

Programme Educational Objectives(PEOs)

- PEO1 (Core Competency)** : Graduates will acquire a strong foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze Computer Science and Engineering problems.
- PEO2 (Professionalism)** : Graduates will practice the profession with ethics, integrity and leadership to relate engineering to global perspective issues and social context.
- PEO3 (Higher Studies and Entrepreneurship)** : Graduates will be prepared for their careers in the software industry or in higher studies leading to research and for applying the spirit of innovation and entrepreneurship in their career and continuing to develop their professional knowledge on a life long basis.

Programme Outcomes(POs)

- PO1: Engineering knowledge:** Ability to apply the knowledge of mathematics, physical sciences and computer science and engineering specialization to the solution of complex engineering problems.
- PO2: Problem analysis:** Ability to identify, formulate and analyze complex real life problems in order to provide meaningful solutions by applying knowledge acquired in computer science and engineering.
- PO3: Design/development of solutions:** Ability to design cost effective software / hardware solutions to meet desired needs of customers/clients.
- PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in the field of computer science and engineering.
- PO5: Modern tool usage:** Create, select and apply appropriate techniques, resources and modern computer science and engineering tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSOs)

- PSO1: Software System Design and Development:** The ability to apply software development life cycle principles to design and develop the application software that meet the automation needs of society and industry.
- PSO2: Computing and Research ability:** The ability to employ modern computer languages, environments and platforms in creating innovative career paths in SMAC (Social, Mobile, Analytics and Cloud) technologies.

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K S R Institute for Engineering and Technology

Vision

To become a globalLy recognized Institution in Engineering Education, Research and Entrepreneurship.

Mission

- IM1:** Accomplish quality education through improved teaching learning process.
IM2: Enrich technical skills with state of the art laboratories and facilities.
IM3: Enhance research and entrepreneurship activities to meet the industrial and societal needs

Department of Computer Science and Engineering

Vision

To produce globally competitive Computer Science Engineers and Entrepreneurs with moral values.

Mission

DM1 (Quality Education)

: Provide quality education to enhance problem solving skills, leadership qualities, team spirit and ethical responsibilities.

DM2 (State of art Laboratory)

: Enable the students to adapt to the rapidly changing technologies by providing advanced laboratories and facilities.

DM3 (Research and Development)

: Promote research based activities in the emerging areas of techno-environment in order to meet industrial and societal needs.

Introduction

Why web design is important?

How can something as superficial as your company's website design impact the success of a business? The six metrics that every successful website needs to track are the, Number of visitors, Bounce rate, Average time on page, CTA – Click-Through Rate, Conversion Rate, Goal progress. There are many reasons why a well designed website will attract your ideal customer and prompt dialogue with your firm. Possibly the most important part of a website is the navigation. Good navigation should be easy to find and comprehend – making for quick and easy travel throughout the entire website.

Web Designing

Design is the process of collecting ideas, and aesthetically arranging and implementing them, guided by certain principles for a specific purpose. Web design is a similar process of creation, with the intention of presenting the content on electronic web pages, which the end-users can access through the internet with the help of a web browser. Web design encompasses many different skills and disciplines in the production and maintenance of websites. The different areas of web design include web graphic design; interface design; authoring, including standardized code, proprietary software, user experience design and search engine optimization.

Web designers use a variety of different tools depending on what part of the production process they are involved in. These tools are updated over time by newer standards and software but the principles behind them remain the same. Web designers use both vector and raster graphics editors to create web-formatted imagery or design prototypes.

Technologies used to create websites include W3C standards like HTML and CSS, which can be hand-coded or generated by WYSIWYG editing software. Other tools that web designers might use include mark up validators and other testing tools for usability and accessibility to ensure their websites meet web accessibility guidelines.

