

MECHTRIX

***MECHANICAL ENGINEERING DEPARTMENT
PRESENTS***



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Principal Message

This magazine reflects the creativity of our students and faculty members by showcasing their ideas, projects, and technical knowledge. It highlights their ability to think beyond the classroom, nurture ingenuity, and bring forth new perspectives that inspire others.

JULY 2035



HoD Message

This magazine stands as a testament to the innovative spirit of our students and faculty. It provides them with a platform to express their ideas, technical curiosity, and creative talents, while also showcasing their contributions and achievements in Mechanical Engineering.

JULY 2035

VISION AND MISSION

Session: 2021-22

MechTrix

Institute Vision and Mission

To become an eminent institution through knowledge and research

Institute Vision and Mission

- To produce world class engineers with academics and moral excellence who are not only equipped with cutting edge technology but also possess immense sense of social responsibility.
- To inculcate awareness and acceptance of ethical values through co-curricular activities for overall personality development of students.

Department Vision

The Mechanical Engineering Department strives for making thorough professionals who are employable through quality education.

Department Mission

- To instill best technical knowledge in the students to face intellectual and career challenges.
- To make the department a desirable place to study and work by providing opportunities to build and propagate knowledge.

PEO's and PSO's

PEO's

(Program Educational Objectives)

- Excel in higher education by acquiring knowledge in mathematical, analytical and engineering principles.
- To develop the ability among students to analyze data and technical concepts in application of product design.
- To provide opportunity for students to work as part of team by working on various projects.
- To develop students with various soft skills to make them compatible for pursuing different careers in industries.

PSO's

(Program Specific Outcomes)

- The student will be able to apply their knowledge in the field of engineering drawing, material sciences, fluid sciences and thermal engineering to solve engineering problems utilizing advanced technology.
- The student will be able to recognize, design, evaluate and solve engineering problems related to mechanical systems together with allied engineering streams.
- The student will be able to apply economics & managerial skills to enhance the productivity of industries and also implement an idea to set up an enterprise.

PO's

PO's

(Program Outcomes)

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO's

PO's

(Program Outcomes)

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

MAGZINE COMMITTEE

Students Coordinator

Mr. Nikhil Mandhyani

Mr. Tanmay Tembhurne

Mr. Om Gajbhiye

Mr. Shreyesh Kapse

Mr. Mandhan Meshram

Faculty Coordinator

Prof. Bhushan Deshmukh

Student Forum

2021-22

MECHTRIX



“MechTrix” the Mechanical Engineering Students’ Forum, serves as a dynamic platform dedicated to the overall development of students beyond the classroom. It provides opportunities to enhance technical knowledge, practical skills, and professional competencies through workshops, seminars, industrial visits, and technical events.

MECHANICAL ENGG. DEPT
JIT NAGPUR

MechTrix

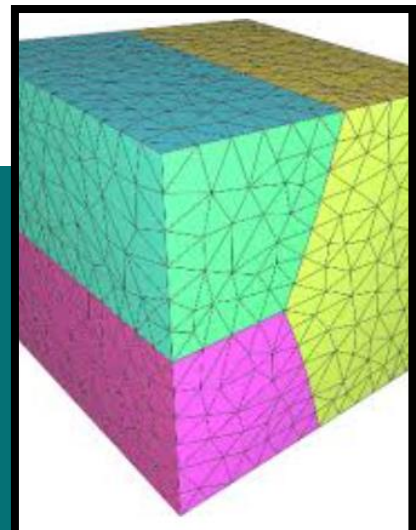
GUEST LECTURE

30 Sep 2021



GUEST LECTURE ON “SCOPE AND OPPORTUNITIES AS A CAE ENGINEER IN INDUSTRY”

