

G.PULLAIAH COLLEGE OF ENGINEERING & TECHNOLOGY

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Nandikotkur Road, Venkayapalli (V), Kurnool - 518452, Andhra Pradesh

ALUMNI TALK ON "UNRAVELLING THE POWER OF DATA SCIENCE"

Date: 05-10-2022

Alumni talk on "UNRAVELLING THE POWER OF DATA SCIENCE" was organized under Department of Computer Science and Engineering on 05-10-2022. The resource person is Mr V.Risheek, Infosys and N.Shivaram, Associate, Delloitte, Hyderabad. All II Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on Data Science the resource person presented introduction to Data Tool Kit, Libraries. Students enthusiastically asked their queries about Tableau, web scrapping, SQL. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction. Students were also informed about applications of Data Science in various fields.



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ALUMINI SERIES COMPUTER SCIENCE AND ENGINEERING



WEBINAR

ON

UNREVELLING THE POWER OF DATA SCIENCE For 2nd Years of GPCET

V RISHEEK
TRAINER
INFOSYS,BANGALORE



()10:30 A.M

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G.Pullaiah College of Engg & Tech www.gpcet.in and kotkur Road, VENKAYAPALL XURNOOL 518452 A.P.

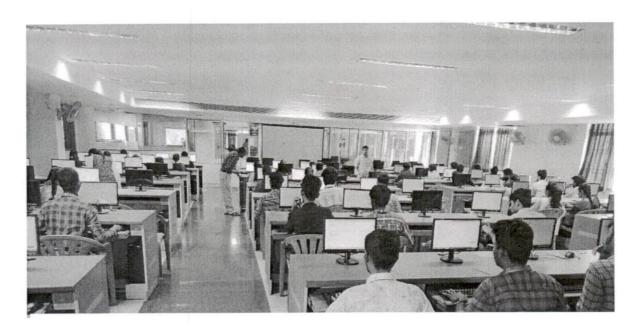


Key Highlights:

Deep Dive into Algorithms:

Feature Engineering and Selection Model Evaluation and Optimization

Real world applications of Data Science in industry



Conclusion:

As we conclude our alumni talk on "Data Science," let's reflect on the invaluable insights shared today. Armed with knowledge, skills, and a forward-thinking mindset, we're empowered to navigate the evolving landscape of Data Science and embark on fulfilling career journeys filled with innovation and growth.

Thank you for joining us, and we look forward to witnessing the transformative impact of DataScience on our collective professional endeavors.

This framework provides a structured approach to organizing an alumni talk on leveraging Data Science for career advancement, incorporating keynote addresses, panel discussions, breakout sessions, workshops, and networking opportunities. Adjustments can be made to tailor the event to specific audience preferences and objectives.



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Event Title: Interactive Session on "Edge Computing"

Date: 14-07-2022



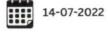
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ALUMINI SERIES COMPUTER SCIENCE AND ENGINEERING



For 4th Years of GPCET







C PRANAVI Trainer Tech Mahendra,Chennai



Alumni talk on "EDGE COMPUTING" was organized under Department of Computer Science and Engineering on 14-07-2022. The resource person is Ms C. Pranavi, Tech Mahindra Chennai. All IV Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on Edge Computing the resource person presented introduction to informatica, Go Operators, AR Core. Students enthusiastically asked their queries about Power Mart, Power Center, Power Exchange Connector. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction.



Key Highlights:

- 1. Overview of Edge Computing: ** Ms .C. Pranavi provided a comprehensive overview of Edge Computing fundamentals, emphasizing its applications within the computer science domain.
- 2. **Edge Computing Tools and Technologies: ** Insights were shared into various Edge Computing tools and technologies, with a particular focus on IBM's contributions, showcasing the advancements alumni are making in the industry.
- 3. **Applications in Computer Science:** The discussion explored diverse Edge Computing applications within the computer science field, illustrating its relevance in software development, data processing, and other specific tasks.
- 4. **Real-world Implementations: ** Case studies highlighted successful Edge Computing implementations within computer science scenarios, offering practical insights for current students.
- 5. **Integration with AI and ML:** The session delved into the integration of Edge Computing with Artificial Intelligence (AI) and Machine Learning (ML), showcasing the intersection of cutting-edge technologies.
- 6. **Challenges and Future Trends:** Ms. C. Pranavi addressed challenges and shared insights into future trends in Edge Computing, providing valuable guidance to the next generation of computer science professionals.
- **Interactive Alumni O&A Session: **

The event featured an engaging Q&A segment, allowing computer science students to directly interact with Ms.C. Pranavi. This provided a unique opportunity for attendees to seek clarifications, discuss practical applications, and gain valuable insights into the intricacies of Edge Computing technologies within the field of computer science.

Outcome:

This interactive session, a part of the Alumni Series, facilitated a dynamic exchange of knowledge between an esteemed alumnus and current students. The event empowered computer science students with practical insights and a deeper appreciation of Edge Computing's relevance in their academic and professional journey.

**Conclusion: **

The Alumni Series, exemplified by the interactive session with Ms. C. Pranavi on "Edge Computing" played a pivotal role in connecting current students with successful alumni. Such interactions are instrumental in bridging the gap between academic learning and industry practices, contributing to the holistic development of students in the rapidly evolving field ofautomation technologies.



