

## **MEMBERS OF RESEARCH AND DEVELOPMENT CELL:**

- ❖ **Dr. M. Venkatesan, Professor and Principal**
- ❖ **Dr.K. Tamizharasu, Professor and Head -R&D**
- ❖ **Dr. A. Murugesan, Associate Professor - EEE**
- ❖ **Dr. S. Premalatha, Associate Professor - ECE**
- ❖ **Dr. K. Sumathi, Associate Professor - CSE**
- ❖ **Dr. M. Siva Kumar, Associate Professor – Mech.**
- ❖ **Dr. N B Mahesh Kumar, Associate Professor – IT**
- ❖ **Ms. T. Yamuna Rani, AP - BME**
- ❖ **Mr. S. Madhan, AP – English**

## **ABOUT THE RESEARCH AND DEVELOPMENT CELL**

KSRIET is focusing more on Research Programs. Accordingly, an R&D Cell has been established to promote and monitor the research Programs of the college. R & D cell is headed by **Dr.K. Tamizharasu, Professor and Head - R&D** and supported by all departments. The cell monitors and coordinates all the research activities of the college by meticulous planning and follow-up. The objective of R & D Cell is to promote research activities among students and faculty as well as to provide a robust platform for sharing and implementing innovative and creative ideas by exchanging the information and interaction among the various research institutes and industries. It also promotes R&D programme in newly emerging challenges in science, technology and engineering. The main goal of the R&D cell is to enhance the knowledge and to facilitate the capability of students and faculty in relatively unexposed areas by sending research proposal and acquiring fund from renowned agencies like AICTE, DST, MHRD, UGC, CSIR, SERB, DRDO, DBT etc. Research and Development cell is conducting FDP on ongoing research area, creates platforms to exhibit students' innovation and transform their ideas towards filing IPR.

## RESEARCH CENTER

- ❖ Dept. of EEE Recognised as Research Centre by Anna University Chennai for doing research leading to Ph.D.
- ❖ DELL EMC Recognized External Research and Academic Alliance in the field of Data Science
- ❖ 56 MoUs and 12 COEs

## RECENT PROGRAMS ORGANIZED BY RESEARCH AND DEVELOPMENT CELL

- ❖ Organized one day Seminar on **“How to file a patent Application?”** with speakers Shri. G. SaiVaibhav, Examiner of Patent and Design NIPAM Trainer, Indian Patent Officer (IPO), Chennai on 23<sup>rd</sup> Nov. 2022.
- ❖ Organized one day Seminar on **“Guidelines for Innovative Research Initiatives”** with speakers Mr. Balaji Ramachandran , CEO of NoobTron Private Limited, Chennai, on 16<sup>th</sup> Nov. 2022..
- ❖ Organized **“Mathematics Talent Acquisition Programme”** to exhibit the Math and Aptitude skill for I-year students on 21.11.2022 and 22.11.2022 respectively.
- ❖ Organized **“Idea Contest” (Online)** to exhibit innovative ideas of students for III- and II-year students on 18.06.2021 and 19.06.2021 respectively.
- ❖ Organized one day International Level Conference (Online) on **“Challenges and Opportunities for Innovation in New Normal Scenario”** with Chief guest Mr. R K Jawaharlal, General Manager, Aerospace Engineers Private Limited, Salem on 3rd April '2021.
- ❖ Organized one day Workshop on **“Effective Proposal Writing to Get the Government Funds”** with speakers Dr.P.Ponmurugan ASP, Dr.S.Sampath Kumar Professor and Dr. P Christopher Selvin Professor, Bharathiar University, Coimbatore on 8th January 2021.
- ❖ Organized one day National Level Conference on **“Challenges and Opportunities in Industry 4.0”** with keynote speaker Dr.Tandava Popuri - Software Engineer Director at Dell on 14th March'2020.

- ❖ Organized one day intra college **idea contest EUREKA** to exhibit the innovation of the students – September’2019.
- ❖ Organized two days National Level Seminar on “**Publishing Articles in SCI Indexed Journals & Filing IPR**” by Prof.P.Pichappan and Mr.Prem Charles of Allinov R&D – July’2019
- ❖ Organized one day National Level Seminar on “**Writing Successful Proposals to Funding Agencies**” by Dr. M.Kanthababu, Director, Centre for IPR - Intellectual Property Rights Anna University Chennai - August’2018.