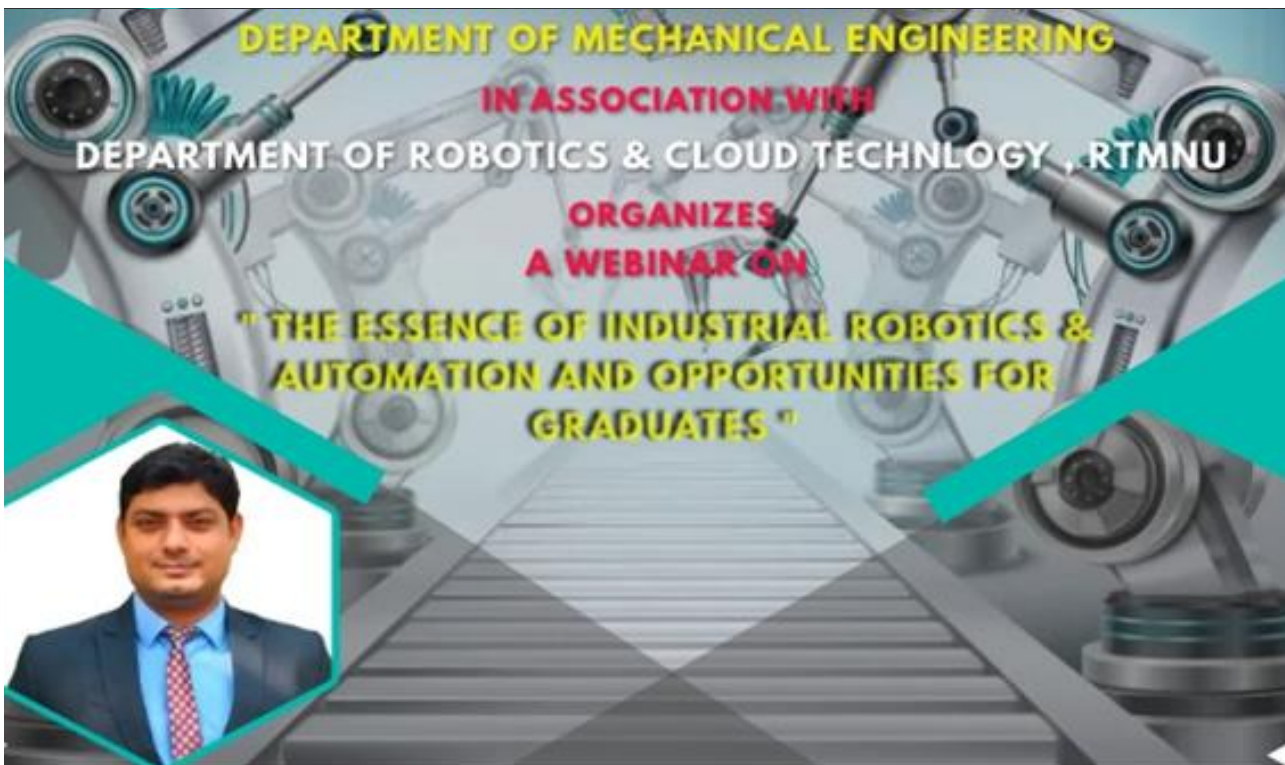
Mr. Rahul Dongre has explained the importance of CAE software in Product design cycle. He has explained the role and responsibilities of CAE engineering. Further he explains skills required for the CAE engineer. He also motivate students to learn CAE software like Ansys, Hypermesh and also inform them to utilize this skill in their final year project