Types of Web Design

The various types of web design available are as follows :

1. Illustrative Web Design
2. Minimalist Web Design
3. Typography Web Design
4. Flat Web Design
5. Single Page Web Design



The three ways you can build a web page

1. Use a pre-made template
2. Use an HTML editor like NetObjects Fusion or Dreamweaver
3. Hand-code your HTML in a text editor like Notepad

Web design Mistakes

One should be aware of the following common mistakes should always keep in mind:

- Website not working in any other browser other internet explorer.
- Using cutting edge technology for no good reason
- Sound or video that starts automatically
- Hidden or disguised navigation
- 100% flash content.

R.Keerthana, V. Jayasri IV / CSE

Web Desinging Languages

HTML

HTML – Hyper Text Markup Language makes up the layout and structure for your website. This language is dynamic and allows you to create a beautiful website using less code. HTML is used to create a starting point for the website and is what most of your static pages starting from. A better way to understand this language is to consider it as the skeleton that is holding your website together

CSS

CSS – Cascading Style Sheets is the language developers can use to style a website. The style sheet language describes how your website is presented and its layout. CSS is used hand in hand with HTML to add colors, backgrounds, layouts, font sizes, and more. This language is a core technology web developers use to design and build websites.

JAVA Script

JavaScript is used in many aspects of web development. Web developers use this language to add interactive elements to their websites. User engagement is important to your business, and your web developer should be incorporating JavaScript elements in your design.

PHP

PHP – Hypertext Preprocessor is often used on data-heavy websites or for app development. This is an open-source language that can be easily modified to meet the needs of your business or website. Large websites like WordPress and Facebook use PHP to manage and process their data.

.NET

.NET (pronounced dot net) is a framework that provides programming guidelines that can be used to develop a wide range of applications from the web to mobile to Windows-based applications. The .NET framework can work with several programming languages such as C#, VB.NET, C++, and F#. At Grand Circus, we use C# as well as MVC. .NET has a huge collection of predefined class libraries (pre-written code) that has support for simple and complex data structures.

REACTJS

REACTJS is the latest JavaScript framework to capture the hearts and attention of the frontend developer community. Developers love REACTJS because of its high performance and renders changes almost instantly. The best part about REACTJS is that it is a relatively small framework and does not take too much time to learn

ANGULARJS

AngularJS is a very powerful JavaScript Framework. It is used in Single Page Application (SPA) projects. It extends HTML DOM with additional attributes and makes it more responsive to user actions. It is licensed under the Apache license version 2.0. Angular is a TypeScript - based open-source front-end application platform led by the Angular Team at Google and by a community of individuals and corporations. Angular is a complete rewrite from the same team that built AngularJS. Angular is a platform that makes it easy to build applications with the web. Angular combines declarative templates, dependency injection, end to end tooling, and integrated best practices to solve development challenges. Angular empowers developers to build responsive web applications that live on the web, mobile, or the desktop.



O.R.Sivabalan, G.Vignesh, III / CSE



Web Desining in Social Media

Social media, being a vast communication channel, acts as a great source to create tempting web designs. Analyzing the cruciality of interactive web designs, it is the need of the hour to efficiently utilize the social media and produce tremendous results. What Social Media is Adding to Your Web Designs?

Benefits to know how social media is playing a big role in producing alluring web designs :

- **Visuals are major than text**

From past trend of info graphics and high quality images, the scenario is changing to videos and memes pertaining to your business.

- **Impact of responsive designs**

As most people are using social media with their smart phones, it becomes crucial to opt responsive designs for all kind of the websites. It is obvious that if a business want its brand website to be visited through social media, their website must be mobile optimized.

- **Interactive designs are common**

Every social platform is filled with interactive content and customers expect similar legacy and passion via delivering interesting and engaging content in everything they do. Successful websites are designed with a motto to lure the audiences through artful displays. The interaction type that they seek, includes one-on-one interaction, comment features, videos and similar visuals

- **User-generated content**

Although content is the king, a bookish language is not always preferred over your entire website. Some variation needs to be injected in terms of reviews, testimonials and comments. Adding a comment box is also a good practice to include customers voice via comment over your blog post.

