

ABOUT THE PROGRAMME

This workshop is designed to provide students with practical exposure to emerging technologies used in modern manufacturing and product development. The program focuses on bridging the gap between theoretical knowledge and industrial applications through expert-led sessions, software-based learning, hands-on practice, and an industrial visit.

The workshop introduces participants to Extended Reality (XR) and Virtual Reality (VR) and their applications in engineering and manufacturing. Students will also gain fundamental knowledge of design principles and SOLIDWORKS, followed by hands-on practice to develop their computer-aided design skills.

The second day focuses on Additive Manufacturing and 3D Printing. Students will learn the fundamentals and applications of additive manufacturing and get practical experience with a 3D printer, enabling them to understand the transition from a digital CAD model to a physical prototype.

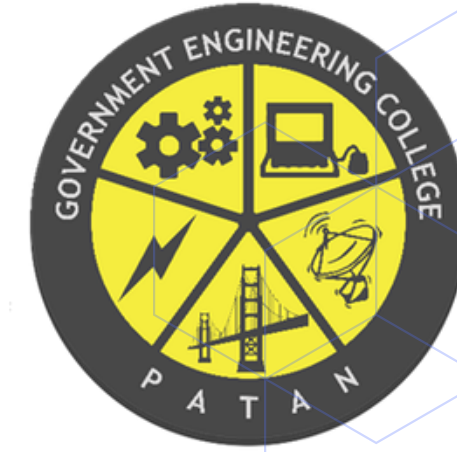
The third day provides industrial exposure through a visit to the National Additive Manufacturing Centre West (NAMCW), Ganpat University. Participants will learn about industrial additive manufacturing facilities, observe demonstrations of additive manufacturing processes, understand industrial applications and the design-to-prototype workflow, and interact with experts through discussions and Q&A sessions.

ABOUT THE INSTITUTE

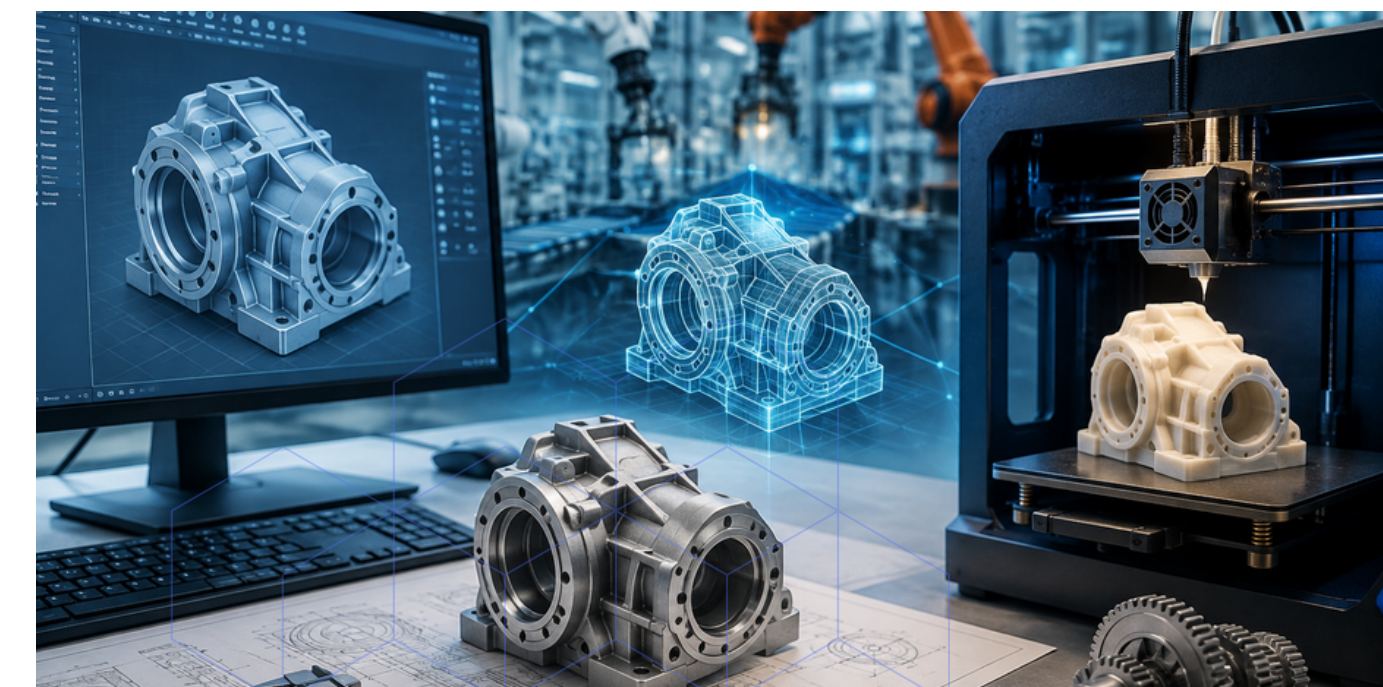
Government Engineering College, Patan (G.E.C. Patan), situated in katpur village of Patan District, Gujarat, was established in 2004 with a commitment to delivering quality education in engineering and technology. Over the years, the institute has achieved remarkable growth and excellence in academics, innovation, and research. It is affiliated with the Gujarat Technological University (GTU) and functions under the administration of the Directorate of Technical Education (DTE), Government of Gujarat.

