

January 2021 to June2021



Deogiri Institute of Engineering & Management Studies





Department of Electronics and Telecommunications Engineering

Electronica Newsletter

Department of Electronics and Telecommunication Engineering

January 2021 – June 2021

DEPARTMENT VISION AND MISSION

Vision

To provide valuable resources for Industry and Society through research and excellence in Electronics and **Telecommunication Engineering**

Mission

- 1. Educating students with requisite technical expertise to meet the growing challenges of the Industry.
- 2. Promoting research through constant interaction with research bodies and various Industries.
- 3. Equipping students with fundamental subject knowledge to enable them for continuing Education.

Program Educational Objectives (PEOs)

- Graduates would be able to provides the Engineering solution with strong research capabilities in the areas of Electronics and Telecommunication Engineering.
- Graduates would be able to achieve good carrier using ٠ improved skill sets.
- Graduates would be able to provide a solid foundation and advanced programming skill in the field of Electronics.

Program Specific Outcomes (PSOs)

- 1. Apply knowledge to use modern tools and techniques for Electronics **Telecommunication** and Engineering
- 2. Identify Design, and Test Digital Analog. Communication **Systems** Processing and Signal software using and hardware tools.
- 3. Design Develop and computing systems while using best practices for software and hardware implementations.
- 4. Create social and professional skills lifelong awareness for learning.

| 1. Engineering knowledge | 2. Problem analysis | 3. Design/development of solutions | 4. Conduct investigations of complex problems |
|--------------------------------|--------------------------------|------------------------------------|---|
| 5. Modern tool usage | 6. The engineer and society | 7. Environment and sustainability | 8. Ethics |
| 9. Individual and team work | 10.Communication | 11. Project management and finance | 12. Life-long learning |

List of Program Outcome



Faculty Activities

FACULTY ACTIVITIES IN FACULTY DEVELOPMENT PROGRAM

| Name of the Faculty | Title of the FDP | Organised by | |
|--------------------------------|---|--|--|
| Maheshkumar Shivraj Badmera | Teachers Role In Institutional Development | Internal Quality Assurance Cell | |
| Vitthal K Bhosale | Teachers Role In Institutional Development | DIEMS | |
| Anita Vijay Nikalje | Fdp On "Teacher Role In Institutional Development" | Deogiri Institute Of Engineering And Management St | |
| Mrs.Poonam Manish Soni | "Internet Of Things (Iot) With Artificial Intelligence (Ai)" | Atal | |
| Dr. Arti Ram Wadhekar | Teachers Role In Institutional Development | DIEMS | |
| Somnath A.Karmude | Somnath A.Karmude Teachers Role In Institutional Development | | |
| Rajesh Autee | AI - Machine Learning & Optimization | AICTE | |
| Rajesh Autee | Teachers Role In Institutional Development | DIEMS | |

PAPER PUBLICATION IN JOURNALS

| SR.NO. | TITLE OF PAPER | | NAME OF THE JOURNAL |
|--------|--|-------------|------------------------------------|
| 1 | A bibliometric survey on ultra wideband multiple input multiple output antenna with improved isolation | L.K.Shevada | Library Philosophy and Practice |
| 2 | Metamaterials in 5G antenna designs: A bibliometric survey | L.K.Shevada | Library Philosophy and Practice |