**RESEARCH GUIDANCE (from June 2015 to July 2021)**

| Name of the Department | No. of Faculty with Ph.D. | No. of Faculty pursuing Ph.D. | No. of Supervisors | No. of Ph.D. Scholars |         |
|------------------------|---------------------------|-------------------------------|--------------------|-----------------------|---------|
|                        |                           |                               |                    | Guided                | Guiding |
| CSE                    | 5                         | 0                             | 2                  | 20                    | --      |
| EEE                    | 5                         | 4                             | 2                  | 12                    | 5       |
| ECE                    | 4                         | 6                             | --                 | --                    | --      |
| MECHANICAL             | 4                         | 3                             | 4                  | 1                     | 1       |
| IT                     | 4                         | 1                             | 1                  | 3                     | 1       |
| BME                    | 2                         | 2                             | --                 | --                    | --      |
| S&H                    | 11                        | 4                             | 3                  | --                    | --      |

**FUNDING PROPOSALS APPLIED (till April 2023)**

| <b>Name of the Department</b> | <b>No. of Funding Proposals Applied</b> |
|-------------------------------|---|
| <b>CSE</b>                    | <b>21</b>                               |
| <b>EEE</b>                    | <b>84</b>                               |
| <b>ECE</b>                    | <b>17</b>                               |
| <b>MECHANICAL</b>             | <b>18</b>                               |
| <b>IT</b>                     | <b>31</b>                               |
| <b>BME</b>                    | <b>3</b>                                |
| <b>S&amp;H</b>                | <b>1</b>                                |

**RESEARCH PUBLICATIONS/ PARTICIPATIONS**

| <b>Name of the Department</b> | <b>No. of Publications in</b> |                    | <b>No. of Workshop / FDP / Training / Webinars / Online Courses Attended</b> |
|-------------------------------|-------------------------------|--------------------|--|
|                               | <b>Journals</b>               | <b>Conferences</b> |  |
| <b>CSE</b>                    | <b>42</b>                     | <b>99</b>          | <b>246</b>   |
| <b>EEE</b>                    | <b>122</b>                    | <b>457</b>         | <b>511</b>   |
| <b>ECE</b>                    | <b>36</b>                     | <b>76</b>          | <b>147</b>   |
| <b>MECHANICAL</b>             | <b>121</b>                    | <b>39</b>          | <b>275</b>   |
| <b>IT</b>                     | <b>62</b>                     | <b>40</b>          | <b>268</b>   |
| <b>BME</b>                    | <b>2</b>                      | <b>5</b>           | <b>38</b>  |
| <b>S&amp;H</b>                | <b>92</b>                     | <b>31</b>          | <b>92</b>  |

**GRANTS RECEIVED FROM GOVERNMENT AND NON-GOVERNMENTAL AGENCIES (from June 2015 to December 2020)**

**Academic Year: 2015-16**

| Name of the Project/<br>Endowments, Chairs  | Name of The Principal<br>Investigator/Co-<br>Investigator | Amount<br>Sanctioned<br>(Rs.) | Duration of<br>the project | Name of the<br>Funding<br>Agency         |
|---|---|-------------------------------|----------------------------|--|
| An Image Processing System for<br>Early Detection of<br>Cardiovascular Diseases               | Dr. R.Nandakumar  | 1000000                       | 3 Years                    | AICTE-RPS                                |
| Recent Development in<br>Prosthesis Materials and its<br>Challenges in Medical<br>Application | Dr.P.Murugesan<br>Mr.R.Surendran<br>Mr.P.Chakarvathi      | 40000                         | 2 Days                     | Indian Council<br>of Medical<br>Research |

**Academic Year: 2016-17**

| Name of the Project/<br>Endowments, Chairs                        | Name Of The Principal<br>Investigator/Co-<br>Investigator | Amount<br>Sanctioned<br>(Rs.) | Duration of<br>the project | Name of the<br>Funding<br>Agency   |
|---|---|-------------------------------|----------------------------|--|
| Entrepreneurship Awareness<br>Camp                                | Dr. T. Srihari  | 20000                         | 1 Year                     | DST-NIMAT  |
| Vehicle Driver Assistance<br>System using MSP430 Controller       | Mr.R.Nandakumar   | 13000                         | 8 Months                   | TEXAS<br>Instruments –<br>India<br>Innovation<br>Challenge<br>Design Contest<br>2016 |
| Embedded based bridge structure<br>health monitoring using MSP430 | Mr.A.Prabhakaran  | 13000                         | 8 Months                   | TEXAS<br>Instruments –<br>India<br>Innovation<br>Challenge<br>Design Contest<br>2016 |

|   |                  |       |          |  |
|---|------------------|-------|----------|--|
| IOT and Solar Powered GIS for Waste Disposal in Urban Scenarios   | Mrs.W.DevaPriya  | 13000 | 8 Months | TEXAS Instruments India Innovation Challenge Design Contest 2016 |
| Wireless based military spying & bomb disposal robot using Msp430 | Mrs.P.Vidhya     | 13000 | 8 Months | TEXAS Instruments India Innovation Challenge Design Contest 2016 |
| Automatic Plant Disease Prediction using MSP430 & RGB sensor      | Mr.A.Prabhakaran | 13000 | 8 Months | TEXAS Instruments India Innovation Challenge Design Contest 2016 |
| Intelligent Surveillance System using MSP 430                     | Mr.A.Prabhakaran | 13000 | 8 Months | TEXAS Instruments India Innovation Challenge Design Contest 2016 |

