	ZEAL EDUCATION SOCIETY'S	
	ZEAL COLLEGE OF ENGINEERING AND RESEARCH	
	NARHE │PUNE -41 │ INDIA	

Record No.: **ZCOER-ACAD/R**	Revision: **00**	Date:**01/04/2021**

STUDENTS ACTIVITY ONE PAGE REPORT

Date:

To,
The H.O.D.
Robotics & Automation Engineering Department,
ZCOER, Narhe.

Subject: Report of workshop conducted by students on topic **"CAD Modeling and 3D Printing for Robotics: A Hands-On Workshop**" at ZCOER, Narhe.

Respected Sir,

With reference to above mentioned subject, I would like to inform you that **Mr. Manav Jori, President, Students Association of Robotics & Automation(SARA), ZCOER, Pune & Mr. Aryan Sutar, Technical Head, Students Association of Robotics & Automation(SARA), ZCOER, Pune** have successfully conducted workshop on **10th August, 2024**. for the Second, Third & Final Year students on the topic **"CAD Modeling and 3D Printing for Robotics: A Hands-On Workshop**". Students of S.E., T.E. & B.E. were present for this session and the session was very interesting and interactive, **Mr. Manav Jori** has given insight about **CAD Modeling in** Robotics and various application used in industries & **Mr. Aryan Sutar** has given insight about **3D Printing in** Robotics and various application used in industries. Total 36 students were registered & 33 students attended the Workshop.

Topics discussed during workshop:

Sr. No	Contents Covered	POs Mapping to the Contents
1	The Workshop was planned to keep in view of hands on training and career opportunities in **CAD Modeling and 3D Printing for Robotics** The workshop provided participants with a deep dive into the applications of CAD modeling and 3D printing in robotics. It included both theoretical knowledge and practical, hands-on experience.	PO1, PO4, PO7, PO8, PO9, PO10, PO12, PSO1, PSO4

Mr. Manav Jori's Session on CAD Modeling

Mr. Manav Jori delivered an extensive presentation on CAD Modeling, covering the following key aspects:

a) Introduction to CAD Modeling:

Fundamentals: Explained the basics of Computer-Aided Design (CAD) and its significance in the robotics industry.

Software Tools: Provided an overview of popular CAD software tools used in robotics design, emphasizing their features and applications.

b) Applications in Robotics:

Design Process: Detailed the CAD design process for creating robotic components and systems.

Integration: Discussed how CAD modeling integrates with other technologies in robotics, including simulation and testing.

c) Practical Tips:

Best Practices: Shared best practices for effective CAD modeling, including tips for accurate measurements, design efficiency, and error reduction.

2

Mr. Aryan Sutar's Session on 3D Printing

Mr. Aryan Sutar conducted a hands-on training session on 3D Printing, focusing on:

a) Introduction to 3D Printing:

Technology Overview: Provided an introduction to 3D printing technologies and their relevance to robotics.

Materials and Methods: Discussed different materials used in 3D printing and the various printing methods available.

PO1, PO4, PO7, PO8, PO9, PO10, PO12, PSO1, PSO4

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b) Hands-On Training:

Live Demonstration: Conducted a live demonstration of 3D printing, showcasing the process from design to finished product.

Practical Applications: Guided participants through the practical applications of 3D printing in creating robotic parts and prototypes.

c) Technical Insights:

Challenges and Solutions: Addressed common challenges in 3D printing and provided solutions to optimize the printing process for robotic components.

Thanking You,

Yours Sincerely ,

Prof. Kedar M. Kulkarni
Faculty Coordinator , SARA

Photographs/Screen shots:

Mr. Manav Jori giving the brief idea about 3d CAD Modeling

Mr. Aryan Sutar giving the basic ideas on 3d Printing

Mr. Manav Jori & Mr. Aryan Sutar giving the hands-on-training on 3d Printing

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Students attending the workshop