ABOUT THE DEPARTMENT

The Bachelor's Program in Mechanical Engineering at Government Engineering College, Patan provides students with a strong foundation in design, manufacturing, thermal systems, automation, and engineering management. The program develops practical and technical skills, preparing graduates for diverse career opportunities in industry, research, entrepreneurship, and engineering services. The Mechanical Engineering Department is NBA accredited for the period 2026–2028, reflecting its commitment to quality education and continuous improvement.



Three Days Workshop On Smart Manufacturing: Advanced CAD Design and Rapid Prototyping 18th - 20th August 2026



Organised by
Mechanical Engineering Department
Government Engineering College Patan
At. and Po. Katpur, Patan
Gujarat

ORGANISING COMMITTEE

Patron

Dr. B. J. Shah
Principal, Government Engineering
College Patan

Conveyer

Dr. A. B. Dhruv
HOD, Mechanical Engineering Department
Government Engineering College Patan

Coordinators

Prof. R. A. Oza
Prof. B. B. Patel
Dr. H. R. Prajapati

Committee Members

Prof. N. R. Makvana
Prof. V. K. Patel
Prof. K. H. Thakkar

Student Committee

Masamji Hussainali – BE Sem. 7th ME
Surendra Panwar – BE Sem. 5th ME
Manish Jha – BE Sem. 5th ME



ELIGIBILITY

Students enrolled in the 5th and 7th Semester of the Bachelor's Degree in Mechanical Engineering are eligible to participate in the program. The program is intended for students with a basic understanding of mechanical engineering concepts.

RESOURCE PERSONS

Mr. Vijaykumar Thakkar,
CEO & Founder at Kachhua Solutions

Mr. Mukesh Kumar V. YOGI
Director, SAI CAD Center Patan

Dr. Achyut Trivedi and Prof. Apurva Indrodia
NAMCW, Ganpat University

REGISTRATION DETAILS

Registration: Scan the QR code provided below to register for the program.

Participation Fee: There is no participation fee; registration is completely free.



TOPICS TO BE COVERED

- 1 XR & VR: Introduction and Applications**
Fundamentals of Extended Reality (XR)
Introduction to Virtual Reality (VR)
Applications of XR/VR in engineering and manufacturing
- 2 Basics of Design & SOLIDWORKS**
Fundamentals of engineering design
Introduction to SOLIDWORKS
Part modelling and design fundamentals
- 3 Hands-on Practice on SOLIDWORKS**
Practical CAD modelling
Creation and modification of 3D models
Application of design concepts using SOLIDWORKS
- 4 Additive Manufacturing**
Fundamentals of Additive Manufacturing (AM)
Principles and processes of 3D printing
Applications of Additive Manufacturing
- 5 Hands-on Practice on 3D Printer**
Preparation of CAD models for 3D printing
Practical demonstration and operation of a 3D printer
Development of physical prototypes
- 6 Industrial Additive Manufacturing (Industrial Visit)**
Demonstration of Additive Manufacturing facilities/processes
Industrial applications of Additive Manufacturing
Interaction and technical discussion with industry experts