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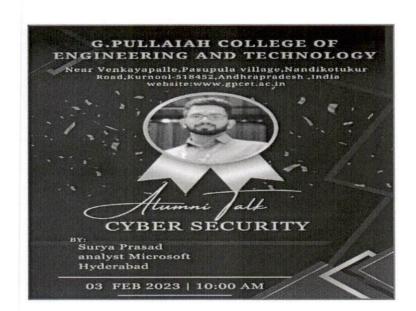
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ALUMNI TALK ON "CYBER SECURITY"

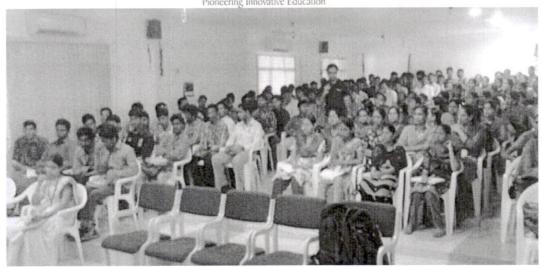
Date: 03-02-2023

Alumni talk on Cyber Security Concepts was organized under Department of Computer Science and Engineering on 03-02-2022. The resource person is Surya Prasad, analyst Microsoft, Hyderabad. All IV Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on integrity of data systems in every field where data ispresent. Various forms of cybersecurity threats includes viruses, worms, malware, ransomware, phishing attacks, and hacking. Students enthusiastically asked their queries different types of cybercrimes and solutions to solve these type of problems. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction.











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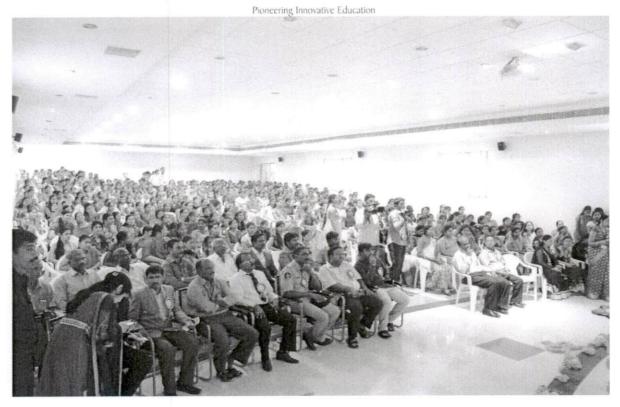
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ALUMNI TALK ON "DEEP LEARNING"

Date: 03-03-2023

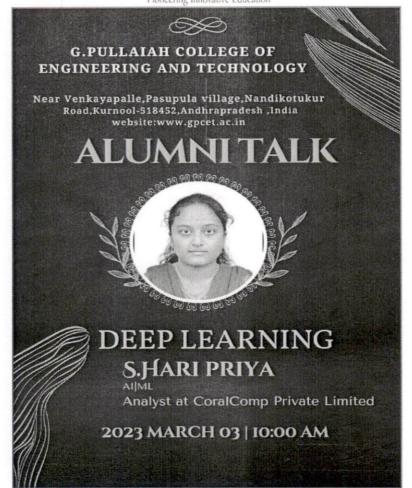
Alumni talk on Deep Learning Concepts was organized under the Department of Computer Science and Engineering on 03-03-2023. The resource persons were S. Haripriya, AI|ML Analyst at Coral Comp Private Limited., and Ravi Shankar, Associate at Coral Comp Private Limited., Hyderabad. All IV Year students, HOD, and Faculty of the CSE Department attended the seminar. The seminar mainly focused on Deep Learning, where the resource persons presented different modes of Introduction to Deep Learning, Deep Learning Features, Deep Learning Applications, and Deep Learning Frameworks such as Tensor Flow and PyTorch. Students enthusiastically asked their queries about convolutional neural networks (CNNs), recurrent neural networks (RNNs), and generative adversarial networks (GANs). These young students listened to the lecture with rapt attention and expressed feelings of satisfaction. Students were also informed about the significance of Deep Learning in various fields such as image recognition, natural language processing, and autonomous driving. Additionally, they were provided with information on where to access resources for further learning and exploration in the field of Deep Learning.













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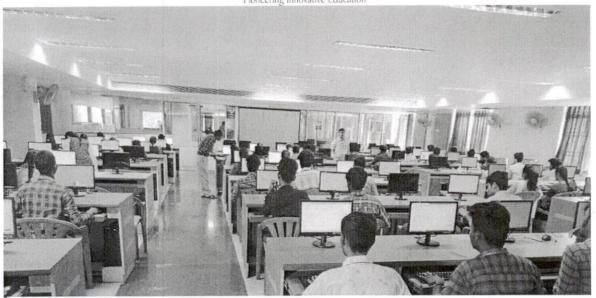
ALUMNI TALK ON "NATURAL LANGUAGE PROCESSING"

