SRI SHANMUGHA

COLLEGE OF ENGINEERING AND TECHNOLOGY

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Department of Information Technology

INFORMATION TECHNOLOGY

ABOUT THE DEPARTMENT

In the world of technology, the human life will be incomplete without the role of Information Technology. Information Technology at SSCET is versatile. It was established in 2020 with the objective of imparting quality education in the field of Information Technology. The Department has well established lab facilities with advanced software suited to the syllabus prescribed by the University. The Department is adopting a new innovative teaching methodology to meet PEOs (Programme Educational Objectives). The department has ICT class rooms and network facilities to support e-learning, innovative teaching. We aim at molding the students into highly qualified technocrats and to make them good citizens of our nation to serve the industry and society.

The Department faculty members specialized in Data mining, Computer Networks, Soft Computing, Evolutionary Computing, Network Security, Cyber Security and Ethical Hacking, Image Processing, Internet of Things, Cloud Computing and Mobile Computing. Faculty Members organize and participate in several International and National Level Seminars, Conferences and Workshops to enrich the knowledge time to time. They have also published research papers in various peer reviewed National and International journals and presented papers in conferences. Periodic guest lectures and workshops are conducted for the students to supplement their curriculum and to make them industry ready professional. Our students have Participated and received various prestigious awards.

VISION

To create a conducive environment for the development of academic and innovative technocrats employable at the global level, socially responsible and professionally competent to sustain the challenges.

MISSION

M1: To develop competent and quality IT professionals by imparting state-of the art technology learning methodologies.

M2: To enrich the knowledge of the students through value-based education.

M3: To promote Industry – Institution relationships among the students to become more employable and better citizens to solve societal issues.

M4: To constantly upgrade the Faculty qualification with cutting edge technology to achieve high status in technical and research areas.

SEARCH ENGINE OPTIMIZATION

WHAT IS SEO ?

- SEO is a continuous process of optimizing your website to improve your ranking in search engine results.
- By strategically incorporating relevant keywords, enhancing your website's user experience, and obtaining authoritative backlinks, you aim to increase your visibility to potential visitors.

TYPES

- On-Page SEO
- Off-Page SEO
- Technical SEO
- Local SEO
- E-commerce SEO
- Voice Search SEO
- Video SEO
- Mobile SEO
- International SEO
- Content SEO

HOW SEO WORKS ?

- **Keyword Research:** Identify relevant keywords and phrases related to your content or business.
- **On-Page Optimization:** Incorporate chosen keywords naturally into your content, headings, titles, and meta tags.
- **Content Creation and Optimization:** Create high-quality, informative, and engaging content that aligns with your keywords.
- **Technical SEO:** Ensure your website is technically sound by optimizing for site speed, mobile-friendliness, and proper URL structures.
- **Link Building:** Build a network of reputable backlinks from other websites to increase your site's authority.

TRENDS IN 2023

- **UX Matters:** Google prioritizes fast, mobile-friendly sites with excellent content. Optimize for UX.
- **Voice Search:** Adapt content for voice search with conversational keywords.
- **Core Web Vitals:** Google rewards sites meeting Core Web Vitals guidelines - fast loading, interactivity, and stability.
- **High-Quality Content:** Focus on long-form, authoritative content to provide value.
- **Video SEO:** Optimize video content with keywords and engaging visuals.
- **Mobile-First Indexing:** Prioritize mobile-responsiveness for better rankings.
- **E-A-T:** Build expertise, authority, and trustworthiness in your niche.

SEO TOOLS

- **Google Analytics:** Tracks website traffic and user behavior.
- **Google Search Console:** Monitors website performance in Google's search results.
- **Ahrefs:** Offers backlink analysis, competitive research, and keyword research.
- **Moz:** Provides SEO insights, site audits, and keyword research tools.
- **SEMrush:** Features competitive analysis, keyword tracking, and site audit capabilities.

