

**G.PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY
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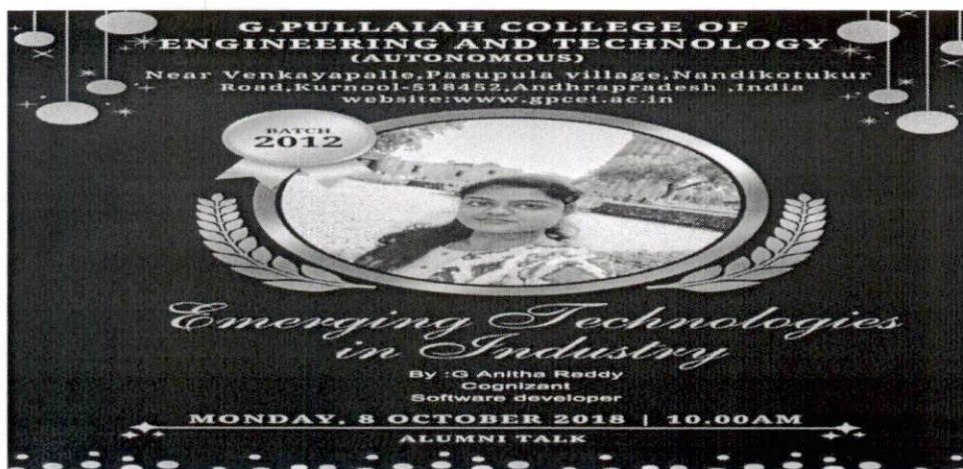
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**Nandikotkur Road, Venkayapalli (V), Kurnool- 518452, Andhra Pradesh
Department of Computer Science and Engineering**

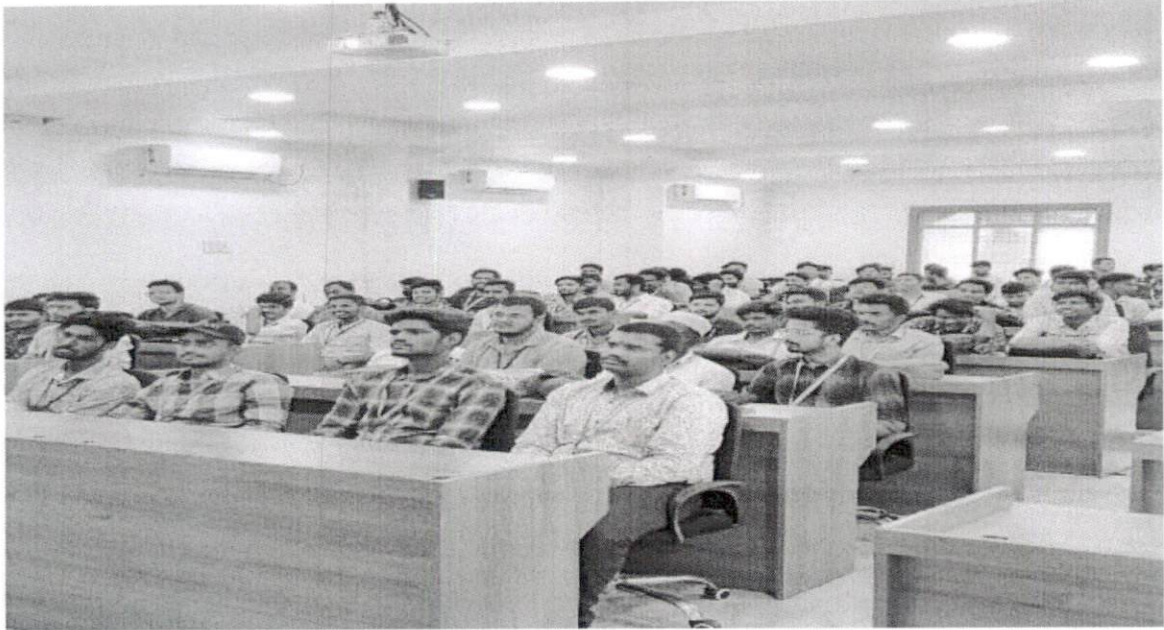
ALUMNI TALK ON "EMERGING TECHNOLOGIES IN INDUSTRY"

Date: 08-10-2018

Alumni talk on "Emerging Technologies in Industry" was organized under the Department of Computer Science and Engineering on 08-10-2018. The resource person is **G Anitha Reddy , Cognizant, software developer Hyderabad** . All IV Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on "Emerging Technologies in Industry" the resource person presented different modes of Introduction to Emerging technologies are characterized by radical novelty (in application even if not in origins), relatively fast growth, coherence, prominent impact, and uncertainty and ambiguity. In other words, an emerging technology can be defined as "a radically novel and relatively fast growing technology characterized by a certain degree of coherence persisting over time and with the potential to exert a considerable impact on the socio-economic domain(s) which is observed in terms of the composition of actors, institutions and patterns of interactions among those, along with the associated knowledge production processes. Its most prominent impact, however, lies in the future and so in the emergence phase is still somewhat uncertain and ambiguous. Students enthusiastically asked their queries about Emerging technologies. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction. Students were also informed about where to file a complaint about such threats and frauds.



G. Anitha Reddy
PRINCIPAL
G.Pullaiah College of Engg & Tech
Nandikotkur Road, VENKAYAPALLI
KURNOOL-518452 (A.P)



IV B.TECH CSE STUDENTS OF GPCET



G. Prasad
PRINCIPAL
G.Pulliah College of Engg & Tech
Vandikotkur Road, VENKAYAPALLI
KURNOOL-518 452 (A.P.)



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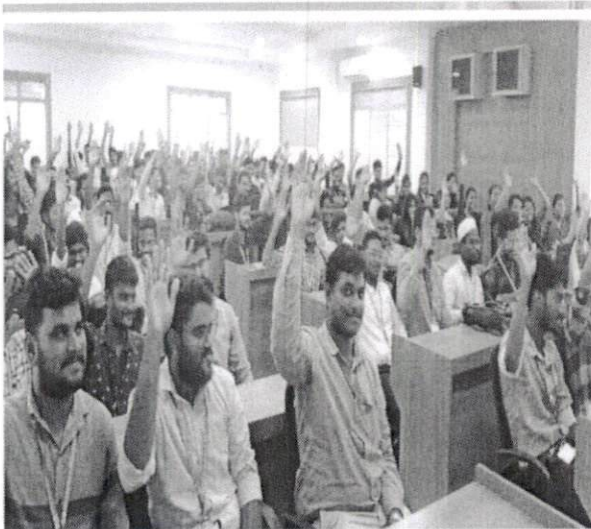
Nandikotkur Road, Venkayapalli (V), Kurnool- 518452, Andhra Pradesh

Department of Computer Science and Engineering

ALUMNI TALK ON "QUANTUM COMPUTING"

Date: 10-11-2018

Alumni talk on "Quantum Computing" in Industry was organized under Department of Computer



Science and Engineering on 10-11-2018. The

resource person is **Gnanesh, HCL Hyderabad** and

. All III Year students, HOD & Faculty of CSE

Department attended the seminar. The Seminar

mainly focused on Quantum Computing in

Industry the resource person presented different

modes of Quantum computing leverages

quantum mechanics to process information

through qubits, which can exist in multiple states

simultaneously. Superposition enables parallel

computation, while entanglement links qubits,

enhancing computational power. Quantum gates manipulate qubit states, facilitating complex

operations. Quantum algorithms exploit these properties to solve problems exponentially faster than

classical methods; notable examples include Shor's algorithm for integer factorization. However,

quantum systems are vulnerable to errors due to decoherence, necessitating quantum error correction

techniques. Despite challenges, ongoing research promises transformative applications in cryptography,

optimization, and scientific simulations, heralding a new era of computational capabilities beyond


classical limitations. Students enthusiastically asked their queries about Emerging technologies. These

young students listened to the lecture with rapt attention and expressed the feeling of satisfaction.

