital domain can be realized using the NGHDL tool
		11.30 to 12.30 pm	The created digital model can be used in either mixed-mode circuit or a standalone circuit operating in digital domain
		1.30 to 2.30 pm	NGHDL gives user the liberty to edit existing models supplied with eSim as per their needs,
		2.30 to 4.30 pm	working towards including the support for simulations involving micro-controllers.
DAY 5	02.09.2018	9.15 to 11.15 am	Make available a large number of Circuit Simulation examples through crowd sourcing
		11.30 to 12.30 pm	Create a database of device models and subcircuits that can be distributed to other users
		1.30 to 2.30 pm	Create a database of device models and subcircuits that can be distributed to other users
		2.30 to 4.30 pm	Form a community of users who can contribute and take advantage of the resources available

11.8.18

Course Coordinator

11/8/18

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

Value added course

On

SCILAB Open source Tool

Date: 22.12.2018, 23.12.2018, 25.12.2018, 29.12.2018 & 30.12.2018

Topics to be covered

- **Introduction To SCILAB Open source Tool**
- **Speech signal Extraction using SCILAB Tool**
- **Image signal Extraction using SCILAB Tool**
- **Introduction to FFT and designing of FFT algorithm using SCILAB Tool**
- **Introduction to Filters and designing of Filters using SCILAB Tool**

Venue: DSP Lab

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Circular

Academic year:	2018-2019	**Date:**	10.12.2018

The Department of Electronics and Communication Engineering has planned to conduct value added course on "SCILAB Open source Tool" for the benefit of second year students. The course is scheduled from 22.12.2018, 23.12.2018, 25.12.2018, 29.12.2018 & 30.12.2018 at DSP Laboratory. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. M.V.Mahesh, AP/ECE
2. Mr. T.Marthandan,AP/ECE
3. Mrs. S.Dhanalakshmi, AP/ECE
4. Mrs. V.Sindhuja, AP/ECE

10.12.18

Coordinator

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10/12/18

HoD

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Department of Electronics and Communication Engineering

Academic Year:2018 - 2019

Value Added Course – "SCILAB Open source Tool"

SYLLABUS

Module 1: Fundamentals of Digital Image processing. **6 hours**

Steps in Digital Image Processing, Image Sensing and Acquisition, Relationships between pixels, Color image fundamentals, Two-dimensional mathematical preliminaries, 2D transforms - DFT, DCT.

Module 2: Fundamentals of Speech Signal Processing **6 hours**

Introduction to speech signal processing, Speech recognition and filtering, Speech algorithms'-MFCC

Module 3: Image Enhancement **6 hours**

Spatial Domain: Gray level transformations ,Histogram processing ,Basics of Spatial Filtering, Smoothing and Sharpening Spatial Filtering, Ideal, Butterworth and Gaussian filters, Homomorphic filtering ,Color image enhancement.

Module 4: Image Segmentation **6 hours**

Edge detection, Edge linking via Hough transform & Thresholding, Region based segmentation ,Region growing ,splitting and merging

Module 5: Image Morphological process **6 hours**

Morphological processing, Erosion and dilation, Segmentation by morphological watersheds, Basic concepts, Dam construction, Watershed segmentation algorithm. Medical and real time image processing application

Total: 30 Hours

10.12.18

Coordinator

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Department of Electronics and Communication Engineering

Value added course

On

SCILAB Open Source Tool

SCHEDULE

Date: 22.12.2018, 23.12.2018, 25.12.2018, 29.12.2018 & 30.12.2018

DAY	DATE	TIMING	TOPIC
DAY 1	22.12.2018	9.15 to 10.15 am	Steps in Digital Image Processing
		10.15 to 11.15 am	Image Sensing and Acquisition
		11.30 to 12.30 pm	Relationships between pixels & Two-dimensional mathematical preliminaries
		1.30 to 4.30 pm	Color image fundamentals analyses & 2D transforms - DFT, DCT.
DAY 2	23.12.2018	9.15 to 10.15 am	Introduction to speech signal processing
		10.30 to 12.30 pm	Speech recognition and filtering
		1.30 to 4.30 pm	Speech algorithms'-MFCC
DAY 3	25.12.2018	9.15 to 10.15 am	Spatial Domain: Gray level transformations
		10.15 to 11.15 am	Histogram processing, Basics of Spatial Filtering
		11.30 to 12.30 pm	Smoothing and Sharpening Spatial Filtering, Ideal
		1.30 to 2.30 pm	Butterworth and Gaussian filters
		2.30 to 4.30 pm	Homomorphic filtering & Color image enhancement
DAY 4	29.12.2018	9.15 to 10.15 am	Edge detection
		10.15 to 11.15 am	Edge linking via Hough transform & Thresholding
		11.30 to 12.30 pm	Region based segmentation & Region growing
		1.30 to 4.30 pm	splitting and merging
DAY 5	30.12.2018	9.15 to 10.15 am	Morphological processing
		10.15 to 11.15 am	Erosion and dilation
		11.30 to 12.30 pm	Segmentation by morphological watersheds
		1.30 to 2.30 pm	Basic concepts, Dam construction and Watershed segmentation algorithm
		2.30 to 4.30 pm	Medical and real time image processing application

10.12.18

Course Coordinator

Convener 10/12/18

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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Project Based Learning

DATE:
17.12.18 to 18.12.18,
19.12.18 to 21.12.18(AN),
22.12.18, 24.12.18(AN)

Topics to be covered

S.NO	TOPIC
1.	Introduction to Python
2.	Introduction to IoT and Raspberry pi 3
3.	Hands -on : Sensor Interface application
4.	DIY Session: Sensor Application Development
5.	Hands –on: Data Collection and visualization for real-time systems
6.	Introduction to Bluetooth, MQTT & Wireless Sensor network
7.	Hands -on :Web Data Analysis
8.	Hands -on : Google Assistant Application
9.	DIY Session: Application Development

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY TIRUCHENGODE – 637 215 DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING		
Circular			
Academic Year	2018-2019	**Date**	26.11.2018

The Department of Electronics and Communication Engineering has planned to conduct value added course on "Project Based Learning" for the benefit of Final year students. The course is scheduled from 17.12.18 to 24.12.18 at DSP and VLSI Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr.R.Nandakumar ,HoD/ECE
2. Dr.W.Devapriya, AP/ECE
3. Ms.S.Premalatha, AP/ECE
4. Ms.P.Janani AP/ECE

26/11/18

Coordinator

21.11.18

26/11/18

HoD

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KSRIET

Department of Electronics and Communication Engineering

Academic Year:2018-2019

Value added course -"Project Based Learning"

Syllabus

Module 1: Introduction to Python 6

Introduction to core programming concepts: Data structures, Conditionals, Variables, Functions, and Loops- What is Python?-Python is interpreted- Why Python?- How do I write Python? -Arithmetic operators- Boolean values-Comparison operators-Code along Exercise: Even/Odd-Strings-Casting-Running a Python script Code along Exercise: Numerical grade to letter grade Multiple if conditionals checking user input.

Module 2: Introduction to IoT and Raspberry pi 3 6

What the Internet of Things (IoT) Really Is-IoT and the Maker Movement-Powering the Raspberry Pi- Examining the GPIO Pins-Connecting to a Sensor to Detect Motion-Bonding the Raspberry Pi and the Sensors: The Python Programming Language-Acting on the Sensor Data.

Module 3: Hands –on 7

Sensor Interface application- Sensor Application Development- Data Collection and visualization for real-time systems- Web Data Analysis- Gòogle Assistant Application- Application Development.

Module 4: Bluetooth 6

Introduction-Topology-Bluetooth Architecture-Bluetooth Layers- Computer requirements- Baseband error correction- Setting up connections- Pairing and bonding- Security.

Module 5: MQTT & Wireless Sensor network 7

MQ Telemetry Transport (MQTT)-MQTT Example -MQTT Application Examples - MQTT vs. HTTP MQTT vs. HTTP- Characteristics of WSN- Routing protocols- Operating systems- Security.

Total Hours:32

17/12/18

Coordinator

PRINCIPAL.
K. S. R. INSTITUTE FOR
ENGINEERING AND TECHNOLOGY,
K. S. R. KALVI NAGAR,
TIRUCHENGODE-637 215,
NAMAKKAL Dt. TAMIL NADU.

Convener

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

(Accredited by NBA, New Delhi and Affiliated to Anna University, Chennai)

DEPARTMENT OF

ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course on "*Project Based Learning*"

SCHEDULE

Date: 17.12.18 to 24.12.18

Day	Date	Timing	Topic
Day 1	17.12.2018	9.15-10.15a.m	Introduction to core programming concepts: Data structures, Conditionals, Variables, Functions, and Loops
		10.15-11.15a.m	What is Python?-Python is interpreted- Why Python?-
		11.30-12.30p.m	How do I write Python? -Arithmetic operators
		1.30-2.30p.m	Boolean values-Comparison operators
		2.30-3.30p.m	Code along Exercise: Even/Odd-Strings-Casting-Running a Python script Code along Exercise: Numerical grade to letter grade Multiple if conditionals checking user input.
		3.30-4.30p.m	
Day 2	18.12.2018	9.15-10.15a.m	What the Internet of Things (IoT) Really Is-
		10.15-11.15a.m	IoT and the Maker Movement
		11.30-12.30p.m	Powering the Raspberry Pi
		1.30-2.30p.m	Examining the GPIO Pins-
		2.30-3.30p.m	Connecting to a Sensor to Detect Motion-Bonding the Raspberry Pi and the Sensors: The Python Programming Language-Acting on the Sensor Data.
		3.30-4.30p.m	
Day 3	19.12.2018(AN)	1.30-2.30p.m	Sensor Interface application
		2.30-3.30p.m	Sensor Application Development
		3.30-4.30p.m	Data Collection and visualization for real-time systems
			Web Data Analysis
Day 4	20.12.2018(AN)	1.30-2.30p.m	Google Assistant Application
		2.30-3.30p.m	
		3.30-4.30p.m	Application Development
Day 5	20.12.2018(AN)	1.30-2.30p.m	Introduction
		2.30-3.30p.m	Topology
		3.30-4.30p.m	Bluetooth Architecture
Day 6	21.12.2018(AN)	1.30-2.30p.m	Bluetooth Layers
		2.30-3.30p.m	Computer requirements
		3.30-4.30p.m	Baseband error correction - Setting up connections- Pairing and bonding- Security
Day 5	22.12.2018	9.15-10.15a.m	MQ Telemetry Transport (MQTT)-MQTT Example
		10.15-11.15a.m	
		11.30-12.30p.m	
		1.30-2.30p.m	MQTT Application Examples
		2.30-3.30p.m	MQTT vs. HTTP MQTT vs. HTTP
		3.30-4.30p.m	
Day 5	22.12.2018	1.30-2.30p.m	Characteristics of WSN- Routing protocols
		2.30-3.30p.m	Operating systems- Security

17/12/18

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Convener

KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
Circular			
Academic Year :	2018 – 2019 (OOD)	Date :	12.05.2018

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2018 – 2019 (OOD) for final year, Third & second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1	AUTOCAD	Mr S.Mohanavelan Mr M.Sambath Kumar Mr A.Premkumar Mr K.Gopalakrishnan
2	CREO -INDUSTRIAL DESIGN	Mr.P.Chakravarthi Mr.G.Gowrisankar Mr.S.Balamurugan Mr.K.Velusamy
3	SOLID WORKS	Mr.S.Mohanavelan Mr.A.Premkumar Dr.R.Rameshkumar Mr.P.Karthick

HoD 14/5/18

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the **AutoCAD** including:

Module 1: INTRODUCTION TO AUTOCAD 6

AutoCAD Screen Components- Drawing Area Command -Window Navigation bar Status bar AUTOCAD Introduction-Software Requirements- Files handling in CAD- Draw toolbar- Modify toolbar- Dimensioning toolbar- Opening an Existing Drawing- Quitting AutoCAD

Module 2: Introduction to OF Tool bars 7

Functional keys and properties - Layers and leaders- Tool menu customization- Geometric constraints- Dimension constraints- Drawing Lines in AutoCAD- Invoking tools Using Dynamic INPUT/Command- Prompt Coordinate Systems

Module 3: Starting With Advanced Sketching 8

Drawing Arcs- Drawing Rectangles -Drawing Ellipses- Drawing Regular Polygon- Drawing Polylines Placing Points -Drawing Infinite Lines Writing a Single Line Text- Working with Layers- Object Properties- Drafting Settings dialog box

Module 4: Editing Sketched Objects 9

Editing Sketches- Moving the Sketched Objects -Copying the Sketched Objects- Creating Multiple Copies Creating a Single Copy Offsetting Sketched Objects- Rotating Sketched Objects Scaling the Sketched Objects -Filleting the Sketches- Chamfering the Sketches- Trimming the Sketched Objects Extending the Sketched Objects- Stretching the Sketched Objects -Lengthening the Sketched Objects -objects Text Mirroring

Module 5: Isometric Drawings 8

Isometric drawings- Extrusion-View, visual styles and orbit- Solid (3D) modelling- Solid editing operations- Rendering and scenes

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Total: 38 Hours

COORDINATOR

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the Creo for Industrial Design including:

Module 1: INTRODUCTION TO CREO PARAMETRIC 7

Introduction to Creo Parametric Feature-Based Nature Bidirectional Associative Property Parametric Nature System Requirements Getting Started with Creo Parametric- Important Terms and Definitions File Menu Options- Managing Files- Menu Manager Model Tree -Understanding the Functions of the Mouse Buttons- Ribbon Toolbars Navigator

Module 2: CREATING SKETCHES IN THE SKETCH MODE 8

The Sketcher Environment-Working with a Sketch in the Sketch Mode-Drawing a Sketch Using tools available in the Sketch Tab-Dimensioning the Sketch-Dimensioning the Basic Sketched Entities-Working with Constraints-Resolve Sketch Dialog Box- Deleting the Sketched Entities - Trimming the Sketched Entities- Mirroring the Sketched Entities.

Module 3: OPTIONS AIDING CONSTRUCTION OF PARTS 8

Options Aiding Construction of Parts-Creating Holes-Creating Rounds-Creating Chamfers-Understanding Ribs-Editing Features of a Model-Creating Feature Patterns-Copying Features-Mirroring a Geometry-Creating a Section of a Solid Model

Module 4: ASSEMBLY MODELING 9

Assembly Modelling -Important Terms Related to the Assembly Mode-Creating Top-down Assemblies-Creating Bottom-up Assemblies-Assembling Components-Modifying the Components of an Assembly-Creating the Exploded State

Module 5: SURFACE MODELING 10

Surface Modelling-Creating Surfaces in Creo Parametric-Creating Surfaces the Using the Style Environment of Creo Parametric-Surface Editing Tools Mirroring-Freestyle modelling environment-Invoking the Sheet metal Mode-Introduction to Sheet metal Walls-Creating the Bend Feature Creating the Unbend Feature

Total: 43 Hours

COORDINATOR 5/16

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Department of Mechanical Engineering

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UNITED CADD SOLUTION Private Limited

DASSAULT SYSTEMES

SOLIDWORKS SYLLABUS

S.NO	TOPICS	No.of hours
1	Introduction	8
2	Sketcher	
3	Base Features	
4	Reference Features	
5	Engineering Features	12
6	Special Features	
7	Advanced Modeling	
8	Base Features	
9	Special Features	8
10	Advance features	
11	Applying standard mates	
12	Applying advanced mates	
13	Applying mechanical mates	
14	Creating features	12
15	Editing features	
16	Generating Drawing Views	
17	Inserting Annotations	

Total Period: 40

COORDINATOR

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
	Circular		
Academic Year :	2018 – 2019 (EVEN)	**Date :**	20.11.2018

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2018 – 2019 (EVEN) for final year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1	CREO -AUTOMATION AND PRODUCTION	Mr.A.M.Ramkumar Mr. S.Baskaran Ms.G.Anitha Mr. M.Sathish kumar

HoD 20/11/18

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the Creo for Automation and production including:

Module 1: Advance Part Modeling 6

Advanced Selection Techniques - Advanced Datum Features - Advanced Sketching Techniques - Create advanced holes - Create advanced drafts and ribs - Create advanced shells - Create advanced rounds and chamfers - Use relations and parameters - Create advanced blends

Module 2: Assembly Design 7

Use advanced component selection - Use advanced assembly constraints - Create and use component interfaces - Utilize intelligent fasteners Extension (IFX) - Create and use flexible components - Restructure and mirror assemblies - Use assembly features and shrink wrap - Replace components in an assembly

Module 3: Creo Simulation & Structural Analysis 8

Introduction to Creo Simulate - Theoretical Foundations - Structural Mechanics - Simulation Models - Explore materials and material properties - Understand and use structural constraints - Understand and use structural loads – Meshing - Understand convergence - Run structural analyses

Module 4: Flexible Modeling 9

Understand Flexible Modeling basics - Apply shape surface selection - Perform flexible transform operations on geometry - Use the various transform options - Attach and remove geometry

Module 5: Behavioural Modeling 8

Apply the behavioral modeling process and concepts - Create measurement analysis features - Creating Model Property Features - Creating Analysis Features - Conducting Design Studies and Optimizing Models.

Total: 38 Hours

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COORDINATOR

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Department of Information Technology

Circular

Academic Year :	2018 – 2019	Date :	04.06.2018

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2018 – 2019 (ODD) for final year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Block Chain Technology	Mr.S.Arun Prasath Ms.M.Soundariya Mr.P.S.Prakash Kumar
2.	Big data Analytics using Hadoop	Dr.S.Russia Ms.M.Dhurgadevi Mr.M.Selvakumar

HOD

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Information Technology		
	Circular		
Academic Year :	2018 – 2019 (ODD)	Date :	22.06.2018

Value Added Course – Syllabus

Block Chain Technology

Module 1: Introduction to Blockchain 6

History of Blockchain – Types of Blockchain – Consensus – Decentralization using Blockchain – Blockchain and Full Ecosystem Decentralization – Platforms for Decentralization.

Module 2: Introduction to Cryptocurrency 6

Bitcoin – Digital Keys and Addresses – Transactions – Mining – Bitcoin Networks and Payments – Wallets – Alternative Coins – Theoretical Limitations – Bitcoin limitations – Name coin – Prime coin – Zcash – Smart Contracts – Ricardian Contracts.

Module 3: Ethereum 6

The Ethereum Network – Components of Ethereum Ecosystem – Ethereum Programming Languages: Runtime Byte Code, Blocks and Blockchain, Fee Schedule – Supporting Protocols – Solidity Language.

Module 4: Web3 and Hyperledger 6

Introduction to Web3 – Contract Deployment – POST Requests – Development Frameworks – Hyperledger as a Protocol – The Reference Architecture – Hyperledger Fabric – Distributed Ledger – Corda.

Module 5: Alternative Blockchains and Next Emerging Trends 6

Kadena – Ripple – Rootstock – Quorum – Tendermint – Scalability – Privacy – Other Challenges – Blockchain Research – Notable Projects – Miscellaneous Tools.

Total: 30 Hours

Coordinator

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HOD

KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Information Technology
	Academic Year : 2018- 2019 (ODD)

Value Added Course – Syllabus
Big Data Analytics using Hadoop

Module 1: Introduction to Big Data and Hadoop 7

Types of Digital Data, Introduction to Big Data, Big Data Analytics, History of Hadoop, Apache Hadoop, Analysing Data with Unix tools, Analysing Data with Hadoop, Hadoop Streaming, Hadoop Echo System, IBM Big Data Strategy, Introduction to Infosphere BigInsights and Big Sheets.

Module 2: HDFS (Hadoop Distributed File System) 7

The Design of HDFS, HDFS Concepts, Command Line Interface, Hadoop file system interfaces, Data flow, Data Ingest with Flume and Scoop and Hadoop archives, Hadoop I/O: Compression, Serialization, Avro and File-Based Data structures.

Module 3: Map Reduce 7

Anatomy of a Map Reduce Job Run, Failures, Job Scheduling, Shuffle and Sort, Task Execution, Map Reduce Types and Formats, Map Reduce Features

Module 4: Hadoop Eco System (PIG, HIVE) 7

Pig : Introduction to PIG, Execution Modes of Pig, Comparison of Pig with Databases, Grunt, Pig Latin, User Defined Functions, Data Processing operators.

Hive : Hive Shell, Hive Services, Hive Metastore, Comparison with Traditional Databases, HiveQL, Tables, Querying Data and User Defined Functions.

Module 5: Hadoop Eco System (HBASE, RDBMS) 7

Hbase : HBasics, Concepts, Clients, Example, Hbase Versus RDBMS.

Big SQL : Introduction

Total: 35 Hours

22/6/2018

Coordinator

HOD

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Department of Information Technology

Circular

Academic Year :	2018 – 2019	Date :	16.11.2018

This to inform that it has been planned to organize value added course on the following topics for the academic year 2018 – 2019 (EVEN) for second year students. Also the following faculty members are requested to frame syllabus for the value added course and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Ethical Hacking	Dr.K.Gowsic Mr.P.S.Prakash Kumar Ms.K.G.Lavanya

16/11/18

HOD

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Department of Information Technology

Academic Year : 2018- 2019 (EVEN)

Value Added Course – Syllabus

Ethical Hacking

Module 1: ETHICAL HACKING OVERVIEW 6

Understanding the importance of security, Concept of ethical hacking and essential Terminologies-Threat-Attack- Vulnerabilities- Target of Evaluation- Exploit-Phases involved in hacking

Module 2: FOOTPRINTING & PORT SCANNING 6

Footprinting - Introduction to foot printing-Understanding the information gathering methodology of the hackers-Tools used for the reconnaissance phase-Port Scanning

Module 3: SYSTEM HACKING 7

Aspect of remote password guessing-Role of eavesdropping-Various methods of password cracking-Keystroke Loggers-Understanding Sniffers-Comprehending Active and Passive Sniffing

Module 4: HACKING WEB SERVICES & SESSION HIJACKING 6

Web application vulnerabilities- application coding errors-SQL injection into Back-end Databases-cross-site scripting-cross-site request forging-authentication bypass

Module 5: HACKING WIRELESS NETWORKS 7

Introduction to 802.11-Role of WEP-Cracking WEP Keys-Sniffing Traffic-Wireless DOS attacks

Total: 32 Hours

Coordinator

HOD

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY, TIRUCHENGODE – 637 215

DEPARTMENT OF MATHEMATICS

KSRIET

CIRCULAR

Academic Year: 2018 – 2019 **Date: 15.05.2019**

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2018 – 2019 for all the First year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	QUANTITATIVE APTITUDE	M.S. Vijayaraj, AP/Maths N. Kumaravel, AP/Maths P. Devisri, AP/Maths R. Kavitha, AP/Maths G. Kavitha, AP/Maths

15/5/19

HoD/Maths

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DEPARTMENT OF MATHEMATICS

KSRIET

VALUE ADDED COURSE on

"QUANTITATIVE APTITUDE"

Academic Year: 2018 – 2019 **Batch: 2018 – 2022**

Date: 03.06.2019 to 08.06.2019

SYLLABUS

Course Objectives:

To enhance the problem solving skills, to improve the basic mathematical skills and to help students who are preparing for any type of competitive examinations.

Arithmetic Quantitative Abilities:

Time and Work – Time Speed Distance – Boats and Streams – Pipes and Cisterns – Problems on Ages – Problems on Clocks – Problems on Calendar – Problems on Directions – Probability – Percentage.

Total No. of Hours: 30 Hours

Learning Outcomes:

On successful completion of the course the students will be able to:

- ✓ Understand the basic concepts of Quantitative Ability
- ✓ Understand the basic concepts of Logical Reasoning Skills
- ✓ Solve campus placements aptitude papers covering Quantitative Ability and Logical Reasoning
- ✓ Compete in various competitive exams like CAT, GATE, BANK etc.