Mr. Rahul Dongre
Director- Sales & BD
Mesh Matrix, Nagpur

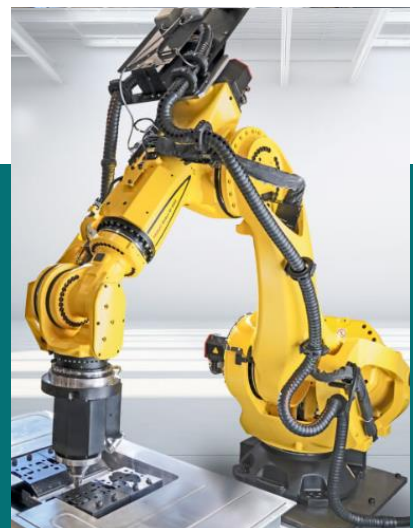
GUEST LECTURE

30 Dec 2021



THE ESSENCE OF INDUSTRIAL ROBOTICS & AUTOMATION AND OPPORTUNITIES FOR GRADUATES

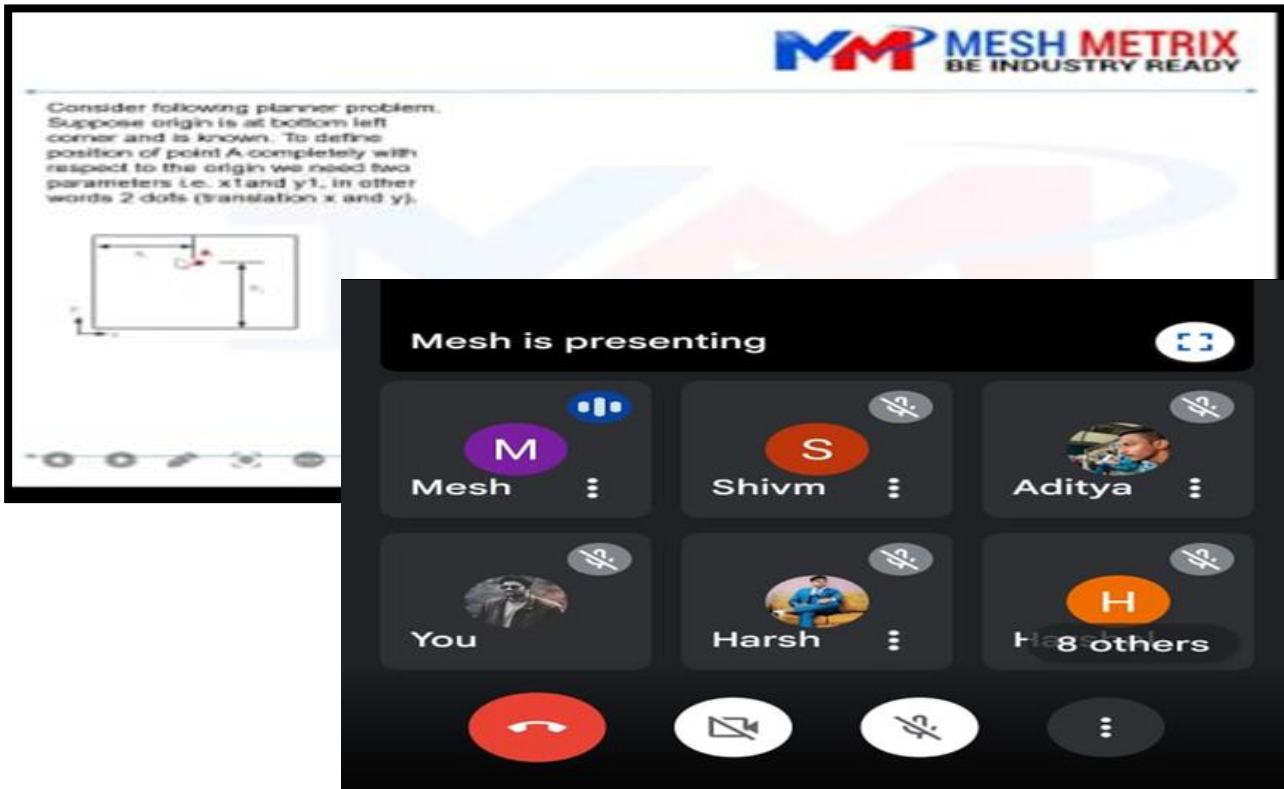
Mr. Anil Tatode has explained latest trend of Industrial Robotics, Types of Industrial Robots, Application of Industrial Robots, User Segments and Robot Manufacturer, Worldwide Statics of Robot Trading. He has explained the how to prepare for Robot Engineering and aware about Career opportunity for Engineers.



Mr. Anil Tatode,
Training Officer Department of
Robotics & Cloud Technology,
RTMNU

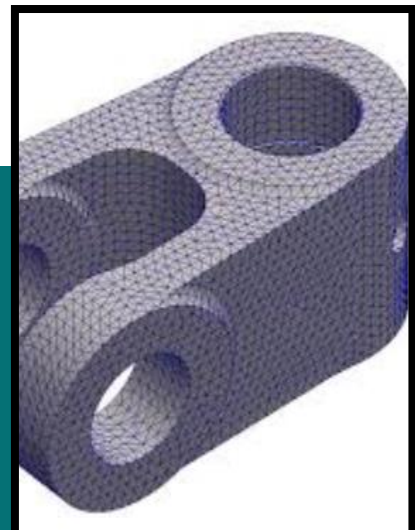
GUEST LECTURE

31 Jan 2022



GUEST LECTURE ON “HYPERWORKS”

Mr. Anil Tatode has explained latest trend of Industrial Robotics, Types of Industrial Robots, Application of Industrial Robots, User Segments and Robot Manufacturer, Worldwide Statics of Robot Trading. He has explained the how to prepare for Robot Engineering and aware about Career opportunity for Engineers.