- **Social icons are integral**

Social media icons are serving as a staple in website designing that can be easily incorporated into multiple pages to make it easy for customers that they can share your pages instantly on their specific social media profiles

- **Focus on images**

Content is being developed today with a success mantra of speaking less and showing more because images are served to be more effective in communicating with large spectra of audiences. Websites that are now being designed by using more images to gain the associated benefits.



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Client Side Scripting / Coding

Client Side Scripting is the type of code that is executed or interpreted by browsers.

Client Side Scripting is generally viewable by any visitor to a site (from the view menu click on "View Source" to view the source code).

Below are some common Client Side Scripting technologies:

- HTML (HyperText Markup Language)
- CSS (Cascading Style Sheets)
- JavaScript
- Ajax
- jQuery
- MooTools
- Dojo Toolkit

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Web Designing in Search Engine:

We can create search engine friendly design. what is search engine friendly design ? Generally, search engine friendly means to have a website that has been built which the search engines will visit, find out all about your website and include it in their index.

There are a few things to create a search engine friendly website design:

- **Images, Javascript and Flash**

Search engine do not see (read) images, javascript or Flash as of this writing. A search engine bot (the little program that travels the internet looking at websites) only reads text. Therefore, all important information needs to be actually coded into the web page.

Update June 30, 2008 – Google and Yahoo have partnered with Adobe to use technology that will make Flash files readable by these two search engines.

- **Web Crawling**

A Web crawler is an Internet bot which systematically browses the World Wide Web, typically for the purpose of Web indexing. A Web crawler may also be called a Web spider.

Web search engines and some other sites use Web crawling or spidering software to update their web content or indexes of others sites' web content. Web crawlers can copy all the pages they visit for later processing by a search engine which indexes the downloaded pages so the users can search much more efficiently.

A Web crawler starts with a list of URLs to visit, called the seeds. As the crawler visits these URLs, it identifies all the hyperlinks in the page and adds them to the list of URLs to visit, called the crawl frontier. URLs from the frontier are recursively visited according to a set of policies. If the crawler is performing archiving of websites it copies and saves the information as it goes. The archives are usually stored in such a way they can be viewed, read and navigated as they were on the live web, but are preserved as 'snapshots'.

The large volume implies the crawler can only download a limited number of the Web pages within a given time, so it needs to prioritize its downloads. The high rate of change can imply the pages might have already been updated or even deleted.

- **Frames**

You have seen websites built with frames, those sites where you see additional scrollbars within the web page. This is not a search engine friendly design. The background coding all there is for the search engine bot to see are the links to the pages that are used to build the page you see.

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Server Side Scripting / Coding

Server Side Scripting is the type of code that is executed or interpreted by the web server.

Server Side Scripting is not viewable or accessible by any visitor or general public.

Below are the common Server Side Scripting technologies:

- PHP
- Zend Framework
- ASP
- ASP.NET
- ColdFusion
- Ruby on Rails
- Perl
- Python

J.Sruthi, IV / CSE

Tech Update

The Internet of Things (IoT)

The Internet of Things is the network of physical objects that contains embedded technology in order for them to communicate and interact with their environments and each other. More devices are becoming network-accessible, so as web developers, we'll be tasked with coming up with new solutions to help users control and communicate with their cars, heat pumps, ovens, toasters and plants.

Many companies such as Smart Things and LittleBits already have kits that make your house appliances smart so in 2015, we predict that IoT software platforms will continue to displace hardware. Although much of the early hype has been about high-tech wearables and wireless technologies, this year we predict that we will see an increased focus on the software and especially the cloud services to make all these sensors connect, upload data, and drive analytics that generate insights and enable efficiencies and communications across the business.