Reference:

- ➢ Quantitative Aptitude by Dr. R S Aggarwal

28/5/19

VAC Co-ordinator **HoD/Maths**

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KSRIET	KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Computer Science and Engineering		
Circular			
Academic Year :	2019 – 2020 (ODD)	**Date :**	19.06.2019

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2019 – 2020 (ODD) for second & third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Data Analytics using Python and R	Mr.R.Gopal Mrs.R.Sathyapriya
2.	Hardware Trouble Shooting and Photoshop	Mr.V.Prakasham Mr.S.Karthikeyan
3.	RedHat Linux Certification for System Administration	Dr.M.Vimaladevi Mr.V.Gopinath

HOD 19/6/19

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Department of Computer Science and Engineering

ACADEMIC YEAR 2019 - 2020

VALUE ADDED COURSE ON "Data Analytics using Python and R"
SYLLABUS

The course covers the topics you need to review for the Data Analytics using Python and R Exam including:

Module 1 - Importing Datasets 7

Learning Objectives - Understanding the Domain-Understanding the Dataset-Python package for data science-Importing and Exporting Data in Python-Basic Insights from Datasets

Module 2 - Cleaning and Preparing the Data 7

Identify and Handle Missing Values - Data Formatting - Data Normalization Sets – Binning - Indicator variables

Module 3 - Summarizing the Data Frame 7

Descriptive Statistics - Basic of Grouping – ANOVA – Correlation - More on Correlation

Module 4 - Model Development 7

Simple and Multiple Linear Regression - Model Evaluation Using Visualization - Polynomial Regression and Pipeline - R-squared and MSE for In-Sample Evaluation - Prediction and Decision Making

Module 5 - Model Evaluation 7

Model Evaluation - Over-fitting, Under-fitting and Model Selection - Ridge Regression - Grid Search - Model Refinement

Total:30 Hours

COURSE COORDINATOR	VAC COORDINATOR	HOD/CSE
[Mr.R.Gopal]	[Mr.V.Prakasham]	[Dr.B.Kalaavathi]
[Mrs. R.SathyaPriya]		

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Department of Computer Science and Engineering

VALUE ADDED COURSE ON "Hardware Troubleshooting & Photoshop"

SYLLABUS

The course covers the topics you need to review for the Web Designing using PHP exam including:

MODULE 1: HARDWARE BASICS — 6

Introduction to computer hardware, components of mother boards, Storage devices. Primary & secondary storage medium, Input devices, Output device, and show input is taken in & given out, gaming device.

MODULE 2: HARDWARE TROUBLE SHOOTING — 7

Hardware Trouble Shooting: Printers, floppy drive, Microphone, Scanner, Network, CDROM, Hard disk Drive, Monitor, Mother Board, Sound Card, Video Card.

MODULE 3: BASIC NETWORKING — 6

Introduction to networks, different layers in networks, internet & web concepts, network security, Software & hardware issues in networking, Transmission medium, PSTN-first generation, Modern Network Techniques, Internet Standardization.

MODULE 4: COMMON WINDOWS PROBLEM & TROUBLESHOOTING, PC ASSEMBLING — 8

Installation of new Software, Running slow, Running error. Running error, Runtime error, Security-Viruses, Worms, and Spam. Steps for assembling a PC, Assembling a hard disc drive in a cabinet, connecting the cables from the SMPS to motherboard, Software Trouble Shooting:- Dos, XP, 2000.

MODULE 5: PHOTOSHOP — 7

Introduction and Getting Started using Photoshop CS6, Working with Images, Resizing and Cropping Images, Layers, Painting in Photoshop.

Total: 34 Hours

18/9/19

COURSE COORDINATOR
[Mr.S.KARTHIKEYAN ,SYSTEM ADMIN
Mr.V.PRAKASHAM ,AP/CSE]

18/9/19

VAC COORDINATOR
[Mr.V.PRAKASHAM ,AP/CSE]

18/9/19

HOD/CSE
[Dr. B.KALAAVATHI]

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Department of Computer Science and Engineering

ACADEMIC YEAR 2019-20

VALUE ADDED COURSE ON "REDHAT LINUX CERTIFICATION FOR SYSTEM ADMINISTRATION"

SYLLABUS

The course covers the topics you need to review for the Network Virtualization exam including:

Module 1: Get started with Red Hat Enterprise Linux 7

Describe and define open source -Linux distributions-Red Hat Enterprise - Access the command line - Introduction to the command line- Log into a Linux system and run simple commands using the shell-Get help in Red Hat Enterprise Linux- Resolve problems by using local help systems.

Module 2: Managing Files from the Command Line 7

Recognize and Find Familiarity in a File-system Tree - Copy, move, create, delete, and organize files while working from the bash shell - Manage text files from command output or in a text editor - Introduction to Different types of Data in Separate System Directories.

Module 3: Manage local users and groups 7

Create, manage, and delete local users and groups- Create, manage, and delete administer local password policies- Control access to files - Set Linux file system permissions on files- Interpret the security effects of different permission settings.

Module 4: Managing RHEL Networking 7

Fundamental Concepts of Computer Networking- Monitor and manage Linux processes -RHEL Networking- Evaluate and control processes running on a Red Hat Enterprise Linux system -File system using RHEL- Control services and daemons

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Module 5: Accessing Linux File-systems 6

Access, inspect, and use existing file systems on storage attached to a Linux server- Analyze servers and get support-Investigate and resolve issues in the web-based management interface - Download, install, update, and manage software packages from Red Hat and yum package repositories- Recognizing the scope of Exceptions.

Total: 34 Hours

COURSE COORDINATOR	VAC COORDINATOR	HOD/CSE
[Dr.M.VIMALADEVI , ASP/CSE Mr.V.GOPINATH ,AP/CSE]	[Mr.V.PRAKASHAM ,AP/CSE]	[Dr. B.KALAAVATHI]

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KSRIET	KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Computer Science and Engineering		
Circular			
Academic Year :	2019 – 2020 (EVEN)	**Date :**	08.12.2019

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2019 – 2020 (EVEN) for third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Web Designing using PHP	Mr.R.Gopal Mrs.R.Sathyapriya
2.	Ethical Hacking	Mr.R.Gopal

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HOD 8/12/19

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Tiruchengode, Namakkal – 637215

(Accredited by NBA, Affiliated to Anna University, Chennai)

Department of Computer Science and Engineering

ACADEMIC YEAR:2019-2020

VALUE ADDED COURSE ON "Web Designing using PHP"

SYLLABUS

The course covers the topics you need to review for the Web Designing using PHP exam including:

Module 1: Introduction to PHP **6**

Evaluation of Php - Basic Syntax - Defining variable and constant- Php Data type- Operator and Expression

Module 2: Handling Html Form With Php **6**

Capturing Form Data- Dealing with Multi-value filed - Generating File uploaded form - Redirecting a form after submission

Module 3: Decisions and loop & String **6**

Making Decisions Doing Repetitive task with looping Mixing - Decisions and looping with Html - Creating and accessing String - Searching & Replacing String - Formatting String -String Related Library function

Module 4: Array & Functions **6**

Anatomy of an Array - Creating index based and Associative array - Some useful Library function - Understanding file& directory - Opening and closing a file - Working with directories

Module 5: Regular Expressions **6**

What is regular expression - Pattern matching in Php - Replacing text - Splitting a string with a Regular Expression

Total: 30 Hours

15/12/2019

Course Co-ordinator

15/12/19

VAC Co-ordinator

15/12/19

HOD

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Department of Computer Science and Engineering

ACADEMIC YEAR :2019-2020

VALUE ADDED COURSE ON "ETHICAL HACKING"
SYLLABUS

The course covers the topics you need to review for the "Ethical Hacking" exam including:

MODULE 1: ETHICAL HACKING CONCEPTS **6**

What is Ethical Hacking? - Necessary of Ethical Hacking - Scope and Limitations of Ethical Hacking-Skills of an Ethical Hacker - - Vulnerability Analysis - Vulnerability Assessment Concepts -Vulnerability Assessment Solutions - Vulnerability Assessment Tools & Reports

MODULE 2: SYSTEM HACKING **6**

System Hacking Concepts - Cracking Passwords - Escalating Privileges - Executing Applications -Hiding Files - Covering Tracks - Penetration Testing.

MODULE 3: DENIAL-OF-SERVICE **6**

DoS/DDoS Concepts- DoS/DDoS Attack Techniques – Botnets - DDoS Case Study - DoS/DDoS Attack Tools- Countermeasures - DoS/DDoS Protection Tools.

MODULE 4: HACKING WEB SERVERS **6**

Hacking Web Servers - Web Server Concepts - Web Server Attacks - Web Server Attack Methodology Web Server Attack Tools – Countermeasures - Patch Management - Web Server Security Tools

MODULE 5: HACKING MOBILE PLATFORMS **6**

Mobile Platform Attack Vectors - Hacking Android OS - Hacking iOS - Mobile Spyware - Mobile Device Management - Mobile Security Guidelines and Tools.

Total: 30 Hours

06/03/20
Course Co-ordinator

06/03/20
VAC Co-ordinator

6/3/'20
HOD

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	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY		
KSRIET	Department of Computer Science and Engineering		
	Circular		
Academic Year :	2020 – 2021 (ODD)	**Date :**	21.09.2020

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2020 – 2021 (ODD) for final year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Amazon Web Services	Dr.B.Kalaavathi Mrs.V.Sowmitha

HOD 21.9.20

Dr. M. VENKATESAN, M.E., Ph.D.,
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Department of Computer Science and Engineering

ACADEMIC YEAR 2020 - 2021

VALUE ADDED COURSE ON "AMAZON WEB SERVICES" (Online)

SYLLABUS

The course covers the topics you need to review for the **AMAZON WEB SRVICES** exam including:

Module 1:AWS Technical Essentials 6

Introduction and History of AWS-AWS Infrastructure: Compute, Storage, and Networking-AWS Security, Identify, and Access Management-AWS Database-AWS Management Tools

Module 2: Architecting on AWS (1 of 3 days) 6

Core AWS Knowledge-Core AWS Services-Designing your Environment-Making Your Environment Highly Available

Module 3: Architecting on AWS (2 of 3 days) 6

Forklifting an Existing Application onto AWS-Event-Driven Scaling-Automating-Decoupling-Build a new environment

Module 4: Architecting on AWS (3 of 3 days) 6

The Well-Architected Framework-Troubleshooting Your Environment-Large-Scale Design Patterns and Case Studies

Module 5: AWS Certification Exam Readiness Workshop Solutions Architect Associate Level 6

Testing Centre Information and Expectations-Exam Overview and Structure-Content Domains and Question Breakdown-Topics and Concepts with Content Domains

Total:30 Hours

Course Co-ordinator
[Dr.B.Kalaavathi]
[Mrs.V.Sowmitha]

VAC Co-ordinator
[Mr.V.Prakasham]

HOD
[Dr.B.Kalaavathi]

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Department of Computer Science and Engineering

Circular

Academic Year :	2020 – 2021 (EVEN)	Date :	29.11.2020

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2020 – 2021 (EVEN) for second & third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Hardware Trouble Shooting and Video Editing	Mr.V.Prakasham Mr.S.Karthikeyan
2.	PHP with Database Connectivity	Mrs. S.Vimala Mrs.S.Hamsareka
3.	RedHat Linux Certification for System Administration	Dr.M.Vimaladevi Mr.T.Rajan
4.	Programming with PL / SQL	Mr.V.Gopinath

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HOD 29/11/20

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Department of Computer Science and Engineering

ACADEMIC YEAR: 2020-2021

VALUE ADDED COURSE ON "Hardware Troubleshooting and Video Editing"

SYLLABUS

The course covers the topics you need to review for the Network Virtualization exam including:

MODULE 1: HARDWARE BASICS 6

Introduction to computer hardware, components of mother boards, Power supply units, Storage devices, Input devices, Output devices.

MODULE 2: HARDWARE TROUBLE SHOOTING 6

Hardware Trouble Shooting: Printers, floppy drive, Microphone, Scanner, Network, CDROM, Hard disk drive, Monitor, Mother Board, Sound Card, Video Card.

MODULE 3: BASIC NETWORKING 7

Introduction to networks, different layers in networks, internet & web concepts, network security, Software & hardware issues in networking, Transmission medium –wired communication, wireless communication, satellite communication, PSTN-first generation, Modern Network Techniques, Internet Standardization.

MODULE 4: COMMON WINDOWS PROBLEM & TROUBLESHOOTING, PC ASSEMBLING 8

Installation of new Software, Running slow, Running error. Running error, Runtime error, Turn off without warning, fatal exception error, General protection fault, Security-Viruses, Worms, Spam. Steps for assembling a PC, Assembling a hard disc drive in a cabinet, connecting the cables from the SMPS to motherboard, Software Trouble Shooting:- Dos, XP, 2000.

MODULE 5: VIDEO EDITING 7

Screen direction, sound design, continuity, titling, picture management, color correction, special effects.

Total: 34 Hours

COURSE COORDINATOR	VAC COORDINATOR	HOD/CSE
[Mr.S.KARTHIKEYAN , System Admin Mr.V.PRAKASHAM ,AP/CSE]	[Mr.V.PRAKASHAM ,AP/CSE]	[Dr.M.VIMALADEVI]

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Department of Computer Science and Engineering

ACADEMIC YEAR :2020-2021

VALUE ADDED COURSE ON "PHP with Database Connectivity"

SYLLABUS

BATCH: 2018-22

The course covers the topics you need to review for the **PHP with Database Connectivity** exam including:

Module 1: Basic PHP Development **6**

Basic PHP syntax- PHP data types – Operators - Variable manipulation - String Manipulation - Formatting String for Presentation - Joining and Splitting String - Comparing String - Matching and replace Substring - Control Structures – Selection statement – Looping Statement.

Module 2: PHP Functions **6**

Creating a function - Variable scope - Function calls with the static statement - Passing arguments to a function by value - Passing arguments to a function by reference – Arrays - Single-Dimensional Arrays - Multidimensional Arrays - Accessing arrays.

Module 3: Working With Forms **7**

Forms - A script to acquire user input - Importing user input - Accessing user input - Combine HTML and PHP code - Using hidden fields - Redirecting the user - File upload and scripts Delete a File

Module 4: Cookies and Session **6**

Cookie - Setting time in a cookie with PHP - Deleting a cookie - Creating session cookie - Working with the query string – session - Registering Session variables - working with session variables - destroying session - passing session Ids - How to increase session expire time - How to work session without cookies.

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Module 5: Introduction To Database 7

RDBMS - Introduction to SQL - Connecting to the MYSQL - Selecting a database - Adding data to a table -Displaying returned data on Web pages - Finding the number of rows – Looping through database - Inserting data - Deleting data - Entering and updating data - Executing multiple queries

Total: 32 Hours

31/12/20

Course Co-ordinator

31/12/20

VAC Co-ordinator

31/12/20

HOD

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Department of Computer Science and Engineering

ACADEMIC YEAR :2020-2021

VALUE ADDED COURSE ON "Red Hat Linux Certification for System Administration"

SYLLABUS

The course covers the topics you need to review for the Red Hat Linux Certification for System Administration exam including:

Module 1: Accessing the Command Line 6

Recognize the BASH shell based on the default prompt - Use Linux efficiently by switching between virtual consoles - Display usage messages and be able to interpret a command's syntax.

Module 2: Managing Files from the Command Line 6

Recognize and Find Familiarity in a File-system Tree - Learn Terms Like "root" Directory and Subdirectory - Introduction to Different types of Data in Separate System Directories.

Module 3: Getting Help in Red Hat Enterprise Linux 6

Learn "man" Terminology, Including Topics and Sections - Become Aware of The importance of less-noticed man sections

Module 4: Managing RHEL Networking 6

Fundamental Concepts of Computer Networking- RHEL Networking-File system using RHEL

Module 5: Accessing Linux File-systems 6

Determine which Directories in the File-system Hierarchy are Stored on Which Storage Devices.

Total: 30 Hours

Course Coordinator

VAC Coordinator

HOD/CSE

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Department of Computer Science and Engineering

ACADEMIC YEAR 2020-21

VALUE ADDED COURSE ON "Programming with PL/SQL"

SYLLABUS

The course covers the topics you need to review for the Network Virtualization exam including:

Module 1: SQL Fundamentals & Defining Variables & Data types 7

Introduction to PL/SQL-Benefits of PL/SQL-Creating PL/SQL Blocks-Variables-Recognizing PL/SQL Lexical units-Data types-Writing PL/SQL Executable Statements-Nested Blocks and Variable scope

Module 2: Using SQL in PL/SQL 6

Review of SQL DML-Retreiving Data in PL/SQL-Manipulating data in PL/SQL-Transaction control statements

Module 3: Program Structures to Control Execution Flow 5

Conditional control: IF statements- CASE statements-Iterative control: Basic Loops-While and FOR Loops-Nested Loops

Module 4: SQL Using Cursors and Parameters 6

Introduction to Explicit cursors-Explicit cursor Attributes-Cursor FOR Loops-Cursors with Parameters-Using Cursors for update-Using Multiple cursors

Module 5: SQL Data types & Exception Handling 6

User defined Records-Indexing Tables of Records-Handling Exceptions-Trapping oracle server exceptions-Recognizing the scope of Exceptions

Total: 30 Hours

COURSE COORDINATOR	VAC COORDINATOR	HOD/CSE
[Mr.V.GOPINATH ,AP/CSE]	[Mr.V.PRAKASHAM ,AP/CSE]	[Dr. M.VIMALADEVI]

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TIRUCHENGODE – 637 215

Department of Electrical and Electronics Engineering

DATE: 04.07.2019

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering is organising Value Added / Short Term Course on the following topics for the academic year 2019 – 2020. In this regard the following faculty members are requested to frame syllabus for the Value Added / Short Term Course.

S.No.	Title of the Value Added / Short Term Course	Faculty Incharge
1.	NI Multisim circuits Simulation	Dr. T. Srihari
		Dr. A. Murugesan
2.	Arduino based Innovative Projects	Dr. T. Srihari
		Mr.Y. Kalimuthu
3.	MATLAB for Electrical Engineers	Dr. R. Jeyabharath
		Dr. P. Veena
		Mr. P. Shanmuga arvind

HoD/EEE

Dr. M. VENKATESAN, M.E., Ph.D.,
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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	NI Multisim Circuits Simulation

Syllabus Frammed by: Dr. T. Srihari, Dr. A. Murugesan

SYLLABUS

INTRODUCTION

Multisim is widely used in academia and industry for circuits education, electronic schematic design and SPICE simulation. NI Multisim (formerly MultiSIM) is an electronic schematic capture and simulation program which is part of a suite of circuit design programs, along with NI Ultiboard. Multisim is one of the few circuit design programs to employ the original Berkeley SPICE based software simulation.

SIMULATION CIRCUITS

Use electronic circuit analysis software (Multisim) to draw schematics and / or analyze circuits. Given circuit specifications, apply knowledge learned in the course to design and build following circuit.

- Digital circuits
- Encoder and Decoder
- Counter and Shift register
- Multiplexer and De-multiplexer
- The Op Amp Comparator
- The Non-inverting Voltage Amplifier
- The Inverting Voltage Amplifier
- The Op Amp Differential Amplifier
- The Summing Amp
- The Subtracting Amp
- Parallel-Series and Series-Series Negative Feedback
- The Operational Trans-conductance Amplifier
- The Triangle-Square Generator
- The Wien Bridge Oscillator
- The Integrator
- The Differentiator
- The D to A Converter
- The Linear Regulator

Total number of hours : 30

Prepared by

Approved By

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HoD / EEE

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY, TIRUCHENGODE- 637 215

Department of Electrical and Electronics Engineering

KSRIET

Value Added / Short Term Course on

Arduino based Innovative Projects

Syllabus Framed by: Dr. T. Srihari, Mr.Y. Kalimuthu

SYLLABUS
INTRODUCTION Anatomy of Embedded Systems - Open Source platform - Electronic Components - Resistors, capacitors, transistors, relays - Sensors -Computational Devices
SENSORS Various Basic Industrial Sensors-IR- Analog Sensor - IR Digital Sensor - Light Sensor - Sound Sensor - Selection of Sensor - Basic working Technique of Sensor - Application of Sensor – Interfacing Sensor
GETTING STARTED WITH ARDUINO. Introduction to Arduino - Setup your computer to use Arduino - Arduino IDE - Arduino Programming - Navigating the Arduino integrated development environment (IDE) void setup() and void loop() - Writing a blinking sketch from scratch - Using built-in help in the IDE
LED & LCD INTERFACING EXPERIMENTS Blinking of LEDs. - Fading of LED - Circling of LEDs - Blinking of EVEN and ODD states of LEDs - LED dice - Wiring of LCD screen with Arduino. Displaying a message in LCD screen.
INPUT OUTOUT INTERFACING EXPERIMENTS Analog and Digital Inputs and Outputs - Controlling LED using push button.- Switching ON a relay - Controlling a DC motor - PWM - Changing the brightness of LEDs using potentiometers - Displaying room temperature using LM 35 temperature sensor – Distance Measurement by Ultrasonic sensor interface
Total number of hours : 30

Prepared by

Approved By

HoD / EEE

Dr. M. VENKATESAN, M.E., Ph.D.,
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TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	MATLAB for Electrical Engineers

Syllabus Framed By: Dr. R. Jeyabharath, Dr. P. Veena, Mr. P. Shanmuga arvind

SYLLABUS
Introduction to MatLab The dominance of MatLab over other languages - Power of Matrix computations - The application of Matlab in various fields of engineering - Basic mathematical functions offered by Matlab - Matrix computations - Advanced mathematical functionalities of matlab - Advanced system modelling using Matlab **Simulink and Circuit Analysis** Introduction to Simulink - Applications of simulink in System modeling - Modelling Basic electrical Circuit in Simulink and obtaining characteristic plots – Analysis of basic electrical circuits using Matlab - Obtaining different characteristic plots. **Introduction to control systems** General - Creating linear models - Data extraction – Conversions - System interconnections - System gain and dynamics. **Modelling of machines** Model the DC machine in no load case - Model the DC machine in presence of load torque - Simulating the DC machine using power library - Simulation of induction motor. **Modeling Electrical Power Systems with Simscape** Creating three-phase systems with passive elements - Creating three-phase systems with electrical machines - Analyzing and controlling electrical power systems - Modeling power electronic components - Speeding up simulation of electrical models.
Total number of hours : 30

Prepared by

Approved By

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HoD / EEE

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

Department of Electrical and Electronics Engineering

DATE: 15.10.2020

CIRCULAR

This is to inform that Department of Electrical and Electronics Engineering is organising Value Added / Short Term Course on the following topics for the academic year 2020 – 2021. In this regard the following faculty members are requested to frame syllabus for the Value Added / Short Term Course.

S.No.	Title of the Value Added / Short Term Course	Faculty Incharge
1.	Arduino based Innovative Projects	Dr. T. Srihari
		Mr.Y. Kalimuthu
2.	Design your own project using IOT	Dr. P. Veena
		Dr. A. Murugesan
3.	PCB Designing	Mrs. R. Sacithraa
		Mr. C. Sivakumar
4.	AUTOCAD Electrical	Dr. C. Santhakumar
		Mrs. K. Meenatchi

HoD/EEE

Dr. M. VENKATESAN, M.E., Ph.D.,
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Department of Electrical and Electronics Engineering

KSRIET

Value Added / Short Term Course on

Arduino based Innovative Projects

Syllabus Framed by: Dr. T. Srihari, Mr.Y. Kalimuthu

SYLLABUS
INTRODUCTION Anatomy of Embedded Systems - Open Source platform - Electronic Components - Resistors, capacitors, transistors, relays - Sensors -Computational Devices
SENSORS Various Basic Industrial Sensors-IR- Analog Sensor - IR Digital Sensor - Light Sensor - Sound Sensor - Selection of Sensor - Basic working Technique of Sensor - Application of Sensor – Interfacing Sensor
GETTING STARTED WITH ARDUINO. Introduction to Arduino - Setup your computer to use Arduino - Arduino IDE - Arduino Programming - Navigating the Arduino integrated development environment (IDE) void setup() and void loop() - Writing a blinking sketch from scratch - Using built-in help in the IDE
LED & LCD INTERFACING EXPERIMENTS Blinking of LEDs. - Fading of LED - Circling of LEDs - Blinking of EVEN and ODD states of LEDs - LED dice - Wiring of LCD screen with Arduino. Displaying a message in LCD screen.
INPUT OUTOUT INTERFACING EXPERIMENTS Analog and Digital Inputs and Outputs - Controlling LED using push button.- Switching ON a relay - Controlling a DC motor - PWM - Changing the brightness of LEDs using potentiometers - Displaying room temperature using LM 35 temperature sensor – Distance Measurement by Ultrasonic sensor interface
Total number of hours : 30

Prepared by

Approved By

HoD / EEE

Dr. M. VENKATESAN, M.E., Ph.D.,
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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE- 637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Value Added / Short Term Course

COURSE	Design Your Own Projects using IoT

Syllabus Framed by: Dr. P. Veena, Dr. A. Murugesan

SYLLABUS
Overview of IoT Understanding IoT fundamentals - IOT Architecture, protocols - Various Platforms for IoT - Real time Examples of IoT - Components and IoT - Communication Technologies
Getting started with Raspberry Pi Introduction to Raspberry Pi - Comparison of various Rpi Models - Understanding SoC - architecture and SoCs used in Raspberry Pi - Pin Description of Raspberry Pi - On-board components of Rpi
Setting up Raspberry Pi Booting Up RPi - Operating System and Linux Commands –- Raspbian O.S.- Introduction, Tools like Leafpad Editor - Installing Raspbian on Pi -b- First boot and Basic Configuration of Pi
Projects using Raspberry Pi Working with RPi using Python and Sensing Data using Python - Sensors Interfacing - Temperature and Humidity Sensor (DHT11), Motion Sensor (PIR), Obstacle detection using Ultrasonic sensor, etc. - Communicating using RPi - Accessing on-board Wi-Fi
Total number of hours : 30

Prepared by

Approved By

Dr. M. VENKATESAN, M.E., Ph.D.,
PRINCIPAL,
K S R INSTITUTE FOR
ENGINEERING AND TECHNOLOGY,
K.S.R. KALVI NAGAR,
TIRUCHENGODE-637 215,
NAMAKKAL Dt, TAMIL NADU.