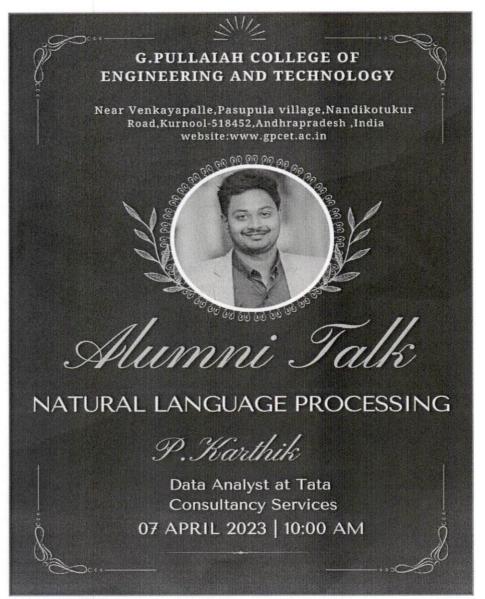
Date: 07-04-2023

Alumni talk on Natural Language Processing (NLP) Concepts was organized under the Department of Computer Science and Engineering on 07-04-2023. The resource persons were P.Karthik, Technology Data Analyst at Tata Consultancy Services., and Rahul, Associate at Tata Consultancy Services, Hyderabad. All IV Year students, HOD, and Faculty of the CSE Department attended the seminar. The seminar mainly focused on Natural Language Processing, where the resource persons presented different modes of Introduction to NLP, NLP Features, NLP Applications, and NLP Tools such as NLTK (Natural Language Toolkit) and SpaCy. Students enthusiastically asked their queries about text classification, sentiment analysis, and named entity recognition. These young students listened to the lecture with rapt attention and expressed feelings of satisfaction. Students were also informed about the importance of NLP in detecting cyber bullying and harassment in textual data, along with where to access resources for filing complaints and reporting such incidents.









PRINCIPAL



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ALUMNI WEBINARS - 2022-23

A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of ECE on "AI and ML Programming for Techies" by Alumni Mr.Lokeswara Reddy, LTI Mind tree on 08thJuly 2022 through Teams Platform.

The webinar was all about the Skill Set required for getting Job Opportunities in Finance Sector. Particularly, highlighted the functional skills required in Finance Sector and also Career Opportunities in that domain. Initially, **Mr.Lokeswara Reddy** has given brief on technical skills in Finance Sector and its use in the present scenario.

Further, he said like Niche skill means a specific area in which you have to have more knowledge (or) experience. He opined that in the IT industry candidates are recruited based on their niche skills such as machine learning, data engineering, data visualization, artificial intelligence, Java programming, and cloud computing, etc.

At the end of the webinar, an interactive Questions & Answers session was organized in which the resource person addressed to the questions of the students about the webinar. Most of the questions were about how to equip those skills, list of top MNCs working on these technologies, future of technologies and salary structure in the domain etc.





A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of ECE a session namely; "System Security and Hacking" by Alumni Ms.Supriya Reddy, Manager, Accenture, Pune on 14thSeptember 2022 through Google Meet Platform.

The webinar was all about the Career Opportunities in System Security and Hacking and Skills required for getting Job Opportunities in System Security and Hacking. Particularly, highlighted the technical skills required in to work in Finops and also Career Opportunities in Network Security. Initially, Ms.Supriya Reddy has given brief on Finops technologies and its use in the present scenario.

Further, she said like companies in the **System Security and Hacking** are always on the lookout for skilled professionals. In fact, India is facing a shortage of skilled professionals. She opined that in the **System Security and Hacking** Operations candidates are recruited skills such asadvanced excel in Ethical Hacking and SQL operating skills, goodcommunication and presentation skills, strongdocumentation and analytical skills, data security, System Applications on Networking, Security aspects etc.

At the end of the webinar, an interactive Questions & Answers session was organized in which the resource person answered to the questions of the students. Most of the questions



were about how to equip those skills, how to get job in Hacking Fields, future of sector and salary structure in the domain etc.



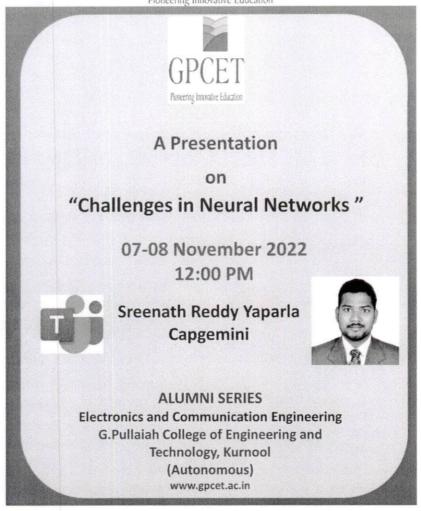
A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of ECE a session namely; "Challenges in Neural Networks" by Alumni Mr.Y. Sreenath Reddy, Capgemini on 07-08 November 2022 through Teams Platform.

The webinar was all about the Career Opportunities in Neural Networks AI and ML Industryand Skills required for getting Job Opportunities in this sector. Particularly, highlighted the technical skills required in to work in Travel and Tourism. Initially, Mr.Y.Sreenath Reddy has given an overview on IT sector.

Further, he said like Niche skill means a specific area in which you have to have more knowledge (or) experience. He opined that in the IT industry candidates are recruited based on their niche skills such as machine learning, data engineering, data visualization, artificial intelligence, Java programming, and cloud computing, etc.