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|--|----------------------|-------|----------|--|
| AutomizedNoval method for irrigation with minimum Water utility                | Mr.K.R.Gokulanand    | 13000 | 8 Months | TEXAS Instruments – India Innovation Challenge Design Contest 2016 |
| Automated Patient Health Checking System                                       | Mr.V.Arun            | 13000 | 8 Months | TEXAS Instruments – India Innovation Challenge Design Contest 2016 |
| Emerging Trends in Interfacing Medical Equipment and EMR with Cloud Technology | Dr. P.Meenakshi Devi | 50000 | 2 Days   | Indian Council of Medical Research                                 |
| NSS Annual Grant   | Principal Account    | 38000 | 1 Year   | NSS Cell, Govt.of India  |

### Academic Year : 2017-18

| Name of the Project/<br>Endowments, Chairs                  | Name of The Principal Investigator/Co-Investigator | Amount Sanctioned (Rs.) | Duration of the project | Name of the Funding Agency   |
|---|--|-------------------------|-------------------------|--|
| Entrepreneurship Awareness Camp                             | Dr. T. Srihari                                     | 60000                   | 1 Year                  | DST-NIMAT  |
| Embedded System based Smart Safety Swimming Pool            | Mr.S.Karthi  | 3500                    | 8 months                | TNSCST – Student Project Scheme                                    |
| HD Mobile Projector   | Ms.P.Saranya                                       | 13000                   | 8 months                | TEXAS Instruments – India Innovation Challenge Design Contest 2017 |
| Low cost Automation for Agricultural Enhancement Using MEMS | Dr.P.Murugesan<br>MrM.Sambathkumar                 | 300000                  | 5 Days                  | AICTE-ISTE   |
| NSS Annual Grant  | Principal Account                                  | 37900                   | 1 Year                  | NSS Cell, Govt.of India  |

**Academic Year: 2018-19**

| Name of the Project/<br>Endowments, Chairs                     | Name of The Principal<br>Investigator/Co-<br>Investigator | Amount<br>Sanctioned<br>(Rs.) | Duration of<br>the project | Name of the<br>Funding<br>Agency      |
|--|---|-------------------------------|----------------------------|---------------------------------------|
| Entrepreneurship Awareness<br>Camp                             | Dr. T. Srihari  | 40000                         | 1 Year                     | DST-NIMAT                             |
| Solider navigation and health<br>tracking system using arduino | Mr.A.Ravi   | 7500                          | 8 months                   | TNSCST –<br>Student Project<br>Scheme |
| NSS Annual Grant   | Principal Account   | 38500                         | 1 Year                     | NSS Cell,<br>Govt.of India            |
| UBA Annual Grant   | Principal Account   | 50000                         | 1 Year                     | Unnat Bharat<br>Abhiyan               |

**Academic Year : 2019-20**

| Name of the Project/ Endowments,<br>Chairs                   | Name of The<br>Principal<br>Investigator/Co-<br>Investigator | Amount<br>Sanctioned<br>(Rs.) | Duration<br>of the<br>project | Name of the<br>Funding<br>Agency                             |
|--|--|-------------------------------|-------------------------------|--|
| Challenges And Applications Of Cyber<br>Physical System      | Dr. B.Kalaavathi   | 288333                        | 6 Days                        | AICTE – STTP<br>( Short Term<br>Training<br>Programme)       |
| Skill and Personality Development<br>Programme Centre (SPDC) | Dr. T. Srihari<br>Dr. W. Devapriya                           | 2168839                       | 3 Years                       | AICTE  |
| Protection from Chain Snatching using<br>IOT Based System    | Mr.M.A.Stephenraj  | 7500                          | 3 Months                      | Tamil Nadu<br>State Council<br>for Science and<br>Technology |



|  |                                    |         |          |  |
|--|------------------------------------|---------|----------|--|
| MODROB Rural - Modernization of Control and Instrumentation Lab with Virtual Instruments | Dr.R.Jeyabharath<br>Dr.A.Murugesan | 1312034 | 2 Year   | AICTE  |
| Entrepreneurship Awareness Camp  | Dr. T. Srihari                     | 40000   | 1 Year   | DST-NIMAT  |
| Lane Departure Warning System  | Dr.W.DevaPriya                     | 14000   | 6 months | TEXAS Instruments – India Innovation Challenge Design Contest 2019 |
| Luminous control   | Mr.P.Prem Kumar                    | 14000   | 6 months | TEXAS Instruments – India Innovation Challenge Design Contest 2019 |
| Water Measuring Meter in Huge Apartments   | Dr.W.DevaPriya                     | 14000   | 6 months | TEXAS Instruments – India Innovation Challenge Design Contest 2019 |
| Faculty Development Program - 3D Printing and Design                                     | Dr.R.Mani<br>Mr.K.Velusamy         | 93000   | 6 Days   | AICTE-ATAL   |
| Design and Analysis of I.C Engine Piston with Ceramic Coating                            | Mr.S.Balamurugan                   | 7500    | 3 Months | TNSCST   |
| Financial Support for Conducting National Conference                                     | Dr.P.Meenakshi Devi                | 5000    | 1 Day    | Nature Science Foundation  |
| Online FDP on Internet of Things   | Dr.P.Meenakshi Devi                | 93000   | 6 Days   | AICTE –ATAL  |
| NSS Annual Grant   | Principal Account                  | 44500   | 1 Year   | NSS Cell, Govt.of India  |

