

# POORNIMA

## COLLEGE OF ENGINEERING

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### A REPORT ON ALUMNI SESSION

**TITLE AND DURATION:** An Alumni Session on “Programming Languages & AI” on May 17, 2024.

**ORGANIZER(S):** Department of Mechanical, Poornima College of Engineering, Jaipur.

### **EXPECTED OUTCOMES:**

Activity-1.1	Students will be able to apply insights and advice from alumni to develop a clearer career roadmap and professional growth plan.
Activity-1.2	Students will be able to integrate practical knowledge shared by alumni into their academic projects and assignments.
Activity-1.3	Students will be able to build a professional network by connecting with alumni, enhancing their career prospects and opportunities.

### **MAPPINGS WITH PO&PSO:**

**CO-PO-PSO Mapping: Mapping Levels: 1- Low, 2- Moderate, 3-Strong**

CO	PO												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	-	-	-	-	-	3	-	-	-	-	-	-	2	3	2
CO2	-	-	-	-	-	-	-	-	3	-	-	-	2	3	2
CO3	-	-	-	-	-	-	-	-	-	-	-	3	2	3	2

## FLYER / POSTER:



**BRIEF BIODATA OF RESOURCE PERSON:** Mr Ashish Sonwal has graduated in 2022 as a Mechanical Engineer from Poornima College of Engineering. He is currently working as a Project Engineer, Wipro & Mahindra world City Jaipur. He has intense knowledge of programming languages.

## **BRIEF OF THE SESSION:**

### **Introduction**

On 17<sup>th</sup> May, 2024, our Mechanical Engineering department had the pleasure of hosting an interactive session with another esteemed alumnus. This session was aimed for 2nd and 3rd-year students and focused on the significance of programming languages, artificial intelligence (AI), and their scope within mechanical engineering. This report provides a comprehensive summary of the discussions and insights shared during the session.

### **Objective of the Session**

The primary objective of the session was to enlighten students on the importance of programming languages and artificial intelligence in the field of mechanical engineering. The session aimed to:

**Introduce Key Programming Languages:** Highlight essential programming languages that are valuable for mechanical engineers.

**Explore AI Applications:** Discuss how AI and machine learning are transforming various aspects of mechanical engineering.

**Provide Career Insights:** Offer guidance on skill development and career opportunities at the intersection of mechanical engineering, programming, and AI.

### **Overview of the Session**

The session began with a brief introduction of our alumnus, who has extensive experience in integrating programming and AI technologies into mechanical engineering projects. The alumnus is currently working at a leading technology firm, where he focuses on AI-driven solutions for engineering problems.

### **Key Points Discussed**

#### **1. Importance of Programming Languages**

The alumnus highlighted the critical role of programming languages in mechanical engineering:

**Python:** Emphasized Python's versatility and ease of use, making it ideal for data analysis, automation, and machine learning. Recommended it as a must-learn language for mechanical engineers.

**MATLAB:** Discussed MATLAB's powerful capabilities in numerical computation, simulations, and model-based design. Highlighted its extensive use in academia and industry for research and development.

**C/C++:** Mentioned the importance of C and C++ for performance-critical applications, including embedded systems and real-time simulation.

**Other Languages:** Briefly touched upon Java and JavaScript for specific applications like web-based interfaces for engineering tools.

## **2. Artificial Intelligence in Mechanical Engineering**

The alumnus provided an in-depth look into how AI is transforming mechanical engineering:

**Machine Learning (ML):** Explained how ML algorithms are used for predictive maintenance, quality control, and optimization of manufacturing processes. Demonstrated examples of ML models predicting equipment failures and improving efficiency.

**Computer Vision:** Discussed the application of computer vision in automated inspection systems, robotics, and autonomous vehicles. Highlighted how image processing and pattern recognition are revolutionizing quality assurance.

**Natural Language Processing (NLP):** Mentioned the use of NLP for processing technical documents, automating report generation, and enhancing human-machine interaction in engineering tools.

## **3. Integration of Programming and AI in Mechanical Engineering**

The alumnus shared examples of how programming and AI are integrated into mechanical engineering:

**Simulation and Modelling:** Use of AI to enhance simulation accuracy and speed. Examples included using neural networks to simulate complex physical phenomena.

**Robotics and Automation:** Integration of AI for advanced robotics applications, such as autonomous robots in manufacturing and logistics.

Design Optimization: Application of AI in optimizing design parameters, reducing material usage, and improving product performance.

#### **4. Skills and Learning Pathways**

The alumnus recommended the following skills and learning pathways:

Online Courses and Certifications: Suggested platforms like Coursera, edX, and Udacity for courses in Python, machine learning, and AI.