At the end of the webinar, an interactive Questions & Answers session was organized in which the resource person addressed to the questions of the students about the webinar. Most of the questions were about how to equip those skills, list of top MNCs working on these technologies, future of technologies and salary structure in the domain etc.





A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of Electronics & Communication Engineering on "Opportunities in Embedded and IOT System Design" by Alumni Mr.NKulavardhan Reddy, Academian INC, Noida on 09th January 2023 through Teams Platform.

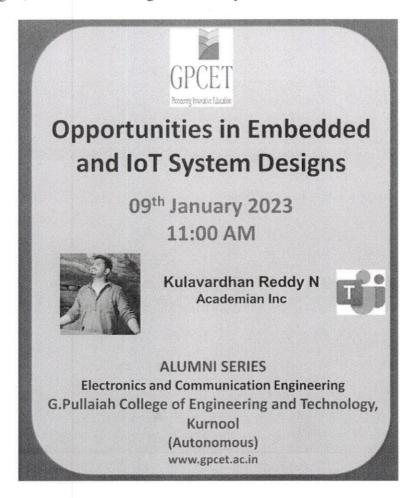
The webinar was all about sharing the ongoing trends in **Embedded and IoT** industry and particularly, lightened in Niche Technologies in **Embedded and IOT** Industry and Career Opportunities in that domain. Initially, **Mr.N.Kulavardhan Reddy** has given brief on Niche Technologies in **Embedded and IOT** Industry and its use in the present scenario.

Further, he said like Niche skill means a specific area in which you have to have more knowledge (or) experience. He opined that in the **Embedded and IOT** industry candidates are recruited based on their niche skills such as machine learning, data engineering, Types of Arduino, Data Controlling Networks, data visualization, artificial intelligence, Java programming, and cloud computing, etc.

At the end of the webinar, an interactive Questions & Answers session was organized in which the resource person addressed to the questions of the students about the webinar.



Most of the questions were about how to equip those skills, list of top MNCs working on these technologies, future of technologies and salary structure in the domain etc.



A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of Electronics & Communication Engineering on "Trending Technology Artificial Intelligence" by Alumni Mr.V.Girish, Yahoo!, Bangaloreon 06th March2023 through Google Meet.

The webinar was all about sharing the ongoing trends in IT industry and particularly, lightened in Advanced Technologies in IT Industry and Career Opportunities in that domain. Initially, **Mr.V.Girish** has given brief on Advanced Technologies in IT Industry and its use in the present scenario.

Further, he said like expertise skill means a specific area in which you have to have more knowledge (or) experience. He opined that in the IT industry candidates are recruited based on their niche skills such as expertise in Artificial Intelligence and Machine Learning, Robotic Process Automation (RPA), Open AI,Edge Computing, Quantum Computing, Virtual Reality and Augmented Reality, Block Chain, Internet of Things (IOT), 5G, Cyber Security, etc.



At the end of the webinar, an interactive Questions & Answers session was organized in which the resource person addressed to the questions of the students about the webinar. Most of the questions were about how to equip those skills, list of top MNCs working on these technologies, future of technologies and salary structure in the domain etc.



A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of Electronics & Communication Engineering on "Ethical Hacking and Technologies" by Alumni Mr.M.Sreenivasulu, Analyst, NTT DATA, Pune on 09th May2023 through Microsoft Teams.

The webinar was all about sharing the ongoing trends in **Ethical Hacking** industry and particularly, lightened in Cutting Edge Technologies in **Ethical Hacking** Industry and Career Opportunities in that domain. Initially, **Mr.M.Sreenivasulu** has given brief on Cutting Edge Technologies in **Ethical Hacking** Industry and its use in the present scenario.

Further, he said like expertise skill means a specific area in which you have to have more knowledge (or) experience. He opined that in the **Ethical Hacking** industry candidates are recruited based on their niche skills such as expertise in Homomorphic Encryption, 3D Multi-Sensor Transmitters, Robotics, IOT, 5G And Edge Computing, At-Home Digital Diagnostics, Conversational AI, Augmented Reality, Rapid Virus Testing, Quantum Computing, Password less Authentication, AR/VR In Real Estate And Construction etc.



At the end of the webinar, an interactive Questions & Answers session was organized in which the resource person addressed to the questions of the students about the webinar. Most of the questions were about how to equip those skills, list of top MNCs working on these technologies, future of technologies and salary structure in the domain etc.



Talk on

"Ethical Hacking and
Technologies"

9th May 2023

09:30 AM



Mangali Sreenivasulu NTT DATA, Analyst



ALUMNI SERIES

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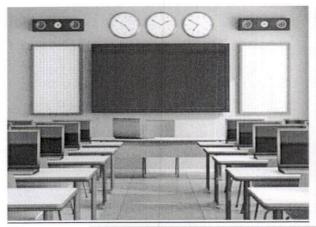
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

From Classroom to Industry

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.P.Hari kumar a one day webinar on "From Classroom to Industry" on 07/11/2022. Mr.P.Hari kumar is the trainee Engineer, Manomay Technologies, Hyderabad. A total of 110 students attended in this session from II B.Tech.







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Alumini talk

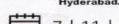
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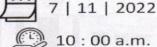
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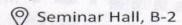


Mr.P. Hari Kumar

Traniee Engineer Manomay Technologies, Hyderabad.