HoD / EEE

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

PRODUCT DESIGN AND DEVELOPMENT

Date

Aug 10th to 12th
Aug 23rd to

Topics to be covered

- ✓ **Product Design-Introduction**
- ✓ **Hardware and Software Design**
- ✓ **Dot Board and C Program**
- ✓ **PCB Design**
- ✓ **PCB Testing and Assembly**

VENUE: Project Laboratory

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2019-2020	**Date:**	08.08.2019

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Product Design and Development"** for the benefit of third year students. The course is scheduled from 10.08.2019 to 12.08.2019 and 23.08.2019 to 24.08.2019 for five days at Project Laboratory. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. M.V.Mahesh, AP/ECE
2. Mr. A.Ravi, AP/ECE
3. Mr.K.Venkatachalam, AP/ECE
4. Mr.M.Udhayakumar, AP/ECE

08.08.19

Coordinator

HoD

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TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Academic Year:2019 - 2020

Value Added Course – "Product Design and Development"

SYLLABUS

Module 1 – Product Design - Introduction **6 Hours**

Project Lab Setup - Title Selection- Hardware Documentation- Market Analysis- Existing Product Doc- Hardware Section I

Module 2 – Hardware and Software Design **6 Hours**

Hardware Section II - Finalize Hardware- Circuit Design- Import Circuit to S/W- Document Preparation

Module 3 – Dot Board and C Program **6 Hours**

Dot Board Soldering- Platform Selection- C Program Refreshment- Program Section I

Module 4 – PCB Design **6 Hours**

Program Section II – Build Program for Product- PCB Design Section II- PCB Design for Product- Components Soldering

Module 5 – PCB Testing and Assembly **6 Hours**

PCB Testing- Programming- Testing- Assembly- Packing- Quality Test- Document Submission- Product Completion

Total Hours: 30

08.08.19

Coordinator

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8/8/19

Convener

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Department of Electronics and Communication Engineering

Value Added Course

On

PRODUCT DESIGN AND DEVELOPMENT

SCHEDULE

Date: 10.08.2019 – 12.08.2019

23.08.2019 – 24.08.2019

DAY	DATE	TIMING	TOPIC
DAY 1	10.08.2019	9.15 to 10.15 am	Project Lab Setup
		10.15 to 11.15 am	Title Selection
		11.30 to 12.30 pm	Hardware Documentation
		1.30 to 2.30 pm	Market Analysis
		2.30 to 3.30 pm	Existing Product Doc
		3.30 to 4.30 pm	Hardware Section I
DAY 2	11.08.2019	9.15 to 10.15 am	Hardware Section II
		10.15 to 11.15 am	Finalize Hardware
		11.30 to 12.30 pm	Circuit Design
		1.30 to 2.30 pm	Circuit Design
		2.30 to 3.30 pm	Import Circuit to S/W
		3.30 to 4.30 pm	Document Preparation
DAY 3	12.08.2019	9.15 to 10.15 am	Dot Board Soldering
		10.15 to 11.15 am	Dot Board Soldering
		11.30 to 12.30 pm	Platform Selection
		1.30 to 2.30 pm	C Program Refreshment
		2.30 to 3.30 pm	Program Section I
		3.30 to 4.30 pm	Program Section I
DAY 4	23.08.2019	9.15 to 10.15 am	Program Section II
		10.15 to 11.15 am	Build Program for Product
		11.30 to 12.30 pm	PCB Design Section II
		1.30 to 2.30 pm	PCB Design for Product
		2.30 to 3.30 pm	PCB Design for Product
		3.30 to 4.30 pm	Components Soldering
DAY 5	24.08.2019	9.15 to 10.15 am	PCB Testing
		10.15 to 11.15 am	Programming
		11.30 to 12.30 pm	Testing and Assembly
		1.30 to 2.30 pm	Packing and Quality Test
		2.30 to 3.30 pm	Document Submission
		3.30 to 4.30 pm	Product Completion

08.08.19

Course Coordinator

Convener 8/8/19

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KSRIET

Department of Electronics and Communication Engineering

Organizes

Value Added Course

On

"Networking Course on CCNA"

Topics to be covered

- ✓ Module 1: Network Fundamentals
- ✓ Module 2: LAN Switching Technologies
- ✓ Module 3: Routing Technologies
- ✓ Module 4: WAN Technologies
- ✓ Module5: Infrastructure Services, Security& Management

DATE: 14.12.2019 to 15.12.2019, 25.12.2019, 28.12.2019 to 29.12.2019

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Department Of Electronics And Communication Engineering

Circular

ACADEMIC YEAR:	2019-2020	DATE:	11.12.2019

The department of Electronics and Communication Engineering has planned to conduct value added course on "**Networking Course on CCNA**" for the benefit of III-ECE students. The course is scheduled from 14.12.2019 to 15.12.2019, 25.12.2019, 28.12.2019 to 29.12.2019 for 36 hours at Networks and Embedded Lab. All the students are asked to attend the course.

The following faculty members will handle the session.

1. Mr.P.K.Amarnath, CEO, Avatar Academy
2. Dr.R.Nandakumar, Prof & Head
3. Mr.B.Vinoth Kumar, AP/ECE
4. Ms.P.Janani, AP/ECE
5. Mr.P.Govindaraju, AP/ECE

Coordinator

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Department Of Electronics And Communication Engineering

Value Added Course

On

NETWORKING COURSE ON CCNA

Syllabus

Module 1: Network Fundamentals 7

Compare and contrast OSI and TCP/IP models, Compare and contrast TCP and UDP protocols, Describe the impact of infrastructure components in an enterprise network, Firewalls, Access points, Wireless controllers, Describe the need for private IPv4 addressing, Identify the appropriate IPv6 addressing scheme to satisfy addressing requirements in a LAN/WAN environment, Configure, verify, and troubleshoot IPv6 addressing, Configure and verify IPv6 Stateless Address Auto Configuration, Compare and contrast IPv6 address types.

Module 2: LAN Switching Technologies 7

Describe and verify switching concepts, Interpret Ethernet frame format, Troubleshoot interface and cable issues, Configure and verify Layer 2 protocols, Configure, verify, and troubleshoot Ether Channel, Describe the benefits of switch stacking and chassis aggregation.

Module 3: Routing Technologies 7

Describe the routing concepts, Interpret the components of a routing table, Describe how a routing table is populated by different routing information sources, Configure, verify, and troubleshoot inter-VLAN routing, Configure, verify, and troubleshoot single area and multi-area OSPFv2 for IPv4, Configure, verify, and troubleshoot single area and multi-area OSPFv3 for IPv6, Configure, verify, and troubleshoot EIGRP for IPv4, Configure, verify, and troubleshoot EIGRP for IPv6, Configure, verify, and troubleshoot RIPv2 for IPv4.

Module 4: WAN Technologies 7

Configure and verify PPP and MLPPP on WAN interfaces using local authentication, Configure, verify, and troubleshoot PPPoE client-side interfaces using local authentication, Configure, verify, and troubleshoot GRE tunnel connectivity, Describe WAN topology options, Describe WAN access connectivity options, Configure and verify single-homed branch connectivity using eBGP IPv4, Describe basic QoS concepts.

Module5: Infrastructure Services, Security& Management 8

Describe DNS lookup operation, Configure, verify, and troubleshoot basic HSRP, Configure, verify, and troubleshoot inside source NAT, Configure and verify NTP operating in a client/server mode, Configure, verify, and troubleshoot port security, Describe common access layer threat mitigation techniques, Configure, verify, and troubleshoot IPv4 and IPv6 access list for traffic filtering, Describe device security using AAA with TACACS+ and RADIUS, Use Cisco IOS tools to troubleshoot and resolve problems, Describe network programmability in enterprise network architecture.

Total: 36 Hours

Coordinator **Convener**

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department Of Electronics And Communication Engineering

Value Added Course

On

NETWORKING COURSE ON CCNA

Schedule

Date: 14.12.2019 - 29.12.2019

DAY	DATE	TIMING	TOPIC
DAY 1	14.12.2019	09.00 to 11.00 am	Compare and contrast OSI and TCP/IP models, Compare and contrast TCP and UDP protocols
		11.15 to 12.45 pm	Describe the impact of infrastructure components in an enterprise network
		01.30 to 02.30 pm	Firewalls, Access points, Wireless controllers, Describe the need for private IPv4 addressing
		02.30 to 03.30 pm	Identify the appropriate IPv6 addressing scheme to satisfy addressing requirements in a LAN/WAN environment
		03.45 to 04.45 pm	Configure, verify, and troubleshoot IPv6 addressing,
		04.45 to 05.15 pm	Configure and verify IPv6 Stateless Address Auto Configuration, Compare and contrast IPv6 address types
DAY 2	15.12.2019	09.00 to 11.00 am	Compare and contrast OSI and TCP/IP models
		11.15 to 12.45 pm	Compare and contrast TCP and UDP protocols
		01.30 to 02.30 pm	Describe the impact of infrastructure components
		02.30 to 03.30 pm	Describe the need for private IPv4 addressing
		03.45 to 04.45 pm	Identify the appropriate IPv6 addressing scheme to satisfy addressing requirements in a LAN/WAN environment
		04.45 to 05.15 pm	Configure, verify, and troubleshoot IPv6 addressing, Configure and verify IPv6 Stateless Address Auto Configuration
DAY 3	25.12.2019	09.00 to 11.00 am	Describe the routing concepts, Interpret the components of a routing table
		11.15 to 12.45 pm	Describe how a routing table is populated by different routing information sources

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		01.30 to 02.30 pm	Configure, verify, and troubleshoot inter-VLAN routing
		02.30 to 03.30 pm	Configure, verify, and troubleshoot single area and multi-area OSPFv2 for IPv4
		03.45 to 04.45 pm	Configure, verify, and troubleshoot single area and multi-area OSPFv3 for IPv6, Configure, verify, and troubleshoot EIGRP for IPv4
		04.45 to 05.15 pm	Configure, verify, and troubleshoot EIGRP for IPv6, Configure, verify, and troubleshoot RIPv2 for IPv4
DAY 4	28.12.2019	09.00 to 11.00 am	Configure and verify PPP and MLPPP on WAN interfaces using local authentication
		11.15 to 12.45 pm	Configure, verify, and troubleshoot PPPoE client-side interfaces using local authentication
		01.30 to 02.30 pm	Configure, verify, and troubleshoot GRE tunnel connectivity
		02.30 to 03.30 pm	Describe WAN topology options, Describe WAN access connectivity options
		03.45 to 04.45 pm	Configure and verify single-homed branch connectivity using eBGP IPv4
		04.45 to 05.15 pm	Describe basic QoS concepts
DAY 5	29.12.2019	09.00 to 11.00 am	Describe DNS lookup operation, Configure, verify, and troubleshoot basic HSRP
		11.15 to 12.45 pm	Configure, verify, and troubleshoot inside source NAT, Configure and verify NTP operating in a client/server mode
		01.30 to 02.30 pm	Configure, verify, and troubleshoot port security, Describe common access layer threat mitigation techniques
		02.30 to 03.30 pm	Configure, verify, and troubleshoot IPv4 and IPv6 access list for traffic filtering
		03.45 to 04.45 pm	Describe device security using AAA with TACACS+ and RADIUS, Use Cisco IOS tools to troubleshoot and resolve problems
		04.45 to 06.15 pm	Describe network programmability in enterprise network architecture

Course Coordinator

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Department of Electronics and Communication Engineering

Organizes

Value added course

On

Circuit Debugging and Testing using Multisim

Topics to be covered

- Basics of Electronic components
- Transistor
- Integrated Circuits
- OP-Amps
- Amplifiers & Oscillators
- Construction and debugging

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY TIRUCHENGODE – 637 215 DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING		
Circular			
Academic Year	2019-2020	**Date**	20.07.2019

The Department of Electronics and Communication Engineering has planned to conduct value added course on **"Circuit Debugging and Testing using Multisim"** for the benefit of Final year students. The course is scheduled from 10.08.2019 to 12.08.2019 & 23.08.2019 to 24.08.2019 at Devices Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr.T.Senthil, AP/ECE
2. Ms.B.Latha, AP/ECE
3. Mr.V.Praveen Kumar,AP/ECE
4. Ms.P.SaranyaAP/ECE

20/07/19

Coordinator

20/07/19

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KSRIET

Department of Electronics and Communication Engineering

Academic Year:2019-2020

Value added course -"Circuit Debugging and Testing using Multisim"

Syllabus

Module 1:Basics of Electronic components 6

Semiconductor- ideal diods- PN junction diode – zener diode- Rectifier circuit – clipper and clamper circuit – CRO – Function generator – Power supply.

Module 2:Transistor&OP-Amps 6

BJT- FET – MOSFET- JFET – ideal amplifier – Differential amplifier – Integrator – Differentiator – Large Signal operation of op-amp .

Module 3:Integrated Circuits 6

IC 555 timers – Comparator – Multivibrator – multipliers – D/A convertors –Waveform generators - SMPS.

Module 4: Amplifiers & Oscillators 7

Class A- Class B – Class C- Class AB- Push Pull amplifier – RC phase shift oscillators- Wein bridge – LC oscillators – Crystal oscillators.

Module 5: Construction and debugging 7

LED – Class C amplifier – RC phase shift oscillators – Multivibrator – integrator – differentiator.

Total Hour:32

20/07/19

Coordinator

08/07/19

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course on "Circuit Debugging and Testing using Multisim"

SCHEDULE

Date: 10.08.2019 to 12.08.2019 & 23.08.2019 to 24.08.2019

Day	Date	Timing	Topic
Day 1	10.08.2019	9.00-10.30a.m	Semiconductor
		10.45-12.30p.m	Diodes
		1.30-2.30p.m	Clippers and clampers
		2.45-4.30p.m	CRO and Function generator
Day 2	11.08.2019	9.00-10.30a.m	Transistor
		10.45-12.30p.m	Ideal amplifier
		1.30-2.30p.m	Differential amplifier
		2.45-4.30p.m	Integrator & Differentiator
Day 3	12.08.2019	9.00-10.30a.m	IC 555 timers
		10.45-12.30p.m	Multivibrator
		1.30-2.30p.m	Multipliers
		2.45-4.30p.m	D/A convertors
Day 4	23.08.2019	9.00-10.30a.m	Class A& Class B
		10.45-12.30p.m	Class C & Class AB
		1.30-2.30p.m	RC phase shift oscillators
		2.45-4.30p.m	LC oscillators
		4.45-5.45p.m	
Day 5	24.08.2019	9.00-10.30a.m	LED
		10.45-12.30p.m	Class C amplifier
		1.30-2.30p.m	Multivibrator
		2.45-4.30p.m	RC phase shift oscillators
		4.45-5.45p.m	

20/07/19

Course Coordinator

20/7/19

Convener

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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Image Processing in Real Time Application

Topics to be covered

- Introduction and signal digitization
- Pixel relationship
- Camera models & imaging geometry
- Image interpolation
- Image transformation
- Image enhancement
- Image restoration
- Image registration
- Color image processing
- Image segmentation
- Morphological image processing ,Object representation ,description and recognition
- Image Processing in Real Time Application

Date :

27.01.20 to 31.01.20(AN)
03.02.20 to 07.02.20(AN)

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** **TIRUCHENGODE – 637 215** **DEPARTMENT OF** **ELECTRONICS AND COMMUNICATION ENGINEERING**

Circular

Academic Year	2019-2020	**Date**	20.01.2020

The Department of Electronics and Communication Engineering has planned to conduct value added course on **"Image Processing in Real Time Application"** for the benefit of Final year students. The course is scheduled from 27.01.20 to 31.01.20(AN), 3.02.20 to 7.02.20(AN) at DSP and VLSI Lab. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr.W.Devapriya, AP/ECE
2. P.Premkumar, AP/ECE
3. S.Premalatha, AP/ECE
4. P.Mohana Sunthari AP/ECE

20/1/20
Coordinator

20/1/20
HoD

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Department of Electronics and Communication Engineering

Academic Year:2019-2020

Value added course -"Image Processing in Real Time Application"

Syllabus

Module 1: Signal digitization and Pixel relationship 7

Image Processing- Image sensors- Image compression-Digital signal processor (DSP)-Neighbours of a pixel- Adjacency between pixels-Connectivity between pixels.

Module 2: Camera models & imaging geometry 7

Camera Models-Camera with Lenses-Sensing-The Human Eye-Geometric Operations-Interpolation of Data-Rotation Operation.

Module 3: Image transformation and Colour image processing 6

Hough Transform- Radon Transform-Discrete Cosine Transform-Discrete Fourier Transform-Wavelet Transform- color- color stimuli- Tri stimulus Values- Color reproducibility-Image Correction- Color Balance.

Module 4: Morphological image processing 6

Edge-Based Segmentation-Thresholding-Region-Based Segmentation-Improvement of Fast Scanning with Morphological Operation-Representation-Descriptor.

Module 5: Image Processing in Real Time Application 6

Agriculture -Multimedia Security- Remote sensing-Computer Vision-Medical Applications -Biometric Verification

Total Hour: 32

20/1/20

Coordinator

20/1/20

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Value Added Course on "Image Processing in Real Time Application"

SCHEDULE

Date: 27.01.20 to 31.01.20, 03.02.20 to 07.02.20

Day	Date	Timing	Topic
Day 1	27.01.20(AN)	1.30-2.30p.m	Image Processing
		2.30-3.30p.m	Image sensors
		3.30-4.30p.m	Image compression
Day 2	28.01.20(AN)	1.30-2.30p.m	Digital signal processor (DSP)
		2.30-3.30p.m	Neighbours of a pixel
		3.30-4.30p.m	Adjacency between pixels-Connectivity between pixels
Day 3	29.01.20(AN)	1.30-2.30p.m	Camera Models - Camera with Lenses
		2.30-3.30p.m	Sensing
		3.30-4.30p.m	The Human Eye
Day 4	30.01.20(AN)	1.30-2.30p.m	Geometric Operations
		2.30-3.30p.m	Interpolation of Data
		3.30-4.30p.m	Rotation Operation
Day 5	31.01.20(AN)	1.30-2.30p.m	Hough Transform
		2.30-3.30p.m	Radon Transform-Discrete Cosine Transform
		3.30-4.30p.m	Discrete Fourier Transform-Wavelet Transform
Day 6	03.02.20(AN)	1.30-2.30p.m	color- color stimuli
		2.30-3.30p.m	Tri stimulus Values- Color reproducibility
		3.30-4.30p.m	Image Correction- Color Balance
Day 7	04.02.20(AN)	1.30-2.30p.m	Edge-Based Segmentation
		2.30-3.30p.m	Thresholding
		3.30-4.30p.m	Region Based Segmentation-
Day 8	05.02.20(AN)	1.30-2.30p.m	Improvement of Fast Scanning with Morphological Operation
		2.30-3.30p.m	Improvement of Fast Scanning with Morphological Representation
		3.30-4.30p.m	Descriptor
Day 9	06.02.20(AN)	1.30-2.30p.m	Agriculture Applications
		2.30-3.30p.m	
		3.30-4.30p.m	
Day 10	07.02.20(AN)	1.30-2.30p.m	Multimedia Security Applications
		2.30-4.30p.m	Remote sensing-Computer Vision
		4.30-6.30p.m	Medical Applications -Biometric Verification

Course Coordinator

Convener

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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

MULTISIM AND PCB DESIGNING

Date:
Oct 27th to Oct 31st, 2020

Topics to be covered

- ✓ **Basics Circuit Simulation Techniques**
- ✓ **Device Modeling**
- ✓ **Circuit Modelling Using Spice**
- ✓ **Identifying Electronic Components Symbols & Footprints**
- ✓ **Setting up the PCB layers**

Venue: Google Meet

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K. S. R. INSTITUTE FOR
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K. S. R. KALVI NAGAR,
TIRUCHENGODE-637 215,
NAMAKKAL DI. TAMIL NADU.

KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**

Circular

Academic year:	2020-2021	**Date:**	22.10.2020

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Multisim and PCB Designing"** for the benefit of Second year students. The course is scheduled from 27.10.2020 to 31.10.2020 for five days through Google meet. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. M.V.Mahesh, AP/ECE
2. Ms. B.Latha, AP/ECE

22.10.20

Coordinator

22/10/20

Convener

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TIRUCHENGODE-637 215,
NAMAKKAL Dt, TAMIL NADU.

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2020-2021

Value added course

On

MULTISIM AND PCB DESIGNING

SYLLABUS

Module 1 - Basics Circuit Simulation Techniques in Multisim **6 Hours**

MultiSim Environment: Design Process - Setting environment preferences - The Multisim GUI – Schematic capture of circuits: Placing components - Wiring components –simulation and result display in MultiSim.

Module 2 - Device Modeling **6 Hours**

Design of Bridge rectifier, Half-Wave rectifier, clippers and clampers using diode, voltage regulator, AC voltage measurement, DC transfer curve analysis.

Module 3 - Circuit Modelling Using Spice **6 Hours**

Spice Simulation overview –Design Environment- SPICE based simulator analysis – Real time applications.

Module 4 - Identifying Electronic Components Symbols & Footprints **6 Hours**

Constructing your Component libraries & use them effectively-Schematic creation & interpretation-Effective use of design rules & interfacing between schematic & PCB-Component placement & routing techniques for various technologies.

Module 5 - Setting up the PCB layers **6 Hours**

Design rule checking-Track width selection-Component selection-Routing and completion of design-Ultraviolet exposure and developing-Drilling and Etching Process.