G. Prasad
PRINCIPAL

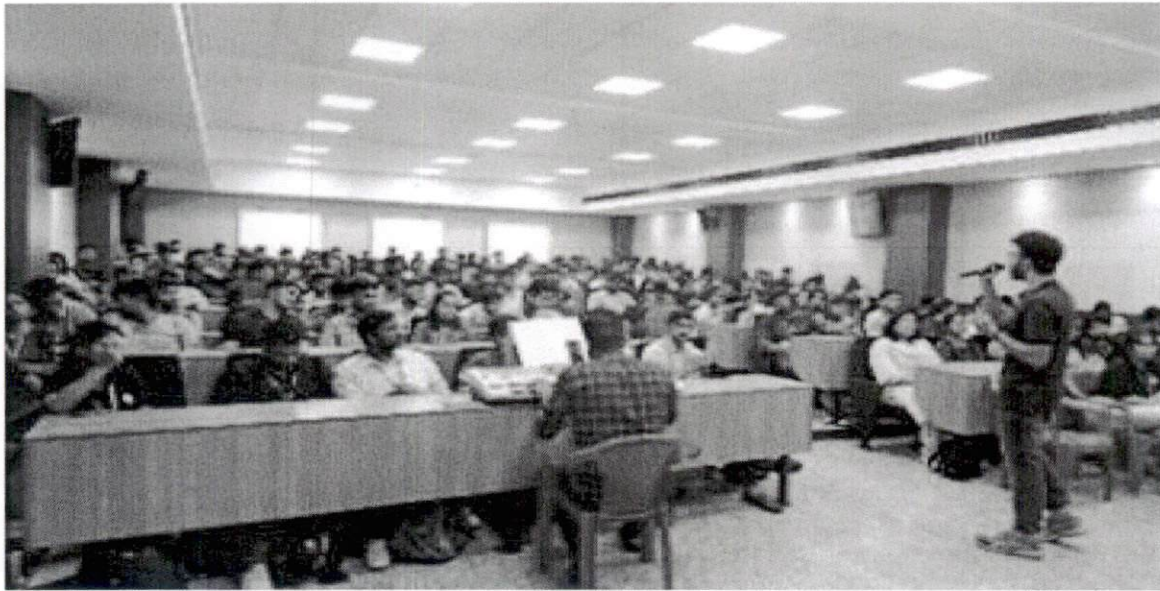
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**G. PULLAIAH COLLEGE OF
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Near Venkayapalle, Pasupula village, Nandikotkur
Road, Kurnool-518452, Andhrapradesh, India
website: www.gpcet.ac.in



Alumni Talk
QUANTUM COMPUTING
BY: **Gnanesh**
Concentrix catalyst
Software Engineer, Gachibowli, 2019

10 November 2018 | 10:00 AM



L. Jiniya
PRINCIPAL
G. Pullaiah College of Engg & Techno
Vandikotkur Road, VENKAYAPALLE
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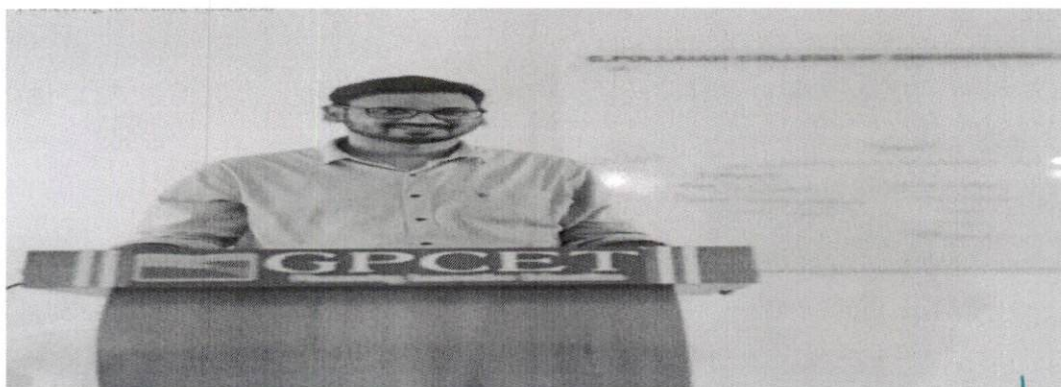
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Department of Computer Science and Engineering

ALUMNI TALK ON "INTERNET OF THINGS (IOT)"


Date: 11-12-2018


Alumni talk on "**Internet of Things (IoT)**" was organized under Department of Computer Science and Engineering on 11-12-2018. The resource person is **Ranganath, Amdocs, DWH/BI developer**. All II Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on Internet of Things (IoT) in Industry the resource person presented different modes of Introduction to The Internet of Things (IoT) encompasses a network of interconnected devices equipped with sensors, actuators, and connectivity capabilities, enabling them to collect, exchange, and act upon data autonomously. IoT systems leverage technologies such as wireless communication protocols, cloud computing, and edge computing to facilitate data transmission and processing. Devices in IoT ecosystems range from everyday objects to industrial machinery, enabling applications in smart homes, healthcare, transportation, and more. Challenges in IoT include security, interoperability, and scalability. Despite these hurdles, IoT continues to drive innovation, efficiency, and convenience, shaping the future of connected systems and services in various domains. Students enthusiastically asked their queries about Emerging technologies. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction. Students were also informed about where to file a complaint about such threats and frauds.



S. Jiniya
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G. Pullaiah College of Engg & Tech
Nandikotkur Road, VENKAYAPALLI
KURNOOL-518452 (A.P.)



 Alumni
Talk



INTERNET OF THINGS(IOT)
BY: RANGANATH
AMDOCS, DESIGNATION:-DWH/BI
DEVELOPER, BRANCH:-CSE
12 DECEMBER 2018


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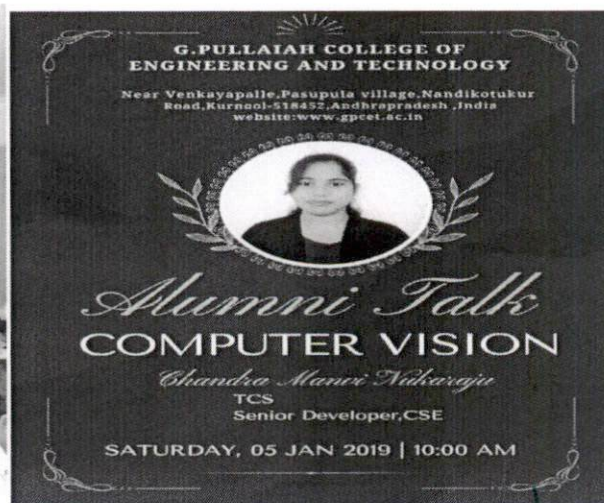
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Department of Computer Science and Engineering