### Academic Year : 2020-21

| Name of the Project/ Endowments, Chairs                            | Name of The Principal Investigator/Co-Investigator | Amount Sanctioned (Rs.) | Duration of the project | Name of the Funding Agency                    |
|--|--|-------------------------|-------------------------|---|
| Challenges and Applications of Cyber Physical System               | Dr. B.Kalaavathi                                   | 288333                  | 6 Days                  | AICTE – STTP ( Short Term Training Programme) |
| STTP ON Long Range(LoRa) Wide Area Networks: A Futuristic Approach | Dr.R.Nandakumar                                    | 385333                  | 4 week series           | Faculty Development Cell, AICTE-New Delhi     |
| Mind-wave Controlled Arduino robot for physically disabled people  | Dr. N.B. Mahesh Kumar                              | 250000                  | 1 year                  | EDTIN-Innovation Voucher Programme            |
| Collaboration of AI with AR and VR                                 | Dr.S.Russia  | 93000                   | 6 Days                  | AICTE – ISTE                                  |

### Academic Year: 2021-22

| Name of the Project/ Endowments, Chairs  | Name of The Principal Investigator/Co-Investigator  | Amount Sanctioned (Rs.) | Duration of the project | Name of the Funding Agency |
|--|---|-------------------------|-------------------------|----------------------------|
| An IoT Integrated Bedding System for Infants to Ease Handling on Bedwetting          | Dr. T. Srihari                                      | 7500                    | 2021-2022               | TNSCST                     |
| LoRa based wireless weather station monitoring                                       | Mr.P.Govindaraju                                    | 7,500                   | 6 Months                | TNSCST                     |
| KSRIET aspiring ICT based skill and personality programme center for SC/ST students. | Dr.M.Venkatesan,<br>Dr.T.Srihari,<br>Dr.W.Devapriya | 21,68,839               | 3 Years                 | AICTE                      |
| Automatic Door opening and Closing Using PIR Sensor                                  | Mr.S.Balamurugan                                    | 7500                    | 3 Months                | TNSCST                     |

## Academic Year: 2022-23

| Name of the Project/ Endowments, Chairs  | Name of The Principal Investigator/Co-Investigator | Amount Sanctioned (Rs.) | Duration of the project | Name of the Funding Agency |
|--|--|-------------------------|-------------------------|----------------------------|
| A Novel Energy Harvesting System for Electric Vehicle using Regenerative Braking | Dr. A. Murugesan                                   | 7500                    | 2022-2023               | TNSCST                     |
| Promotional Activities on Entrepreneurship for Outgoing Students                 | Dr. A. Murugesan                                   | 10000                   | 2022-2023               | EDII - TN                  |
| E-Vehicle Club   | Dr. A. Murugesan                                   | 100000                  | 2022-2023               | AICTE                      |
| Design and Fabrication of Automated Solar Panel Cleaning System                  | Dr.P.Murugesan                                     | 7500                    | 3 Months                | TNSCST                     |

## PATENT DETAILS

| S.No. | Patent Title  | Applicants Name                        | Patent Filed Date  | Patent Status (Applied/Filed/Granted) |
|-------|---|--|--|---------------------------------------|
| 1     | Intelligent irrigation control system in agriculture area using IOT and Sensor.         | Dr.S.Premalatha                        | 04.03.2023<br>Patent number<br>202311014562 A                                    | Published Date:<br>17/03/2023         |
| 2     | Chronic Care Model Based On Iot To Monitor And Care For Patients With Type-2 Diabetes   | Dr.P. Gopinath                         | <b>ApplicationNo.</b><br>202341025396<br><b>Patent Filed Date:</b><br>04.04.2023 |                                       |
| 3     | Heart Disease Detection Using Big Data Analytics and Deep Learning Approach with python | Ragu P J                               | <b>Application No.</b><br>202321000166 A<br><b>Filed Date</b> 27.01.2023         | Published                             |
| 4     | Plant Health Monitoring System  | Mr.P.Govindaraju<br>Mr.M.M.Arunprasath | 08.12.2022<br>Design No: 375236-001  | Certified and Registered for Design   |