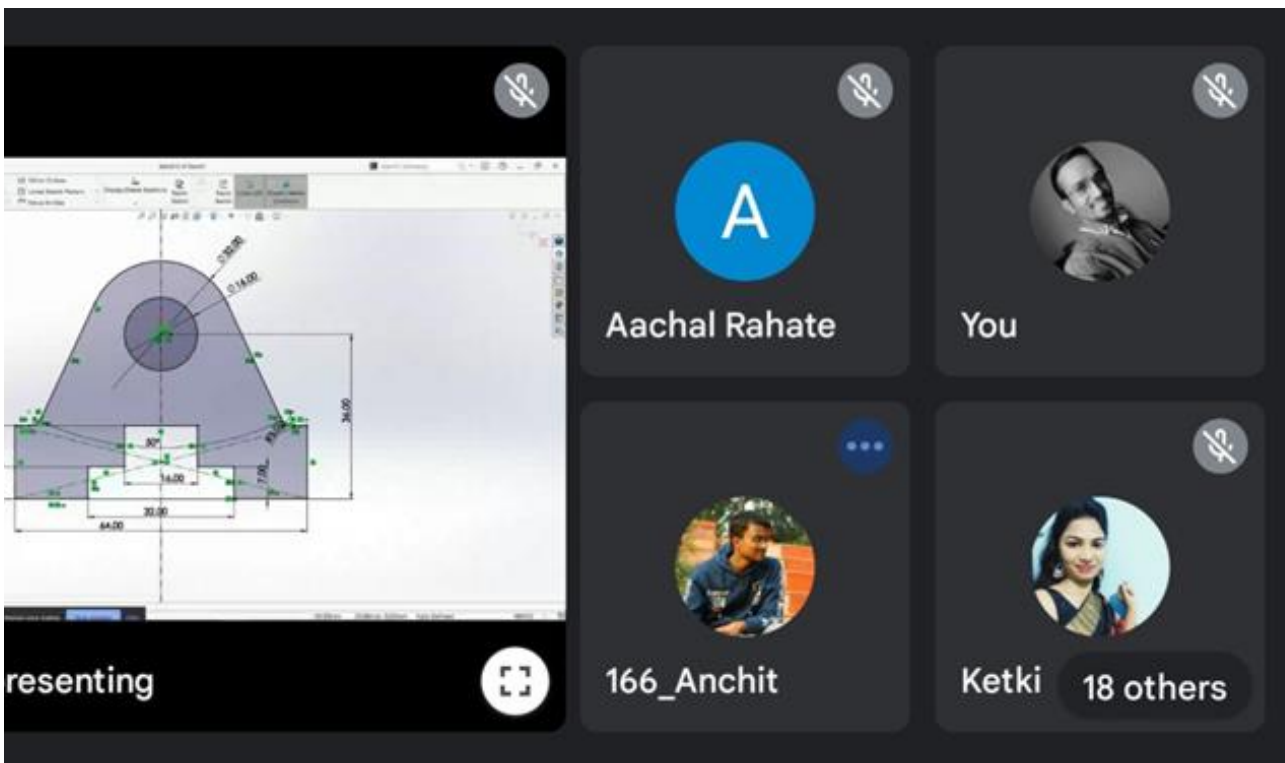


Mr. Rahul Dongre
Director- Sales & BD
Mesh Matrix, Nagpur

MECHTRIX

WORKSHOP

19 Mar 2022



TWO DAY WORKSHOP ON 3D EXPERIENCE ON SOLIDWORKS

In this lecture, Mr. Anchit Mune, explain the role of Mechanical Engineer in computer aided design. He took Hand on practice of BENCH VICE ASSEMBLY in solidworks environment. He also explain how to download and install solidwork software and give practical demo of this software