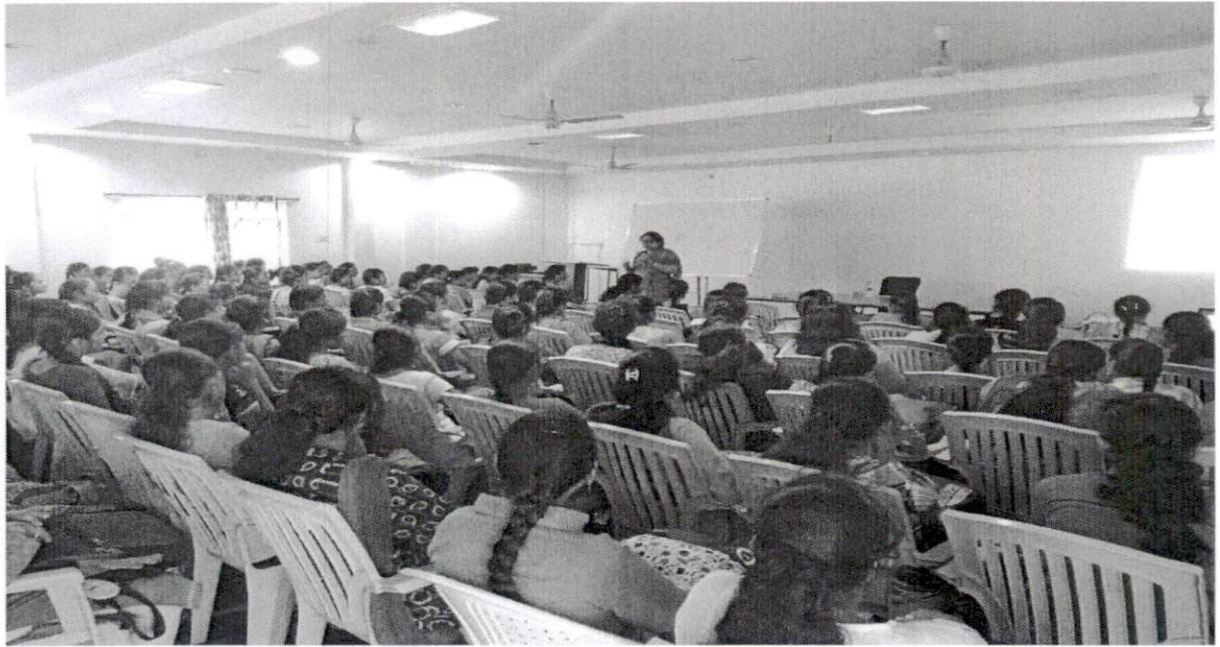
ALUMNI TALK ON "COMPUTER VISION"

Date: 05-01-2019

Alumni talk on "Computer vision" was organized under Department of Computer Science and Engineering on 05-01-2019. The resource person is **Chandra Manvi, TCS, Senior Developer**. All IV Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on Computer vision, a field of artificial intelligence, empowers machines to interpret and understand visual information from images or videos. Leveraging techniques like convolutional neural networks (CNNs), it enables tasks such as object detection, image classification, and facial recognition. Through deep learning algorithms, computers can analyze and extract meaningful insights from visual data, revolutionizing industries like healthcare, automotive, and surveillance. However, challenges persist, including robustness to diverse conditions and ethical considerations. Continual advancements in algorithms and hardware propel the field forward, promising enhanced accuracy and applicability. Computer vision stands as a cornerstone in shaping the future of technology, driving innovation across various domains. Students enthusiastically asked their queries about Emerging technologies. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction. Students were also informed about where to file a complaint about such threats and frauds



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G. Prasad
PRINCIPAL
G. Pullalah College of Engg & Tech
Nandikotkur Road, VENKAYAPALLI
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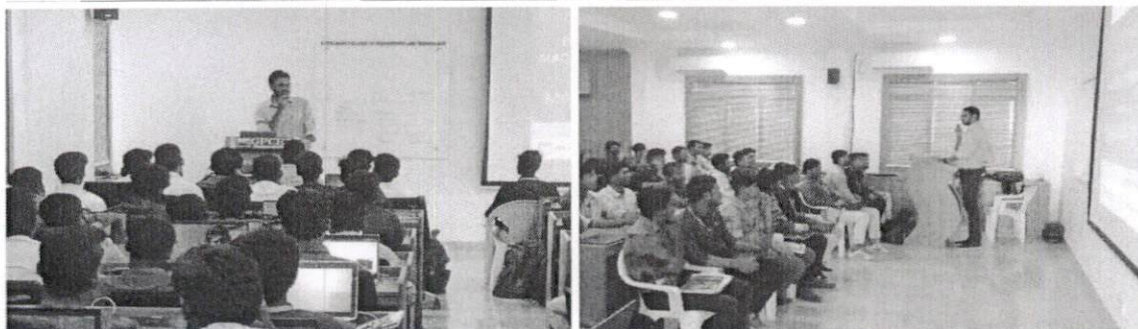
Department of Computer Science and Engineering

ALUMNI TALK ON "ADVANCEMENTS IN DEEP LEARNING"

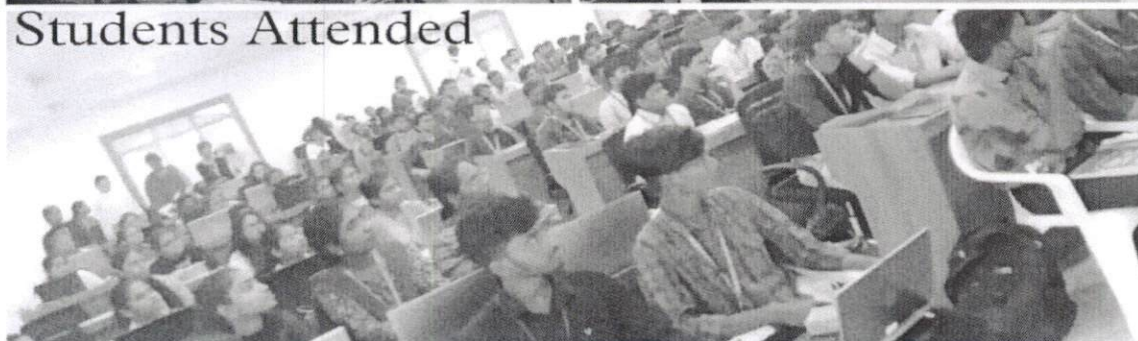
Date: 11-02-2019

Alumni talk on "ADVANCEMENTS IN DEEP LEARNING" was organized under Department of Computer Science and Engineering on 11-02-2019. The resource person is Hemanth Kumar, Tech Mahindra. All III Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on Deep learning, a subset of artificial intelligence, has witnessed remarkable advancements reshaping numerous domains. Breakthroughs like transformer models have revolutionized natural language processing, enhancing understanding and generation of human-like text. Techniques such as generative adversarial networks (GANs) have led to stunning progress in generating realistic images and videos, impacting entertainment and design fields. Additionally, reinforcement learning algorithms have mastered complex tasks through trial and error, showing promise in robotics and gaming. However, challenges persist, including model interpretability and data privacy concerns. Ongoing research efforts aim to address these issues, driving deep learning's evolution and its profound impact on society and technology. Students enthusiastically asked their queries about Emerging technologies. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction.