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|----|--|---|---|-------------------------------|
| 5  | Fully automatic commercial line vehicle assembly line system   | Dr. P.Kanakarajan   | <b>ApplicationNo.</b><br>202241007000 A<br><b>Patent Filed Date:</b><br>09.02.2022<br><b>Publication Date:</b> 25.02.2022 | Published                     |
| 6  | IOT Enabled Efficient Tyre Pressure Monitoring System for Vehicles                                       | Dr.P.Murugesan<br>Dr.P.Kanakarajan<br>Mr.A.Mohanraj<br>Mr.P.Manikandan<br>Mr.J.Mathan<br>Mr.M.Amarnath<br>Mr.K.Gopalakrishnan | <b>ApplicationNo.</b><br>202241072742 A<br><b>Patent Filed Date:</b><br>16.12.2022<br><b>Publication Date:</b> 30.12.2022 | Published                     |
| 7  | A Portable wind Mobile Power Generator   | Dr.P.Meenakshi Devi   | 30.12.2022  | Published                     |
| 8  | IoT Enabled Efficient Tyre Pressure Monitoring System for Vehicles                                       | Mr.P.S.Prakash Kumar  | 30.12.2022  | Published                     |
| 9  | A Portable Wind Mobile Power Generator   | Dr.P.Gopinath<br>Dr.M.Sivakumar<br>Mr.R.Vasanthakumar<br>Mr.P.Chakravarthi<br>Mr.S.Balamurugan<br>Mr.S.Rahul                  | <b>ApplicationNo.</b><br>202241072815 A<br><b>Patent Filed Date:</b><br>16.12.2022<br><b>Publication Date:</b> 30.12.2022 | Published                     |
| 10 | Wearable Electronic Monitoring Device for Baby Health  | Ms. B. Latha<br>Ms. P. MohanaSunthari<br>Mrs. V. Sindhuja   | Patent Filed Date<br>26/11/2022<br>Patent number<br>202211068063 A  | Published Date:<br>02/12/2022 |
| 11 | The detection of varied EEG Pattern Signal for Chronic Migraine Patients Using Machine Learning Approach | M.Dharani   | Patent Filed Date:<br>15/11/2022<br>Patent number<br>202241065256 A   | Published Date:<br>25/11/2022 |

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|----|--|---|---|-------------------------------|
| 12 | Prediction of malicious communication in vehicular adhoc network using Artificial intelligence technique | Dr. S. Jayachitra<br>Ms. M. Jeyabharathi  | Patent Filed Date:<br>16/11/2022<br>Patent number<br>202231065594 A | Published Date:<br>18/11/2022 |
| 13 | An Artificially Intelligence System For Monitoring and Preventing Dryness in Plants                      | M.V.Mahesh<br>T.Marathandan<br>Mr.M.M.ArunPrasath<br>Mr.M.<br>Udhayakumar<br>S.Thulasiraman<br>A.Suriya<br>Dhaanu.S | Patent Filed Date:<br>13/09/2022<br>Patent number<br>202241052122 A | Published Date:<br>23/09/2022 |
| 14 | An Artificial Intelligence Based System to Assist the Commute for Visually Challenged                    | Dr. R. Nandakumar<br>Dr. S. Jayachitra<br>B. Vinothkumar<br>Amutha K.<br>Kannan M.<br>Ragavan V.<br>Thangaraj K.    | Patent Filed Date:<br>13/09/2022<br>Patent number<br>202241052116 A | Published Date:<br>23/09/2022 |
| 15 | The Novel routing Protocol for efficient network topology in smart gridth Infrastructure                 | Mr.M.<br>Udhayakumar<br>Mr.M.M.ArunPrasath<br>Mr.B.Vinothkumar  | Patent Filed Date:<br>17/10/2022<br>Patent number<br>202231059317 A | Published Date:<br>21/10/2022 |
| 16 | Artificial Intelligence Based Diagnosis of Malignant Skin Disease Using Classification Algorithm         | Dr.B.Kalaavathi   | 07/01/2022  | Published                     |
| 17 | Automated Ration Distribution System   | Dr. B. Kalaavathi   | Patent Filed Date: 25/08/2019                                       | Filed                         |
| 18 | Precision Analysis of Digital Agriculture  | Dr. M.Vimaladevi  | 04/03/2022  | Published                     |
| 19 | Artificial Intelligence and Internet of Things technologies for Smart Agriculture                        | Dr. M.Vimaladevi  | 16/09/2022  | Published                     |

