



An Autonomous Institute
Approved by AICTE, New Delhi
Affiliated to VTU, Belagavi
Recognized by UGC under 2(f) & 12(B)
Accredited by NBA & NAAC

DYNAMECH CLUB ACTIVITY ON “NEW PRODUCT DESIGN”

DYNAMECH Club Activity on ‘**New Product Design**’ was successfully conducted by the Department of Mechanical Engineering in association with ISTE, IIC, and IQAC – MVJCE, on **13th Feb 2026 from 01:30 to 4.00 PM**. This DYNAMECH Club Activity was organised to create awareness among students about the importance of innovative thinking, product conceptualisation, and design development, enabling them to enhance their skills in transforming ideas into viable engineering solutions for future product development.

35 students had attended this event from the ME, AE, and AS departments. **Mr. Vinod A R, Scientist D, Central Manufacturing Technology Institute (CMTI) Bengaluru**, was invited as the chief guest for this event.

Club Activity Theme: "Innovative Product Design for Real-World Applications"

Objective:

Enhance students’ understanding of creative ideation, product conceptualisation, prototype development, and design validation through hands-on activities, brainstorming sessions, and case-based learning.

Problem Statement:

In today’s rapidly evolving engineering landscape, the ability to design innovative, user-centric, and sustainable products is essential for meeting industry expectations. However, students often face challenges in converting raw ideas into practical, manufacturable designs due to limited exposure to real-world design methodology, user-need analysis, and systematic product development processes. The challenge is to develop a structured approach that helps students understand the stages of new product design and apply these principles effectively in modern engineering applications.

Challenge:

Students were tasked with designing an innovative product, feature, or solution that addresses a real-world need. The proposed product could fall under any of the following categories:

An Autonomous Institute
Approved by AICTE, New Delhi
Affiliated to VTU, Belagavi
Recognized by UGC under 2(f) & 12(B)
Accredited by NBA & NAAC

1. Enhance the User Experience – Solve an existing pain point by simplifying daily tasks, improving accessibility, or enhancing user satisfaction.
2. Promote Sustainability – Develop eco-friendly design solutions that reduce environmental impact, improve resource efficiency, or encourage sustainable practices.
3. Enable Digital Transformation – Create solutions that integrate digital technologies such as AI, IoT, automation, or digital security across sectors like healthcare, education, finance, or retail.
4. Address Social Challenges – Design products that support individuals with disabilities, improve access to healthcare or education, promote safety, or contribute to mental well-being.

Requirements:

- A3 sheet with 2D or 3D sketches of the proposed product
- Clear problem identification and proposed solution
- Inclusion of sustainable and practical design elements
- Appropriate scale, dimensions, and design specifications
- Uniqueness, clarity, and neat presentation
- Participation in a short quiz on product design fundamentals

Highlight of the Event:

**An Autonomous Institute
Approved by AICTE, New Delhi
Affiliated to VTU, Belagavi
Recognized by UGC under 2(f) & 12(B)
Accredited by NBA & NAAC**

Dr. Arun Kumar K, Associate Professor, Department of Mechanical Engineering, addressed the participants and emphasised the significance of innovation, creative problem-solving, and product development skills for budding engineers, particularly in mechanical and aeronautical domains.

Dr. Rajest Kumar P, Assistant Professor, Department of Mechanical Engineering, introduced the chief guest and explained the objectives, rules, and format of the activity.

The session was then handed over to **Mr. Vinod A R, Scientist D, Central Manufacturing Technology Institute (CMTI), Bengaluru,** who delivered an insightful session.

Key Insights on New Product Design

1. Innovation and Creativity in Engineering

- Importance of identifying real-world problems before designing solutions
- Brainstorming and concept-generation methods
- Thinking beyond conventional approaches

2. User-Centric Design

- Understanding user needs, ergonomics, safety, and usability
- Designing accessible, intuitive, and impactful products

3. Sustainability in Product Development

- Choosing eco-friendly materials
- Minimising waste and improving energy efficiency
- Designing for durability and recyclability

4. Design for Manufacturing (DFM)

- Ensuring the feasibility of mass production
- Cost-effective material and process selection

- Early-stage prototyping and design refinement

5. Modern Engineering Integration

- Use of CAD tools for modelling and testing ideas
- Role of digital tools, automation, and IoT in new product design
- Importance of iterative testing and validation

The Club activity was very well coordinated, with the main emphasis on New Product Design, and the students were actively involved throughout the event. The session concluded with final remarks from **Mr. Vinod A R, Scientist D, Central Manufacturing Technology Institute (CMTI), Bengaluru**, who highlighted the importance of transforming creative ideas into functional, user-centric products. He encouraged the participants to continue nurturing innovative thinking and to actively take part in future club activities to strengthen their design and engineering capabilities.

Outcome of the Club Activity:

- Enhanced creativity and innovative thinking
- Improved understanding of the product design lifecycle
- Strengthened ability to analyse user needs and propose practical solutions
- Better integration of sustainability principles in engineering design
- Improved skills in sketching, conceptual modeling, and prototyping
- Strengthened teamwork, communication, and collaborative ideation
- Increased awareness of industry expectations in modern product development
- Improved confidence in presenting and defending design concepts

**An Autonomous Institute
Approved by AICTE, New Delhi
Affiliated to VTU, Belagavi
Recognized by UGC under 2(f) & 12(B)
Accredited by NBA & NAAC**



Figure (i): Students actively participating in the DYNAMECH club activity.

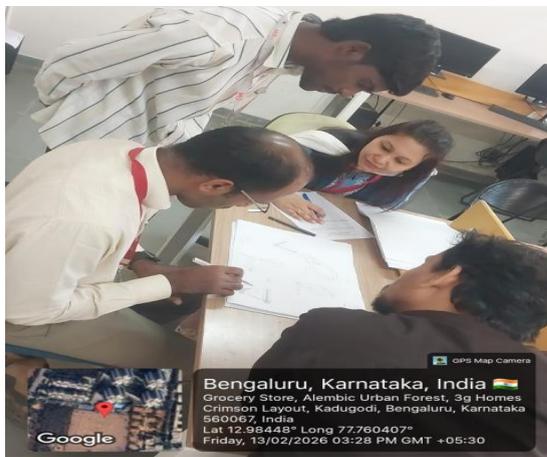


Figure (ii) Activity Evaluation by the faculty members and the chief guest



Figure (iii) Chief guest, faculty members, and students after the certificate distribution

Figure (iv) Photographs of the Winner and Runner-up of the Event



Bharath R
1MJ24ME402
(1ST Prize)



Alroy Manoj
1MJ24ME400
(Runner Up)

Summary of the DYNAMMECH Club Activity on NEW PRODUCT DESIGN

Date of the Event	13 th Feb 2026
Time of the Event	01.30 to 4.00 pm
No. of. Participants	35 Students
Venue	CIM Lab (Room No. 29)
Title of the Event	DYNAMMECH Club Activity on 'New Product Design'
Theme of the Event	Innovative Product Design for Real-World Applications
Winner and Runner-up	Winner: Bharath R (1MJ24ME402) - Mech Runner Up: Alroy Manoj (1MJ24ME400) - Mech
Organized by	DYNAMMECH Student Club, Department of Mechanical Engineering, MVJCE, in association with ISTE, IIC, and IQAC – MVJCE