J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

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Bhaskar Nagar, Moinabad Mandal, Hyderabad, Telangana – 500075

Date: 31/01/2026

DEPARTMENT OF MECHANICAL ENGINEERING

REPORT ON

Brain Storming Session on "Design Thinking"

1. Event Title: Brain Storming Session on **"Design Thinking"**

2. Event Date: 31st January 2026

3. Event Duration: 2:30 PM to 3:00 PM

4. Event Venue: III Year Class, Mechanical Engineering Department, JBIET, Hyderabad

5. In Association With: Mech Squad Students – Department of Mechanical Engineering

6. Faculty Mentor:

Dr. Anoop Kumar
HOD – Mechanical Engineering, JBIET

7. Number of Students Attended: 20 Students

8. Event Photos:

9. Event Objective:

The primary objective of the Brain Storming Session on Design Thinking was:

- To introduce students to the concept and importance of Design Thinking in engineering problem-solving.
- To encourage creative and innovative thinking among mechanical engineering students.
- To develop a user-centric approach towards product and system design.
- To enhance teamwork, collaboration, and communication skills.
- To promote practical application of theoretical knowledge to real-world problems.

10. Event Outline:

The Brain Storming Session on “Design Thinking” was conducted by Mech Squad Students with the active support of the Department of Mechanical Engineering. The session began with a welcome address by the faculty coordinator, followed by a brief introduction to the concept of Design Thinking and its significance in modern engineering practices.

Students were divided into small teams and assigned real-time engineering and societal problem statements. Each team actively participated in brainstorming ideas, discussing possible solutions, and presenting innovative concepts. The session was highly interactive and encouraged open discussion, creative exploration, and collaborative learning.

11. Key Topics Covered in the Session:

A. Introduction to Design Thinking:

Students were introduced to the five stages of Design Thinking:

- Empathize – Understanding the user and identifying real problems.
- Define – Clearly defining the core issue.
- Ideate – Generating creative and innovative solutions.
- Prototype – Developing simple models or conceptual solutions.
- Test – Evaluating and refining the proposed solutions.

The importance of human-centered design in engineering was emphasized.

B. Brainstorming Techniques:

The session highlighted effective brainstorming methods such as:

- Mind Mapping
- Reverse Thinking
- SCAMPER Technique
- Rapid Idea Generation
- Group Discussion & Collaborative Ideation

Students were encouraged to think beyond conventional solutions and explore unconventional approaches.

C. Problem-Solving Through Innovation:

Teams worked on problem statements related to:

- Energy efficiency improvements
- Sustainable product design
- Automation in mechanical systems
- Waste management solutions
- Low-cost engineering innovations

Each group presented their ideas, design concepts, and expected outcomes.

D. Importance of Design Thinking in Core Mechanical Engineering:

The discussion emphasized that:

- Design Thinking enhances innovation in product development.
- It improves analytical and critical thinking skills.
- It bridges the gap between technical knowledge and practical implementation.
- It prepares students for industry challenges and entrepreneurial ventures.

Students understood that modern industries value engineers who can think creatively and provide user-centric solutions.

12. Student Interaction Session:

An interactive discussion session was conducted where students shared their views on:

- Challenges faced while generating innovative ideas.
- The role of empathy in engineering design.
- Real-world applications of Design Thinking in mechanical industries.
- Opportunities for innovation-driven startups.

Faculty members provided guidance and constructive feedback on the proposed solutions. The session encouraged active participation and confidence among students.

13. Outcome of the Brain Storming Session:

The session was highly engaging and productive. The key outcomes were:

- Improved understanding of Design Thinking methodology.
- Enhanced creativity and innovation skills among students.
- Development of teamwork and collaborative problem-solving abilities.
- Increased interest in research, innovation, and entrepreneurship.
- Strengthened student engagement through Mech Squad activities.

The session successfully motivated students to adopt structured thinking approaches in solving engineering and societal problems.

14. Conclusion:

The Brain Storming Session on “Design Thinking” conducted by Mech Squad Students on 31st January 2026 was a successful and impactful event. The session provided a platform for students to explore innovative ideas, enhance problem-solving skills, and understand the importance of user-centric design in engineering.

The initiative strengthened creative thinking culture within the Department of Mechanical Engineering and encouraged students to become innovative, industry-ready professionals. Overall, the session was interactive, insightful, and beneficial for all participants.