Organized By

Department of Electrical and Electronics Engineering

Transitioning from a classroom environment to the industry can be both exciting and challenging. Here are some key aspects to consider when making this transition:

- 1. Practical Skills: In a classroom, you might have learned theoretical concepts and completed assignments. However, in the industry, practical skills are highly valued. Make sure to familiarize yourself with tools, technologies, and practices relevant to your field.
- 2. Networking: Building a professional network is crucial. Attend industry events, join professional groups or associations, and connect with professionals on platforms like LinkedIn. Networking can open doors to job opportunities and provide valuable insights into the industry.
- 3. Internships and Projects: Internships and real-world projects offer invaluable experience and can help bridge the gap between academia and industry. Look for internships in your field of interest, and actively participate in projects to gain hands-on experience.
- 4. Soft Skills: Apart from technical skills, employers also value soft skills such as communication, teamwork, problem-solving, and adaptability. Work on developing these skills to thrive in a professional environment.
- 5. Continuous Learning: The learning process doesn't end after leaving the classroom. Stay updated with industry trends, advancements, and best practices. Consider pursuing certifications or further education to enhance your skills and stay competitive in the job market.
- 6. Professionalism: Understand the expectations and norms of the industry. Be punctual, reliable, and professional in your interactions with colleagues and clients. Demonstrate a strong work ethic and willingness to learn and grow.
- 7. Seek Mentorship: Find experienced professionals who can provide guidance and mentorship as you navigate your career in the industry. A mentor can offer valuable advice, share insights, and help you overcome challenges.
- 8. Adaptability: Be prepared to adapt to the dynamic nature of the industry. Technologies and practices evolve rapidly, so stay flexible and open to new ideas and approaches.

Transitioning from the classroom to the industry requires a proactive approach, continuous learning, and a willingness to embrace new challenges. With the right mindset and preparation, you can successfully make the leap and thrive in your chosen field.



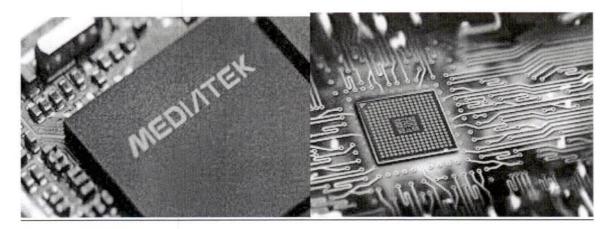
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING REPORT ON INTRODUCTION TO VLSI AND ITS VARIOUS INDUSTRIAL DOMAINS

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Ms.Molagari madhumitha a one day webinar on "Introduction to VLSI and its Various Industrial Domains" on 27/01/2023. Ms.Molagari madhumitha is the Physical Design Engineer in Mediatek. A total of 110 students attended in this session from II B.Tech .





VLSI (Very Large Scale Integration) is a field of semiconductor technology that deals with the fabrication of integrated circuits (ICs) by combining thousands to billions of transistors onto a single chip. Here's an introduction to VLSI and its various industrial domains:

1. Introduction to VLSI:

- VLSI technology enables the integration of a large number of electronic components onto a single semiconductor chip.
- The development of VLSI technology has led to the miniaturization of electronic devices, increased computing power, and reduced manufacturing costs.
- VLSI design involves the creation of electronic circuits and systems using various design tools, methodologies, and techniques.

2. Various Industrial Domains:

- Consumer Electronics: VLSI technology is extensively used in consumer electronics devices such
 as smartphones, tablets, laptops, digital cameras, and smartwatches. These devices rely on VLSI
 chips for processing, memory, communication, and multimedia capabilities.
- Telecommunications: VLSI technology plays a crucial role in telecommunications infrastructure, including base stations, routers, switches, and modems. These devices use VLSI chips for signal processing, data transmission, and network management.
- Automotive: VLSI technology is increasingly used in automotive applications, including engine
 control units (ECUs), advanced driver assistance systems (ADAS), infotainment systems, and
 vehicle-to-everything (V2X) communication. VLSI chips enable features such as collision
 avoidance, adaptive cruise control, and autonomous driving.
- Industrial Automation: VLSI technology is essential for industrial automation systems, including
 programmable logic controllers (PLCs), industrial robots, machine vision systems, and process
 control systems. VLSI chips provide the computing power and connectivity required for real-time
 monitoring, control, and optimization of industrial processes.
- Healthcare: VLSI technology is used in medical devices and equipment, such as medical imaging systems (MRI, CT, ultrasound), patient monitoring devices, implantable medical devices, and wearable health monitors. VLSI chips enable high-performance data processing, image reconstruction, and signal processing in healthcare applications.
- Aerospace and Defense: VLSI technology is critical for aerospace and defense systems, including
 avionics, radar systems, navigation systems, communication systems, and surveillance systems.
 VLSI chips provide the computing power, reliability, and ruggedness required for mission-critical
 applications in harsh environments. Overall, VLSI technology has a wide range of applications
 across various industrial domains, driving innovation and enabling the development of advanced
 electronic devices and systems.