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| 20 | A System and Method for Balanced Charging of Cell sin Batteries             | Dr. A. Murugesan<br>K. Meenatchi<br>S. Karthick<br>GokulRayarR<br>JambukeshI<br>SavuriyappanS<br>TamilarasanK             | Patent Filed Date:<br>16-09-2022<br><br>Patent number<br>202241052085   | Filed     |
| 21 | An IoT Integrated Bedding System for Infants to Ease Handling on Bedwetting | Dr.T.Srihari<br>Mr.Y.Kalimuthu<br>Ms.R.Sacithraa<br>Mr.M.A.Stephenraj<br>GokulP<br>MeiyarasuK<br>NandhakumarJ<br>Sankar S | Patent Filed Date:<br>23-09-2022<br><br>Patent number<br>202241052105 A | Filed     |
| 22 | Smart System for Effective Detection of Egg Cracks                          | Dr.P.Veena<br>Dr.R.Jeyabharath<br>Mr.A.Ravi<br>Ms.S.Nagapavithra<br>BaskarS<br>GokulrajP<br>MonisaB<br>Naveen N           | Patent Filed Date:<br>23-09-2022<br><br>Patent number<br>202241052124   | Filed     |
| 23 | A Smart System and Method for Monitoring and Controlling Furnaces           | Dr.C.Santha Kumar<br>Mr.C.Sivakumar<br>Mr.T.Arvind<br>HemalathaS<br>SarathiVasanJ<br>Vijay I<br>PrasanthS                 | Patent Filed Date:<br>14-10-2022<br><br>Patent number<br>202241052106 A | Filed     |
| 24 | Cloud based Emergency Patient monitoring system                             | Dr.L.Selvam   | 04.03.2022  | Published |
| 25 | Smart and Safe Gas Flow Pipeline Based on IOT For cooking Appliances        | Dr.L.Selvam   | 25.02.2022  | Published |

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|----|--|--|---|-----------|
| 26 | Artificial Intelligence Based Autonomous Waste Management for E-environment                              | Dr .P. Veena   | Patent Filed Date:<br>07-05-2021<br>202141019996 A  | Filed     |
| 27 | Wind turbine nacelle with phase change material which controls temperature using AI                      | Dr.P.Meenakshi Devi  | 29.04.2021  | Published |
| 28 | Mobile Based accident detection and alert system   | Dr.R.Prabu   | Application No.<br>202111032969<br>Filed Date 20.08.2021  | Published |
| 29 | Harvesting Machine for Tapioca Vegetables  | Dr.S.Velmurugan<br>Dr.C.Santhakumar<br>Dr.T.Srihari<br>Dr.W.Devapriya<br>Dr.A.Murugesan<br>Mrs.K.Meenatchi | Patent Filed Date:<br>22-05-2020<br>Patent number<br>202041012787 A<br>Application number<br>202041012787 | Filed     |
| 30 | AIAEC- IOT Technology: Artificial Intelligent-Based Agriculture Environment Control Using IOT Technology | Dr. P. Gopinath  | ApplicationNo.202041013140 A<br>Patent Filed Date:26/03/2020,<br>Publication Date: 08/05/2020             | Granted   |
| 31 | Wind turbine nacelle with phase change material which controls temperature using AI                      | Dr.P. Gopinath<br>Dr.P.Murugesan<br>Dr.R.Mani<br>Mr.A.Mohanraj<br>Mr.R.Vasanthakumar                       | ApplicationNo.<br>2021102254<br>Patent Filed Date:<br>29.04.2020<br>Publication Date: 02.06.2021          | Granted   |

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|----|---|---|---|-------|
| 32 | Artificial Intelligence Enabled Bot for Railway Track Cleaning                                | Dr. TSrihari,<br>Dr. W Deva Priya,  | Patent Filed Date:<br>03-06-2020<br>Patent number<br>202041007777 A<br>Application number<br>202041007777 | Filed |
| 33 | System for Automatic Fog Cleaner for VISI Cooler  | Dr. T Srihari,<br>Dr. R Jeyabharath,<br>Dr. P Veena,  | Patent Filed Date:<br>06-05-2020<br>Patent number<br>202041012783 A<br>Application number<br>202041012783 | Filed |
| 34 | Door Handle Sanitizer Dispenser   | Dr. TSrihari,<br>Dr. W Deva Priya,<br>Dr. RNandakumar,  | Publication Date:<br>10-07-2020<br>Patent number<br>202041027114 A<br>Application number<br>202041027114  | Filed |
| 35 | A System and Method for Reduced Gas Pollution and Optimized Air Quality in Residential Houses | Dr. T. Srihari,<br>Dr. R. Jeyabharath,<br>Dr. P. Veena,<br>Dr. A. Murugesan,<br>Dr. C. Santha Kumar,<br>Dr. S. Velmurugan,<br>Y. Kalimuthu,<br>R. Sacithraa,<br>C. Sivakumar, | Publication Date:<br>26-06-2020<br>Patent number<br>202041025122 A<br>Application number<br>202041025122  | Filed |