Total Hours: 30

22.10.20
Coordinator

22/10/20
Convener

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Department of Electronics and Communication Engineering

Value added course

On

MULTISIM AND PCB DESIGNING

SCHEDULE

Date: 27.10.2020 – 31.10.2020

DAY	DATE	TIMING	TOPIC
DAY 1	27.10.2020	9.15 to 10.15 am	MultiSim Environment: Design Process
		10.15 to 11.15 am	Setting environment preferences
		11.30 to 12.30 pm	The Multisim GUI
		1.30 to 2.30 pm	Schematic capture of circuits: Placing components
		2.30 to 3.30 pm	Wiring components
		3.30 to 4.30 pm	simulation and result display in MultiSim
DAY 2	28.10.2020	9.15 to 10.15 am	Design of Bridge rectifier
		10.15 to 11.15 am	Half-Wave rectifier
		11.30 to 12.30 pm	clippers and clampers using diode
		1.30 to 2.30 pm	voltage regulator
		2.30 to 3.30 pm	AC voltage measurement
		3.30 to 4.30 pm	DC transfer curve analysis
DAY 3	29.10.2020	9.15 to 10.15 am	Spice Simulation overview
		10.15 to 11.15 am	Design Environment
		11.30 to 12.30 pm	SPICE based simulator analysis
		1.30 to 2.30 pm	Real time applications
		2.30 to 3.30 pm	Constructing your Component libraries
		3.30 to 4.30 pm	Schematic creation
DAY 4	30.10.2020	9.15 to 10.15 am	Interpretation
		10.15 to 11.15 am	Effective use of design rules
		11.30 to 12.30 pm	Interfacing between schematic
		1.30 to 2.30 pm	Interfacing between PCM
		2.30 to 3.30 pm	Component placement
		3.30 to 4.30 pm	routing techniques for various technologies
DAY 5	31.10.2020	9.15 to 10.15 am	Design rule checking
		10.15 to 11.15 am	Track width selection
		11.30 to 12.30 pm	Component selection
		1.30 to 2.30 pm	Routing and completion of design
		2.30 to 3.30 pm	Ultraviolet exposure and developing
		3.30 to 4.30 pm	Drilling and Etching Process

22.10.20

Course Coordinator

22/10/20

Convener

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

"Verilog Using Xilinx"

Topics to be covered

- ✓ **Module 1 – Introduction**
- ✓ **Module 2 – Programmable Logic Device: FPGA**
- ✓ **Module 3 – Creating, Synthesis and Implementation of design**
- ✓ **Module 4 – Programming and Testing**
- ✓ **Module 5 – Hierarchical Circuit Design Using Modules**

DATE:
17.11.2020 to
21.11.2020

Venue: Google Meet

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TIRUCHENGODE – 637215

Department of Electronics and Communication Engineering

Circular

Academic year:	2020-2021	**Date:**	11.11.2020

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Verilog using Xilinx"** for the benefit of Second year students. The course is scheduled from 17.11.2020 to 21.11.2020 for five days through Google meet. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr.S.Premalatha, ASP/ECE
2. Mr.M.Udhayakumar, AP/ECE
3. Mr.B.Vinoth Kumar, AP/ECE

Coordinator 11.11.2020

HoD

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TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Academic Year:2020-2021

Value added course

On

VERILOG USING XILINX

SYLLABUS

Module 1 – Introduction 8

Introduction, Evolution of CAD, emergence of HDLs, typical HDL -based design flow, trends in HDLs - Create Verilog design input file(s) using template driven editor -Compile and implement the Verilog design file(s) - Create the test-vectors and simulate the design (functional simulation) without using a PLD (FPGA or CPLD)

Module 2 – Programmable Logic Device: FPGA 8

Assign input/output pins to implement the design on a target device - Download bitstream to an FPGA or CPLD device - Test design on FPGA/CPLD device - Designs implemented in the Basys2 board which has a Xilinx Spartan3E –XC3S250E FPGA with CP132 package.

Module 3 – Creating, Synthesis and Implementation of design 9

Opening a project - Creating a Verilog HDL input file for a combinational logic design - Editing the Verilog source file - Synthesis and Implementation of the Design - Functional Simulation of Combinational Designs - Adding the test vectors - Simulating and Viewing the Output Waveforms - Saving the simulation results

Module 4 – Programming and Testing 8

Preparing and downloading bit stream file for the Spartan FPGA - Programming the Device - Testing a Digital Logic Circuit - Observing outputs using the on-board LEDs and Seven Segment Displays - Design and Simulation of Sequential Circuits using Verilog HDL - Design of Sequential Circuits - Simulation of sequential designs

Module 5 – Hierarchical Circuit Design Using Modules 9

Module, Ports, Nets, Registers, Operators in Verilog, Continuous assignments, Procedural Blocks, Behavioral modeling constructs, Module instantiations and hierarchies

Total Hours: 42

Coordinator

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Convener

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TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Value added course

On

VERILOG USING XILINX

SCHEDULE

Date: 17.11.2020 – 21.11.2020

DAY	DATE	TIMING	TOPIC
DAY 1	17.11.2020	09.00 to 11.00 am	Introduction, Evolution of CAD
		11.15 to 12.45 pm	Emergence of HDLs, Typical HDL-based design flow,
		01.30 to 02.30 pm	Trends in HDLs
		02.30 to 03.30 pm	Create Verilog design input file(s) using template driven editor
		03.30 to 04.30 pm	Compile and implement the Verilog design file(s)
		04.45 to 06.15 pm	Create the test-vectors and simulate the design (functional simulation) without using a PLD
DAY 2	18.11.2020	09.00 to 11.00 am	Assign input/output pins to implement the design on a target device
		11.15 to 12.45 pm	Assign input/output pins to implement the design on a target device
		01.30 to 02.30 pm	Download bitstream to an FPGA or CPLD device
		02.30 to 03.30 pm	Test design on FPGA device
		03.30 to 04.30 pm	Test design on CPLD device
		04.45 to 06.15 pm	Designs implemented in the Basys2 board which has a Xilinx Spartan3E –XC3S250E FPGA with CP132 package
DAY 3	19.11.2020	09.00 to 11.00 am	Opening a project - Creating a Verilog HDL input file for a combinational logic design
		11.15 to 12.45 pm	Editing the Verilog source file
		01.30 to 02.30 pm	Synthesis and Implementation of the Design
		02.30 to 03.30 pm	Functional Simulation of Combinational Designs
		03.30 to 04.30 pm	Adding the test vectors
		04.30 to 07.00 pm	Simulating and Viewing the Output Waveforms - Saving the simulation results
DAY 4	20.11.2020	09.00 to 11.00 am	Preparing and downloading bit stream file for the Spartan FPGA
		11.15 to 12.45 pm	Programming the Device - Testing a Digital Logic Circuit
		01.30 to 02.30 pm	Observing outputs using the on-board LEDs and Seven Segment Displays
		02.30 to 03.30 pm	Design and Simulation of Sequential Circuits using Verilog HDL
		03.30 to 04.30 pm	Design of Sequential Circuits
		04.45 to 06.15 pm	Simulation of sequential designs

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Department of Electronics and Communication Engineering

Organizes

Value added course

On

Modulation Techniques for Wireless communication and Hand on session using MATLAB

Date: 27.10.2020 to31.10.2020

Topics to be covered

- Introduction to MATLAB Tool
- Amplitude, Frequency and Phase modulation techniques using MATLAB
- Amplitude Frequency Shift Keying ,Frequency Shift Keying and Phase Shift Keying techniques techniques using MATLAB
- Spread spectrum Techniques using MATLAB
- Orthogonal Frequency Division Multiplexing using MATLAB

Google meet

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Department of Electronics and Communication Engineering

Circular

Academic year:	2020-2021	**Date:**	20.10.2020

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on "Modulation Techniques for Wireless Communication and Hand on session using MATLAB" for the benefit of Final year students. The course is scheduled from **27.10.2020 to 31.10.2020** through Google meet. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Ms.P.Mohana sunthari AP/ECE
2. Ms.P.Janani AP/ECE

20/10/20.
Coordinator

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20/10/20.
HoD

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VALUE ADDED SOURCE

ON

Modulation Techniques for Wireless communication and Hand on session using MATLAB

Academic year 2020-2021

SYLLABUS

Module 1: Fundamentals of MATLAB Tool. **6 hours**

Introduction to MATLAB Tool , Syntax declaration and verification , Writing simple programs for matlab tool understading , Introduction to wireless communication techniques

Module 2: Fundamentals of Analog modulation Techniques **6 hours**

Amplitude modulation technique, Frequency modulation technique, Phase modulation technique

Module 3: Fundamentals of Digital modulation Techniques **6 hours**

Amplitude Shift Keying modulation technique, Frequency Shift Keying modulation technique, Phase Shift Keying modulation technique

Module 4: Spread spectrum Techniques using MATLAB **6 hours**

Modulation and demodulation- Balance modulator, quadriphase modulator, frequency synthesis for spread spectrum modulation, in line and heterodyne correlation, base band recovery, phase lock loop, costas loop, FM.

Module 5: Orthogonal Frequency Division Multiplexing using MATLAB **6 hours**

Multi-carrier transmission; OFDM modulation & demodulation, BER; coded-OFDM; Orthogonal frequency-division multiple-access

Total Hours: 30

23/10/20

Coordinator

Convener

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Department of Electronics and Communication Engineering

Value added course

On

Modulation Techniques for Wireless Communication and Hand on session using MATLAB

SCHEDULE

Date: 27.10.2020 to31.10.2020

DAY	DATE	TIMING	TOPIC
DAY 1	27.10.2020	9.15 to 10.15 am	Introduction to MATLAB Tool
		10.15 to 11.15 am	Syntax declaration and verification
		11.30 to 12.30 pm	Writing simple programs for matlab tool understading
		1.30 to 4.00 pm	Introduction to wireless communication techniques
DAY 2	28.10.2020	9.15 to 10.15 am	Analog modulation technique using MATLAB
		10.15 to 12.30 pm	Amplitude modulation modulation technique using MATLAB
		1.30 to 2.30 pm	Concept introduction about Frequency modulation modulation technique
		2.30 to 4.00 pm	Frequency modulation modulation technique using MATLAB
DAY 3	29.10.2020	9.15 to 10.15 am	Concept introduction about phase modulation modulation technique
		10.15 to 11.15 am	Phase modulation modulation technique using MATLAB
		11.30 to 12.30 pm	Introduction to digital modulation technique
		1.30 to 4.00 pm	Amplitude Shift keying using MATLAB
DAY 4	30.10.2020	9.15 to 10.15 am	Concept introduction about frequency shift keying technique
		10.15 to 11.15 am	Frequency shift keying using MATLAB
		11.30 to 12.30 pm	Concept introduction about phase shift keying technique
		1.30 to 4.00 pm	phase shift keying using MATLAB
DAY 5	31.10.2020	9.15 to 10.15 am	Concept introduction about Spread spectrum technique
		10.15 to 11.15 am	Spread spectrum technique using MATLAB
		11.30 to 12.30 pm	Concept introduction about technique Orthogonal Frequency Division Multiplexing USING MATLAB
		1.30 to 4.00 pm	Orthogonal Frequency Division Multiplexing using MATLAB

23/10/20

Course Coordinator

25/10/20

Convener

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Date:
17.11.2020 to 21.11.2020

LoRa WAN

Topics to be covered

Module 1: Introduction to LoRa WAN

Module 2: Introduction to LoRa Modules

Module 3: Realizing RF components/Antennas in LoRa & 5G/6G Application

Module 4: LoRa WAN for Smart Cities

Module 5: Applications and future of LoRa WAN technology

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2020-2021	**Date:**	09.11.2020

The Department of Electronics and Communication Engineering has planned to conduct value added course on **"LoRa WAN"** for the benefit of Final year students. The course is scheduled from 17.11.2020 to 21.11.2020 through Google meet. All the students are asked to attend the course.

The following faculty members will handle the session:

1. T.Marthandan AP/ECE
2. J.Divakaran AP/ECE

9/11/20

Coordinator

9/11/20

HoD

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Department of Electronics and Communication Engineering

Academic Year:2020-2021

Value added course -"LoRa WAN"

Syllabus

Module 1: Introduction to LoRa WAN 8

Introduction to LoRa and LoRa WAN- Features of LoRa- The LoRa WAN Network Architecture- Gateways- Network Server- Application Server- Key Features of LoRA WAN- Advantages of LoRa- Disadvantages of LoRa.

Module 2: Introduction to LoRa Modules 8

Introduction- LoRa WAN Architecture- LoRa WAN Protocol Architecture- LoRa WAN End Node Activation- Dual Key-Based End Node Activation- Security Analysis- Demo-Sending Data from End Node to Network Server using OTTA Mode- Introduction MQTT Protocol-Gateway Registration with MQTT server.

Module 3: Realizing RF components/Antennas in LoRa & 5G/6G Application 8

Introduction- LoRa WAN Gateway Accessories-Deployment Objective-Realizing mm Wave for 5G-Challenges and Requirements: Handset-Dual Connectivity: RF Interference Challenges-ECC-Multimode Channel Capacity-Interference-5G/6G Test bed-RF Simulation Environment-Dipole Antenna.

Module 4: LoRa WAN for Smart Cities 9

What is LoRa smart city technology about?- Potential of LoRa smart city and LoRa WAN smart city-Use cases of LoRa WAN smart city-LoRa WAN application – Calgary set up a technological ecosystem using LoRa WAN-Smart buildings are vast areas open to LoRa WAN optimization-Smart building applications featuring smart city LoRa technology.

Module 5: Applications and future of LoRa WAN technology 9

Healthcare: LoRa is one of the best solutions for connecting healthcare devices efficiently- Agriculture: LoRa technology can be used in smart agriculture and farming applications- Smart farming and livestock management-Temperature and moisture monitoring-Water level sensors and irrigation control.

Total Hour:42

Coordinator

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Convener

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637215

Department of Electronics and Communication Engineering

Value Added Course on "LoRa WAN"

SCHEDULE

Date: 17.11.2020 to 21.11.2020

Day	Date	Timing	Topic
Day 1	17.11.2020	9.15-10.15a.m	Introduction to LoRa and LoRa WAN
		10.15-11.15a.m	Features of LoRa
		11.30-12.30p.m	The LoRa WAN Network Architecture
		1.30-2.30p.m	Gateways- Network Server.
		2.30-3.30p.m	Application Server
		3.30-4.30p.m	Key Features of LoRA WAN- Advantages of LoRa- Disadvantages of LoRa.
Day 2	18.11.2020	9.15-10.15a.m	Introduction- LoRa WAN Architecture- LoRa WAN Protocol Architecture
		10.15-11.15a.m	LoRa WAN End Node Activation-
		11.30-12.30p.m	Dual Key-Based End Node Activation
		1.30-2.30p.m	Security Analysis
		2.30-3.30p.m	Demo-Sending Data from End Node to Network Server using OTTA Mode
		3.30-4.30p.m	Introduction MQTT Protocol- Gateway Registration with MQTT server.
Day 3	19.11.2020	9.15-10.15a.m	Introduction- LoRa WAN Gateway Accessories
		10.15-11.15a.m	Deployment Objective-Realizing mm Wave for 5G
		11.30-12.30p.m	Challenges and Requirements: Handset-Dual Connectivity: RF Interference Challenges
		1.30-2.30p.m	ECC-Multimode Channel Capacity
		2.30-3.30p.m	Interference-5G/6G Test bed
		3.30-4.30p.m	RF Simulation Environment - Dipole Antenna
Day 4	20.11.2020	9.15-10.15a.m	LoRa smart city technology
		10.15-11.15a.m	Potential of LoRa smart city and LoRa WAN smart city
		11.30-12.30p.m	Use cases of LoRa WAN smart city

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		1.30-3.30p.m	LoRa WAN application
		3.30-5.30p.m	Calgary set up a technological ecosystem using LoRa WAN
		5.30-7.30p.m	Smart buildings are vast areas open to LoRa WAN optimization - Smart building applications featuring smart city LoRa technology.
Day 5	21.11.2020	9.15-10.15a.m	Healthcare: LoRa is one of the best solutions for connecting healthcare devices efficiently
		10.15-11.15a.m	
		11.30-12.30p.m	
		1.30-3.30p.m	Agriculture: LoRa technology can be used in smart agriculture and farming applications.
		3.30-5.30p.m	Smart farming and livestock management-Temperature and moisture monitoring-
		5.30-7.30p.m	Water level sensors and irrigation control.

17/11/20

Course Coordinator

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17/11/20

Convener

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Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

Signal and Image Processing on Real Time Application

Date – Oct 27st to 31st 2020

Topics to be covered

- ✓ Fundamentals of Digital Image
- ✓ Image Enhancement
- ✓ Image Segmentation
- ✓ Fundamentals of Speech processing
- ✓ Image Morphological processing
- ✓ Real Time image Processing
- ✓ Medical image processing

Venue: Google meet

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2020-2021	**Date:**	22.10.2020

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"Signal and Image Processing on Real Time Application"** for the benefit of Third year students. The course is scheduled from 27.10.2020 to 31.10.2020 for five days through Google meet. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Dr. R. Nandakumar ,Professor/ECE
2. Dr .W. Devapriya ASP/ECE
3. Mr. P. Premkumar, AP/ECE
4. Mrs.Premalatha, AP/ECE
5. Ms. B.Latha, AP/ECE
6. Mrs. V.Sindhuja, AP/ECE

22/10/2020

Coordinator

22-10-20

HoD

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KSRIET

Department of Electronics and Communication Engineering

Academic Year:2020 - 2021

Value added course – "Signal and Image Processing on Real Time Application"

SYLLABUS

Module 1 - Fundamentals of Digital Image processing. **5 Hours**

Steps in Digital Image Processing - Image Sensing and Acquisition-Relationships between pixels-Color image fundamentals-Two-dimensional mathematical preliminaries, -2D transforms - DFT, DCT.

Module 2 - Fundamentals of Speech Signal Processing. **5 Hours**

Introduction to speech signal processing-Speech recognition and filtering-Speech algorithms'-MFCE

Module 3 - Image Enhancement . **5 Hours**

Spatial Domain: Gray level transformations -Histogram processing -Basics of Spatial Filtering-Smoothing and Sharpening Spatial Filtering-Ideal, Butterworth and Gaussian filters-Homomorphic filtering -Color image enhancement.

Module 4 - Image Segmentation . **5 Hours**

Edge detection, Edge linking via Hough transform & Thresholding- Region based segmentation -Region growing ,splitting and merging

Module 5 - Image Morphological process . **5 Hours**

Morphological processing-Erosion and dilation-Segmentation by morphological watersheds-Basic concepts , Dam construction , Watershed segmentation algorithm.

Module 6 - Medical and real time image processing application. **5 Hours**

Practical and real time Medical image processing application

Total Hours: 30

Coordinator **Convener**

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TIRUCHENGODE – 637215

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Department of Electronics and Communication Engineering

Value added course

On

Signal and Image Processing on Real Time Application

SCHEDULE

Date: 27.10.2020 – 31.10.2020

DAY	DATE	TIMING	TOPIC
DAY 1	27.10.2020	9.15 to 10.15 am	Steps in Digital Image Processing
		10.15 to 11.15 am	Image Sensing and Acquisition
		11.30 to 12.30 pm	Relationships between pixels-Color image fundamentals
		1.30 to 2.30 pm	Two-dimensional mathematical preliminaries
		2.30 to 4.00 pm	2D transforms - DFT, DCT
DAY 2	28.10.2020	9.15 to 10.15 am	Introduction to speech signal processing
		10.15 to 11.15 am	Speech recognition
		11.30 to 12.30 pm	Speech filtering
		1.30 to 2.30 pm	Speech algorithms
		2.30 to 4.00 pm	Speech algorithms'-MFCE
DAY 3	29.10.2020	9.15 to 10.15 am	Spatial Domain: Gray level transformations
		10.15 to 11.15 am	Histogram processing -Basics of Spatial Filtering
		11.30 to 12.30 pm	Smoothing and Sharpening Spatial Filtering
		1.30 to 2.30 pm	Ideal, Butterworth and Gaussian filters
		2.30 to 4.00 pm	Homomorphic filtering -Color image enhancement.
DAY 4	30.10.2020	9.15 to 10.15 am	Edge detection
		10.15 to 11.15 am	Edge linking via Hough transform
		11.30 to 12.30 pm	Thresholding
		1.30 to 2.30 pm	Region based segmentation
		2.30 to 4.00 pm	Region growing ,splitting and merging
DAY 5	31.10.2020	9.15 to 10.15 am	Morphological processing, Erosion and dilation
		10.15 to 11.15 am	Segmentation by morphological watersheds
		11.30 to 12.30 pm	Basic concepts , Dam construction, Watershed segmentation algorithm
		1.30 to 2.30 pm	Medical image processing application & Algorthims used in image processing
		2.30 to 4.00 pm	Real time image processing application, Transforms & Algorthims used in real time applications

Course Coordinator

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Convener

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KSR Kalvi Nagar, Tiruchengode – 637215 Namakkal (DT)

Department of Electronics and Communication Engineering

Organizes

VALUE ADDED COURSE

On

PIC Microcontroller

Date

Nov 17th to Nov 21st, 2020

Topics to be covered

- ✓Basics of PIC Microcontroller
- ✓PIC Programming and Hardware
- ✓Interrupt and Interface
- ✓Sensor and other applications
- ✓Interface Programming and GUI Plot

Venue: Google Meet

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KSRIET	**K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY** TIRUCHENGODE – 637215 **Department of Electronics and Communication Engineering**		
Circular			
Academic year:	2020-2021	**Date:**	14.11.2020

The Department of Electronics and Communication Engineering has planned to conduct Value Added Course on **"PIC Microcontroller"** for the benefit of third year students. The course is scheduled from 17.11.2020 to 21.11.2020 for five days through Google meet. All the students are asked to attend the course.

The following faculty members will handle the session:

1. Mr. P.Govindaraju, AP/ECE
2. Mr. M.V.Mahesh, AP/ECE
3. Mr.K.Venkatachalam, AP/ECE
4. Mr.A.Ravi, AP/ECE

14.11.20

Coordinator

14.11.20

HoD

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637215

KSRIET

Department of Electronics and Communication Engineering

Academic Year:2020 - 2021

Value added course – "PIC Microcontroller"

SYLLABUS

Module 1 - Basics of PIC Microcontroller **6 Hours**

PIC Microcontrollers: History and features - CCS C Compiler and PIC18F Development System- PIC Architecture & Programming – PIC I/O Port Programming

Module 2 – PIC Programming and Hardware **6 Hours**

PIC Programming in C- PIC18 Hardware Connection and ROM loaders- PIC18 Timers Programming- PIC18 Serial Port Programming

Module 3 – Interrupt and Interface **6 Hours**

Interrupt Programming- LCD and Keypad Interface- External EEPROM and I^2C- USB and HID Class- ADC and DAC

Module 4 – Sensor and other applications **6 Hours**

Sensor and other Applications- CCP and ECCP Programming- Capture Mode Programming and Pulse Width Measurement

Module 5 – Interface Programming and GUI Plot **6 Hours**

C# RS232 Interface Programming- C# GUI Plot Program- Digital Oscilloscope- Spectral Analyzer- Multimeter

Total Hours: 30

14-11-20

Coordinator

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14/11/20

Convener

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

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Department of Electronics and Communication Engineering

Value added course

On

PIC MICROCONTROLLER

SCHEDULE

Date: 17.11.2020 – 21.11.2020

DAY	DATE	TIMING	TOPIC
DAY 1	17.11.2020	9.15 to 10.15 am	PIC Microcontrollers: History and features
		10.15 to 11.15 am	CCS C Compiler
		11.30 to 12.30 pm	PIC18F Development
		1.30 to 2.30 pm	PIC18F Development and Systems
		2.30 to 3.30 pm	PIC Architecture & Programming
		3.30 to 4.30 pm	PIC I/O Port Programming
DAY 2	18.11.2020	9.15 to 10.15 am	PIC Programming in C
		10.15 to 11.15 am	PIC18 Hardware Connection
		11.30 to 12.30 pm	ROM loaders
		1.30 to 2.30 pm	PIC18 Timers programming
		2.30 to 3.30 pm	PIC18 Serial Port Programming
		3.30 to 4.30 pm	PIC18 parallel Port Programming
DAY 3	19.11.2020	9.15 to 10.15 am	Interrupt Programming
		10.15 to 11.15 am	LCD and Keypad Interface
		11.30 to 12.30 pm	External EEPROM
		1.30 to 2.30 pm	I^2C
		2.30 to 3.30 pm	USB and HID Class
		3.30 to 4.30 pm	ADC and DAC
DAY 4	20.11.2020	9.15 to 10.15 am	Sensor and other Applications
		10.15 to 11.15 am	Sensor and other Applications
		11.30 to 12.30 pm	CCP and ECCP Programming
		1.30 to 2.30 pm	CCP and ECCP Programming
		2.30 to 3.30 pm	Capture Mode Programming
		3.30 to 4.30 pm	Pulse Width Measurement
DAY 5	21.11.2020	9.15 to 10.15 am	C# RS232 Interface Programming
		10.15 to 11.15 am	C# RS232 Interface Programming
		11.30 to 12.30 pm	C# GUI Plot Program
		1.30 to 2.30 pm	C# GUI Plot Program
		2.30 to 3.30 pm	Digital Oscilloscope
		3.30 to 4.30 pm	Spectral Analyzer and Multimeter

14.11.20

Course Coordinator

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NAMAKKAL DI, TAMIL NADU.