Industry Institute Interaction

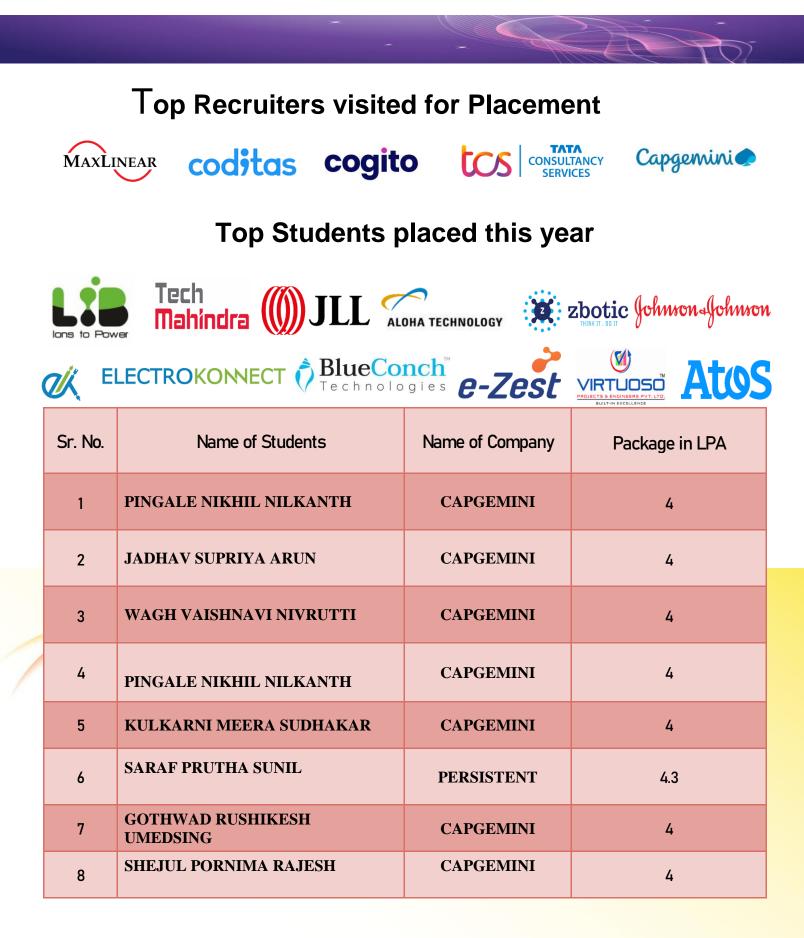
Industrial Visit

| Sr. No. | Name and Address of The Company/ Industry | Domain | Class |
|---------|---|---------------------------------------|-------|
| 1 | Metalman Auto pvt. Ltd., Waluj, Aurangabad | Complete Frame Assembly | ТҮ-А |
| 2 | National Dairy Product pvt. Ltd.,Chikhalthana,Aurangabad | National Dairy and food product | TY-A |
| 3 | Metalman Auto pvt. Ltd., Waluj, Aurangabad | Complete Frame Assembly | ТҮ-В |

GLIMPSE OF INDUSTRIAL VISIT

Metalman was incorporated in 1986, to manufacture sheet metal, tubular, and fabricated auto components, mainly for two and three-wheelers, passenger vehicles, commercial vehicles, and offroad vehicles. The company, promoted by Mr Navneet Jairath and Mr Bikramjeet Bembi, has six manufacturing units, two in Pithampur (Madhya Pradesh) and four in Waluj (Maharashtra).





Electronica Tech News

AI IN PHYSICAL DESIGNING (VLSI)



The field of VLSI physical design is experiencing a transformative shift with the integration of machine learning, artificial intelligence (AI), and automation techniques. These emerging trends have the potential to revolutionize the design process, enhance productivity, and improve the overall quality of VLSI chips.

Let's delve deeper into the key applications and benefits of machine learning, AI, and automation in VLSI physical design.

Machine Learning in Physical Design:

• Automated Placement and Routing Optimization: Machine learning techniques are utilized to optimize the placement and routing of circuit components. By learning from previous designs and analyzing large

datasets, machine learning algorithms can identify patterns and generate efficient placement and routing solutions.

AI-Assisted Design Automation:

 Intelligent Floorplanning and Placement: Al algorithms can analyze the circuit's netlist and propose optimized floorplan layouts and block placements, considering factors such as wirelength, congestion, and power distribution.

The integration of machine learning, AI, and automation techniques in VLSI physical design brings numerous benefits, including improved design productivity, enhanced design quality, optimized power and performance, and efficient utilization of design resources. These emerging trends are shaping the future of VLSI physical design and empowering designers to tackle the challenges posed by advanced technology nodes and complex designs. By harnessing the power of machine learning, AI, and automation, VLSI designers can unlock new possibilities and drive innovation in the field.

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