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|----|---|---|--|---------|
| 36 | An improved Pelvic Controller for PMBLDC motor drives using Emotional Learning Techniques | Dr. R. Jeyabharath,<br>Dr. P. Veena   | Patent Filed Date:<br>07-08-2020<br>Application number<br>202041025122<br>202041030788 | Filed   |
| 37 | A Novel Method for Detection of Quality of Apples Using Edge Detection Approach           | Dr.R.Nandakumar<br>Dr.R.Jeyabharath<br>Dr.P.Veena<br>Mr.P.Govindaraju<br>Dr.S.Velmurugan  | Patent Filed Date:<br>15/06/2020<br>Patent number<br>202041025188 A                    | Filed   |
| 38 | An Improved Belbic Controller for PMBLDC Motor Drives Using Emotional Learning Techniques | Dr.R.Jeyabharath<br>Dr.P.Veena<br>Dr.R.Nandakumar   | Patent Filed Date:<br>20/07/2020<br>Patent number<br>202041030788 A                    | Filed   |
| 39 | A System and Method of Pesticides Detection in Fruits and Vegetables                      | Dr. R. Nandakumar<br>P. Govindaraju<br>M. V. Mahesh<br>S. Premalatha<br>T. Senthil<br>M. Udhayakumar<br>B. Latha<br>P. Janani<br>P. Mohana<br>Sunthari<br>V. Sindhuja | Patent Filed Date:<br>28/07/2020<br>Patent number<br>202041032225 A                    | Filed   |
| 40 | A Method for Rainfall Prediction Using Artificial Neural Networks                         | Dr.R.Nandakumar<br>Dr.S.Velmurugan  | Patent Filed Date:<br>25/12/2020<br>Patent number<br>202011056465 A                    | Filed   |
| 41 | An Artificial Intelligence Based Organic LED Farming During Post COVID 19                 | Dr. T. Srihari<br>Dr. W. Deva Priya   | Patent Filed Date:<br>23/03/2021<br>Patent number<br>IP<br>AUSTRALIA 2021101469        | Filed   |
| 42 | Deep Convolutional Neural Network Architecture for Classifying the Lung Tumor             | Dr. B. Kalaavathi   | Patent Filed Date:<br>07/03/2019   | Applied |

## BOOKS PUBLISHED

### CSE

| S.No. | Title of the Book                                   | Name of the author(s) | Name of the Publication                   | Year of Publication |
|-------|---|-----------------------|---|---------------------|
| 1.    | Adhoc Sensors and Networks: Theory and Applications | Dr.K.Tamizarasu       | Scientific International Publishing House | 2023                |
| 2.    | Supply Chain Management                             | Dr.B.Kalaavathi       | ARS Publications                          | 2022                |
| 3.    | E-Commerce  | Dr.M.Vimaladevi       | Charulatha Publications                   | 2022                |
| 4.    | Computer Architecture and Organization              | Dr.M.Venkatesan       | ARS Publications                          | 2019                |
| 5.    | Cryptography and Network Security                   | Dr. M.Vimaladevi      | Suchitra Publications                     | 2019                |
| 6.    | Cryptography and Network Security                   | V.Prakasham           | Suchitra Publications                     | 2019                |
| 7.    | Big Data Analytics                                  | Dr. M.Vimaladevi      | Suchitra Publications                     | 2019                |
| 8.    | Compiler Design                                     | Dr. M.Vimaladevi      | Suchitra Publications                     | 2019                |
| 9.    | Problem Solving and Python Programming              | Dr. M.Vimaladevi      | Lakshmi Publications                      | 2017                |
| 10.   | Grid and Cloud Computing                            | Dr. B.Kalaavathi      | AR Publications Chennai                   | 2016                |
| 11.   | Artificial Intelligence                             | Dr. B.Kalaavathi      | AR Publications                           | 2016                |
| 12.   | Grid and Cloud Computing                            | P.KrishnaSankar       | AR Publications Chennai                   | 2016                |
| 13.   | Artificial Intelligence                             | P.KrishnaSankar       | AR Publications                           | 2016                |
| 14.   | Programming and Data Structures – II                | Dr. M.Venkatesan      | ARS Publications                          | 2016                |

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|-----|---|-----------------|-----------------|------|
| 15. | Foundation Skills in Integrated Product Development | P.KrishnaSankar | AR Publications | 2016 |
| 16  | Computer Architecture                               | Dr.M.Venkatesan | AR Publications | 2015 |

### EEE

| S.No. | Title of the Book                | Name of the author(s)                                   | Name of the Publication    | Year of Publication |
|-------|----------------------------------|---|----------------------------|---------------------|
| 1     | Linear Integrated Circuits (EEE) | Dr. R. Jeyabharath<br>Dr. P. Veena<br>Mr. P. Manikandan | The Charulatha Publication | 2023                |
| 2     | Linear Integrated Circuits (ECE) | Mr. P. Manikandan                                       | The Charulatha Publication | 2023                |