14/11/20

Convener

KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
	Circular		
Academic Year :	2019 – 2020 (OOD)	Date :	05.06.2019

This to inform that it has been planned to organize value added courses on the following topics for the academic 2019 – 2020 (OOD) for Third & second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1	AUTOCAD	Mr.K.Gopalakrishnan Mr.P.Gopinath Mr.S.Baskaran Mr. K.Velusamy
2	CREO - AUTOMATION AND PRODUCTION	Mr.S.Ponnusamy Mr.R.Vasanthakumar Mr.S.Balamurugan Mr.A.Mohanraj

HoD

Dr. M. VENKATESAN M E Ph.D.,
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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the **AutoCAD** including:

Module 1: INTRODUCTION TO AUTOCAD 6

AutoCAD Screen Components- Drawing Area Command -Window Navigation bar Status bar AUTOCAD Introduction-Software Requirements- Files handling in CAD- Draw toolbar- Modify toolbar- Dimensioning toolbar- Opening an Existing Drawing- Quitting AutoCAD

Module 2: Introduction to OF Tool bars 7

Functional keys and properties - Layers and leaders- Tool menu customization- Geometric constraints- Dimension constraints- Drawing Lines in AutoCAD- Invoking tools Using Dynamic INPUT/Command- Prompt Coordinate Systems

Module 3: Starting With Advanced Sketching 8

Drawing Arcs- Drawing Rectangles -Drawing Ellipses- Drawing Regular Polygon- Drawing Polylines Placing Points -Drawing Infinite Lines Writing a Single Line Text- Working with Layers- Object Properties- Drafting Settings dialog box

Module 4: Editing Sketched Objects 9

Editing Sketches- Moving the Sketched Objects -Copying the Sketched Objects- Creating Multiple Copies Creating a Single Copy Offsetting Sketched Objects- Rotating Sketched Objects Scaling the Sketched Objects -Filleting the Sketches- Chamfering the Sketches- Trimming the Sketched Objects Extending the Sketched Objects- Stretching the Sketched Objects -Lengthening the Sketched Objects -objects Text Mirroring

Module 5: Isometric Drawings 8

Isometric drawings- Extrusion-View, visual styles and orbit- Solid (3D) modelling- Solid editing operations- Rendering and scenes

COORDINATOR

Dr. M. VENKATESAN, M.E., Ph.D.,
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Total: 38 Hours

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the Creo for Automation and production including:

Module 1: Advance Part Modeling 6

Advanced Selection Techniques - Advanced Datum Features - Advanced Sketching Techniques - Create advanced holes - Create advanced drafts and ribs - Create advanced shells - Create advanced rounds and chamfers - Use relations and parameters - Create advanced blends

Module 2: Assembly Design 7

Use advanced component selection - Use advanced assembly constraints - Create and use component interfaces - Utilize intelligent fasteners Extension (IFX) - Create and use flexible components - Restructure and mirror assemblies - Use assembly features and shrink wrap - Replace components in an assembly

Module 3: Creo Simulation & Structural Analysis 8.

Introduction to Creo Simulate - Theoretical Foundations - Structural Mechanics - Simulation Models - Explore materials and material properties - Understand and use structural constraints - Understand and use structural loads – Meshing - Understand convergence - Run structural analyses

Module 4: Flexible Modeling 9

Understand Flexible Modeling basics - Apply shape surface selection - Perform flexible transform operations on geometry - Use the various transform options - Attach and remove geometry

Module 5: Behavioural Modeling 8

Apply the behavioral modeling process and concepts - Create measurement analysis features - Creating Model Property Features - Creating Analysis Features - Conducting Design Studies and Optimizing Models.

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NAMAKKAL Dt, TAMIL NADU.

Total period:38

COORDINATOR

KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
	Circular		
Academic Year :	2019 – 2020 (EVEN)	**Date :**	15.11.2019

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2019 – 2020 (EVEN) for final year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty In charge
1	NON DESTRUCTIVE TEST (NDT)	Dr.P.Murugesan Dr.R.Mani Mr.P.Manikandan Mr.S.Rahul
2	COMPUTER NUMERICAL CONTROL (CNC)	Mr.P.Chakravarthi Mr.S.Rajkumar Mr.J.Mathan Mr.P.Karthick

HoD

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Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – **Non Destructive Test** Syllabus

S.No	Lecturer Topics	Hours
1.	**Introduction** What is NDT? NDT Qualification and Certification Difference between NDT and DT	8
2.	**NDT methods** Basic overview of 13 NDT methods Abbreviations of those methods Liquid penetrate testing	6
3.	**Practical Level I(LPT-I)** What are the liquids are using? Visible red and fluorescent penetrants of various typeof different surface. Use of dry, wet, solvent suspended developers.	8
4.	**Practical Level II(LPT-II)** Manufacturing process and discontinuity Indications Preservation of indications Evaluation of test material	6
5.	Magnetic particle testing Basic principles of MT Four steps of MT Indication	6
6.	Ultrasonic testing Radiography testing	6

Total: 40 Hours

COORDINATOR 7/11/15

Dr. M. VENKATESAN, M E., Ph.D.,
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Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – Computer Numerical Control (CNC) Syllabus

S. No	Topic	Hours
1	**INTRODUCTION** ➢ Intro to CAD/CAM/CAE ➢ History &Features of CNC ➢ Software fundamentals Terminology	8
2	**GRAPHICAL USER INTERFACE & COORDINATE SYSTEMS** Coordinate Systems - Absolute& Relative coordinates	8
3	**CNC LATHE** **BASICS OF CNC LATHE** ➢ Tool Changing, Billet Setting & Axis **BASICS CODES** ➢ G codes - G00, G01, G02, etc ➢ M codes - M00, M01, M02, etc ➢ Letters relations	8
4	**CNC MILLING** **BASICS OF CNC MILLING** ➢ Tool Changing, Billet Setting & Axis **SIMPLE OPERATION** ➢ Linear movement &Circular movement **OTHER OPERATION** ➢ Mirror, Sub program call, Pocketing, &Drilling	10

COORDINATOR 16/11/18

Dr. M. VENKATESAN, M.E., Ph.D.,
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NAMAKKAL Dt, TAMIL NADU.

Total Period: 34

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY
Department of Mechanical Engineering

Circular

Academic Year :	2020 – 2021 (OOD)	Date :	20.05.2020

This to inform that it has been planned to organize value added courses on the following topics for the academic 2020 – 2021 (OOD) for Third & second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1	AUTOCAD	Mr.A.Premkumar Mr.S.Rahul Mr.A.Mohanraj Mr.P.Manikandan
2	CREO - INDUSTRIAL DESIGN	Dr.P.Gopinath Mr.R.Vasanthakumar Mr.S.Balamurugan Mr.S.Ponnusamy

HoD 20/5/20

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Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the **AutoCAD** including:

Module 1: INTRODUCTION TO AUTOCAD 6

AutoCAD Screen Components- Drawing Area Command -Window Navigation bar Status bar AUTOCAD Introduction-Software Requirements- Files handling in CAD- Draw toolbar- Modify toolbar- Dimensioning toolbar- Opening an Existing Drawing- Quitting AutoCAD

Module 2: Introduction to OF Tool bars 7

Functional keys and properties - Layers and leaders- Tool menu customization- Geometric constraints- Dimension constraints- Drawing Lines in AutoCAD- Invoking tools Using Dynamic INPUT/Command- Prompt Coordinate Systems

Module 3: Starting With Advanced Sketching 8

Drawing Arcs- Drawing Rectangles -Drawing Ellipses- Drawing Regular Polygon- Drawing Polylines Placing Points -Drawing Infinite Lines Writing a Single Line Text- Working with Layers- Object Properties- Drafting Settings dialog box

Module 4: Editing Sketched Objects 9

Editing Sketches- Moving the Sketched Objects -Copying the Sketched Objects- Creating Multiple Copies Creating a Single Copy Offsetting Sketched Objects- Rotating Sketched Objects Scaling the Sketched Objects -Filleting the Sketches- Chamfering the Sketches- Trimming the Sketched Objects Extending the Sketched Objects- Stretching the Sketched Objects -Lengthening the Sketched Objects -objects Text Mirroring

Module 5: Isometric Drawings 8

Isometric drawings- Extrusion-View, visual styles and orbit- Solid (3D) modelling- Solid editing operations- Rendering and scenes

Total: 38 Hours

COORDINATOR

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Department of Mechanical Engineering

Value Added Course – Syllabus

The course covers the topics you need to review for the CREO For Industrial Design including:

Module 1: INTRODUCTION TO CREO PARAMETRIC 7

Introduction to Creo Parametric Feature-Based Nature Bidirectional Associative Property Parametric Nature System Requirements Getting Started with Creo Parametric- Important Terms and Definitions File Menu Options- Managing Files- Menu Manager Model Tree -Understanding the Functions of the Mouse Buttons- Ribbon Toolbars Navigator

Module 2: CREATING SKETCHES IN THE SKETCH MODE 8

The Sketcher Environment-Working with a Sketch in the Sketch Mode-Drawing a Sketch Using tools available in the Sketch Tab-Dimensioning the Sketch-Dimensioning the Basic Sketched Entities-Working with Constraints-Resolve Sketch Dialog Box- Deleting the Sketched Entities - Trimming the Sketched Entities- Mirroring the Sketched Entities.

Module 3: OPTIONS AIDING CONSTRUCTION OF PARTS 8

Options Aiding Construction of Parts-Creating Holes-Creating Rounds-Creating Chamfers-Understanding Ribs-Editing Features of a Model-Creating Feature Patterns-Copying Features-Mirroring a Geometry-Creating a Section of a Solid Model

Module 4: ASSEMBLY MODELING 9

Assembly Modelling -Important Terms Related to the Assembly Mode-Creating Top-down Assemblies-Creating Bottom-up Assemblies-Assembling Components-Modifying the Components of an Assembly-Creating the Exploded State

Module 5: SURFACE MODELING 10

Surface Modelling-Creating Surfaces in Creo Parametric-Creating Surfaces the Using the Style Environment of Creo Parametric-Surface Editing Tools Mirroring-Freestyle modelling environment-Invoking the Sheet metal Mode-Introduction to Sheet metal Walls-Creating the Bend Feature Creating the Unbend Feature

Total Period: 42

COORDINATOR

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KSRIET	K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY Department of Mechanical Engineering		
	Circular		
Academic Year :	2020– 2021 (EVEN)	**Date :**	02.12.2020

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2020– 2021 (EVEN)for final year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty In charge
1	NON DESTRUCTIVE TEST (NDT)	Mr.M.Kannan (United cad) Mr.P.Chakravarthi Mr.J.Mathan Mr.K.Velusamy Dr.R.Mani
2	CCP-PIPING	Mr.K.Boopalan (United CAD) Mr.S.Rahul Mr.S.Mohan Kumar (United CAD) Mr.P.Manikandan

HoD

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Tiruchengode, Namakkal – 637215

Department of Mechanical Engineering

Value Added Course – **Non Destructive Test Syllabus**

S.No	Lecturer Topics	Hours
1.	**Introduction** What is NDT? NDT Qualification and Certification Difference between NDT and DT	8
2.	**NDT methods** Basic overview of 13 NDT methods Abbreviations of those methods Liquid penetrate testing	6
3.	**Practical Level I(LPT-I)** What are the liquids are using? Visible red and fluorescent penetrants of various typeof different surface. Use of dry, wet, solvent suspended developers.	8
4.	**Practical Level II(LPT-II)** Manufacturing process and discontinuity Indications Preservation of indications Evaluation of test material	6
5.	Magnetic particle testing Basic principles of MT Four steps of MT Indication	6
6.	Ultrasonic testing Radiography testing	6

COORDINATOR

Dr. M. VENKATESAN, M.E., Ph.D.,
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TIRUCHENGODE-637 215,
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Total: 40 Hours

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Department of Mechanical Engineering

Value Added Course –PIPING Syllabus

S. No	Topic	Hours
1	Introduction • Pipingsoftware • PDS / PDMS /P&ID • Introduction to CAESARII • Scope & Responsibilities of Piping Engineer Features of CAESAR II • CAESAR I Iinterface • Fundamentals of Pipe Design • Piping standards	6
2	Basics parameters Caesar IIConfiguration, Node no. &names,Pipe dia. & standard schedule pipe wall(Wt/Sch) ,Temperature &pressure Basic operation • Routing, Joints & Fittings,Equipment	6
3	Plant modelling • Inputdata, Createdesign,Edit model • Navigation tools Visualization • Standard tools ,Display options,Cutting plane	6
4	Purpose of stress analysis • Theory offailure • Loadcases • Materialselection • Code Compliance for ASMEB31.3	8
5	Isometric Drawing Extraction	8

COORDINATOR

Dr. M. VENKATESAN, M.E., Ph.D.,
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TIRUCHENGODE-637 215,
NAMAKKAL Dt, TAMIL NADU.

Total Period: 34

KSRIET

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2019 – 2020	Date :	16.05.2019

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2019 – 2020 (ODD) for final year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	AWS Fundamentals: Building Serverless Applications	Dr.S.Russia Dr.M.Dhurgadevi Mr.M.Selvakumar
2.	Technology Behind AR/VR	Mr.D.Balakrishnan Mr.S.Nandhagopal

HOD

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Tiruchengode - 637215

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All UG programs are Accredited by NBA

Department of Information Technology

Academic Year : 2019-2020(ODD)

Value Added Course – "AWS Fundamentals: Building Serverless Applications"

Syllabus

Module 1: AWS Fundamentals 7

Cloud computing-AWS-Overview of AWS services-Introduction to Identity and Access Management –IAM Users and IAM Groups-IAM policies-IAM Roles-IAM Best Practices

Module 2: Serverless Computing 7

Creating a Serverless Bot- Serverless Computing-Amazon Lex- Amazon Lex Walkthrough- Creating a Serverless Website with Amazon S3- Creating a Simple Bot with Lex- Creating a S3 Bucket and Configuring as a Static Website

Module 3: Amazon CloudFront and API Gateway 7

Introduction to Amazon CloudFront- Introduction to Amazon API Gateway- Creating a CloudFront Distribution

Module 4: AWS Lambda and DynamoDB 7

Introduction to Serverless Computing with AWS Lambda- Introduction to Amazon DynamoDB- Creating an AWS Lambda Function

Module 5: Security 7

Extending the App- Make Amazon Lex Smarter-Network Security-Network Level Security-Resource Level Security-Data Encryption

Total: 35 Hours

Coordinator

HOD

Dr. M. VENKATESAN, M.E., Ph.D.,
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Tiruchengode - 637215

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All UG programs are Accredited by NBA

Department of Information Technology

Academic Year : 2019-2020(ODD)

Value Added Course – "Technology behind AR/VR"

Syllabus

Module 1: Introduction of Virtual Reality 6

Fundamental Concept and Components of Virtual Reality-Primary Features and Present Development on Virtual Reality

Module 2: Multiple Models of Input and Output Interface in Virtual Reality 7

Input–Tracker-Sensor-Digital Glove-Movement Capture-Video-based Input-3D Menus & 3DScanner-Output-Visual/Auditory/ Haptic Devices

Module 3: Visual Computation in Virtual Reality 7

Fundamentals of Computer Graphics-Software and Hardware Technology on Stereoscopic Display-Advanced Techniques in CG: Management of Large Scale Environments & Real Time Rendering

Module 4: Interactive Techniques in Virtual Reality 6

From 2D to 3D-3D space curves-3D boundary representation-Body Track-Hand Gesture-3D Manus-Object Grasp

Module 5: Development Tools and Frameworks in Virtual Reality 6

Frameworks of Software Development Tools in VR-X3D Standard-Vega-MultiGen-Virtools-Application of VR in Digital Entertainment: VR Technology in Film & TV Production-VR Technology in Physical Exercises

Total: 32 Hours

Coordinator

HOD

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2019 – 2020	Date :	04.11.2019

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2019 – 2020 (ODD) for first year and second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Web Development	Mr.P.S.Prakash Kumar Mr.D.Balakrishnan Mr.S.Nandhagopal
2	Hardware Troubleshooting	Dr.K.Gowsic Ms.P.Keerthana Mr.S.Nandhagopal

HOD

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Department of Information Technology

Academic Year : 2019-2020(EVEN)

Value Added Course – "Web Development"

Syllabus

Module 1: Web Design Principles and Web Publishing 8

Basic principles involved in developing a web site -Planning process - Five Golden rules of web designing - Designing navigation bar - Page design -Home Page Layout - Design Concept-Brief History of Internet - What is World Wide Web - Why create a web site - Web Standards - Creating the Web Site - Saving the site - Working on the web site - Creating web site structure - Creating Titles for web pages - Themes-Publishing web sites

Module 2: HTML 8

What is HTML - HTML Documents - Basic structure of an HTML document - Creating an HTML document - Mark up Tags -Heading-Paragraphs -Line Breaks - HTML Tags-Introduction to elements of HTML - Working with Text - Working with Lists, Tables and Frames - Working with Hyperlinks, Images and Multimedia - Working with Forms and Controls

Module 3: Cascading Style Sheets 8

Concept of CSS - Creating Style Sheet - CSS Properties - CSS Styling (Background-Text Format-Controlling Fonts) - Working with block elements and objects - Working with Lists and Tables - CSS Id and Class - Box Model (Introduction-Border properties-Padding Properties- Margin properties) -CSS Advanced (Grouping-Dimension-Display-Positioning-Floating-Align-Pseudo class-Navigation Bar- Image Sprites- Attribute sector)

Module 4: JavaScript 8

Introduction - Syntax - External & Internal using - Variables- Operators- Functions- Events-Comparison- Condition- Loops JavaScript – Form Validation - Form Validation Introduction - Regular Expressions – introduction -Regular Expression – Syntax - Text - Number - Space & Special character validation using Regular Expression - Email Validation using Regular Expressions

Module 5: PHP 8

Introduction to PHP- Handling Html Form with PHP-Decisions and Loop-Function-String-Array-Working with files and Directories

Total: 40 Hours

Coordinator

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Department of Information Technology

Academic Year : 2019-2020(EVEN)

Value Added Course – "Hardware Troubleshooting"

Syllabus

Module 1: Introduction 6

Introduction - Computer Organization – Number Systems and Codes – Memory – ALU – CU – Instruction prefetch – Interrupts – I/O Techniques – Device Controllers - Error Detection Techniques – Microprocessor

Module 2: Peripheral Devices 7

Introduction – Keyboard – CRT Display Monitor – Printer – Magnetic Storage Devices – FDD – HDD – Special Types of Disk Drives – Mouse and Trackball

Module 3: PC Hardware Overview 7

Introduction – Hardware BIOS DOS Interaction – The PC family – PC hardware – Inside the System Box – Motherboard Logic – Memory Space – Peripheral Interfaces and Controllers – Keyboard Interface – CRT Display interface – FDC – HDC

Module 4: Installation and Preventive Maintenance 6

Introduction – system configuration – pre installation planning – Installation practice – routine checks – PC Assembling and integration – BIOS setup

Module 5: Troubleshooting 6

Introduction – computer faults – Nature of faults – Types of faults – Diagnostic programs and tools – Microprocessor and Firmware – Programmable LSI's – Bus Faults – Faults Elimination process – Systematic Troubleshooting

Total: 32 Hours

20/12/19

Coordinator

20/12/19

HOD

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Department of Information Technology

Circular

Academic Year :	2020 – 2021	Date :	17.08.2020

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2020 – 2021 (ODD) for final year and second year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	Deep Learning for Computer Vision	Dr.S.Russia Ms.P.Keerthana Ms.S.S.Ramyadharshni
2.	VMWARE – Network Virtualization	Mr.M.Selvakumar Dr.M.Dhurgadevi Mr.D.Balakrishnan

HOD

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Department of Information Technology

Academic Year : 2020- 2021(ODD)

Value Added Course – "Deep Learning for Computer Vision"

Syllabus

Module 1: Computer Vision Basics 6

Image Processing, Computer Vision and Computer Graphics-What is Computer Vision - Low-level-Mid-level-High-level-Overview of Diverse Computer Vision Applications: Document Image Analysis-Biometrics-Object Recognition-Tracking-Medical Image Analysis-Content-Based Image Retrieval, Video Data Processing

Module 2: Deep Learning Basics 7

Introduction to machine learning- Linear models (SVMs and Perceptrons, logistic regression) - Intro to Neural Nets: What a shallow network computes-Training a network: loss functions-back propagation and stochastic gradient descent-Neural networks as universal function approximates

Module 3: Deep Networks 7

History of Deep Learning- A Probabilistic Theory of Deep Learning-Backpropagation and regularization-batch normalization-VC Dimension and Neural Nets-Deep Vs Shallow Networks Convolutional Networks

Module 4: Dimensionality Reduction 6

Linear (PCA, LDA) and manifolds- metric learning - Auto encoders and dimensionality reduction in networks-Introduction to Convnet -Architectures–AlexNet-VGG-Inception

Module 5: CASE Study and Applications 6

Imagenet-Detection-Audio WaveNet-Natural Language Processing-Word2Vec-Joint Detection-BioInformatics-Face Recognition-Scene Understanding-Gathering Image Captions

Total: 32 Hours

Coordinator 4/9/20

HOD 4/9/20

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Department of Information Technology

Academic Year : 2020- 2021(ODD)

Value Added Course – "VMWARE – Network Virtualization"

Syllabus

Module 1: Understand VMware NSX Technology and Architecture 6

Compare and Contrast the Benefits of a VMware NSX Implementation- Understand VMware NSX Architecture- Prepare a vSphere implementation for NSX- Understand VMware NSX Integration with Third-Party Products and Services-Understand VMware NSX Integration with vRealize Automation (vRA)

Module 2: Understand VMware NSX Physical Infrastructure Requirements 6

Compare and Contrast the Benefits of Running VMware NSX on Physical Network Fabrics- Determine Physical Infrastructure Requirements for a VMware NSX Implementation

Module 3: Configure and Manage vSphere Networking 6

Configure and Manage vSphere Distributed Switches (vDS)- Configure and Manage vDS Policies

Module 4: Install and Upgrade VMware NSX 6

Configure Environment for Network Virtualization- Deploy VMware NSX Components- Upgrade Existing vCNS/NSX Implementation- Expand Transport Zone to Include New Cluster(s)

Module 5: Configure VMware NSX Virtual Networks 6

Create and Administer Logical Switches-Configure VXLAN-Configure and Manage Layer 2 Bridging- Configure and Manage Logical Routers

Total: 30 Hours

M [signature] 3/9/20

Coordinator

P. [signature] 3/9/20

HOD

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Department of Information Technology

Circular

Academic Year :	2020 – 2021	Date :	14.12.2020

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2020 – 2021 (EVEN) for first year and third year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	RedHat Certification Training for System Administration	Dr.P.Meenakshi Devi Dr.N.B.Mahesh Kumar Ms.K.G.Lavanya
2.	Machine Learning with Python	Mr.P.S.Prakash Kumar Ms.M.Kanimozhi Ms.S.Uma

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14/12/20
HOD

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Department of Information Technology

Academic Year : 2020- 2021(EVEN)

Value Added Course – "RedHat Certification Training for System Administration"

Syllabus

Module 1: Installing Linux and Managing files from command Lines 7

Graphical Installation with anaconda-post install configuration with first boot, virt-viewer-The linux file system hierarchy-looting files by name-Command line file management-Matching file names using path name expansion-create link files

Module 2: Getting Help Red Hat Enterprise Linux 7

Reading using man command-Documentation in /ur/share/doc and executing PINFO-Getting Help from RedHat-Redirecting output to a file or program-Editing text files from the shell prompt-vim editor-Editing text files from graphical editor

Module 3: Managing local Linux users and Groups 7

Users and Group-Managing local users and group's accounts-Managing user passwords-Super access-Linux file system permissions-Managing file system permission from command line-Managing default permissions and file access

Module 4: Special permissions and services 7

Special permissions-Access control list-Indentifying automatically started system processes-Controlling system services Access the remote command line with SSH-Configuring SSH key-based authentication, Customizing SSH Service configuration-Hosts allow and deny

Module 5: Networking 7

Networking concepts-Configuring Networking with nmcli-Configuring host name-Managing compressed tar archives-copying backing up and restoring files from a tar-synchronizing files over the network with SCP-Use find and grep commands

Total: 35 Hours

30/12/20

Coordinator

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30/12/20

HOD

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Department of Information Technology

Academic Year : 2020- 2021(Even)

Value Added Course – "Machine Learning with Python"

Syllabus

Module 1: Introduction to Machine Learning 6

Learning – Types of Machine Learning – Supervised Learning – The Brain and the Neuron – Design a Learning System – Perspectives and Issues in Machine Learning – Concept Learning Task

Module 2: Linear Models 7

Linear Discriminants – Perceptron – Linear Separability – Linear Regression-Multi-layer Perceptron – Going Forwards – Going Backwards: Back Propagation Error – Multi-layer Perceptron in Practice – Examples of using the MLP – Overview – Deriving Back Propagation – Radial Basis Functions and Splines – Concepts – RBF Network

Module 3: Introduction to Python Programming 7

History of Python- Understanding Hardware- Anaconda Distribution- Jupyter Notebook Fundamentals- Writing First Program -Terminal Commands: Navigate & Manipulate -Directory Structures- Edit Files- Basic Scripting -Python Fundamentals

Module 4: Lists, Tuples, Dictionaries 6

Lists: list operations- list slices- list methods- list loop- mutability- aliasing-cloning lists- list parameters- Tuples: tuple assignment- tuple as return value- Dictionaries: operations and methods- advanced list processing – list comprehension

Module 5: Files, Modules, Packages 6

Files and exception: text files-reading and writing files-format operator-command line arguments- errors and exceptions- handling exceptions- modules- packages- Illustrative programs: word count- copy file.