By
V. Sangeetha
III-IT

5G TECHNOLOGY

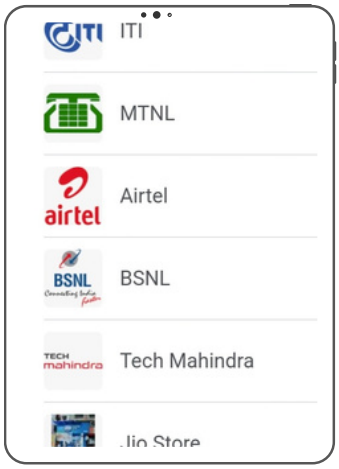
ABOUT 5G

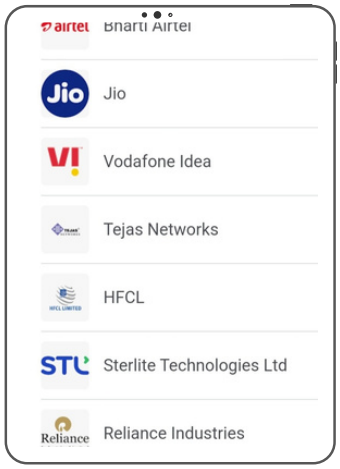
5G is the 5th generation mobile network. It is a new global wireless standard after 1G, 2G, 3G, and 4G networks. 5G enables a new kind of network that is designed to connect virtually everyone and everything including machines, objects, and devices.

5G wireless technology is meant to deliver higher multi-Gbps peak data speeds, ultra-low latency, more reliability, massive network capacity, increased availability, and a more uniform user experience to more users. Higher performance and improved efficiency empower new user experiences and connect new industries.

5G PROVIDER COMPANIES IN INDIA

5G services were first launched in India by Prime Minister Narendra Modi on October 1, 2022. At present, only Bharti Airtel and Reliance Jio are the two telecom operators that offer 5G network in the country.





IMPORTANT ASPECTS OF 5G TECHNOLOGY

- 5G networks can support a massive number of devices simultaneously. This is important as the Internet of Things (IoT) continues to grow, connecting everything from smartphones to smart home appliances.
- 5G is expected to continue evolving with technologies like standalone 5G (SA-5G) and 6G on the horizon, promising even faster speeds and more advanced capabilities.
- Overall, 5G technology is poised to revolutionize the way we connect and interact with the digital world, opening up new possibilities across industries and sectors.

By

P. Anitha
III - IT

VIRTUAL REALITY

ABOUT

Virtual Reality (VR) creates immersive computer-generated environments via VR headsets. It's used in gaming, medical training, and sports coaching. While it seems futuristic, VR has roots dating to the mid-1950s with the Sensorama, a 3D movie machine with sensory enhancements. Ongoing tech advancements have fueled VR's evolution in both hardware and interface design.

DIFFERENCE BETWEEN AR &VR

- Users in AR are aware of their real-world surroundings while interacting with virtual elements.
- AR overlays virtual objects in the real world, providing additional information or digital elements.the real world, providing additional information or digital elements.
- AR experiences are accessible through devices like smartphones, tablets, or specialized AR glasses with cameras.
- AR users remain aware of their actual surroundings, as they interact with both virtual and real-world elements simultaneously.

- VR creates a completely computer-generated environment, immersing users in a simulated world, often isolating them from the physical environment.
- VR necessitates a specialized headset that covers the user's field of view, providing a fully immersive experience by replacing their view of the real world.
- In VR, users primarily interact with objects and elements that exist solely within the virtual environment.
- Prominent VR platforms include Oculus Rift, HTC Vive, PlayStation VR, and applications for gaming, simulations, and immersive experiences.

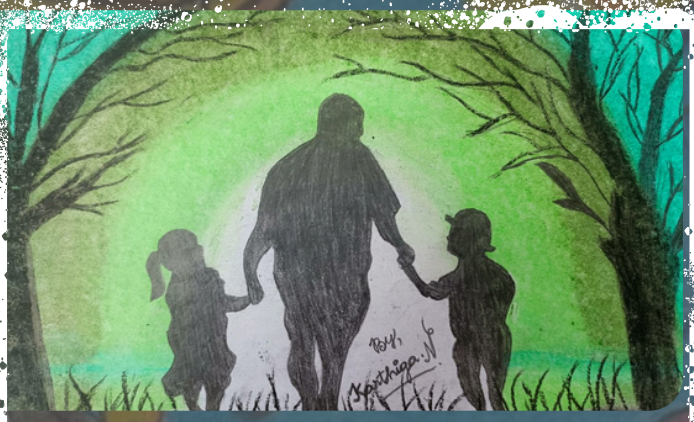
APPLICATION

- Gaming: VR is widely used in the gaming industry to provide players with immersive and interactive gaming experiences.
- Education: VR is employed in education for virtual field trips, science simulations, and other educational purposes to enhance learning.
- Healthcare: VR is used in medical training, therapy, and pain management, offering a safe and controlled environment for various applications.

By

M. Sowmiya
III - IT

ARTS



By

N. Karthiga
III - IT