Mr. Anchit Mune
CADD Design Expert
CADD Centre Sadar
Nagpur

Student Corner

Rangoli Competition



Student Corner

Rangoli Competition



Student Corner

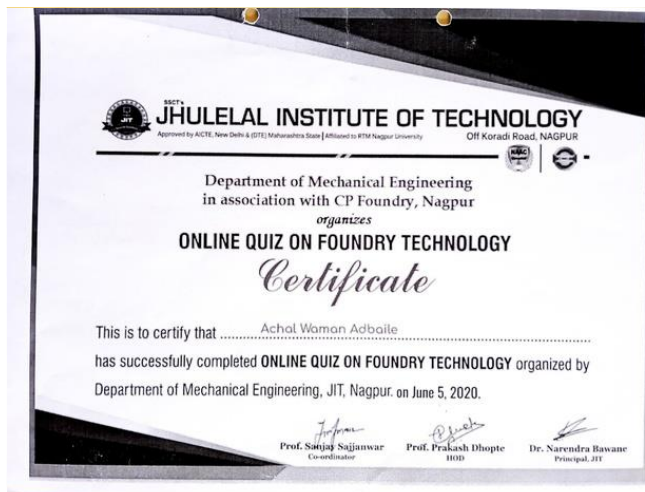
Christmas Celebration

16



STUDENT CORNER

Certification (Intra College)



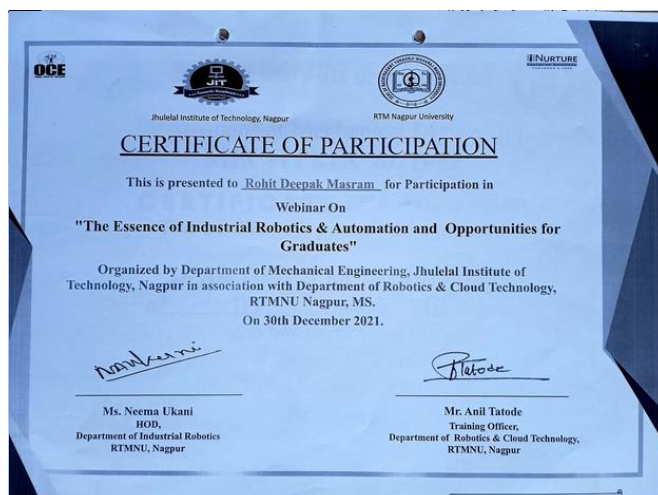
01

Ms. Achal Adbaile
ME, JIT, Nagpur



02

Mr. Dhiraj Bangade
ME, JIT, Nagpur



03

Mr. Rohit Masram
ME, JIT, Nagpur



04

Mr. Mangesh Chafekar
ME, JIT, Nagpur

STUDENT CORNER

Certification (Inter College)



01

Mr. Mangesh Chafekar
ME, JIT, Nagpur



02

Mr. Manoj Chahande
ME JIT, Nagpur



03

Mr. Dhiraj Bangade
ME, JIT, Nagpur



04

Mr. Harshal Kambe
ME, JIT, Nagpur

STUDENT CORNER

Training Certificates



01

Mr. Achilesh Kolhatkar
ME, JIT, Nagpur



02

Ms. Rishuja Khobragade
ME, JIT, Nagpur

FACULTY CORNER

Certification (Intra College)



01

Prof. Prakash Dhopte
Assistant Professor, ME
JIT, Nagpur



02

Prof. Sanjay Sajjanwar
Assistant Professor, ME
JIT, Nagpur



03

Prof. Amar Kawale
Assistant Professor, ME
JIT, Nagpur



04

Prof. Bhushan Deshmukh
Assistant Professor, ME
JIT, Nagpur

FACULTY CORNER

Paper Published



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“DESIGN & DEVELOPMENT OF AQUATIC WEEDS COLLECTING MACHINE”

Prof. Sanjay Sajjanwar¹, Nehal Meshram², Shubham Rachhore³, Harshal Thombare⁴, Abhishek Kadu⁵, Hrushikesh Kadu⁶, Kailash Sinha⁷

¹Assistant Professor, Department of Mechanical Engineering, Jhulelal Institute of Technology, Nagpur, Maharashtra, India.