Total: 32 Hours

M. Kan 31/12/20

Coordinator

31/12/20

HOD

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DEPARTMENT OF MATHEMATICS

KSRIET

CIRCULAR

Academic Year: 2019 – 2020 **Date: 06.12.2019**

This to inform that it has been planned to organize value added courses on the following topics for the academic year 2019 – 2020 for all the First year students. Also the following faculty members are requested to frame syllabus for the value added courses and coordinate the same.

S.No.	Title of the Course	Faculty Incharge
1.	QUANTITATIVE APTITUDE	M. Asick Ali, ASP/Maths Dr. N. Lalithamani, Prof/Maths Dr. N. Kumaravel, AP/Maths R. Kavitha, AP/Maths S. Selvarasu, AP/Maths

6/12/19

HoD/Maths

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DEPARTMENT OF MATHEMATICS

KSRIET

VALUE ADDED COURSE on

"QUANTITATIVE APTITUDE"

Academic Year: 2019 – 2020 **Batch: 2019 – 2023**

Date: 23.12.2019 to 30.12.2019

SYLLABUS

Course Objectives:

To enhance the problem solving skills, to improve the basic mathematical skills and to help students who are preparing for any type of competitive examinations.

Arithmetic Quantitative Abilities:

Time and Work – Time Speed Distance – Boats and Streams – Pipes and Cisterns – Problems on Ages – Problems on Clocks – Problems on Calendar – Problems on Directions – Probability – Percentage.

Total No. of Hours: 30 Hours

Learning Outcomes:

On successful completion of the course the students will be able to:

- ✓ Understand the basic concepts of Quantitative Ability
- ✓ Understand the basic concepts of Logical Reasoning Skills
- ✓ Solve campus placements aptitude papers covering Quantitative Ability and Logical Reasoning
- ✓ Compete in various competitive exams like CAT, GATE, BANK etc.

Reference:

- ➢ Quantitative Aptitude by Dr. R S Aggarwal

16/12/19

VAC Co-ordinator **HoD/Maths**

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Date: 18.02.2016

6th GOVERNING COUNCIL MEETING

Sub: Intimation of 6th Governing Council Meeting – Reg.

The 6th Governing Council Meeting will be held on **20.02.2016** (Saturday) at 10.30 a.m. at Board Room in KSRIET.

You are requested to make it convenient to attend the meeting.

GOVERNING COUNCIL MEMBERS – 2015-2016

S.NO.	Name and Address	Representation
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist
4	AICTE Nominee	To be nominated
5	Nominee from Anna University	To be nominated
6	State Government Nominee	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem
7	Senior Faculty Member	Prof. Dr. P. Murugesan HoD – Mechanical
8	Faculty Member	Dr. R. Jeyabharath HoD – EEE Mr. R. Nandakumar HoD- ECE
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Member Secretary

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

6th GOVERNING COUNCIL MEETING

The 6th Governing Council Meeting is held on **20.02.2016** (Saturday) at 10:30 a.m. at Conference Hall in KSRIET.

The following members constitute the Governing Council.

S.NO.	Name and Address	Representation	Signature
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee	
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member	
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist	
4	AICTE Nominee	To be nominated	—
5	Nominee from University	To be nominated	—
6	State Government Nominee	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem	
7	Senior Faculty Members	Prof. Dr. P. Murugesan HoD – Mechanical	
8	Faculty Members	Dr. R. Jeyabharath HoD – EEE	
		Mr. R. Nandakumar HoD - ECE	
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Dr. M. Venkatesan	

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

6th GOVERNING COUNCIL MEETING

Date : **20.02.2016** (Saturday)

Time : **10:30 am**

Venue : **Board Room, KSRIET.**

Item No.	Agenda objects	Annexure No.
1.	Approval of the proceedings of 5th Governing Council Meeting	--
2.	Action Taken on proceedings of 5th Governing Council Meeting	1
3.	IQAC report and approval	2
4.	Report of Academic and other important activities	3
5.	Important communications from AICTE, University, etc.,	4
6.	Sanctioned intake and student admission for 2015-16	5
7.	❖ Report on admission made in the academic year 2015- 2016 ❖ Policy for the scholarship approved by the Governing Council ❖ Merit students-Economically weaker section students Sports achieved students	6
8.	❖ Budget (Institution) ❖ Budget proposal for the academic year 2016– 17 ❖ Audited statement of accounts academic year2014-15	7
9.	MOU signed with various organizations	8
10.	Faculty recruitment for the academic year 2016-17	9
11.	Availability of faculty in the academic year 2015-16	10
12.	Value added courses	11
13.	Approval of minutes in planning and monitoring board	12
14.	Feedback review committee	13
15.	Faculty Development activities	14
16.	Student development activities	15
17.	Cells and Forums- Function ofvarious committees	16
18.	Social activities -NSS	17
19.	Placement activities	18
20.	Alumni Association	19
21.	Library	20
22.	Any Other Suggestions	21

The Principal and Member Secretary of the Governing Council extended a warm welcome and thanked all the members for sparing their valuable time to make it possible to attend this meeting. Then, the items listed on the Agenda are taken for discussion one by one. The minutes of the meeting are as follows:

Item – 1

To confirm the minutes of the previous Governing Council Meeting.

The minutes of the 5th Governing Council Meeting held on 12.02.2015 is presented to the members. The members noted the minutes and approved the same.

Item -2

To review the action taken on the minutes of the previous Governing Council meeting.

Action taken report on the minutes of last meeting held on 12.02.2015 is presented to the members of Governing Council. The members noted the action taken report.

(Annexure – 1)

Item – 3

To report about the IQAC report and approval.

The council perused the documents produced by various committees and analyzed the nature of work and the discussed about the enhancement in the particular area..

The council approved and insisted to fulfill the needs as per the report given and approved the process.

(Annexure – 2)

Item -4

To perused the note of the principal on the academic and others important activities during the period 2015 – 2016

Strategic Plan of the Institution was approved.

The format of Annual Performance Audit was approved.

The format of Annual report was approved.

The members of Department Advisory Committee for all departments were approved.

The council perused the note of the principal on the academic and other important activities of the college

(Annexure – 3)

Item -5

To report about the important communications, policy decisions received from Government, AICTE, DOTE, University, etc.

The Council perused the details.

(Annexure – 4)

Item -6

To report about the Extension of AICTE Approval 2015-16

To report about the University affiliation 2015-16.

To report about the sanctioned intake and admissions for 2015 -2016.

To report about the research centre recognition.

The details are presented to the Governing Council. The Council suggested to improve admissions in PG courses. The approval of the research centre presented for the council members.

(Annexure – 5)

Item – 7

Report on admission made in the academic year 2015- 2016.

As per the Policy document framed for the admission based on scholarship, Merit students-Economically weaker section students Sports achieved students

Scholarship admission was done by the Scrutinizing committee as per the procedure the list is enclosed and it was approved by the Governing Council

(Annexure – 6)

Item – 8

To peruse the budget proposal for the academic year 2016-2017

The budget proposal for the academic year 2016-2017 is presented to the Council and it is perused by the Council.

To peruse the Audited Statement of Accounts for the academic year 2014-2015

The audited statement of accounts and income, expenditure statements of 2014-2015 are presented to the Council and are perused by the Council.

(Annexure – 7)

Item – 9

To report about the MoU signed with various organizations.

The council perused the details of the MoU signed by the departments

(Annexure – 8)

Item – 10

To ratify the selection made by the Staff Selection Committee

The details of staff selection made by the selection committee for the academic year 2016-2017 and number of staff required for the next semester is presented to the Governing Council.

The Council ratified the selections made by the staff selection committee for the various departments.

(Annexure – 9)

Item – 11

To report about department wise faculty details.

Department wise faculty details are presented to the council. The Council perused and recorded the details of faculty members in each department for the academic year 2016 -17.

(Annexure –10)

Item – 12

To report about the Value added courses.

Thrust on development of knowledge and skills are provided through value added courses.

The Council perused the systems followed for conducting the value added course and suggested to improve it further.

(Annexure –11)

Item –13

To report about minutes discussed in the planning and monitoring board.

The council perused the documents produced by various committees and discussed about the planning and monitoring board.

The council approved the decision made by the planning and monitoring board

(Annexure – 12)

Item – 14

To report about the Feedback review committee

The stakeholder feedbacks on curriculum and syllabus were discussed and suggestions/Action taken were given by Feedback Review Committee for the further improvements in Academic process.

(Annexure – 13)

Item – 15

To report about Faculty Development activities.

Faculty Development activities are presented to the council.

The Council perused the details and suggested to improve faculty publications and to conduct more workshops for empowering faculty in doing research and teaching. The Council asked to encourage faculty to register for doing Ph.D.

(Annexure – 14)

Item – 16

To report about Students Development activities.

Students Development activities are presented to the council.

The Council perused the details and suggested to have remedial coaching for weak students. The Council also suggested making the students to do their projects of their own in recent trends like Internet of Things etc.

(Annexure – 15)

Item – 17

To report the functioning of various cells, forums- Formation of various committees.

The council approved the various actions in the Research & Development cell activities, Higher Education cell.

The council appreciated the EDC Cell and do more innovative for the students benefits.

The Functions in the Staff club activities, HoDs Committee ,DAC were analysed and approved.

The formation of SC/ST Cell, Alumni cell. ISTE Chapter, Club activities like YOGA, MUSIC SCIENCE, LINGUA, TAMIL MANDRAM, CULTURAL were conducted.

As per the direction from the university Antiragging Committee (ARC),

Grievance Appeal committee was formed and is in functioning.

The council peruses the details and suggested to improve the various activities by the cells and approved the policy framed by the various committees.

(Annexure – 16)

Item – 18

To report about social activities.

The various activities like NSS were reported to the council members.

The council suggested to do more activities for the benefit of the students

(Annexure – 17)

Item – 19

To report about the Placement details of 2011-2015 batch of students.

The Council perused the placement details of 2011-2015 batch of students and appreciated the effort taken to place maximum number of students in reputed companies.

(Annexure – 18)

Item –20

To report about the Formation of Alumni Association

Alumni Association was formed from this year and will be effective from 2015-16 onwards and the details are presented to the council.

The Council perused the details and Approved the Association.

(Annexure – 19)

Item –21

To report about other activities in Library details

The details of library additions are presented to the council. The Council perused the details.

(Annexure – 20)

Item – 22

Any other matters

To report about other activities to be implemented for the forthcoming academic years.

(Annexure – 21)

Principal/Member Secretary
Governing Body

Chairman
Governing Body

Date: 07.03.2017

7th GOVERNING COUNCIL MEETING

Sub: Intimation of 7th Governing Council Meeting – Reg.

The 7th Governing Council Meeting will be held on **10.03.2017**(Friday) at 10.30 a.m. at Board Room in KSRIET.

You are requested to make it convenient to attend the meeting.

GOVERNING COUNCIL MEMBERS – 2016-2017

S.NO.	Name and Address	Representation
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist
4	AICTE Nominee	To be nominated
5	Nominee from University	To be nominated
6	State Government Nominee	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem
7	Senior Faculty Member	Prof. Dr. P. Murugesan HoD – Mechanical
8	Faculty Member	Dr. R. Jeyabharath HoD – EEE Mr. R. Nandakumar HoD- ECE
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Member Secretary

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

7th GOVERNING COUNCIL MEETING

The7th Governing Council Meeting is held on 10.03.2017(Friday)at 10:30 a.m. at Conference Hall in KSRIET.

The following members constitute the Governing Council.

S.NO.	Name and Address	Representation	Signature
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee	
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member	
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist	
4	AICTE Nominee	To be nominated	—
5	Nominee from University	To be nominated	—
6	State Government Nominee	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem	
7	Senior Faculty Members	Prof. Dr. P. Murugesan HoD – Mechanical	10/3/17
8	Faculty Members	Dr. R. Jeyabharath HoD – EEE	
		Mr. R. Nandakumar HoD- ECE	10/3/17
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Dr. M. Venkatesan	10/3/17

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

7th GOVERNING COUNCIL MEETING

Date :10.03.2017 (Saturday)

Time : 10:30 am

Venue : Conference Hall, KSRIET.

Item No.	Agenda objects	Annexure No.
1.	Approval of the proceedings of 6h Governing Council Meeting	--
2.	Action Taken on proceedings of 6th Governing Council Meeting	1
3.	IQAC report and approval	2
4.	Report of Academic and other important activities	3
5.	Important communications from AICTE, University, etc.,	4
6.	Submission of University Examination results for December 2015 and May 2016	5
7.	❖ Sanctioned intake and student admission for 2016-17 ❖ Report on admission made in the academic year 2016- 2017	6
8.	Proposal for NBA in all courses.	7
9.	❖ Budget (Institution) ❖ Budget proposal for the academic year 2017– 18 ❖ Audited statement of accounts academic year 2015-16	8
10.	MOU signed with various organizations	9
11.	Faculty recruitment for the academic year 2017-18	10
12.	Availability of faculty in the academic year 2016-17	11
13.	Faculty Development activities	12
14.	Value added courses	13
15.	Approval of minutes in planning and monitoring board	14
16.	Feedback review committee	15
17.	Centre for research and development	16
18.	PALS Activities	17
19.	Student development activities	18
20.	Cells and forum- Function of various committees	19
21.	Social activities -NSS	20
22.	Placement activities	21
23.	Alumni Association	22
24.	Library	23
25.	Any Other Suggestions	24

The Principal and Member Secretary of the Governing Council extended a warm welcome and thanked all the members for sparing their valuable time to make it possible to attend this meeting. Then, the items listed on the Agenda are taken for discussion one by one. The minutes of the meeting are as follows:

Item – 1

To confirm the minutes of the previous Governing Council Meeting.

The minutes of the 6th Governing Council Meeting held on 20.02.2016 is presented to the members. The members noted the minutes and approved the same.

Item -2

To review the action taken on the minutes of the previous Governing Council meeting.

Action taken report on the minutes of last meeting held on 20.02.2016 is presented to the members of Governing Council. The members noted the action taken report.

(Annexure – 1)

Item – 3

To report about the IQAC report and approval.

The council perused the documents produced by various committees and analyzed the nature of work and the discussed about the enhancement in the particular area.

The Annual Performance Audit and Annual report were reviewed.

The council approved and insisted to fulfill the needs as per the report given and approved the process.

(Annexure – 2)

Item -4

To perused the note of the principal on the academic and others important activities during the period 2016 – 2017

The report generated from ERP was reviewed and verified.

The Annual Performance Audit and Annual report were reviewed.

The performance appraisal of Teaching and Non-teaching staff was reviewed and the appreciation details and action taken was discussed.

The HR policy of the institution was reviewed and approved.

The service rules of the institution was reviewed and approved.

The members of Department Advisory Committee for all departments were approved.

The council perused the note of the principal on the academic and other important activities of the college

(Annexure – 3)

Item -5

To report about the important communications, policy decisions received from Government, AICTE, DOTE, University, etc.

The Council perused the details.

(Annexure – 4)

Item -6

Submission of University Examination results for December 2015 and May 2016.

University Examination results for December 2015 and May 2016 was analysed and discussed in the meeting.

The Council perused the details and insisted to improve the results in the forthcoming semesters.

(Annexure – 5)

Item -7

To report about the Extension of AICTE Approval 2017-18

To report about the University affiliation 2016-17.

To report about the sanctioned intake and admissions for 2016 -2017.

Report on admission made in the academic year 2016- 2017.

As per the Policy document framed for the admission based on scholarship, Merit students-Economically weaker section students Sports achieved students

Scholarship admission was done by the Scrutinizing committee as per the procedure the list is enclosed and it was approved by the Governing Council

The details are presented to the Governing Council. The Council suggested to improve admissions in PG courses the council members approved.

(Annexure – 6)

Item -8

To report about the proposal for Applying NBA for all the courses.

It was suggested to apply for NBA Accreditation for all departments. It is suggested to submit SAR by September 2017 and to proceed with the documentation process.

(Annexure – 7)

Item-9

To peruse the budget proposal for the academic year 2017-2018

The budget proposal for the academic year 2017-2018 is presented to the Council and it is perused by the Council.

To peruse the Audited Statement of Accounts for the academic year 2015-2016

The audited statement of accounts and income, expenditure statements of 2015-2016 are presented to the Council and are perused by the Council.

(Annexure – 8)

Item – 10

To report about the MoU signed with various organizations.

The council peruse the details of the MoU signed by the departments

(Annexure – 9)

Item – 11

To ratify the selection made by the Staff Selection Committee

The details of staff selection made by the selection committee for the academic year 2017-2018 and number of staff required for the next semester is presented to the Governing Council.

The Council ratified the selections made by the staff selection committee for the various departments.

(Annexure – 10)

Item – 12

To report about department wise faculty details.

Department wise faculty details are presented to the council. The Council perused and recorded the details of faculty members in each department for the academic year 2016 -17.

(Annexure – 11)

Item – 13

To report about Faculty Development activities.

Faculty Development activities are presented to the council.

The Council perused the details and suggested to improve faculty publications and to conduct more workshops for empowering faculty in doing research and teaching. The Council asked to encourage faculty to register for doing Ph.D.

(Annexure – 12)

Item – 14

To report about the Value added courses.

Thrust on development of knowledge and skills are provided through value added courses.

The Council perused the systems followed for conducting the value added course and suggested to improve it further.

(Annexure – 13)

Item –15

To report about minutes discussed in the planning and monitoring board.

The council perused the documents produced by various committees and discussed about the planning and monitoring board.

The council approved the decision made by the planning and monitoring board

(Annexure – 14)

Item – 16

To report about the Feedback review committee

The stakeholder feedbacks on curriculum and syllabus were discussed and suggestions/Action taken were given by Feedback Review Committee for the further improvements in Academic process.

(Annexure – 15)

Item – 17

To report about Centre for Research and Development activities.

Research and Development activities are presented to the council.

The Council perused the details and suggested to initiate the research and development for the faculty and students benefits.

(Annexure – 16)

Item – 18

To report about PALS Activities.

PALS activities are presented to the council.

The Council congratulated the numbers of PALS committee for initiative.

The Council also suggested to improve the activities for student's benefit.

(Annexure – 17)

Item – 19

To report about Students Development activities.

Students Development activities are presented to the council.

The Council perused the details and suggested to have remedial coaching for weak students. The Council also suggested making the students to do their projects of their own in recent trends like Internet of Things etc.

(Annexure – 18)

Item – 20

To report the functioning of various cells and forums.

The council peruses the details and activities conducted by the various committees and suggested to improve the various activities by the cells and forums.

To report about the Function of committees.

The council approved the various function and activities done by the committee report given and approved the process.

The council appreciated the activities done by various committees

(Annexure – 19)

Item – 21

To report about social activities.

The various activities like NSS were reported to the council members.

The council suggested to do more activities for the benefit of the students

(Annexure – 20)

Item – 22

To report about the Placement details of 2013-2017 batch of students.

The Council perused the placement details of 2013-2017 batch of students and appreciated the effort taken to place more number of students in various companies.

(Annexure – 21)

Item – 23

To report about the activities in the Alumni Association

Alumni Association inducted the Alumni of 2016-17 and the details are presented to the council.

The Council perused the details and Congratulated the Association.

(Annexure – 22)

Item –24

To report about other activities in Library details

The details of library additions are presented to the council. The Council perused the details.

(Annexure – 23)

Item – 25

Any other matters

To report about other activities.

To report about other activities to be implemented for the forthcoming academic years.

(Annexure – 24)

Principal/Member Secretary
Governing Body

Chairman
Governing Body

Date: 04.05.2018

8th GOVERNING COUNCIL MEETING

Sub: Intimation of 8th Governing Council Meeting – Reg.

The 8th Governing Council Meeting will be held on **11.05.2018** (Friday) at 10.30 a.m. at Board Room in KSRIET.

You are requested to make it convenient to attend the meeting.

GOVERNING COUNCIL MEMBERS – 2017-2018

S.NO.	Name and Address	Representation
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist
4	AICTE Nominee	To be nominated
5	Nominee from University	To be nominated
6	State Government Nominee	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem
7	Senior Faculty Member	Prof. Dr. P. Murugesan HoD – Mechanical
8	Faculty Member	Dr. R. Jeyabharath HoD – EEE Dr. R. Nandakumar HoD- ECE
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Member Secretary

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

8th GOVERNING COUNCIL MEETING

The 8th Governing Council Meeting is held on **11.05.2018** (Friday) at 10:30 a.m. at Board Room in KSRIET.

The following members constitute the Governing Council.

S.NO.	Name and Address	Representation	Signature
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee	
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member	
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist	
4	AICTE Nominee	To be nominated	—
5	Nominee from University	To be nominated	—
6	State Government Nominee	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem	
7	Senior Faculty Members	Prof. Dr. P. Murugesan HoD – Mechanical	
8	Faculty Members	Dr. R. Jeyabharath HoD – EEE	
		Dr. R. Nandakumar HoD- ECE	
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Dr. M. Venkatesan	

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

8th GOVERNING COUNCIL MEETING

Date :11.05.2018 (Friday)
Time : 10:30 am
Venue : Board Room, KSRIET.

Item No.	Agenda objects	Annexure No.
1.	Approval of the proceedings of 7th Governing Council Meeting	--
2.	Action Taken on proceedings of 7thGoverning Council Meeting	1
3.	Report of Academic and other important activities	2
4.	IQAC report and approval	3
5.	Important communications from AICTE, University, etc.,	4
6.	Submission of University Examination results for December 2016 and May 2017	5
7.	❖ Sanctioned intake and student admission for 2017-18 ❖ Report on admission made in the academic year 2017- 2018	6
8.	Progress in NBAprocess.	7
9.	❖ Budget (Institution) ❖ Budget proposal for the academic year 2018– 19 ❖ Audited statement of accounts academic year 2016-17	8
10.	MOU signed with various organizations	9
11.	Faculty recruitment for the academic year 2018-19	10
12.	Availability of faculty in the academic year 2017-18	11
13.	Faculty Development activities	12
14.	Value added courses	13
15.	Approval of minutes in planning and monitoring board	14
16.	Feedback review committee	15
17.	Centre for research and development	16
18.	PALS Activities	17
19.	IE Chapter	18
20.	Student development activities	19
21.	Cells and forum- Function of various committees	20
22.	Social activities -NSS,UBA	21
23.	Placement activities	22
24.	Alumni Association	23
25.	Library	24
26.	Any Other Suggestions	25

The Principal and Member Secretary of the Governing Council extended a warm welcome and thanked all the members for sparing their valuable time to make it possible to attend this meeting. Then, the items listed on the Agenda are taken for discussion one by one. The minutes of the meeting are as follows:

Item – 1

To confirm the minutes of the previous Governing Council Meeting.

The minutes of the 7th Governing Council Meeting held on 10.03.2017 is presented to the members. The members noted the minutes and approved the same.

Item -2

To review the action taken on the minutes of the previous Governing Council meeting.

Action taken report on the minutes of last meeting held on 10.03.2017 is presented to the members of Governing Council. The members noted the action taken report.