The IoT movement is so huge that recently Google's chairman Eric Schmidt predicted that internet will "simply disappear in the future" as it becomes "part of your presence all the time".



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Responsive Technique

It helps web developers to create pages that can easily be accessed on any of the platforms irrespective of the device size. The feature of responsiveness is being proficiently analyzed using an online responsive checker tool that is quite easy to use. The increased use of smart phones has played a major role in the overall popularity of the responsive design. To make elements load well over any of the digital platforms, responsiveness has been playing a prominent role. Thus, being responsiveness in the action, it just gets much easier for the developers to create pages to make them accessible on any device. This device-agnostic element offers easy opportunities for developers to optimize images for large as well as small screens.

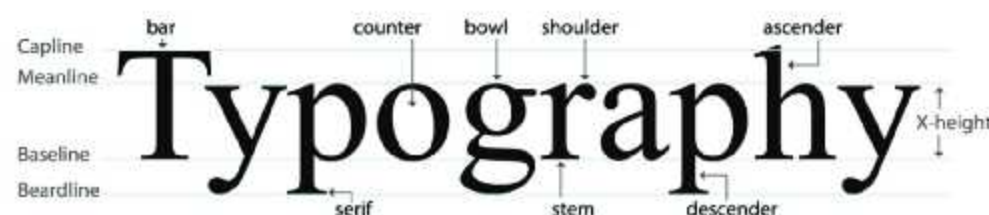


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Typography

typoContent is the king and its representation over the websites works as the crown over the king's head. Large and flexible typography has made its mark as prominent as the other trend in web design are describe here. Moreover, responsiveness takes the websites to all new level on a range of devices. Including background images and animation will help in making this latest website design much more prominent.

The kind of typography that is choose for the representation of the brands leaves a greater impact over the visitors. It is a factor for developing a strong visual identity for the brand, which many-a-time results in attracting potential customers towards the products.



S.Sowmiya, III / CSE

Applications of Web Designing

Educational Institutions

The web is now mission-critical, meaning that if your web presence fails, your business operations fail. Imagine what would happen if your website disappeared tomorrow. Could your campus still function? What would be the financial impact? The impact on enrollment? The impact on your reputation and credibility?

Now a day's university's websites are important place for gathering academic information during consumer decision making process. Potential students' first impressions are influenced electronically via the website. A university's web presence is extremely important because visiting the website first is found to be a precursor to visiting the campus. Respondents indicated that the most important aspects of the website evaluation process are: programs, course offering, location, and accreditations.

These should all be accessible on the first page of the website. The webpage is the gateway to all other forms of communication and a primary medium through which undergraduate students choose their institution.



A.Sarumathi, III / CSE

Business and Marketing

Your website is the place where most people will interact with your business. Both your online and offline marketing activities will most likely send users to your website. Whether it's to get information about your services and products, to make bookings or purchases, or to get contact details.

In this digital age, most businesses have already developed their respective websites to become more accessible for their customers. With the help of website design, business owners are able to create a user-friendly and welcoming online environment where users can get useful information any time of the day.



You might operate a great marketing campaign only to be disappointed by sales because your website's landing page doesn't convert. A website can underperform for a number of reasons, including site speed, responsiveness or navigation. You shouldn't underestimate the importance of a quality website to the success of your digital marketing strategy.

Moreover, when you have a well-managed website, people can rely on you. It builds trust, and when visitors trust you, they won't have doubts in getting your products and services. In effect, you will have a thriving and profitable business. Although it can cost you a substantial amount of money, investing in a website design can generate an outstanding profit for your business.

D.Vidhya, III / CSE

What Web Developers Do

Web developers typically do the following:

- Meet with clients or management to discuss the needs and design of a website
- Create and test applications for a website
- Write code for the website, using programming languages such as HTML or XML
- Work with other team members to determine what information the site will contain
- Work with graphics and other designers to determine the website's layout
- Integrate graphics, audio, and video into the website
- Monitor website traffic

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