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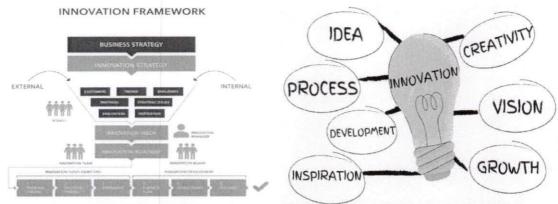
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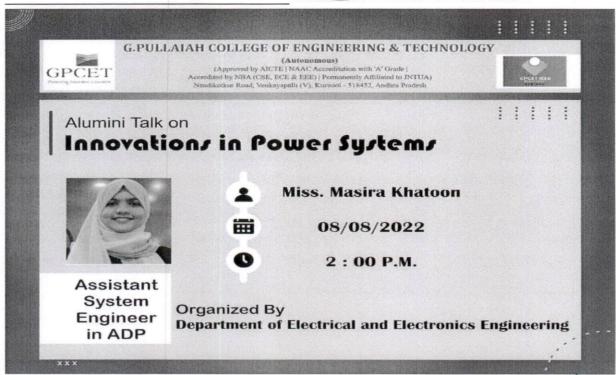
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

REPORT ON INNOVATIONS IN POWER SYSTEMS

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Miss.Masira Khatoon a one day webinar on "Innovations in power systems" on 08/08/2022. Miss. Masira Khatoon is the Assistant System Engineer in ADP. A total of 110 students attended in this session from III B.Tech.





In recent years, there have been several innovations in power systems aimed at improving efficiency, reliability, and sustainability. Some of the key innovations include:

- **1. Smart Grid Technology:** Smart grids utilize advanced sensing, communication, and control technologies to optimize the generation, transmission, and distribution of electricity. They enable real-time monitoring, grid management, and demand-response capabilities, leading to improved efficiency and reliability.
- **2.Renewable Energy Integration**: With the increasing adoption of renewable energy sources such as solar and wind power, innovations in power systems focus on integrating these intermittent energy sources into the grid seamlessly. Technologies like energy storage systems, advanced forecasting algorithms, and grid-scale battery storage help manage variability and balance supply and demand.
- **3.Microgrids**: Microgrids are small-scale, localized grids that can operate independently or in conjunction with the main grid. They incorporate distributed energy resources like solar panels, wind turbines, and battery storage, providing resilience, reliability, and the potential for localized energy generation and consumption.
- **4.Energy Storage:** Advances in energy storage technologies, such as lithium-ion batteries, flow batteries, and compressed air energy storage, play a crucial role in balancing supply and demand, integrating renewables, and enhancing grid stability. These technologies enable storing excess energy during periods of low demand for later use during peak demand times.
- **5.Grid Modernization**: Grid modernization involves upgrading aging infrastructure with digital technologies and automation to enhance reliability, efficiency, and flexibility. This includes the deployment of sensors, smart meters, and predictive analytics to monitor grid health, detect faults, and optimize maintenance schedules.
- **6. Electric Vehicle (EV) Integration:** The growing adoption of electric vehicles presents both challenges and opportunities for power systems. Innovations in EV charging infrastructure, vehicle-to-grid (V2G) technology, and smart charging algorithms facilitate the integration of EVs into the grid, enabling bidirectional energy flow and demand-side management.
- **7.Demand-Side Management:** Demand-side management initiatives leverage technologies such as smart thermostats, smart appliances, and home energy management systems to optimize energy consumption patterns and reduce peak demand. These programs incentivize consumers to shift their energy usage to off-peak hours, helping to balance the grid and lower overall energy costs.
- **8. Blockchain Technology:** Blockchain has the potential to revolutionize power systems by enabling peer-to-peer energy trading, transparent billing, and secure transactions between prosumers (consumers who also produce energy) within microgrids or larger grid networks. This technology could enhance efficiency, reduce transaction costs, and promote decentralization in energy markets. These innovations collectively contribute to creating more resilient, efficient, and sustainable power systems capable of meeting the evolving needs of modern society while reducing environmental impact.



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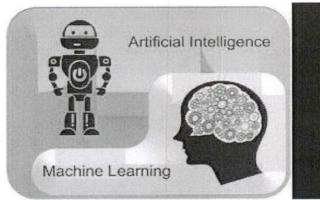
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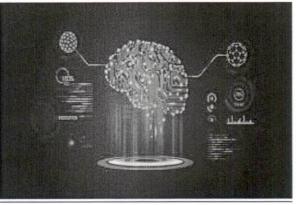
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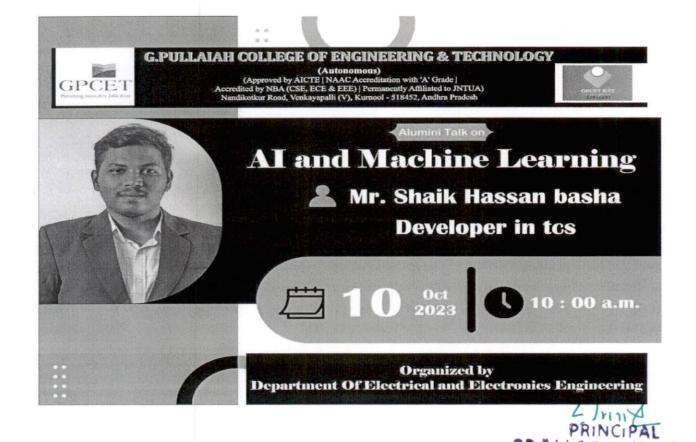
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

REPORT ON AI and MACHINE LEARNING

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.Shaik Hassan Basha a one day webinar on "AI and MACHINE Learning" on 10/10/2023. Mr.Shaik Hassan Basha is the Developer in TCS. A total of 110 students attended in this session from III B.Tech .