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KURNOOL-518452 (A.P)




Students Attended



**G. PULLAIAH COLLEGE OF
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Near Venkayapalle, Pasupula village, Nandikotkur
Road, Kurnool-518452, Andhrapradesh, India
website: www.gpcet.ac.in

**ALUMNI TALK
ADVANCEMENTS IN DEEP
LEARNING**



**Marubattula Sri Hari Varun
Kumar**

2024
MONDAY | 11 | FEBRUARY
10:00 AM

S. Jini
PRINCIPAL
G. Pullaiah College of Engg & Tech
Vandikotkur Road, VENKAYAPALLE
KURNOOL-518452 (A.P)



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Department of Computer Science and Engineering

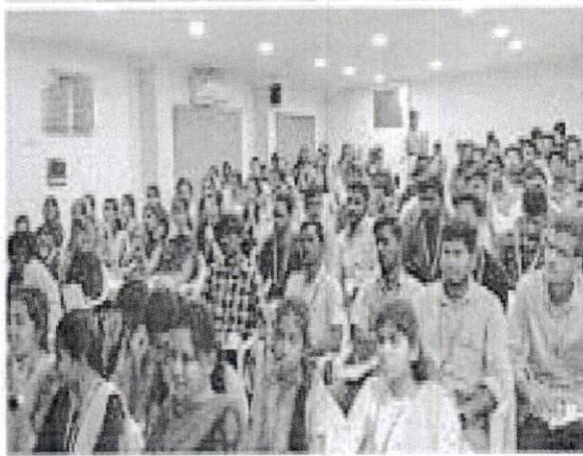
ALUMNI TALK ON "AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR)"

Date: 12-03-2019

Alumni talk on "Augmented Reality (AR) and Virtual Reality (VR)" was organized under Department of Computer Science and Engineering on 12-03-2019. The resource person is Sri Hari Varun Kumar, Tech mahindra. All II Year students, HOD & Faculty of CSE Department attended the seminar. The Seminar mainly focused on Augmented Reality (AR) and Virtual Reality (VR) are immersive technologies reshaping how we interact with digital content. AR overlays virtual elements onto the real world, enhancing our perception and offering practical applications in fields like education, gaming, and retail. VR, on the other hand, transports users to entirely virtual environments, providing unprecedented levels of immersion for training, entertainment, and therapy. Both technologies leverage advanced hardware, such as headsets and motion-tracking devices, coupled with sophisticated software to create compelling experiences. As these technologies continue to evolve, they hold immense potential to revolutionize industries and redefine human-computer interaction. Students enthusiastically asked their queries about Emerging technologies. These young students listened to the lecture with rapt attention and expressed the feeling of satisfaction.




L. J. Prasad
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**ALUMNI TALK
AUGMENTED REALITY (AR) AND
VIRTUAL REALITY (VR)**



**MARUBATTULA SRI HARI VARUN
KUMAR**
Working: Tech Mahindra
Batch: 2018
Role: AEM developer
2019 MARCH 12TH 10:00 AM

L. Jirina
PRINCIPAL
G.Pullaiah College of Engg & Tech
Vandikotkur Road, VENKAYAPALLI
KURNOOL-518 452 (A.P)

G.PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY
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ALUMNI WEBINARS – 2018-19

A webinar was conducted for all the ECE students under Alumni Talk Series by the Department of ECE on “**Challenges in Game Development**” by Alumni **Mr.Nelli Harish Kumar, Amazon, Manager** on 08th October 2018 through Teams Platform.

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

Further, she said like companies in the finance sector are always on the lookout for skilled professionals. In fact, India is facing a shortage of skilled Professionals. He opined that in the Gaming sector candidates are recruited basic skills such as Analytical Thinking, Designing Skills, Programming Intelligence, Multimedia Design, Photo making, 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 domains, future of sector and salary structure in the domain etc.


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KURNOOL-518452 (A.P.)

Talk on
**“Challenges in Game
Development”**

8th October 2018

10:30 AM



NELLI HARISH KUMAR
Amazon, Manager



ALUMNI SERIES

Department of Electronics and Communication Engineering
G.Pullaiah College of Engineering and Technology, Kurnool
(Autonomous)
www.gpcet.ac.in

A webinar was conducted for all the ECE students under Alumni Talk Series by the Department of ECE a session namely; **“Digital Marketing and Digital Trading”** by Alumni **Mr.C.Nageswar Reddy, SAP, Manager** on 03rd December 2018 through Google Platform.

The webinar was all about the Career Opportunities in **Digital Marketing and Digital Trading** and Skills required for getting Job Opportunities in **Digital Marketing and Digital Trading**. Particularly, highlighted the technical skills required in to work in Ecommerce sectors and also Career Opportunities Ecommerce and Trading. Initially, **Mr.C.Nageswar Reddy** has given brief on SAP **Digital Marketing and Digital Trading** and its use in the present scenario.

Further, he said like companies in the Finance Operations are always on the lookout for skilled professionals. In fact, India is facing a shortage of skilled professionals. He opined that in the Finance Operations candidates are recruited skills such as; advanced excel and SQL operating skills, good communication and presentation skills, strong documentation and analytical skills, ability to engage and interact independently with client personnel, work in

result-oriented team environment, work in a multi-time zone environment and travel to other offices if required 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 SAP, future of sector and salary structure in the domain etc.



The poster is for a webinar titled "A Webinar On Digital Marketing & Digital Trading". It is scheduled for 03rd December 2018 at 10:00 AM. The speaker is C. NAGESWAR REDDY, SAP- Manager. The webinar is part of the ALUMNI SERIES for Electronics and Communication Engineering at G. Pullaiah College of Engineering and Technology, Kurnool (Autonomous). The website www.gpcet.ac.in is listed at the bottom. The poster features the GPCET logo at the top, a photo of the speaker on the left, and a video camera icon on the right.


A webinar was conducted for all the ECE students under Alumni Talk Series by the Department of ECE a session namely; “**Internet of Things and its Challenges**” by Alumni **Mr. Rajesh Sunnamgalla, Dell Technologies** on 2-3 August 2018 through Teams Platform.

The webinar was all about the Career Opportunities in **Internet of Things and its Challenges** and Skills required for getting Job Opportunities in this sector. Particularly, highlighted the technical skills required in to work in **Internet of Things and its Challenges**. Initially, **Rajesh Sunnamgalla** has given an overview on Indian IOT sector.

Further, he said like companies in sector **Internet of Things and its Challenges** are always on the lookout for skilled professionals. In fact, India is facing a shortage of skilled professionals. He opined that Indian travel industry hopes to create million job opportunities by 2025 and our government is also taking various initiatives to improve the IOT industry efficiently. To have career in this sector candidate should acquire skills like; good skills on Embedded Systems, types of network challenges, teamwork, customer service skills and adoptable to work in a multi-time zone environment etc.

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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, list of top MNCs working on these domains, future of sector and salary structure in the domain etc.



The poster features the GPCET logo at the top, followed by the title 'A Presentation on "Internet of Things and Challenges"'. The speaker is identified as Rajesh Sunnamgalla from Dell Technologies. The event is scheduled for 02-03 August 2018 at 03:00 PM. It is part of the ALUMNI SERIES for Electronics and Communication Engineering at G. Pullaiah College of Engineering and Technology, Kurnool (Autonomous). A small portrait of the speaker is included on the right side of the poster.

A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of Electronics & Communication Engineering on **“Opportunities in VLSI AND CAD Design”** by Alumni **Mr.B Siva Kiran, Analyst, Bosch** on 01st February 2019 through Teams Platform.

The webinar was all about sharing the ongoing trends in Core Electronics industry and particularly, lightened in BOSCH Technologies in Core Electronics and Career Opportunities in that domain. Initially, **Mr.B Siva Kiran** has given brief on BOSCH and its use in the present scenario.

Further, he said like BOSCH Core Electronic skills means a specific area in which you have to have more knowledge (or) experience. He opined that in the Core Electronics industry candidates are recruited based on their skills such as Designing in VLSI, data engineering, CADENCE , programming 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.