(Annexure – 1)

Item -3

To perused the note of the principal on the academic and others important activities during the period 2017– 2018.

The report generated from ERP was reviewed and verified.

The Annual Performance Audit and Annual report were reviewed.

The performance appraisal of Teaching and Non-teaching staff was reviewed and the appreciation details and action taken was discussed.

The members of Department Advisory Committee for all departments were approved.

The council perused the note of the principal on the academic, Choice Based Credit System was introduced in the academic year and other important activities of the college

(Annexure – 2)

Item – 4

To report about the IQAC report and approval.

The Annual Performance Audit and Annual report were reviewed.

The council approved and insisted to fulfill the needs as per the report given and approved the process.

(Annexure – 3)

Item -5

To report about the important communications, policy decisions received from Government, AICTE, DOTE, University, etc.

The Council perused the details.

(Annexure – 4)

Item -6

Submission of University Examination results for December 2016 and May 2017.

University Examination for December 2016 and May 2017Result analysis was produced and discussed in the meeting.

The Council perused the details and insisted to improve the results in the forthcoming semesters.

(Annexure – 5)

Item -7

To report about the Extension of AICTE Approval 2018-19

To report about the University affiliation 2017-18.

To report about the sanctioned intake and admissions for 2017-2018..

Report on admission made in the academic year 2017-2018.

As per the Policy document framed for the admission based on scholarship, Merit students-Economically weaker section students Sports achieved students

Scholarship admission was done by the Scrutinizing committee as per the procedure the list is enclosed and it was approved by the Governing Council

The details are presented to the Governing Council. The Council suggested to improve admissions in PG courses the council members approved.

(Annexure – 6)

Item -8

To report about the progress in NBA process.

The council perused the progress in NBA accreditation process for all the courses.

The Council asked to complete the NBA process in time.

(Annexure – 7)

Item –9

To peruse the budget proposal for the academic year 2018-2019

The budget proposal for the academic year 2018-2019 is presented to the Council and it is perused by the Council.

To peruse the Audited Statement of Accounts for the academic year 2016-2017

The audited statement of accounts and income, expenditure statements of 2016-2017 are presented to the Council and are perused by the Council.

(Annexure – 8)

Item – 10

To report about the MoU signed with various organizations.

The council peruse the details of the MoU signed by the departments

(Annexure – 9)

Item – 11

To ratify the selection made by the Staff Selection Committee

The details of staff selection made by the selection committee for the academic year 2018-2019 and number of staff required for the next semester is presented to the Governing Council.

The Council ratified the selections made by the staff selection committee for the various departments.

(Annexure –10)

Item – 12

To report about department wise faculty details.

Department wise faculty details are presented to the council. The Council perused and recorded the details of faculty members in each department for the academic year 2017 -18.

(Annexure – 11)

Item – 13

To report about Faculty Development activities.

Faculty Development activities are presented to the council.

The Council perused the details and suggested to improve faculty publications and to conduct more workshops for empowering faculty in doing research and teaching. The Council asked to encourage faculty to register for doing Ph.D.

(Annexure – 12)

Item – 14

To report about the Value added courses.

Thrust on development of knowledge and skills are provided through value added courses.

The Council perused the systems followed for conducting the value added course and suggested to improve it further.

(Annexure – 13)

Item –15

To report about minutes discussed in the planning and monitoring board.

The council perused the documents produced by various committees and discussed about the planning and monitoring board.

The council approved the decision made by the planning and monitoring board

(Annexure – 14)

Item – 16

To report about the Feedback review committee

The stakeholder feedbacks on curriculum and syllabus were discussed and suggestions/Action taken were given by Feedback Review Committee for the further improvements in Academic process.

(Annexure – 15)

Item – 17

To report about Centre for Research and Development activities.

Research and Development activities are presented to the council.

The Council perused the details and suggested to initiate the research and development for the faculty and student

(Annexure – 16)

Item – 18

To report about PALS Activities.

PALS activities are presented to the council.

The Council congratulated the members of PALS committee for conducting activities.

The Council also suggested to improve the activities for student's benefit

(Annexure – 17)

Item – 19

To report about function of IE Chapter.

The programs conducted in the IE Chapter details were presented to the council and the council discussed and appreciated.

(Annexure – 18)

Item – 20

To report about Students Development activities.

Students Development activities are presented to the council.

The Council perused the details and suggested to have remedial coaching for weak students. The Council also suggested making the students to do their projects of their own in recent trends like Internet of things etc.

(Annexure – 19)

Item – 21

To report the functioning of various cells and forums.

The council peruses the details and activities conducted by the various committees and suggested to improve the various activities by the cells and forums.

To report about the Function of committees.

The council approved the various function and activities done by the committee report given and approved the process.

It was decided to initiate the ECO CLUB in our club and necessary steps were taken.

The council approved and appreciated the activities done by various committees

(Annexure – 20)

Item – 22

To report about social activities.

The various activities like NSS were reported to the council members.

In addition action was taken to attach with UBA- Unnath Bharath Abhyian activities and steps were initiated

The council approved and suggested to do more activities for the benefit of the students

(Annexure – 21)

Item – 23

To report about the Placement details of 2014-2018 batch of students.

The Council perused the placement details of 2014-2018 batch of students and appreciated the effort taken to place maximum number of students in various companies.

(Annexure – 22)

Item – 24

To report about Alumni students details.

To submit the details about the contribution made by the alumni for the welfare of the college and fellow students.

The members of the Governing Council thanked the aluminous who have made liberal donation for the welfare of the college and their fellow students.

Alumni Association inducted the Alumni of 2016-17 and the details are presented to the council.

The Council perused the details and Congratulated the Association.

(Annexure – 23)

Item –25

To report about other activities in Library details

The details of library additions are presented to the council. The Council perused the details.

(Annexure – 24)

Item – 26

Any other matters

To report about other activities.

To report about other activities to be implemented for the forthcoming academic years.

(Annexure – 25)

Principal/Member Secretary
Governing Body

Chairman
Governing Body

Date: 04.03.2019

9th GOVERNING COUNCIL MEETING

Sub: Intimation of 9th Governing Council Meeting – Reg.

The 9th Governing Council Meeting will be held on **09.03.2019 (Saturday)** at 10.30 a.m. at Conference Hall in KSRIET.

You are requested to make it convenient to attend the meeting.

GOVERNING COUNCIL MEMBERS – 2018-2019

S.NO.	Name and Address	Representation
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist
4	AICTE Nominee	To be nominated
5	Nominee from University	To be nominated
6	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem
7	Senior Faculty Member	Prof. Dr. J.C. Kannan HoD, Physics
8	Faculty Member	Dr. P. Meenakshi devi HoD- IT Dr. B. Kalaavathi, HoD- CSE
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Member Secretary

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

9th GOVERNING COUNCIL MEETING

The9th Governing Council Meeting is held on **09.03.2019** (Saturday) at 10:30 a.m. at Conference Hall in KSRIET.

The following members constitute the Governing Council.

S.NO.	Name and Address	Representation	Signature
1	Thiru. R. Srinivasan, B.B.M., MISTE, 47C, Kolikkalnatham Road, Vavithottam, Tiruchengode – 637 211.	Chairman cum Managing Trustee	
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 47C, Kolikkalnatham Road, Tiruchengode – 637 211.	Member	
3	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist	9/3/19
4	AICTE Nominee	To be nominated	—
5	Nominee from University	To be nominated	—
6	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. R.Sukumar Professor &(RD) Dept of Civil Engineering Govt College of Engineering Salem	9/3/19
7	Senior Faculty Members	Dr. J.C. Kannan Prof. & Head Department of Physics	J.C.K 9/3/19.
8	Faculty Members	Dr. P. Meenakshidevi HoD- IT	P.M 9/3/19
		Dr. B. Kalaavathi, HoD, CSE	9/3/19
9	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Dr. M. Venkatesan	M.V 9/3/19

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

9th GOVERNING COUNCIL MEETING

Date : 09.03.2019 (Saturday

Time : 10:30 am

Venue : Conference Hall, KSRIET.

Item No.	Agenda objects	Annexure No.
1.	Approval of the proceedings of 8th Governing Council Meeting	--
2.	Action Taken on proceedings of 8th Governing Council Meeting	1
3.	❖ Report of Academic and other important activities, ❖ To submit and approve the revised service rule for the teaching staff and non teaching staff. ❖ To review and approve the E-Governance documents submitted by the Member secretary	2
4.	IQAC report and approval	3
5.	Important communications from AICTE, University, etc.,	4
6.	Submission of University Examination results for December 2017 and May 2018	5
7.	❖ Sanctioned intake and student admission for 2018-19 ❖ Report on admission made in the academic year 2018- 2019	6
8.	Progress in NBA Process, NIRF Ranking	7
9.	❖ Budget (Institution) ❖ Budget proposal for the academic year 2019 – 20 ❖ Audited statement of accounts academic year 2017-18 ❖ Utilization of First Graduate Fund, Tuition Fees Collected	8
10.	MOU signed with various organizations	9
11.	Faculty recruitment for the academic year 2019-20 ,	10
12.	Availability of faculty in the academic year 2018-19	11
13.	Institute innovation council	12
14.	Faculty Development activities	13
15.	Students Development activities	14
16.	Value added courses	15
17.	Approval of minutes in planning and monitoring board	16
18.	Feedback review committee	17
19.	Centre for research and development	18
20.	Cells and forum, Formation of III Cell, PALS Activities, IE Chapter, Function of various committees	19
21.	Consultancy works & Industrial training	20

Item No.	Agenda objects	Annexure No.
22.	Social activities - NSS,UBA	21
23.	Placement activities	22
24.	Alumni Association	23
25.	Library	24
26.	Any Other Suggestions	25

The Principal and Member Secretary of the Governing Council extended a warm welcome and thanked all the members for sparing their valuable time to make it possible to attend this meeting. Then, the items listed on the Agenda are taken for discussion one by one. The minutes of the meeting are as follows:

Item – 1

To confirm the minutes of the previous Governing Council Meeting.

The minutes of the 8th Governing Council Meeting held on 11.05.2018 is presented to the members. The members noted the minutes and approved the same.

Item -2

To review the action taken on the minutes of the previous Governing Council meeting.

Action taken report on the minutes of last meeting held on 11.05.2018 is presented to the members of Governing Council. The members noted the action taken report.

(Annexure – 1)

Item -3

To perused the note of the principal on the academic and others important activities during the period 2018 – 2019.

The report generated from ERP was reviewed and verified.

The performance appraisal of Teaching and Non-teaching staff was reviewed and the appreciation details and action taken was discussed.

The members of Department Advisory Committee for all departments were approved.

The council perused the note of the principal on the academic, follow up in Choice Based Credit System in the academic year and other important activities of the college

(Annexure – 2)

Item – 4

To report about the IQAC report and approval.

The Annual Performance Audit and Annual report were reviewed.

The council approved and insisted to fulfill the needs as per the report given and approved the process.

(Annexure – 3)

Item -5

To report about the important communications, policy decisions received from Government, AICTE, DOTE, University, etc.

The Council perused the details.

(Annexure – 4)

Item -6

Submission of University Examination results for December 2017 and May 2018.

The council perused the examination results for the academic year 2017-18 end semester results and verified with the data given by the COE.

The Council perused the details and insisted to improve the results in the forthcoming semesters.

(Annexure – 5)

Item -7

To report about the Extension of AICTE Approval 2018-19

To report about the University affiliation 2017-18.

To report about the sanctioned intake and admissions for 2017-2018..

Report on admission made in the academic year 2017-2018.

To review and approve the utilization of donations from Philanthropists to the following category of students as per the Policy for the scholarship approved by the Governing Council

As per the Policy document framed for the admission based on scholarship, Merit students-Economically weaker section students Sports achieved students

Scholarship admission was done by the Scrutinizing committee as per the procedure the list is enclosed and it wasapproved by the Governing Council

The details of Scholarship given to the students based on their marks concession in fees given and additional details are presented to the council. The Council perused the details

(Annexure –6)

Item -8

To report about the progress in NBA process & NIRF Ranking

The expert team of NBA Committee visited on 01.02.2019 to 03.02.20219 and expecting for the results.

To discuss about the NIRF ranking for the academic year 2018-2019

The council proposed about NIRF Ranking in the academic year 2018-2019 is presented to the Council and it is perused by the Council.

(Annexure – 7)

Item -9

To peruse the budget proposal for the academic year 2019-2020

The budget proposal for the academic year 2019-2020 is presented to the Council and it is perused by the Council.

To peruse the Audited Statement of Accounts for the academic year 2017-2018

The audited statement of accounts and income, expenditure statements of 2017-2018 are presented to the Council and are perused by the Council.

To peruse the Utilization of First Graduate Fund 2018-2019

The council perused the Utilization of First Graduate Fund for the academic year 2018-2019 is presented to the Council.

To peruse the Tuition Fees Collected in 2018-2019

The council perused the Tuition Fees Collected for the academic year 2018-2019 is presented to the Council.

(Annexure – 8)

Item – 10

To report about the MoU signed with various organizations.

The council perused the details of the MoU signed by the departments

(Annexure – 9)

Item – 11

To ratify the selection made by the Staff Selection Committee

The details of staff selection made by the selection committee for the academic year 2019-2020 and number of staff required for the next semester is presented to the Governing Council.

The Council ratified the selections made by the staff selection committee for the various departments.

(Annexure –10)

Item – 12

To report about department wise faculty details.

Department wise faculty details are presented to the council. The Council perused and recorded the details of faculty members in each department for the academic year 2018 -19.

(Annexure – 11)

Item – 13

To report about the initiation of the Institute Innovation Council

Institute Innovation Council details are presented to the council.

Faculty members and students were encouraged to attend various training programs and was approved by the council.

(Annexure – 12)

Item – 14

To report about Faculty Development activities.

Faculty Development activities are presented to the council.

Faculty members were encouraged to attend various training programs and workshops.

(Annexure – 13)

Item – 15

To report about Students Development activities.

Students Development activities are presented to the council.

A report on extension like symposiums, seminars, conferences, workshops, industry-institution interaction, etc., activities were presented to the council.

The council also suggested to make the students to do their projects of their own in recent trends. Industry experts are invited as resource persons in workshops.

(Annexure – 14)

Item – 16

To report about the Value added courses.

Thrust on development of knowledge and skills are provided through value added courses.

The Council perused the systems followed for conducting the value added course and suggested to improve it further.

(Annexure – 15)

Item –17

To report about minutes discussed in the planning and monitoring board.

The council perused the documents produced by various committees and discussed about the planning and monitoring board.

The council approved the decision made by the planning and monitoring board

(Annexure – 16)

Item – 18

To report about the Feedback review committee

The stakeholder feedbacks on curriculum and syllabus were discussed and suggestions/Action taken were given by Feedback Review Committee for the further improvements in Academic process.

(Annexure – 17)

Item – 19

To report about Centre for Research and Development activities.

Research and Development activities are presented to the council.

The Council perused the details and suggested to initiate the research and development for the faculty and student

(Annexure – 18)

Item – 20

To report the functioning of various cells and forums.

The council peruses the details and congratulated for the activities conducted by various cells and forum and suggested to improve the various activities by the cells and forums.

To report about the Formation of III Cell.

The council peruse about the details of the formation of III Cell and suggested to do activities and encourage the students activities

To report about the Function of committees.

The council approved the various function and activities done by the committee report given and approved the process.

To report about PALS Activities.

PALS activities are presented to the council.

The Council congratulated the members of PALS committee for conducting activities.

To report about function of IE Chapter.

The programs conducted in the IE Chapter details were presented to the council and the council discussed and appreciated.

The Council also suggested to improve the activities for student's benefit

(Annexure – 19)

Item – 21

To report about Consultancy works &Industrial training activities.

Consultancy works &Industrial training activities are presented to the council.

The Council perused the details about the Consultancy works &Industrial training and suggested to initiate more Consultancy works &Industrial training for the faculty and student

(Annexure – 20)

Item – 22

To report about social activities.

The various activities like NSS and UBA were reported to the council members.

(UBA) Unnat Bharat Abhyian conducted events in schools and free books were distributed.

The council suggested to do more activities for the benefit of the students

(Annexure – 21)

Item – 23

To report about the Placement details of 2015-2019 batch of students.

The Council perused the placement details of 2015-2019 batch of students and appreciated the effort taken to place maximum number of students in reputed companies.

(Annexure – 22)

Item –24

To report about Alumni students details.

To submit the details about the contribution made by the alumni for the welfare of the college and fellow students.

The members of the Governing Council thanked the aluminous who have made liberal donation for the welfare of the college and their fellow students.

(Annexure – 23)

Item -25

To report about other activities in Library details

The details of library additions are presented to the council. The Council perused the details.

(Annexure – 24)

Item –26

Any other matters and suggestions.

To report about other activities.

To report about other activities to be implemented for the forthcoming academic years.

(Annexure – 25)

Principal/Member Secretary
Governing Body

Chairman
Governing Body

Date: 15.10.2019

10th GOVERNING COUNCIL MEETING

Sub: Intimation of10th Governing Council Meeting – Reg.

The 10th Governing Council Meeting will be held on **18.10.2019 (Friday)** at 10.30 a.m. at Conference Hall in KSRIET.

You are requested to make it convenient to attend the meeting.

GOVERNING COUNCIL MEMBERS – 2019-2020

S.NO.	Name and Address	Representation
1	Thiru. R. Srinivasan, B.B.M., MISTE, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Chairman cum Managing Trustee
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member
3	Shri K.S. Sachin, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member
4	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist
5	AICTE Nominee	To be nominated
6	Nominee from University	To be nominated
7	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. B.V.Bhuvaneswari Associate Professor &Head Dept of Physics ACGCE&T KARAIKUDI
8	Senior Faculty Member	Prof. Dr. J.C. Kannan HoD, Physics
9	Faculty Member	Dr. P. Meenakshi devi HoD- IT Dr. B. Kalaavathi, HoD- CSE
10	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Member Secretary

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

10th GOVERNING COUNCIL MEETING

The 10th Governing Council Meeting is held on **18.10.2019** (Friday) at 10:30 a.m. at Conference Hall in KSRIET.

The following members constitute the Governing Council.

S.NO.	Name and Address	Representation	Signature
1	Thiru. R. Srinivasan, B.B.M., MISTE, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Chairman cum Managing Trustee	
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member	
3	Shri K.S. Sachin, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member	
4	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist	18/10/19.
5	AICTE Nominee	To be nominated	—
6	Nominee from University	To be nominated	—
7	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. B.V. Bhuvaneswari Associate Professor & Head Dept of Physics ACGCE&T, Karaikudi	18/10/19
8	Senior Faculty Members	Dr. J.C. Kannan Prof. & Head Department of Physics	J.C. 18/10/19.
9	Faculty Members	Dr.P.Meenakshidevi HoD- IT	18/10/19
		Dr.B.Kalaavathi, HoD, CSE	18/10/19
10	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Dr. M. Venkatesan	18/10/19

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

10th GOVERNING COUNCIL MEETING

Date : 18.10.2019 (Friday)

Time : 10:30 am

Venue : Conference Hall, KSRIET.

Item No.	Agenda objects	Annexure No.
1.	Approval of the proceedings of 9th Governing Council Meeting	--
2.	Action Taken on proceedings of 9th Governing Council Meeting	1
3.	❖ Report of Academic and other important activities, ❖ To submit and approve the revised service rule for the teaching staff and non teaching staff. ❖ To review and approve the E-Governance documents submitted by the Member secretary	2
4.	IQAC report and approval	3
5.	Important communications from AICTE, University, etc.,	4
6.	Submission of University Examination results for December 2018 and May 2019	5
7.	❖ Sanctioned intake and student admission for 2019-20 ❖ Report on admission made in the academic year 2019- 2020 ❖ Applying for 2 new courses o B.E. Biomedical Engineering o M.E. Big Data Analytics	6
8.	Results in NBA Accreditation of programmes under Tier –II Category, NIRF Ranking	7
9.	Availability of faculty in the academic year 2018-19	8
10.	Institute innovation council	9
11.	Faculty Development activities	10
12.	Students Development activities	11
13.	Value added courses	12
14.	Approval of minutes in planning and monitoring board	13
15.	Feedback review committee	14
16.	Centre for research and development	15
17.	Cells and forum, Formation of III Cell, PALS Activities,IE Chapter, Function of various committees	16
18.	Consultancy works & Industrial training	17
19.	Social activities –NCC, NSS, UBA	18
20.	Placement activities	19
21.	Alumni Association	20
22.	Library	21
23.	Any Other Suggestions	22

The Principal and Member Secretary of the Governing Council extended a warm welcome and thanked all the members for sparing their valuable time to make it possible to attend this meeting. Then, the items listed on the Agenda are taken for discussion one by one. The minutes of the meeting are as follows:

Item – 1

To confirm the minutes of the previous Governing Council Meeting.

The minutes of the 9th Governing Council Meeting held on 09.03.2019 is presented to the members. The members noted the minutes and approved the same.

Item -2

To review the action taken on the minutes of the previous Governing Council meeting.

Action taken report on the minutes of last meeting held on 09.03.2019 is presented to the members of Governing Council. The members noted the action taken report.

(Annexure – 1)

Item -3

To perused the note of the principal on the academic and others important activities during the period 2019 – 2020.

The report generated from ERP was reviewed and verified.

The Annual Performance Audit and Annual report were reviewed.

The performance appraisal of Teaching and Non-teaching staff was reviewed and the appreciation details and action taken was discussed.

The members of Department Advisory Committee for all departments were approved.

The council perused the note of the principal on the academic, follow up in Choice Based Credit System in the academic year and other important activities of the college

(Annexure – 2)

Item – 4

To report about the IQAC report and approval.

The Annual Performance Audit and Annual report were reviewed.

The council approved and insisted to fulfill the needs as per the report given and approved the process.

(Annexure – 3)

Item -5

To report about the important communications, policy decisions received from Government, AICTE, DOTE, University, etc.

The Council perused the details.

(Annexure – 4)

Item -6

Submission of University Examination results for December 2018 and May 2019.

The council perused the examination results for the academic year 2018-19 end semester results and verified with the data given by the COE.

The Council perused the details and insisted to improve the results in the forthcoming semesters.

(Annexure – 5)

Item -7

To report about the Extension of AICTE Approval 2018-19

To report about the University affiliation 2018-19.

To report about the sanctioned intake and admissions for 2019-2020.

Report on admission made in the academic year 2019-2020.

Applying for 2 new courses – B.E. Biomedical Engineering, M.E. Big Data Analytics.

To review and approve the utilization of donations from Philanthropists to the following category of students as per the Policy for the scholarship approved by the Governing Council

As per the Policy document framed for the admission based on scholarship, Merit students-Economically weaker section students Sports achieved students

Scholarship admission was done by the Scrutinizing committee as per the procedure the list is enclosed and it was approved by the Governing Council

The details of Scholarship given to the students based on their marks concession in fees given and additional details are presented to the council. The Council perused the details

(Annexure –6)

Item -8

To report about the result in NBA process & NIRF Ranking

NBA accreditation for all the 5 UG programmes with high scores.

The Council appreciated the team members for the achievement in the NBA process.

To discuss about the NIRF ranking for the academic year 2018-2019

The council proposed about NIRF Ranking in the academic year 2018-2019 is presented to the Council and it is perused by the Council.

(Annexure – 7)

Item – 9

To report about department wise faculty details.

Department wise faculty details are presented to the council. The Council perused and recorded the details of faculty members in each department for the academic year 2018 -19.

(Annexure – 8)

Item – 10

To report about the initiation of the Institute Innovation Council

Institute Innovation Council details are presented to the council.

Faculty members and students were encouraged to attend various training programs and was approved by the council.

(Annexure – 9)

Item – 11

To report about Faculty Development activities.

Faculty Development activities are presented to the council.

Faculty members were encouraged to attend various training programs and workshops.

(Annexure – 10)

Item – 12

To report about Students Development activities.

Students Development activities are presented to the council.

A report on extension like symposiums, seminars, conferences, workshops, industry-institution interaction, etc., activities were presented to the council.

The council also suggested to make the students to do their projects of their own in recent trends. Industry experts are invited as resource persons in workshops.

(Annexure – 11)

Item – 13

To report about the Value added courses.

Thrust on development of knowledge and skills are provided through value added courses.