Projects and Competitions: Encouraged participation in hackathons, coding competitions, and collaborative projects to gain practical experience.

Internships and Industry Experience: Advised seeking internships where students can apply programming and AI skills to real-world engineering problems.

#### **Student Interaction**

**During the Q&A** session, students asked various questions about programming and AI applications in mechanical engineering. The alumnus provided detailed answers and shared his experiences, which included:

##### **How to start learning AI for mechanical engineers?**

The alumnus recommended starting with Python, followed by introductory courses in machine learning and AI, and applying these skills to small projects.

##### **What are the career prospects for mechanical engineers with AI skills?**

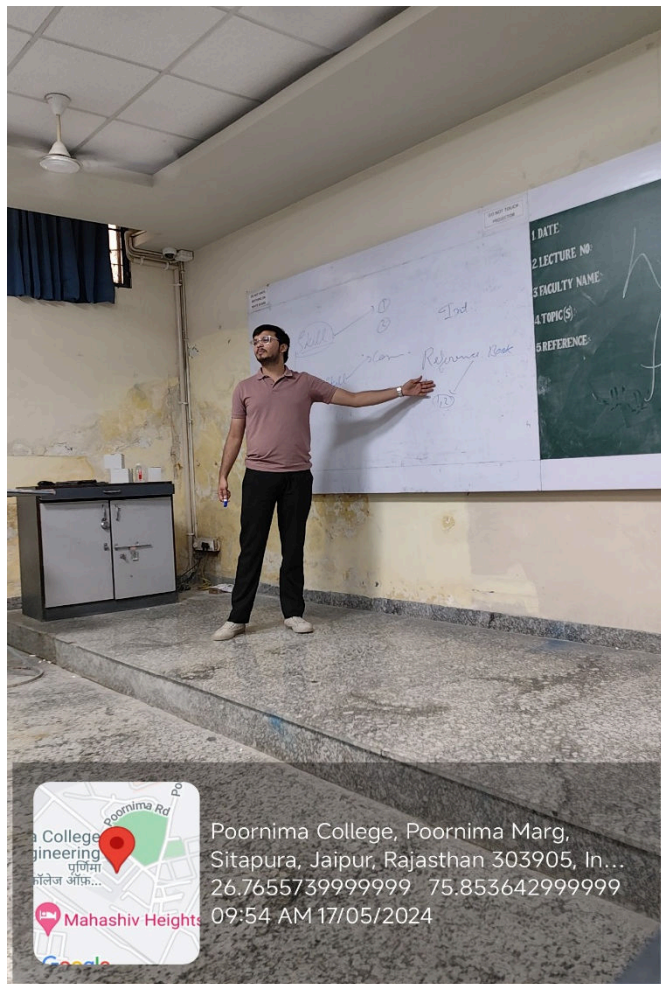
He highlighted the high demand for engineers who can bridge the gap between traditional mechanical engineering and modern AI technologies, with opportunities in R&D, automation, and smart manufacturing.

#### **Conclusion**

The session was highly informative and motivated our students to explore the intersection of programming, AI, and mechanical engineering. The insights provided by our alumnus have opened new avenues for our students to consider in their academic and professional journeys. We are grateful for his time and expertise and look forward to more such enriching interactions.



## GLIMPSES:





## Poornima College of Engineering-Activity Report



## LIST OF PARTICIPANTS & ATTENDANCE:

Poornima College of Engineering, Jaipur				
Department of Mechanical Engineering				
17 <sup>th</sup> May 2024 - Alumni Session.				
Sr. No.	Year	Name	Registration No.	Sign
1	3rd Year	AYUSH SAXENA	PCE21ME001	Ayush Saxena
2	3rd Year	BHANU PRATAP	PCE21ME002	Bhanu Pratap
3	3rd Year	FARHAN KHAN	PCE21ME003	ABSENT
4	3rd Year	HARSH KUMAWAT	PCE21ME004	ABSENT
5	3rd Year	IBRAHIM .	PCE21ME006	Ibrahim
6	3rd Year	JAYANT SONI	PCE21ME007	Jayant Soni
7	3rd Year	MOHAMMAD AYYAN	PCE21ME008	Mohammad Ayyan
8	3rd Year	MOHIT JOSHI	PCE21ME009	Mohit Joshi
9	3rd Year	MONU YADAV	PCE21ME010	Monu Yadav
10	3rd Year	PRIYA .	PCE21ME011	Priya
11	3rd Year	RAJU KUMAR	PCE21ME013	Raju Kumar
12	3rd Year	RAJVEER SINGH	PCE21ME014	Rajveer Singh
13	3rd Year	RAMNARESH MATWA	PCE21ME016	Ramnaresh
14	3rd Year	ROBIN SINGH	PCE21ME017	Robin
15	3rd Year	SULABH SAXENA	PCE21ME020	Sulabh Saxena