**Opportunities in
VLSI & CAD Design**

1st February 2019
12:00 PM



B SIVA KIRAN
Analyst BOSCH




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Electronics and Communication Engineering
G.Pullaiah College of Engineering and Technology,
Kurnool
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A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of Electronics & Communication Engineering on “**Trending Technologies at work places in competitive world**” by Alumni **Ms. G. Gowri Priya, OrgLens, UK** on 05-06 April 2019 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, **Ms. G. Gowri Priya** has given brief on Advanced Technologies in IT Industry and its use in the present scenario.

Further, She said like expertise skill means a specific area in which you have to have more knowledge (or) experience. She 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), Edge Computing, Quantum Computing, Virtual Reality and Augmented Reality, Block Chain, Internet of Things (IOT), 5G, Cyber Security, etc.


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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.



The poster is a vertical rectangular graphic with rounded corners. At the top center is the GPCET logo, which includes a stylized book icon above the text 'GPCET' and the tagline 'Pioneering Innovative Education'. Below the logo, the text reads 'A Webinar on "Trending Technologies At Work Places in Competitive World"'. To the left of this text is a small portrait of a woman, G Gowri Priya. To the right of the portrait, the text identifies her as 'G GOWRI PRIYA, OrgLens, UK' and provides the date and time: '05-06 April 2019, 11:00 AM'. Below this, it mentions 'ALUMNI SERIES' and the department 'Electronics and Communication Engineering' at 'G.Pullaiah College of Engineering and Technology, Kurnool (Autonomous)'. At the bottom, the website 'www.gpcet.ac.in' is listed. A small icon of a video camera is positioned to the right of the date and time.

A webinar was conducted for all the B.Tech students under Alumni Talk Series by the Department of Electronics & Communication Engineering on “**Network and Security**” by Alumni **Mr.J.Ganesh,Analyst, HCL Tech, Bangalore** on 09th July2018 through Microsoft Teams.

The webinar was all about sharing the ongoing trends in IT industry and particularly, lightened in Cutting Edge Technologies in IT Industry and Career Opportunities in that domain. Initially, **Mr.J.Ganesh** has given brief on Cutting Edge 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 Network and Security accompanied with various fields such as Homomorphic Encryption, 3D Multi-Sensor Transmitters, Robotics, IOT, 5G And Edge Computing, At-Home Digital Diagnostics, Conversational AI



Pioneering Innovative Education

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
"Networking and Security"**

9th July 2018

11:30 AM



JEGILETI GANESH
HCL TECH, Analyst



ALUMNI SERIES

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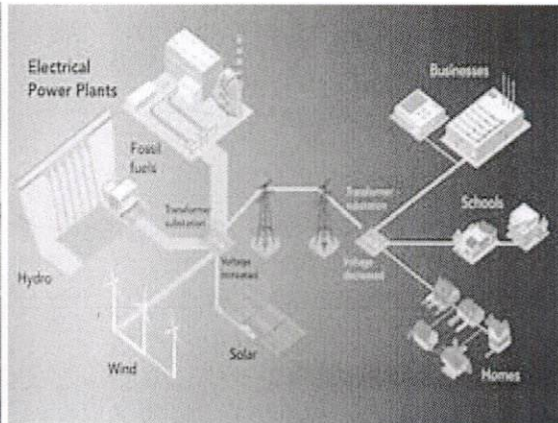
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Nandikotkur Road, Venkayapalli (V), Kurnool - 518452, Andhra Pradesh

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING REPORT ON ELECTRICAL POWER GENERATION


Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.Salkapuram Venu a one day webinar on "ELECTRICAL POWER GENERATION" on 20/08/2018. Mr.Salkapuram Venu is the Electrical Maintenance Engineer, Reliance Power. A total of 120 students attended in this session from II year 1ST sem Beach 2018.






GPCET
Pottering Innovative Education

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GPCET
Pottering Innovative Education

Alumini Talk on
Electrical Power Generation



**Electrical
Maintenance
Engineer
Reliance Power**




Mr. SALKAPURAM VENU

20/8/2018

2 : 00 P.M.

**Organized By
Department of Electrical and Electronics Engineering**

x x x


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 G.Pullaiah College of Engg & Tech
 Nandikotkur Road, VENKAYAPALLI
 KURNOOL-518452 (A.P)

Electrical power generation is the process of producing electricity from various energy sources. This electricity is essential for powering homes, businesses, industries, and other infrastructure. There are several methods of electrical power generation, each utilizing different energy sources and technologies. Some of the common methods include:

1. Fossil Fuels:

Coal: Coal-fired power plants burn coal to generate steam, which drives turbines connected to generators.

Natural Gas: Natural gas power plants burn natural gas to produce steam or directly drive turbines.

Oil: Oil-fired power plants work similarly to coal-fired plants but burn oil instead.

2. Nuclear Power: Nuclear power plants use controlled nuclear reactions (fission) to generate heat, which produces steam to drive turbines and generate electricity.

3. Renewable Energy:

Solar Power: Solar panels convert sunlight directly into electricity through photovoltaic cells.

Wind Power: Wind turbines capture kinetic energy from the wind and convert it into electricity through generators.

Hydropower: Hydroelectric power plants utilize the energy of flowing or falling water to turn turbines and generate electricity.

Biomass: Biomass power plants burn organic materials such as wood, agricultural residues, or municipal solid waste to produce steam and generate electricity.

Geothermal: Geothermal power plants harness heat from beneath the Earth's surface to generate steam and drive turbines.

4. Other Methods:

Tidal Power: Tidal power plants capture energy from the rise and fall of tides to generate electricity.

Wave Power: Wave energy converters extract energy from ocean waves to produce electricity.

Electrical power generation plays a crucial role in modern society, providing the energy needed for lighting, heating, cooling, transportation, communication, and various industrial processes. With increasing concerns about climate change and environmental sustainability, there's a growing emphasis on transitioning towards cleaner and renewable energy sources to mitigate the impacts of fossil fuel use and reduce greenhouse gas emissions.

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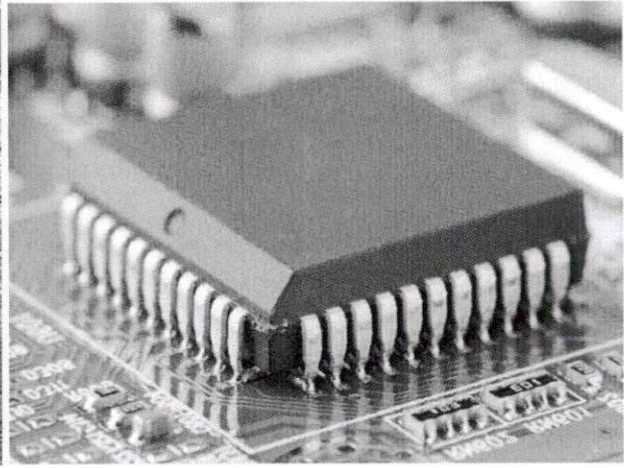
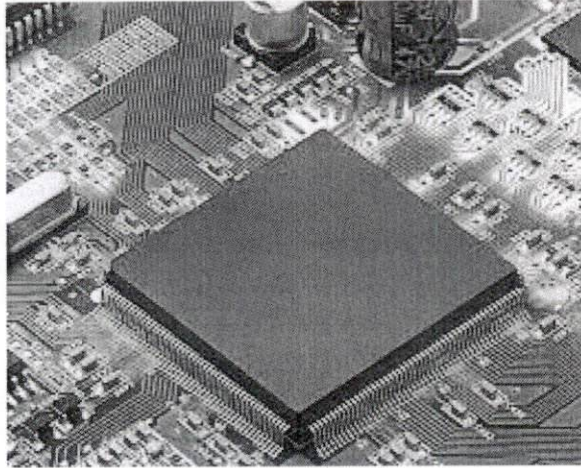
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING REPORT ON JOURNEY FROM ELECTRONICS ICS TO PHOTOIC ICS

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.M.Varun Tej a one day webinar on "JOURNEY FROM ELECTRONICS ICS TO PHOTOIC ICS" on 29/12/2018. Mr.M.Varun Tej is the ASM Technologies, Chennai. A total of 110 students attended in this session from II B.Tech.







