

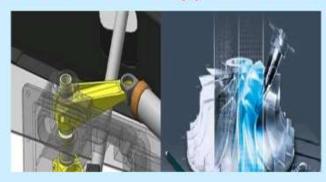


With the Support of

# CADMAXX SOLUTION PRIVATE LIMITED

### Department of Mechanical Engineering Organizes Webinar for the students on

"Awareness on Industrial Application of CAD/CAE/CAM"



On 20<sup>th</sup> May 2020 at 5:00 P.M Onwards Program Coordinators: *Prof. Sunilraj B.A and Dr. Siddesha H S* 

## About the Webinar on "Application Awareness on Industrial Application CAD/CAE/CAM"

The **Department of Mechanical Engineering, SPARK** Organizes webinar in Association with **SAE Club**, in its efforts to create skills for the enterprising youth who are capable of surviving in a society has been making some interventions in this direction through its Webinar Program. The Webinar programs are targeted both for students of the various students of Aeronautical, Aerospace and Mechanical Engineering branch students. This Webinar is designed to train the students in the area of Application of CAD/CAM/CAE for the today engineering world.

#### **Goal of the Program**

Create an awareness of the need and importance of CAD/CAM/CAE

- Impart knowledge and develop skills in diverse training methods in imparting training to students.
- Plan curriculum that can imbibe the skills and competencies to achieve goals directed by values, have a positive attitude and have the ability to cope with the changing times.
- > Develop students a professional mindset.
- Make them aware about Computer Aided Design, Computer Aided Manufacturing and Computer Aided Engineering.
- Guide them for techniques of using CAD tools. Guide them for "Techniques of handling tools".

The Department of Mechanical Engineering organized the skill development program w for the 2nd year and 3rd year Mechanical Engineering students. The session was handled by the Ashwin Kumar, Design Engineer from CADDMAXX Solution Private Limited Bangalore.

The program has been developed to cater to spectrum of engineering students to enhance their skills and grow their career through higher productivity and technical expertise meeting industry needs. The program organized for Upgrading Design Engineers Skills in Product Development Support Activities, using cutting Edge Technology Tools based on Domain Centric Professional Training Modules.

#### CAD (COMPUTER AIDED DESIGN)

Better visualization of the final product, sub-assemblies and constituent parts in a CAD system speeds the design process. CAD software offers greater accuracy, so errors are reduced. A CAD system provides easier, more robust documentation of the design, including geometries and dimensions, bills of materials, etc. CAD software offers easy re-use of design data and best practices. CAD Software

- ➤ CATIA V5
- > AUTOCAD
- > SOLIDWORKS

#### **CAM (COMPUTER AIDED MANUFACTURING)**

Computer-aided manufacturing (CAM) commonly refers to the use of numerical control (NC) computer software applications to create detailed instructions (G-code) that drive computer numerical control (CNC) machine tools for manufacturing parts. Manufacturers in a variety of industries depend on the capabilities of CAM to produce high-quality parts.

CAM systems can maximize utilization of a full range of production equipment, including

high speed, 5-axis, and multi-function and turning machines, electrical discharge machining (EDM) and CMM inspection equipment.

Advanced CAM systems with product lifecycle management (PLM) integration can provide

manufacturing planning and production personnel with data and process management to ensure use of correct data and standard resources. Available CAM Software for learning with us

- ➢ CATIA CAM
- > MASTERCAM
- > DELCAM

#### **COMPUTER-AIDED ENGINEERING (CAE)**

Computer-aided engineering (CAE) is the use of computer software to simulate performance in order to improve product designs or assist in the resolution of engineering problems for a wide range of industries.

This includes simulation, validation, and optimization of products, processes, and manufacturing tools.

- ▶ Kinematics and dynamic analysis of mechanisms (multimode dynamics).
- Acoustics analysis using FEA or a boundary element method (BEM).
- ID CAE, or Mechatronics system simulation, for multi-domain Mechatronics system design
- Mechanical event simulation (MES)
- Simulation of manufacturing processes like casting, molding and die press forming.