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01

Prof. Sanjay Sajjanwar
Assistant Professor, ME
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Development of Fire Extinguisher Robo

Faheem Haider Haidry¹, Ankita Lakhwani², Nikhil Mandhyani³, Manish Poptani⁴, Om Gajbhiye⁵, Jay Rautel⁶, Amar Kawale⁷

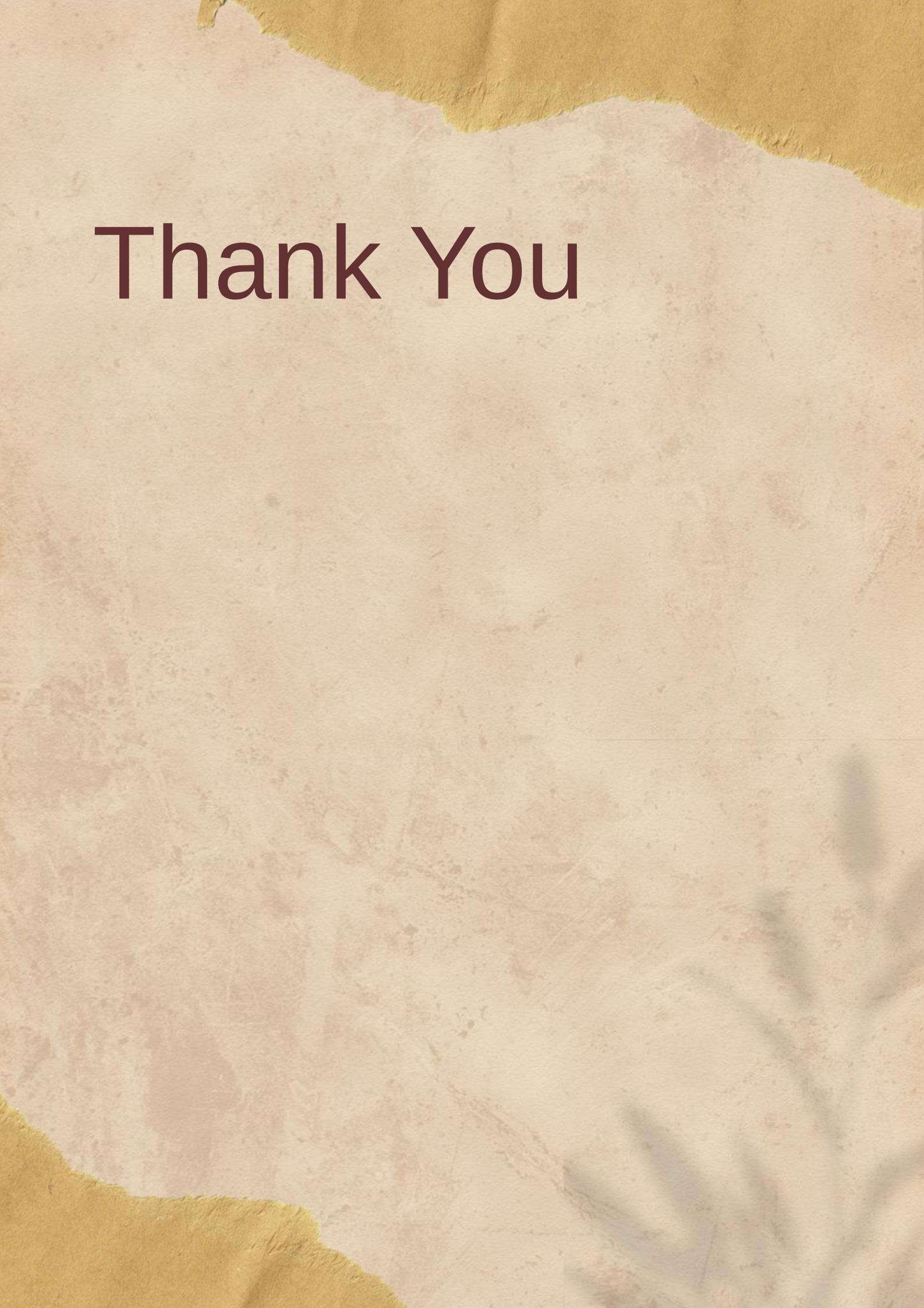
^{1,2,3,4,5,6} Student, Dept. of Mechanical Engineering, Jhulelal Institute of Technology, Nagpur, Maharashtra, India

⁷Guide, Dept. of Mechanical Engineering, Jhulelal Institute of Technology, Nagpur, Maharashtra, India

02

Prof. Amar Kawale
Assistant Professor, ME
JIT, Nagpur





Thank You