Krishna School of Diploma Studies (KSDS)

Mechanical/Civil/Electrical Engineering Department

EXPERT TALK

- **Company Name: Engineering Technique**
- **Topic: Digitalization in Manufacturing (3D Printing)**
- **Date: 28th August, 2025**
- **Venue: Auditorium-1**
- **Organized by: Department of Mechanical, Civil, and Electrical Engineering.**
- **Students Attended-170**

Speakers:-

1. Mr. Rudresh Vyas - Head of Education, Engineering Technique Company

2. Mr. Gaurav Patel - Application Engineer, Engineering Technique Company

Key Highlights of the Expert Talk

- Introduction to Robotics and 3D Printing in Industry 4.0:
  - Overview of the role of robotics and 3D printing as integral components of Industry 4.0, emphasizing automation, data exchange, and intelligent manufacturing.
  - Explanation of how these technologies are facilitating smarter factories, optimized production processes, and agile supply chains.

- The Synergy Between Robotics and 3D Printing:
  - Demonstrated how integration of both technologies leads to higher precision, efficiency, and reduced production times in manufacturing.

- Examples of innovations in mass customization, additive manufacturing, and automated assembly lines.
- Applications of Robotics and 3D Printing in Industry:
  - Real-world case studies shared from automotive, aerospace, medical devices, and consumer goods sectors.

AI and Machine Learning in Advancing Robotics and 3D Printing:
- Shared insights on how AI and ML enhance decision-making, predictive maintenance, and process optimization in manufacturing.

- Challenges and Future Trends in Manufacturing:
  - Discussed high upfront costs, skilled manpower requirements, and complexity of integration.
  - Future trends: smart factories, autonomous systems, decentralized production, and sustainable manufacturing practices.

- Hands-On Demonstrations and Case Studies:
  - Demonstrations on how 3D printers and robotic systems work together.
  - Case studies on reducing waste, enhancing processes, and improving product quality.

Outcomes / Conclusion

The expert talk by Mr. Rudresh Vyas and Mr. Gaurav Patel successfully illuminated the powerful role that 3D printing plays in transforming manufacturing and automation processes, particularly within the framework of Industry 4.0. Students left the talk with a broader perspective on how these technologies will shape the future of industrial automation, providing them with the knowledge and inspiration to explore and apply these innovations in their future careers as engineers.

Glimpse of Expert Talk Photos:

Gallery


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Prepared By:

Vivek Patel
Assistant Professor,
Mechanical Engg. Dept. KSDS.