Artificial Intelligence (AI) and Machine Learning (ML) are two closely related fields that have seen significant advancements and applications in recent years. Here's an overview of each:

1. Artificial Intelligence (AI):

- Al refers to the simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions), and selfcorrection.
- All encompasses a wide range of techniques, including machine learning, natural language processing, computer vision, robotics, expert systems, and more.
- All systems aim to perform tasks that would typically require human intelligence, such as understanding natural language, recognizing patterns in data, making decisions, and solving problems.
- 2. Machine Learning (ML):
- ML is a subset of AI that focuses on the development of algorithms and statistical models that
 enable computers to learn from and make predictions or decisions based on data, without being
 explicitly programmed to perform specific tasks.
- ML algorithms learn patterns and relationships from data through experience, iteratively improving their performance over time.
- ML techniques include supervised learning, unsupervised learning, semi-supervised learning, reinforcement learning, and deep learning (a subset of ML that uses neural networks with multiple layers).

Applications of AI and ML:

- Al and ML have applications across various industries, including healthcare, finance, retail, transportation, cybersecurity, and more.
- In healthcare, Al and ML are used for medical imaging analysis, drug discovery, personalized medicine, predictive analytics, and patient monitoring.
- In finance, AI and ML algorithms are employed for fraud detection, algorithmic trading, credit scoring, risk assessment, and customer service automation.
- In retail, Al-powered recommendation systems, demand forecasting, inventory optimization, and supply chain management enhance customer experiences and operational efficiency.
- In transportation, Al and ML technologies are applied in autonomous vehicles, route optimization, traffic management, predictive maintenance, and logistics planning.
- In cybersecurity, AI and ML help detect and mitigate threats, identify anomalies in network traffic, and enhance security incident response.

Overall, Al and ML are driving innovation and transformation across industries, enabling organizations to automate processes, gain insights from data, improve decision-making, and deliver new products and services to customers.

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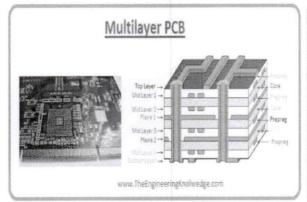
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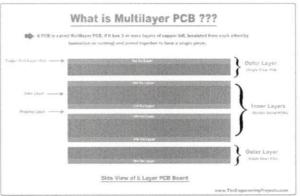
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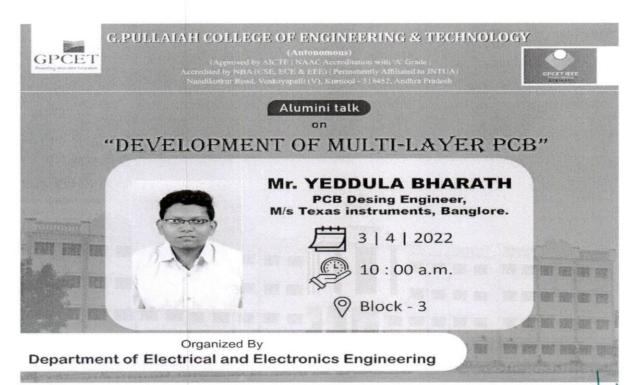
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING REPORT ON DEVELOPMENT OF MULTI-LAYER PCB

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.Yeddula Bharath a one day webinar on "Development of Multi-layer PCB" on 03/04/2022. Mr.Yeddula Bharath is the PCB Design Engineer, M/s Texas Instruments, Bangalore . A total of 90 students attended in this session from IV Btech.







The development of multilayer PCBs (Printed Circuit Boards) has been crucial in advancing electronics technology, enabling more compact, high-performance electronic devices. Here's an overview of the development process

- 1.Early Single-Layer PCBs: Initially, electronic circuits were built using point-to-point wiring or with discrete components mounted on insulating boards. The introduction of single-layer PCBs allowed for more efficient and compact circuit design by etching copper traces on a single layer of substrate material, typically fiberglass-reinforced epoxy.
- 2.Introduction of Double-Sided PCBs: As electronic devices became more complex, the demand for increased circuit density grew. Double-sided PCBs were developed, featuring copper traces on both sides of the substrate. This allowed for more intricate circuit designs and improved connectivity between components.
- 3. Emergence of Multilayer PCBs: With the continuous miniaturization of electronic components and the need for higher circuit densities, multilayer PCBs became essential. These PCBs consist of multiple layers of substrate material sandwiched together, with copper traces running through internal layers. The layers are bonded together using heat and pressure, and vias (plated-through holes) are used to establish electrical connections between different layers.
- 4. Advancements in Manufacturing Processes: The development of advanced manufacturing processes has been critical in producing multilayer PCBs with high precision and reliability. Techniques such as chemical etching, photolithography, and automated assembly have improved efficiency and consistency in PCB production.
- 5.Materials Innovation: Innovations in substrate materials have played a significant role in the development of multilayer PCBs. High-performance materials such as FR-4 (Flame Retardant 4) epoxy, polyimide, and PTFE (Polytetrafluoroethylene) offer improved thermal stability, dielectric properties, and mechanical strength, making them suitable for multilayer PCB applications.
- 6. **Design Software and CAD Tools**: The availability of sophisticated PCB design software and computer-aided design (CAD) tools has facilitated the design and layout of multilayer PCBs. These tools enable engineers to create complex circuit designs, perform signal integrity analysis, and optimize layout for manufacturability.
- 7. Miniaturization and High-Density Interconnects: The trend towards miniaturization and high-density interconnects has driven further innovation in multilayer PCB technology. Advanced techniques such as microvias, buried vias, and blind vias enable the routing of densely packed traces between layers, allowing for more compact and high-performance electronic devices.
- 8. **Specialized Applications**: Multilayer PCBs are used in a wide range of applications, including consumer electronics, telecommunications, automotive, aerospace, and medical devices. Each application may have specific requirements such as impedance control, high-frequency performance, or thermal management, driving further innovation in multilayer PCB technology. Overall, the development of multilayer PCBs has been driven by the need for increased circuit density, improved performance, and miniaturization in electronic devices PCBs in the future.