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Alumini Talk on

Journey from Electronics Ics to Photoic ICs

Mr. M VARUN TEJ
ASM Technologies, Chennai

 **29** Dec 2018 |  **10 : 00 a.m.**

Organized by
Department Of Electrical and Electronics Engineering

E. Jiniya
PRINCIPAL
G.Pullaiah College of Engg & Tech
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The journey from electronics integrated circuits (ICs) to photonic integrated circuits (PICs) represents a significant evolution in the field of integrated circuit technology, driven by the need for faster, more efficient, and higher bandwidth communication systems. Here's an overview of the transition from electronics ICs to photonic ICs:

Electronics Integrated Circuits (ICs):

- 1. Semiconductor Electronics:** Traditional integrated circuits, or electronics ICs, are built using semiconductor materials such as silicon. These ICs primarily manipulate and process electrical signals.
- 2. Miniaturization and Moore's Law:** Electronics ICs have experienced continuous miniaturization and performance improvements over the years, following Moore's Law, which predicts that the number of transistors on a chip doubles approximately every two years.
- 3. Digital and Analog Circuits:** Electronics ICs are used in a wide range of applications, including digital logic circuits (such as microprocessors and memory chips) and analog circuits (such as amplifiers and sensors).
- 4. Limitations:** Despite their advancements, electronics ICs face limitations in terms of bandwidth, power consumption, and signal propagation speed, particularly as data communication demands continue to increase.

Transition to Photonic Integrated Circuits (PICs):

- 1. Introduction of Photonics:** Photonic integrated circuits (PICs) introduce photonic components and technologies alongside traditional electronic components on the same chip. These components manipulate and process light instead of electrical signals.
- 2. Advantages of Photonics:** Photonic ICs offer several advantages over traditional electronics ICs, including higher bandwidth, lower power consumption, reduced signal loss over long distances, and immunity to electromagnetic interference.
- 3. Integration of Photonic Components:** PICs integrate various photonic components, such as lasers, modulators, waveguides, photodetectors, and optical switches, onto a single chip using semiconductor manufacturing techniques.
- 4. Applications:** PICs find applications in telecommunications, data centers, optical interconnects, sensing, medical devices, and other fields requiring high-speed and high-bandwidth data transmission.
- 5. Advancements in Manufacturing:** Manufacturing techniques for PICs have evolved to enable precise fabrication of photonic components at the nanoscale, allowing for increased integration density and improved performance.


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6. Hybrid Integration: Some PICs employ hybrid integration, combining photonic and electronic components on the same chip to leverage the strengths of both technologies for specific applications.

7. Research and Development: Ongoing research and development efforts focus on further improving the performance, reliability, and scalability of PICs, as well as reducing their cost and complexity of manufacturing.

Future Outlook:

The transition from electronics ICs to photonic ICs represents a paradigm shift in integrated circuit technology, offering new opportunities for high-speed data communication, sensing, and computing. Continued advancements in photonic integration are expected to drive innovations in various industries and enable the development of next-generation communication networks and computing systems.

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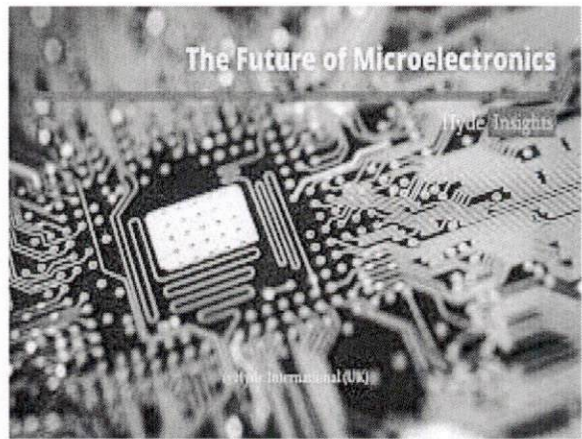
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

The Future Of (Micro) Electronics And Possible Roles India Can Play

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.P.Riyaz a one day webinar on "THE FUTURE OF(MICRO) ELECTRONICS AND POSSIBLE ROLES INDIA CAN PLAY" on 15/09/2018. Mr.P.Riyaz is the Research Scholar, Indian Institute of Science, Bangalore. A total of 110 students attended in this session from III B.Tech.



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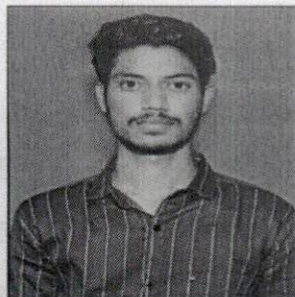
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Alumini talk

on

THE FUTURE OF (MICRO) ELECTRONICS AND POSSIBLE ROLES INDIA CAN PLAY



Mr. P. Riyaz

Research Scholar, Indian Institute of Science, Bangalore



15 | 9 | 2018



10 : 00 a.m.



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Department of Electrical and Electronics Engineering

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The future of microelectronics holds tremendous potential for innovation and advancement, driven by emerging technologies, increasing demand for smart devices, and the need for energy-efficient computing solutions. India, with its growing expertise in semiconductor manufacturing, research, and engineering talent, is well-positioned to play a significant role in shaping the future of microelectronics. Here are some key areas where India can contribute:

Semiconductor Manufacturing:

1. Advanced Chip Manufacturing: India can invest in developing advanced semiconductor manufacturing facilities, focusing on technologies such as 5nm, 3nm, and beyond. Establishing fabrication plants for cutting-edge chips can enhance India's position in the global semiconductor market.

2. Foundry Services: Indian semiconductor companies can offer foundry services for fabless semiconductor companies worldwide, providing access to advanced manufacturing processes and reducing dependence on overseas foundries.

Research and Development:

1. R&D Centers: India can establish more research and development centers focused on microelectronics, collaborating with academic institutions, government agencies, and industry partners to drive innovation in areas such as chip design, materials science, and device fabrication.

2. Emerging Technologies: India can invest in research and development of emerging technologies in microelectronics, including quantum computing, neuromorphic computing, silicon photonics, and beyond CMOS technologies.

Design and Engineering:

1. Chip Design: India has a strong talent pool in chip design and verification. Companies can leverage this expertise to design complex system-on-chip (SoC) solutions for applications such as artificial intelligence, automotive electronics, IoT devices, and 5G communication.

2. EDA Tools Development: India can contribute to the development of Electronic Design Automation (EDA) tools for chip design, simulation, and verification, catering to the evolving needs of semiconductor companies worldwide.

IoT and Wearable Devices:

1. Sensor Technology: India can focus on developing advanced sensor technologies for IoT and wearable devices, enabling applications in healthcare, agriculture, smart cities, and industrial automation.

2. Low-Power Design: Given the increasing demand for battery-operated IoT devices, India can specialize in low-power design techniques and energy-efficient microcontrollers, ensuring longer battery life and improved performance.

Skill Development and Education:

1. Workforce Training: India can invest in training programs and skill development initiatives to nurture talent in microelectronics, providing engineers with the necessary expertise in chip design, fabrication, testing, and packaging.

