Affiliated to RTU, Kota • Approved by AICTE & UGC under 2(f) • NAAC A+ Accredited

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

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

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.

2

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

BRIEF OF THE SESSION:

Introduction

On 17th 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:

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

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.

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

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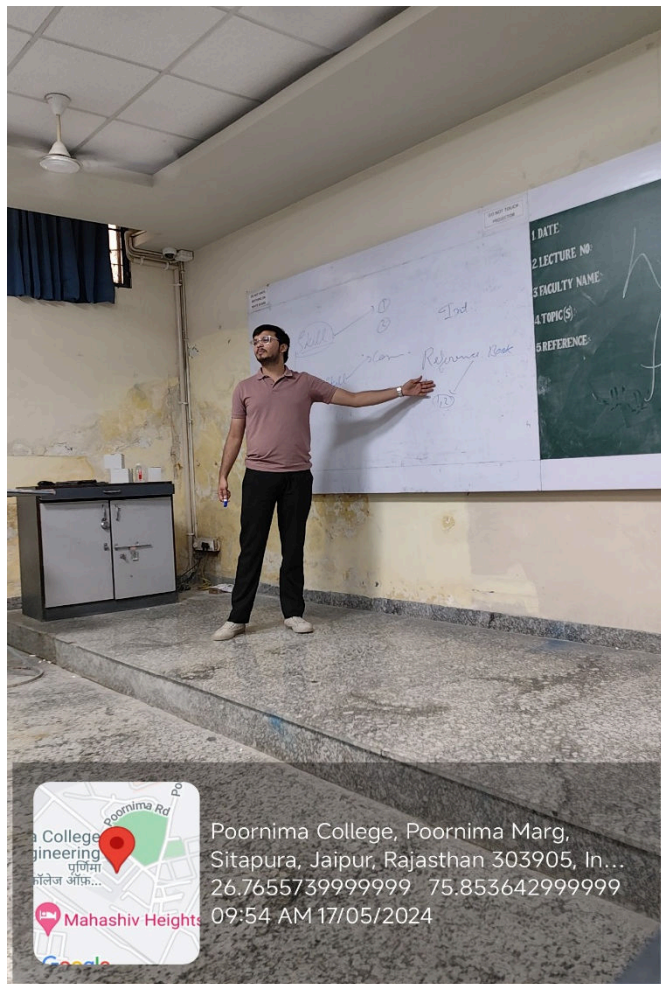
What are the career prospects for mechanical engineers with AI skills?

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.

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

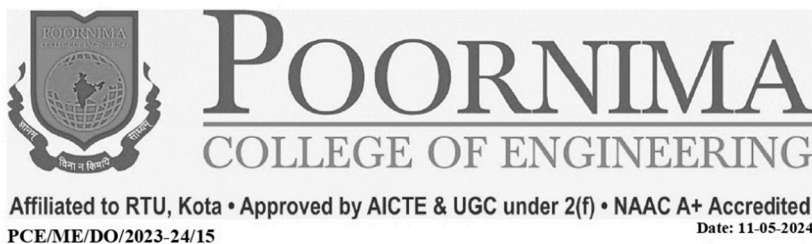## GLIMPSES:

LIST OF PARTICIPANTS & ATTANDANCE:

Poornima College of Engineering, Jaipur
Department of Mechanical Engineering
17ᵗʰ May 2024 – Alumni Session.

Sr. No.	Year	Name	Registration No.	Sign
1	3rd Year	AYUSH SAXENA	PCE21ME001	*(signature)*
2	3rd Year	BHANU PRATAP	PCE21ME002	*(signature)*
3	3rd Year	FARHAN KHAN	PCE21ME003	ABSENT
4	3rd Year	HARSH KUMAWAT	PCE21ME004	ABSENT
5	3rd Year	IBRAHIM .	PCE21ME006	*(signature)*
6	3rd Year	JAYANT SONI	PCE21ME007	*(signature)*
7	3rd Year	MOHAMMAD AYYAN	PCE21ME008	*(signature)*
8	3rd Year	MOHIT JOSHI	PCE21ME009	*(signature)*
9	3rd Year	MONU YADAV	PCE21ME010	*(signature)*
10	3rd Year	PRIYA .	PCE21ME011	*(signature)*
11	3rd Year	RAJU KUMAR	PCE21ME013	*(signature)*
12	3rd Year	RAJVEER SINGH	PCE21ME014	*(signature)*
13	3rd Year	RAMNARESH MATWA	PCE21ME016	*(signature)*
14	3rd Year	ROBIN SINGH	PCE21ME017	*(signature)*
15	3rd Year	SULABH SAXENA	PCE21ME020	*(signature)*

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

16	3rd Year	TANMAY JANGID	PCE21ME021	
17	3rd Year	UTKARSH AGRAWAL	PCE21ME022	
18	3rd Year	VIVEK BAIRWA	PCE21ME023	
19	3rd Year	ASHISH KUSHWAH	PCE22ME801	
20	2nd Year	ABHINAV ANAND	PCE22ME002	
21	2nd Year	ABHISHEK ANAND	PCE22ME003	
22	2nd Year	ABHISHEK YADAV	PCE22ME004	
23	2nd Year	ANIL KUMAR MEENA	PCE22ME005	
24	2nd Year	ANIL SINGH	PCE22ME006	
25	2nd Year	ASHISH KUMAR	PCE22ME007	
26	2nd Year	BHUVNESH SARASWAT	PCE22ME008	
27	2nd Year	GAURAV JANGID	PCE22ME009	
28	2nd Year	HEERA LAL	PCE22ME010	
29	2nd Year	HITESH PANWAR	PCE22ME011	ABSENT
30	2nd Year	KARTIKEY SINGH	PCE22ME013	
31	2nd Year	NITIN	PCE22ME015	
32	2nd Year	RAJPUT ANIL NANDKISHOR	PCE22ME016	
33	2nd Year	RISHI RAJ SAINI	PCE22ME017	

9

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR

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**		

10

Notice

POORNIMA
COLLEGE OF ENGINEERING

Affiliated to RTU, Kota • Approved by AICTE & UGC under 2(f) • NAAC A+ Accredited

PCE/ME/DO/2023-24/15

Date: 11-05-2024

<u>NOTICE</u>

"**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

11

Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area
Sitapura, JAIPUR