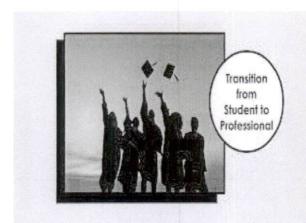
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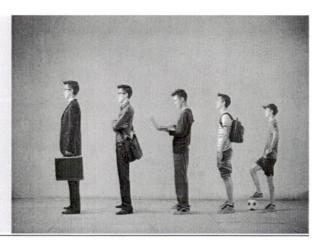
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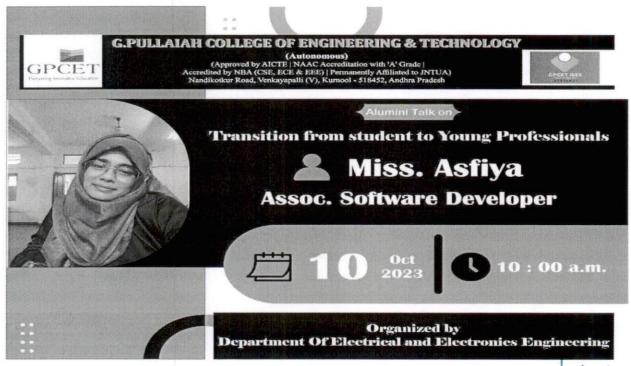
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING REPORT ON TRANSITION FROM STUDENT TO YOUNG PROFESSIONALS

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Ms.Asifa a one day webinar on "TRANSITION FROM STUDENT TO YOUNG PROFESSIONALS" on 10/10/2023. Ms.Asifa is the Assoc. Software Developer. A total of 110 students attended in this session from IV B.Tech.







Transitioning from being a student to becoming a young professional is an important phase in one's life and career. Here are some key tips to help navigate this transition successfully:

- 1. Develop Professional Skills: Focus on developing not only technical skills but also soft skills such as communication, teamwork, time management, and problem-solving. These skills are essential for success in the workplace.
- **2. Gain Experience**: Seek internships, part-time jobs, or volunteer opportunities related to your field of interest. Practical experience will not only enhance your resume but also provide valuable insights into the industry and help you build a professional network.
- **3. Build a Professional Network**: Networking is crucial for career growth. Attend industry events, career fairs, workshops, and seminars to connect with professionals in your field. Join professional associations and online communities to stay updated and engage with like-minded individuals.
- **4. Craft Your Resume and Cover Letter**: Tailor your resume and cover letter to highlight your skills, experiences, and achievements relevant to the job you're applying for. Customize your application for each position to demonstrate your interest and suitability for the role.
- **5. Prepare for Interviews**: Practice common interview questions and prepare thoughtful responses that showcase your qualifications and enthusiasm for the role. Research the company and industry to demonstrate your knowledge and interest during the interview.
- **6. Be Open to Learning**: Embrace opportunities for learning and growth in your new role. Be proactive in seeking feedback, asking questions, and taking on new challenges. Stay curious and continuously expand your knowledge and skills.
- **7. Seek Mentorship**: Find a mentor or trusted advisor who can provide guidance, support, and advice as you navigate your career. A mentor can offer valuable insights, help you set goals, and provide perspective based on their own experiences.
- **8. Maintain Work-Life Balance**: It's important to prioritize self-care and maintain a healthy balance between work, personal life, and hobbies. Set boundaries, manage your time effectively, and make time for activities that rejuvenate and energize you outside of work.
- **9. Stay Flexible and Adapt**: The transition from student life to the professional world may come with challenges and unexpected changes. Stay flexible, adaptable, and resilient in the face of obstacles. Embrace new opportunities and be willing to pivot when necessary.
- 10. Set Goals and Plan for the Future: Define your short-term and long-term career goals and create a plan to achieve them. Regularly evaluate your progress, reassess your goals, and make adjustments as needed to stay on track towards your aspirations. By focusing on professional development, gaining experience, building a network, and maintaining a positive attitude, you can successfully transition from being a student to becoming a young professional poised for growth and success in your chosen career path.

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