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2. Academic Collaboration: Collaborations between industry and academia can foster research and education in microelectronics, enabling the development of a skilled workforce and driving innovation in the field.

Policy Support and Infrastructure:

1. Government Initiatives: The Indian government can introduce policies and incentives to promote investment in microelectronics, including tax breaks, subsidies, and infrastructure support for semiconductor manufacturing.

2. Infrastructure Development: India can enhance its infrastructure for microelectronics, including wafer fabrication facilities, testing and assembly plants, and semiconductor ecosystem clusters, to attract domestic and foreign investment in the sector.

By focusing on these areas and leveraging its strengths in technology, talent, and innovation, India can play a significant role in shaping the future of microelectronics, driving economic growth, and establishing itself as a global leader in the semiconductor industry.

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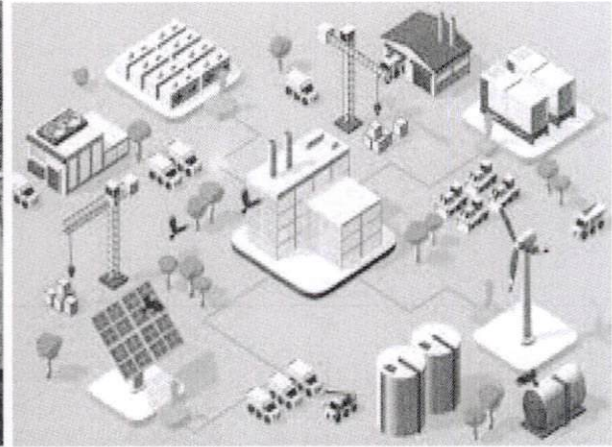
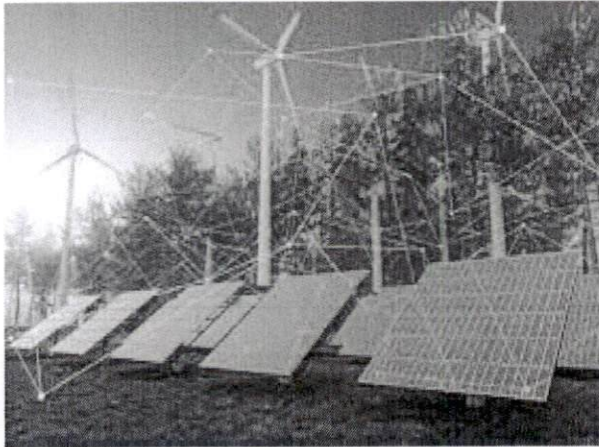
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING REPORT ON VIRTUAL POWER PLANTS

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.M.V.Rami Reddy a one day webinar on "VIRTUAL POWER PLANTS" on 15/01/2019. Mr.M.V.Rami Reddy is the Assistant Engineer, APSPDCL, Nandyal. A total of 110 students attended in this session from III B.Tech.



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Alumini talk

on

VIRTUAL POWER PLANTS



Mr. M.V. Rami Reddy

Assistant Engineer, APSPDCL, Nandyal.



15 | 1 | 2019



10 : 00 a.m.



Block - 3

Organized By

Department of Electrical and Electronics Engineering

L. Jini
PRINCIPAL
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Virtual Power Plants (VPPs) are a modern approach to energy management and power generation that leverage digital technologies to optimize the integration of distributed energy resources (DERs) into the electrical grid. Here's an overview of virtual power plants:

Definition:

A Virtual Power Plant (VPP) is a network of decentralized, interconnected energy resources that are aggregated and managed through a centralized control system. These resources can include:

- 1. Renewable Energy Sources:** Such as solar photovoltaic (PV) panels, wind turbines, and hydroelectric generators.
- 2. Distributed Energy Storage:** Including batteries, flywheels, and pumped hydro storage.
- 3. Demand Response Programs:** Which involve adjusting electricity usage in response to grid conditions or price signals.

Working Principle:

- 1. Aggregation:** VPPs aggregate multiple DERs distributed across different locations, such as residential solar panels, commercial battery storage systems, and industrial cogeneration units.
- 2. Control and Optimization:** Through advanced control systems and algorithms, VPP operators can remotely monitor, coordinate, and optimize the operation of individual DERs within the network in real-time.
- 3. Grid Services:** VPPs can provide a range of grid services, including:
 - **Load Balancing:** Adjusting energy production or consumption to match supply and demand fluctuations.
 - **Frequency Regulation:** Modulating power output to maintain grid frequency within acceptable limits.
 - **Voltage Regulation:** Controlling voltage levels to ensure grid stability and reliability.
 - **Peak Shaving:** Reducing energy demand during periods of high electricity prices or system stress.
- 4. Market Participation:** VPPs can participate in energy markets, selling excess electricity back to the grid or providing ancillary services to grid operators.

Benefits:

- 1. Grid Stability and Reliability:** VPPs enhance grid stability by balancing supply and demand in real-time and providing ancillary services to support grid operations.
- 2. Integration of Renewable Energy:** VPPs facilitate the integration of intermittent renewable energy sources into the grid by smoothing out fluctuations and optimizing their use.
- 3. Energy Efficiency:** By coordinating the operation of distributed energy resources, VPPs can improve overall energy efficiency and reduce wastage.
- 4. Cost Savings:** VPPs can help reduce energy costs for consumers by optimizing energy use, participating in demand response programs, and accessing revenue streams from energy markets.
- 5. Environmental Benefits:** VPPs promote the use of clean, renewable energy sources, reducing greenhouse gas emissions and environmental impact.

Challenges:

- 1. Interoperability and Compatibility:** Integrating diverse DERs from different manufacturers and technologies into a unified VPP platform can pose interoperability challenges.
- 2. Regulatory and Market Barriers:** Regulatory frameworks and market structures may need to evolve to accommodate the participation of VPPs in energy markets and grid operations.

3. Cybersecurity Risks: VPPs rely on digital communication and control systems, making them vulnerable to cybersecurity threats and attacks.

4. Data Privacy Concerns: Managing data privacy and security is essential when aggregating and analyzing sensitive information from distributed energy resources.

Despite these challenges, the adoption of virtual power plants is growing globally as a key enabler of a more decentralized, flexible, and sustainable energy system.

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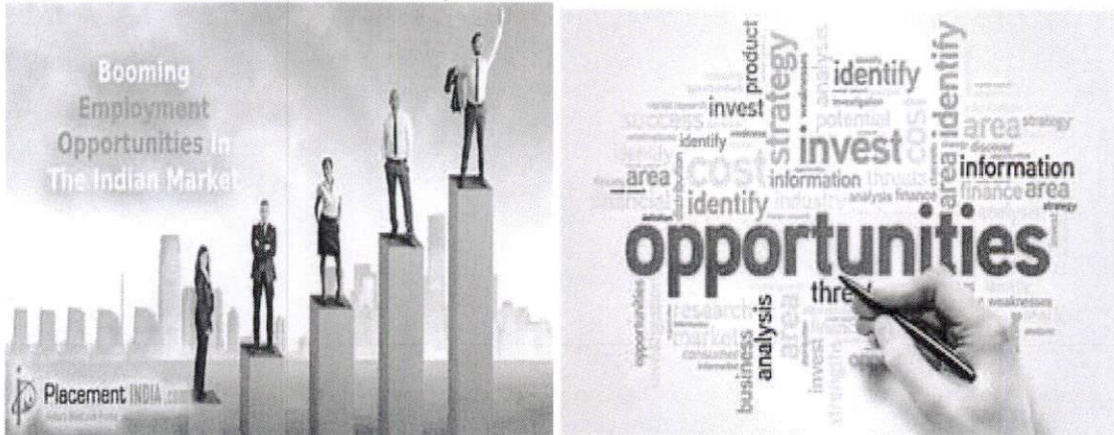
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING PRESENT ECONOMY AND EMPLOYMENT OPPORTUNITIES

Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.Mallela Koteswara Reddy a one day webinar on "PRESENT ECONOMY AND EMPLOYMENT OPPORTUNITIES" on 05/10/2018. Mr.Mallela Koteswara Reddy is the Soft Skill Trainer. A total of 1110 students attended in this session from IV year 1ST sem B.Tech 2018.