### ECE

| S.No. | Title of the Book  | Name of the author(s)                                      | Name of the Publication                   | Year of Publication |
|-------|--|--|---|---------------------|
| 1     | Electronics Devices and Circuits   | Mr.P.Govindaraju<br>Mr.M.M.Arunprasath<br>Mr.M.Udhayakumar | Scientific International Publishing House | 2023                |
| 2     | Big Data Management in sensing:Application in AI and IOT   | Dr.S.Premalatha  | IEEE Xplore                               | 2022                |
| 3     | Augmentation of Terahertz Communication in 6G and its dependency for future state-of-the- Art Technology | Dr.S.Premalatha  | IGI Global                                | 2022                |
| 4     | Distributed Computing and Optimization Techniques  | Ms.M.Jeyabharathi  | Springer                                  | 2022                |

## MECH

| S.No | Title of the Book                      | Name of the author(s)                                   | Name of the Publication | Year of Publication |
|------|--|---|-------------------------|---------------------|
| 1.   | Basic civil and Mechanical Engineering | Dr.P.Murugesan<br>Dr.P.Gopinath<br>V.Sobiya<br>G.Anitha | Charulatha Publication  | 2018                |
| 2.   | Unconventional Machining Processes     | Dr.P.Murugesan<br>Dr.P.Gopinath                         | MG Publication          | 2017                |
| 3    | Basic Civil and Mechanical Engineering | Dr.P.Murugesan<br>Dr.P.Gopinath                         | Sai Publication         | 2016                |

## IT

| S.No | Title of the Book                           | Name of the author(s)   | Name of the Publication | Year of Publication |
|------|---|---|-------------------------|---------------------|
| 1    | Web Essential                               | Dr.P.Meenakshi Devi<br>Mr. D.Balakrishnan<br>Mr.S.Nandhagopal | ARS Publications        | 2023                |
| 2    | Machine Learning Principles and Application | Dr.L.Selvam   | Scholar Press           | 2022                |
| 3    | Wireless Sensor Network                     | Dr. N.B. Mahesh Kumar   | Notion Press            | 2022                |
| 4    | Supply Chain Management                     | Dr. B.Kalavathi<br>Mr. D.Balakrishnan<br>Ms. R.SathyaPriya    | ARS Publications        | 2021                |
| 5    | Computer Organization and Architecture      | Dr.P.Meenakshi Devi   | ARS Publishers          | 2019                |
| 6    | Computer Architecture (Revised)             | Dr.P.Meenakshi Devi   | ARS Publications        | 2019                |
| 7    | Information Management                      | Mr.S.ArunPrasath  | ARS Publications        | 2017                |
| 8    | Distributed Systems (Revised)               | Dr.P.Meenakshi Devi<br>Ms.M.Dhurga Devi                       | ARS Publications        | 2017                |
| 9    | Ad hoc Sensor Networks (Revised)            | Dr.P.Meenakshi Devi<br>Ms.M.Dhurgadevi<br>K.G.Lavanya         | AR Publications         | 2017                |
| 10   | Distributed Systems                         | Dr.P.Meenakshi Devi<br>Ms.M.Dhurga Devi                       | ARS Publications        | 2016                |

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|----|---|---|------------------|------|
| 11 | Programming and Data Structures – II                | Dr.P.Meenakshi Devi                                   | ARS Publications | 2016 |
| 12 | Ad hoc Sensor Networks                              | Dr.P.Meenakshi Devi<br>Ms.M.Dhurgadevi<br>K.G.Lavanya | AR Publications  | 2016 |
| 13 | Foundation Skills in Integrated Product Development | Mr.S.ArunPrasath                                      | ARS Publications | 2016 |
| 14 | Computer Architecture                               | Dr.P.Meenakshi Devi                                   | AR Publications  | 2015 |

## S&H

| S.No | Title of the Book       | Name of the author(s)                                | Name of the Publication     | Year of Publication |
|------|-------------------------|--|-----------------------------|---------------------|
| 1.   | Engineering Physics – I | Dr.J.C.Kannan  | SCM Publisher               | 2016                |
| 2.   | Engineering Physics     | Dr.J.C.Kannan<br>Dr. V. Devabharathi<br>Dr. D.Madhan | The Charulatha Publications | 2019                |

## LIST OF PROJECT CONTEST AWARDS (STUDENTS)

| S.No | Department | Name of the Project                        | Awards / Prizes / Recognitions  |
|------|------------|--|---|
| 1.   | CSE        | Automated Ration Distributed System        | Best Project Innovator Award from MHRD-IIC  |
| 2.   |            | CrayonDTechologies<br>(No.Of Students: 2)  | Rs.5000/Month (Stipend)   |
| 3.   | Mech       | Design and Fabrication of Electric Bicycle | Best Project Award from Synchronization of Knowledge & Information Network (S.K.I.N), Puducherry. |