The Council perused the systems followed for conducting the value added course and suggested to improve it further.

(Annexure – 12)

Item –14

To report about minutes discussed in the planning and monitoring board.

The council perused the documents produced by various committees and discussed about the planning and monitoring board.

The council approved the decision made by the planning and monitoring board

(Annexure – 13)

Item – 15

To report about the Feedback review committee

The stakeholder feedbacks on curriculum and syllabus were discussed and suggestions/Action taken were given by Feedback Review Committee for the further improvements in Academic process.

(Annexure – 14)

Item – 16

To report about Centre for Research and Development activities.

Research and Development activities are presented to the council.

The Council perused the details and suggested to initiate the research and development for the faculty and student

(Annexure – 15)

Item – 17

To report the functioning of various cells and forums.

The council peruses the details and congratulated for the activities conducted by various cells and forum and suggested to improve the various activities by the cells and forums.

To report about the Formation of III Cell.

The council peruse about the details of the formation of III Cell and suggested to do activities and encourage the students activities

To report about PALS Activities.

PALS activities are presented to the council.

The Council congratulated the members of PALS committee for conducting activities.

To report about function of IE Chapter.

The programs conducted in the IE Chapter details were presented to the council and the council discussed and appreciated.

The Council also suggested to improve the activities for student's benefit

(Annexure – 16)

Item – 18

To report about Consultancy works &Industrial training activities.

Consultancy works &Industrial training activities are presented to the council.

The Council perused the details about the Consultancy works &Industrial training and suggested to initiate more Consultancy works &Industrial training for the faculty and student

(Annexure – 17)

Item – 19

To report about social activities.

Sanction of NCC in the campus.

From this academic onwards a new National Cadet Corps (NCC) unit in our campus was introduced. The council appreciated for the steps taken to bring the NCC Wing.

The various activities like NSS and UBA were reported to the council members.

(UBA) Unnat Bharat Abhyian conducted events in schools and free books were distributed.

The council suggested to do more activities for the benefit of the students

(Annexure – 18)

Item – 20

To report about the Placement details of 2015-2019 batch of students.

The Council perused the placement details of 2015-2019 batch of students and appreciated the effort taken to place maximum number of students in reputed companies.

(Annexure – 19)

Item –21

To report about Alumni students details.

To submit the details about the contribution made by the alumni for the welfare of the college and fellow students.

The members of the Governing Council thanked the aluminous who have made liberal donation for the welfare of the college and their fellow students.

(Annexure – 20)

Item -22

To report about other activities in Library details

The details of library additions are presented to the council. The Council perused the details.

(Annexure – 21)

Item –23

Any other matters and suggestions.

To report about other activities.

To report about other activities to be implemented for the forthcoming academic years.

(Annexure – 22)

Principal/Member Secretary
Governing Body

Chairman
Governing Body

Date: 16.03.2020

11th GOVERNING COUNCIL MEETING

Sub: Intimation of 11th Governing Council Meeting – Reg.

The 11th Governing Council Meeting will be held on **21.03.2020** (Saturday) at 10.30 a.m. at Conference Hall in KSRIET.

You are requested to make it convenient to attend the meeting.

GOVERNING COUNCIL MEMBERS – 2019-2020

S.NO.	Name and Address	Representation
1	Thiru. R. Srinivasan, B.B.M., MISTE, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Chairman cum Managing Trustee
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member
3	Shri K.S. Sachin, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member
4	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist
5	AICTE Nominee	To be nominated
6	Nominee from University	To be nominated
7	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. B.V.Bhuvaneswari Associate Professor &Head Dept of Physics ACGCE&T KARAIKUDI
8	Senior Faculty Member	Prof. Dr. J.C. Kannan HoD, Physics
9	Faculty Member	Dr. P. Meenakshi devi HoD- IT Dr. B. Kalaavathi, HoD- CSE
10	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Member Secretary

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

11th GOVERNING COUNCIL MEETING

The 11th Governing Council Meeting is held on **21.03.2020** (Saturday) at 10:30 a.m. at Conference Hall in KSRIET.

The following members constitute the Governing Council.

S.NO.	Name and Address	Representation	Signature
1	Thiru. R. Srinivasan, B.B.M., MISTE, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Chairman cum Managing Trustee	
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member	
3	Shri K.S. Sachin, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member	
4	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist	21/3/2020
5	AICTE Nominee	To be nominated	—
6	Nominee from University	To be nominated	—
7	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. B.V.Bhuvaneswari Associate Professor &Head Dept of Physics ACGCE&T Karaikudi	21/3/20
8	Senior Faculty Members	Dr. J.C. Kannan Prof. & Head Department of Physics	21/3/2020
9	Faculty Members	Dr.P.Meenakshidevi HoD- IT	21/3/20
		Dr.B.Kalaavathi, HoD, CSE	21/3/2020
	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Dr. M. Venkatesan	21/3/2020

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

11th GOVERNING COUNCIL MEETING

Date : **21.03.2020** (Saturday)
Time : **10:30 am**
Venue : **Conference Hall, KSRIET**

Item No.	Agenda objects	Annexure No.
1.	Approval of the proceedings of 10th Governing Council Meeting	--
2.	Action Taken on proceedings of 10th Governing Council Meeting	1
3.	❖ Report of Academic and other important activities, ❖ To review and approve the E-Governance documents submitted by the Member secretary	2
4.	IQAC report and approval	3
5.	Important communications from AICTE, University, etc.,	4
6.	Proposal for NAAC and Autonomous process, NIRF Ranking	5
7.	❖ Budget (Institution) ❖ Budget proposal for the academic year 2019 – 20 ❖ Audited statement of accounts academic year 2017-18 ❖ Utilization of First Graduate Fund, Tuition Fees Collected	6
8.	MOU signed with various organizations	7
9.	Faculty recruitment for the academic year 2020-2021 ,	8
10.	Availability of faculty in the academic year 2019-2020	9
11.	Institute innovation council	10
12.	Faculty Development activities	11
13.	Students Development activities	12
14.	Value added courses	13
15.	Approval of minutes in planning and monitoring board	14
16.	Feedback review committee	15
17.	Centre for research and development	16
18.	Cells and forum, Formation of III Cell, PALS Activities,IE Chapter, Function of various committees, OBC& Minority, Career Guidance cell.	17
19.	Consultancy works & Industrial training	18
20.	Social activities -NCC,NSS,UBA	19
21.	Placement activities	20
22.	Alumni Association	21
23.	Library	22
24.	Any Other Suggestions	23

The Principal and Member Secretary of the Governing Council extended a warm welcome and thanked all the members for sparing their valuable time to make it possible to attend this meeting. Then, the items listed on the Agenda are taken for discussion one by one. The minutes of the meeting are as follows:

Item – 1

To confirm the minutes of the previous Governing Council Meeting.

The minutes of the 10th Governing Council Meeting held on 18.10.2019 is presented to the members. The members noted the minutes and approved the same.

Item -2

To review the action taken on the minutes of the previous Governing Council meeting.

Action taken report on the minutes of last meeting held on 18.10.2019 is presented to the members of Governing Council. The members noted the action taken report.

(Annexure – 1)

Item -3

To perused the note of the principal on the academic and others important activities during the period 2019 – 2020.

The report generated from ERP was reviewed and verified.

The Annual Performance Audit and Annual report were reviewed.

The performance appraisal of Teaching and Non-teaching staff was reviewed and the appreciation details and action taken was discussed.

The members of Department Advisory Committee for all departments were approved.

The council perused the note of the principal on the academic, follow up in Choice Based Credit System in the academic year and other important activities of the college

(Annexure – 2)

Item – 4

To report about the IQAC report and approval.

The Annual Performance Audit and Annual report were reviewed.

The council approved and insisted to fulfill the needs as per the report given and approved the process.

(Annexure – 3)

Item -5

To report about the important communications, policy decisions received from Government, AICTE, DOTE, University, etc.

The Council perused the details.

(Annexure – 4)

Item -6

To report about applying for NAAC and Autonomous process & about NIRF Ranking

The council proposed to apply for NAAC Accreditation and Autonomous process

To discuss about the NIRF ranking for the academic year 2019-2020

The council proposed about NIRF Ranking in the academic year 2019-2020 is presented to the Council and it is perused by the Council.

(Annexure – 7)

Item -7

To peruse the budget proposal for the academic year 2020-2021

The budget proposal for the academic year 2020-2021 is presented to the Council and it is perused by the Council.

To peruse the Audited Statement of Accounts for the academic year 2018-2019

The audited statement of accounts and income, expenditure statements of 2018-2019 are presented to the Council and are perused by the Council.

To peruse the Utilization of First Graduate Fund 2019-2020

The council perused the Utilization of First Graduate Fund for the academic year 2019-2020 is presented to the Council.

To peruse the Tuition Fees Collectedin 2019-2020

The council perused the Tuition Fees Collected for the academic year 2019-2020 is presented to the Council.

(Annexure – 6)

Item – 8

To report about the MoU signed with various organizations.

The council peruse the details of the MoU signed by the departments

(Annexure – 7)

Item – 9

To ratify the selection made by the Staff Selection Committee

The details of staff selection made by the selection committee for the academic year 2020-2021 and number of staff required for the next semester is presented to the Governing Council.

The Council ratified the selections made by the staff selection committee for the various departments.

(Annexure –8)

Item – 10

To report about department wise faculty details.

Department wise faculty details are presented to the council. The Council perused and recorded the details of faculty members in each department for the academic year 2019 -20.

(Annexure – 9)

Item – 11

To report about the initiation of the Institute Innovation Council

Institute Innovation Council details are presented to the council.

Faculty members and students were encouraged to attend various training programs and was approved by the council.

(Annexure – 10)

Item – 12

To report about Faculty Development activities.

Faculty Development activities are presented to the council.

Faculty members were encouraged to attend various training programs and workshops.

(Annexure – 11)

Item – 13

To report about Students Development activities.

Students Development activities are presented to the council.

A report on extension like symposiums, seminars, conferences, workshops, industry-institution interaction, etc., activities were presented to the council.

The council also suggested to make the students to do their projects of their own in recent trends. Industry experts are invited as resource persons in workshops.

(Annexure – 12)

Item – 14

To report about the Value added courses.

Thrust on development of knowledge and skills are provided through value added courses.

The Council perused the systems followed for conducting the value added course and suggested to improve it further.

(Annexure – 13)

Item –15

To report about minutes discussed in the planning and monitoring board.

The council perused the documents produced by various committees and discussed about the planning and monitoring board.

The council approved the decision made by the planning and monitoring board

(Annexure – 14)

Item – 16

To report about the Feedback review committee

The stakeholder feedbacks on curriculum and syllabus were discussed and suggestions/Action taken were given by Feedback Review Committee for the further improvements in Academic process.

(Annexure – 15)

Item – 17

To report about Centre for Research and Development activities.

Research and Development activities are presented to the council.

The Council perused the details and suggested to initiate the research and development for the faculty and student

(Annexure – 16)

Item – 18

To report the functioning of various cells and forums.

Formation of OBC& Minority, Career Guidance cell was framed and approved by the council and to be function from the next academic year onwards

The council peruses the details and congratulated for the activities conducted by various cells and forum and suggested to improve the various activities by the cells and forums.

To report about the Formation of III Cell.

The council peruse about the details of the formation of III Cell and suggested to do activities and encourage the students activities

To report about the Function of committees.

The council approved the various function and activities done by the committee report given and approved the process.

To report about PALS Activities.

PALS activities are presented to the council.

The Council congratulated the members of PALS committee for conducting activities.

To report about function of IE Chapter.

The programs conducted in the IE Chapter details were presented to the council and the council discussed and appreciated.

The Council also suggested to improve the activities for student's benefit

(Annexure – 17)

Item – 19

To report about Consultancy works &Industrial training activities.

Consultancy works &Industrial training activities are presented to the council.

The Council perused the details about the Consultancy works &Industrial training and suggested to initiate more Consultancy works &Industrial training for the faculty and student

(Annexure – 18)

Item – 20

To report about social activities.

The various activities like NCC,NSS and UBA were reported to the council members.

The activities in NCC were produced in the council and was appreciated.

(UBA) Unnat Bharat Abhyian conducted events in schools and free books were distributed.

The council suggested to do more activities for the benefit of the students

(Annexure – 19)

Item – 21

To report about the Placement details of 2016-2020 batch of students.

The Council perused the placement details of 2016-2020 batch of students and appreciated the effort taken to place maximum number of students in reputed companies.

(Annexure – 20)

Item –22

To report about Alumni students details.

To submit the details about the contribution made by the alumni for the welfare of the college and fellow students.

The members of the Governing Council thanked the aluminous who have made liberal donation for the welfare of the college and their fellow students.

(Annexure – 21)

Item -23

To report about other activities in Library details

The details of library additions are presented to the council. The Council perused the details.

(Annexure – 22)

Item –24

Any other matters and suggestions.

To report about other activities.

To report about other activities to be implemented for the forthcoming academic years.

(Annexure – 23)

Principal/Member Secretary
Governing Body

Chairman
Governing Body

Date: 03.05.2021

12th GOVERNING COUNCIL MEETING

Sub: Intimation of 12th Governing Council Meeting – Reg.

The 12th Governing Council Meeting will be held on 08.05.2021 (Saturday) at 10.30 a.m. at Conference Hall in KSRIET.

You are requested to make it convenient to attend the meeting.

GOVERNING COUNCIL MEMBERS – 2020-2021

S.NO.	Name and Address	Representation
1	Thiru. R. Srinivasan, B.B.M., MISTE, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Chairman cum Managing Trustee
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member
3	Shri K.S. Sachin, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member
4	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist
5	AICTE Nominee	To be nominated
6	Nominee from University	To be nominated
7	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. B.V.Bhuvaneswari Associate Professor &Head Dept of Physics ACGCE&T KARAIKUDI
8	Senior Faculty Member	Prof. Dr. J.C. Kannan Director – Student Affairs and Planning & Development
9	Faculty Member	Dr. P. Meenakshi devi Director - Academics Dr. B. Kalaavathi, Director – R & D
10	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Member Secretary

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

12th GOVERNING COUNCIL MEETING

The 12th Governing Council Meeting is held on **08.05.2021** (Saturday) 10:30 a.m. in Conference Hall at KSRIET.

The following members constitute the Governing Council.

S.NO.	Name and Address	Representation	Signature
1	Thiru. R. Srinivasan, B.B.M., MISTE, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Chairman cum Managing Trustee	
2	Tmt. Kavitha Srinivasan, M.A., M.B.A., M.Phil., 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member	
3	Shri K.S. Sachin, 5/492, K.S.R. Kalvi Nagar, Kuchipalayam (Po), Tiruchengode – 637 215.	Member	
4	Industrialist / Technologist / Educationalist from the Region	Mr. Sengottuvel Industrialist	
5	AICTE Nominee	To be nominated	—
6	Nominee from University	To be nominated	—
7	Directorate of Technical Education Guindy, Chennai – 600 025.	Dr. B.V.Bhuvaneswari Associate Professor &Head Dept of Physics ACGCE&T Karaikudi	
8	Senior Faculty Members	Prof. Dr. J.C. Kannan Director – Student Affairs and Planning & Development	
9	Faculty Members	Dr. P. Meenakshi devi Director - Academics	
		Dr. B. Kalaavathi, Director – R & D	
10	The Principal, K S R Institute for Engineering and Technology, Tiruchengode	Dr. M. Venkatesan	

K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

TIRUCHENGODE – 637 215

12th GOVERNING COUNCIL MEETING

Date : **08.05.2021** (Saturday)

Time : **10:30 am**

Venue : **Conference Hall, KSRIET**

Item No.	Agenda objects	Annexure No.
1.	Approval of the proceedings of 11th Governing Council Meeting	--
2.	Action Taken on proceedings of 11th Governing Council Meeting	1
3.	❖ Report of Academic and other important activities, ❖ Change of Bank account by the Institution ❖ Promotion as – Director, HoD, Officials ❖ To submit and approve the revised service rule for the teaching staff and non teaching staff. ❖ To review and approve the E-Governance documents submitted by the Member secretary	2
4.	IQAC report and approval	3
5.	Important communications from AICTE, University, etc.,	4
6.	Submission of University Examination results for December 2019 and May 2020	5
7.	❖ Sanctioned intake and student admission for 2020-21 ❖ Report on admission made in the academic year 2020- 2021	6
8.	❖ Progress in NAAC and Autonomous process, NIRF Ranking ❖ Intranet College Management System (CMS)facility	7
9.	❖ Budget (Institution) ❖ Budget proposal for the academic year 2021– 2022 ❖ Audited statement of accounts academic year 2019-20 ❖ Utilization of First Graduate Fund, Tuition Fees Collected	8
10.	MOU signed with various organizations- IITM Research park MOU planned	9
11.	Faculty recruitment for the academic year 2021-2022,	10
12.	Availability of faculty in the academic year 2020-2021	11
13.	Institute innovation council, Constitution of Programme evaluation Committee (PEC)	12
14.	Faculty Development activities	13
15.	Students Development activities	14
16.	Value added courses	15
17.	Approval of minutes in planning and monitoring board, Introduction of KSRIET Innovation and Entrepreneurship policy 2020.	16
18.	Feedback review committee-360^0 Feedback	17
19.	Centre for research and development	18

Item No.	Agenda objects	Annexure No.
20.	Cells and forum, Formation of III Cell, PALS Activities, IE Chapter, Function of various committees OBC& Minority, Career Guidance cell.	19
21.	Consultancy works & Industrial training	20
22.	Social activities -NCC,NSS,UBA	21
23.	Placement activities	22
24.	Alumni Association	23
25.	Library	24
26.	Any Other Suggestions	25

The Principal and Member Secretary of the Governing Council extended a warm welcome and thanked all the members for sparing their valuable time to make it possible to attend this meeting. Then, the items listed on the Agenda are taken for discussion one by one. The minutes of the meeting are as follows:

Item – 1

To confirm the minutes of the previous Governing Council Meeting.

The minutes of the 11th Governing Council Meeting held on 21.03.2020 is presented to the members. The members noted the minutes and approved the same.

Item -2

To review the action taken on the minutes of the previous Governing Council meeting.

Action taken report on the minutes of last meeting held on 21.03.2020 is presented to the members of Governing Council. The members noted the action taken report.

(Annexure – 1)

Item -3

To perused the note of the principal on the academic and others important activities during the period 2020 – 2021.

Change of Bank account by the Institution

Change of bank account from Lakshmi Vilas Bank to KOTAK Mahindra Ltd

The manage ment has changed the Bank Account from the existing Lakshmi Vilas Bank to KOTAK Mahindra Ltd from this year.

Promotion as Director, HoD, Officials

To report about the promotion of the senior faculty members as Director, Heads and Officials for the enhancement of the further development of the institution.

The report generated from ERP was reviewed and verified.

The Annual Performance Audit and Annual report were reviewed.

The performance appraisal of Teaching and Non-teaching staff was reviewed and the appreciation details and action taken was discussed.

The members of Department Advisory Committee for all departments were approved.

The council perused the note of the principal on the academic, follow up in system in the academic year and other important activities of the college

(Annexure – 2)

Item – 4

To report about the IQAC report and approval.

The Annual Performance Audit and Annual report were reviewed.

The council approved and insisted to fulfill the needs as per the report given and approved the process.

(Annexure – 3)

Item -5

To report about the important communications, policy decisions received from Government, AICTE, DOTE, University, etc.

The Council perused the details.

(Annexure – 4)

Item -6

Submission of University Examination results for December 2019 and May 2020.

The council perused the examination results for the academic year 2019-2020 end semester results and verified with the data given by the COE.

The Council perused the details and insisted to improve the results in the forthcoming semesters.

(Annexure – 5)

Item -7

To report about the Extension of AICTE Approval 2021-2022

To report about the University affiliation 2020-21.

To report about the sanctioned intake and admissions for 2020-2021.

Report on admission made in the academic year 2020-2021.

To review and approve the utilization of donations from Philanthropists to the following category of students as per the Policy for the scholarship approved by the Governing Council

As per the Policy document framed for the admission based on scholarship, Merit students-Economically weaker section students Sports achieved students

Scholarship admission was done by the Scrutinizing committee as per the procedure the list is enclosed and it was approved by the Governing Council

The details of Scholarship given to the students based on their marks concession in fees given and additional details are presented to the council. The Council perused the details

(Annexure –6)

Item -8

To report about the progress in NAAC and Autonomous process & NIRF Ranking

Intranet College Management System (CMS)facility was implemented from this academic year onwards and approved by the council.

To discuss about the NIRF ranking for the academic year 2020-2021is presented to the Council and it is perused by the Council.

(Annexure – 7)

Item -9

To peruse the budget proposal for the academic year 2021-2022

The budget proposal for the academic year 2021-2022 is presented to the Council and it is perused by the Council.

To peruse the Audited Statement of Accounts for the academic year 2019-2020

The audited statement of accounts and income, expenditure statements of 2019-2020 are presented to the Council and are perused by the Council.

To peruse the Utilization of First Graduate Fund 2020-2021

The council perused the Utilization of First Graduate Fund for the academic year 2020-2021 is presented to the Council.

To peruse the Tuition Fees Collected in 2020-2021

The council perused the Tuition Fees Collected for the academic year 2020-2021 is presented to the Council.

(Annexure – 8)

Item – 10

To report about the MoU signed with various organizations.

IITM Research park MOU planned

The council peruse the details of the MoU signed by the departments

(Annexure – 9)

Item – 11

To ratify the selection made by the Staff Selection Committee

The details of staff selection made by the selection committee for the academic year 2021-2022 and number of staff required for the next semester is presented to the Governing Council.

The Council ratified the selections made by the staff selection committee for the various departments.

(Annexure –10)

Item – 12

To report about department wise faculty details.

Department wise faculty details are presented to the council. The Council perused and recorded the details of faculty members in each department for the academic year 2020 -21.

(Annexure – 11)

Item – 13

To report about the initiation of the Institute Innovation Council

Institute Innovation Council details are presented to the council.

Constitution of Programme evaluation Committee (PEC) for SPDC

A Committee was framed by the senior members and was approved by the council

Faculty members and students were encouraged to attend various training programs and was approved by the council.

(Annexure – 12)

Item – 14

To report about Faculty Development activities.

Faculty Development activities are presented to the council.

Faculty members were encouraged to attend various training programs and workshops.

(Annexure – 13)

Item – 15

To report about Students Development activities.

Students Development activities are presented to the council.

A report on extension like symposiums, seminars, conferences, workshops, industry-institution interaction, etc., activities were presented to the council.

The council also suggested to make the students to do their projects of their own in recent trends. Industry experts are invited as resource persons in workshops.

(Annexure – 14)

Item – 16

To report about the Value added courses.

Thrust on development of knowledge and skills are provided through value added courses.

The Council perused the systems followed for conducting the value added course and suggested to improve it further.

(Annexure – 15)

Item –17

To report about minutes discussed in the planning and monitoring board.

The council perused the documents produced by various committees and discussed about the planning and monitoring board.

Introduction of KSRIET Innovation and Entrepreneurship policy 2020.

The committee approved the KSRIET Innovation and Entrepreneurship policy 2020.

The council approved the decision made by the planning and monitoring board

(Annexure – 16)

Item – 18

To report about the Feedback review committee -360 degree feedback

The stakeholder feedbacks on curriculum and syllabus were discussed and suggestions/Action taken were given by Feedback Review Committee for the further improvements in Academic process.

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Research and Development activities are presented to the council.

The Council perused the details and suggested to initiate the research and development for the faculty and student

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Item – 20

To report the functioning of various cells and forums.

List of committees where modified and the council after verification was approved

The council peruses the details and congratulated for the activities conducted by various cells and forum and suggested to improve the various activities by the cells and forums.

To report about the Function and activities of III Cell.

The council peruse about the details of the functions of III Cell and suggested to do activities and encourage the students activities

Functions ofOBC& Minority, Career Guidance cell was presented in the council and approved.

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To report about Alumni students details.

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(Annexure – 23)

Item -25

To report about other activities in Library details

The details of library additions are presented to the council. The Council perused the details.

(Annexure – 24)

Item –26

Any other matters and suggestions.

To report about other activities.

To report about other activities to be implemented for the forthcoming academic years.

(Annexure – 25)

Principal/Member Secretary
Governing Body

Chairman
Governing Body