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Alumini Talk on
Present Economy and Employment Opportunities
Mr. MALLELA KOTESWARA REDDY
Soft Skill Trainer, TCS, Bangalore

 **5** **OCT** **2018** |  **10 : 00 a.m.**

Organized by
Department Of Electrical and Electronics Engineering

L. Jini
PRINCIPAL
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Nandikotkur Road, VENKAYAPALLI
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As of my last update in January 2022, I can't provide real-time information about the current economy or specific employment opportunities. Economic conditions and job markets can vary widely depending on factors such as location, industry, government policies, and global events.

However, I can provide some general insights on how you might approach understanding the present economy and seeking employment opportunities:

1. Research the Current Economic Climate: Look for recent reports from reputable sources such as government agencies, financial institutions, and economic research organizations. These reports often include data on employment rates, GDP growth, inflation, and other key economic indicators.

2. Identify Growing Industries: Certain industries may be experiencing growth or have favorable employment prospects due to trends such as technological advancements, demographic shifts, or changes in consumer behavior. Industries like technology, healthcare, renewable energy, and e-commerce have shown resilience and growth in recent years.

3. Skills in Demand: Analyze the skills that are currently in demand in the job market. With rapid technological advancements, skills related to data analysis, programming, digital marketing, and cybersecurity are often sought after. However, soft skills such as communication, adaptability, and problem-solving are also highly valued by employers.

4. Networking: Utilize professional networking platforms, attend industry events, and connect with professionals in your field of interest. Networking can often lead to valuable job opportunities or insights into the current job market.

5. Consider Remote Work: The COVID-19 pandemic has accelerated the adoption of remote work arrangements for many industries. Consider opportunities that allow for remote work, which can significantly broaden your job search and potentially lead to more flexibility in your career.

6. Upskilling and Training: Invest in developing your skills through online courses, workshops, or certifications. Continuous learning and upskilling can enhance your employability and make you more competitive in the job market.

7. Government Programs and Support: Explore any government programs or initiatives aimed at supporting job seekers or promoting economic growth. These programs may include training subsidies, job placement services, or incentives for businesses to hire new employees.

Remember that the economy is constantly evolving, so staying informed and adaptable is key to navigating the job market effectively. Additionally, seeking guidance from career counselors or professionals in your desired field can provide personalized advice tailored to your specific situation.

Shrini
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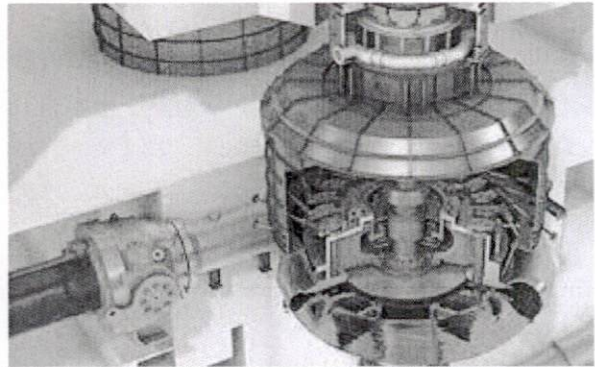
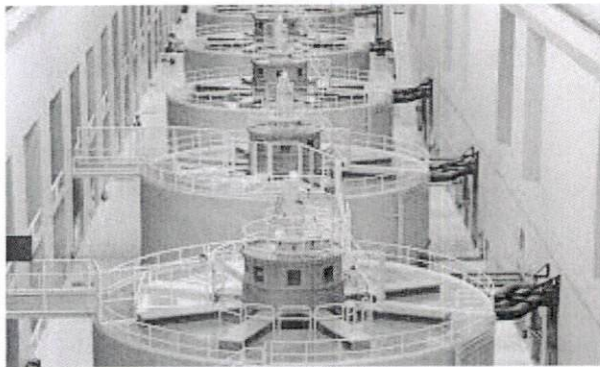
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING


Report on Hydro Generator




Department of EEE, G.Pullaiah College of Engineering and Technology is organising in association with Mr.Arab Mustaq Hassan a one day webinar on "HYDRO GENERATOR" on 20/02/2019. Mr.Arab Mustaq Hassan is the Project Engineer, Sree Rayalaseema Alkalies & Allied Chemicals Ltd, Kurnool. A total of 110 students attended in this session from IV B.Tech.



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**Alumini Talk on
Hydro Generator**


**Project Engineer
Sree Rayalaseema
Alkalies & Allied
Chemicals Ltd.**

Mr. ARAB MUSTAQ HASSAN

20/2/2019

2 : 00 P.M.

**Organized By
Department of Electrical and Electronics Engineering**

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A hydro generator, also known as a hydroelectric generator or hydro turbine generator, is a device used to convert the kinetic energy of flowing water into electrical energy. It is a key component of hydroelectric power plants, which harness the energy of moving water to generate electricity. Here's how a hydro generator works and some key components:

Working Principle:

- 1. Water Intake:** Water from a river, reservoir, or other water source is diverted through intake structures and conveyed to the turbine.
- 2. Turbine:** The water flow from the intake is directed onto the blades of a turbine. The force of the flowing water causes the turbine to rotate.
- 3. Shaft:** The rotating shaft of the turbine is connected to the rotor of the hydro generator.
- 4. Generator:** The rotor of the hydro generator contains a series of coils of wire that surround a stationary magnetic core. As the turbine rotates, it turns the rotor within the stationary stator, inducing an alternating current (AC) in the generator coils through electromagnetic induction.
- 5. Electrical Output:** The alternating current generated by the hydro generator is typically converted to a higher voltage using a transformer for transmission through power lines to consumers.
- 6. Control Systems:** Hydro generators are equipped with control systems that regulate the flow of water to the turbine and adjust the generator output to match the electrical demand.

Key Components:

- 1. Turbine:** Various types of turbines can be used in hydroelectric power plants, including Francis, Kaplan, and Pelton turbines, depending on the specific site conditions and water flow characteristics.
- 2. Generator:** The hydro generator converts mechanical energy from the turbine into electrical energy. It typically consists of a rotor with electromagnets and a stator with stationary coils of wire.
- 3. Governor:** The governor regulates the speed of the turbine to maintain a constant output frequency of the generator, ensuring stable electrical output.
- 4. Intake Structure:** The intake structure directs water from the water source to the turbine, controlling the flow rate and ensuring efficient energy conversion.
- 5. Transformer:** Transformers step up the voltage of the generated electricity for transmission over long distances through power lines.
- 6. Control and Monitoring Systems:** These systems monitor and control various parameters of the hydro generator, including water flow, turbine speed, and electrical output, to optimize performance and ensure safety. Hydro generators are a renewable and environmentally friendly source of electricity, producing minimal greenhouse gas emissions and relying on the natural flow of water to generate power. They play a significant role in global energy production, providing clean and reliable electricity to millions of people around the world.