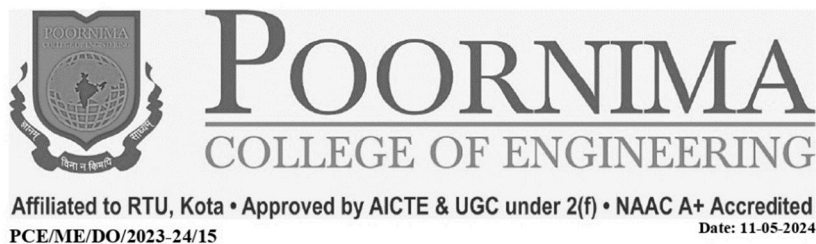


16	3rd Year	TANMAY JANGID	PCE21ME021	Tanmay
17	3rd Year	UTKARSH AGRAWAL	PCE21ME022	Utkarsh
18	3rd Year	VIVEK BAIRWA	PCE21ME023	Vivek Bairwa
19	3rd Year	ASHISH KUSHWAH	PCE22ME801	Ashish Kushwah
20	2nd Year	ABHINAV ANAND	PCE22ME002	Abhinav
21	2nd Year	ABHISHEK ANAND	PCE22ME003	Abhishek
22	2nd Year	ABHISHEK YADAV	PCE22ME004	Abhishek Yadav
23	2nd Year	ANIL KUMAR MEENA	PCE22ME005	Anil
24	2nd Year	ANIL SINGH	PCE22ME006	Anil Singh
25	2nd Year	ASHISH KUMAR	PCE22ME007	Ashish
26	2nd Year	BHUVNESH SARASWAT	PCE22ME008	Bhuvnesh
27	2nd Year	GAURAV JANGID	PCE22ME009	Gaurav
28	2nd Year	HEERA LAL	PCE22ME010	Heera Lal
29	2nd Year	HITESH PANWAR	PCE22ME011	Hitesh Panwar
30	2nd Year	KARTIKEY SINGH	PCE22ME013	Kartikey Singh
31	2nd Year	NITIN	PCE22ME015	Nitin
32	2nd Year	RAJPUT ANIL NANDKISHOR	PCE22ME016	Rajput Anil Nandkishor
33	2nd Year	RISHI RAJ SAINI	PCE22ME017	Rishi Raj Saini

## FEEDBACK ANALYSIS:

SESSION FEEDBACK ANALYSIS									
Sr.no.	Attributes	Total Feed Back	Total Feed Back:- 28						
			>80% Objective Achieved, 60 to 79 %- Satisfactory, Below 60%, Need improvement						
1	Do you think session was useful for you?	28	Yes	No	Partial	---	---	Remark	
			26	0	2	0	0	Objective Achieved	92.86
			92.86	0.00	7.14	0.00	0.00		
2	Did you receive all the information you expected by the session?	28	Yes	No	Partial	---	---	Remark	
			25	1	2	0	0	Objective Achieved	89.29
			89.29	3.57	7.14	0.00	0.00		
3	Opinion on Rating the speaker for the session	28	Outstanding	Excellent	Good	Average	Satisfactory	Remark	
			24	2	2	0	0	Objective Achieved - Outstanding & Excellent	92.86
			85.71	7.14	7.14	0.00	0.00		
4	Audience Query Response by the Speaker	28	Outstanding	Excellent	Good	Average	Satisfactory	Remark	
			20	5	2	1	0	Objective Achieved	89.29
			71.43	17.86	7.14	3.57	0.00		
5	Overall experience about the Session	28	Outstanding	Excellent	Good	Average	Satisfactory	Remark	
			21	3	3	1	0	Objective Achieved - Outstanding & Excellent	85.71
			75.00	10.71	10.71	3.57	0.00		
6	Would you like to attend future Alumni Session conducted by the department?	28	Yes	No	---	---	---	Remark	
			27	1	0	0	0	Objective Achieved (Yes)	96.43
			96.43	3.57	0.00	0.00	0.00		

## Notice



### NOTICE

“An Alumni Session on Programming Languages & AI ” is being organized by the Department of Mechanical Engineering on **17, May 2024**. The activity will be held at as per the following schedule.

**Date** : 17, May 2024  
**Activity Name** : An Alumni Session on Programming Languages & AI  
**Venue** : 1B-05  
**Time** : 9:00AM Onwards

The students are required to be present at the venue on time. For further query you may contact the Faculty Coordinator Mr. Sanjay Kumawat.

**Dr. N. L. Jain**  
HoD, ME

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