



DEPARTMENT OF MECHANICAL ENGINEERING

INDIAN SOCIETY OF MECHANICAL ENGINEERS (ISME) REPORT



About the Department

The Department of Mechanical Engineering was started in the year 2006 and accredited by NBA in the year 2018. The department offers B. Tech. program in Mechanical Engineering. At present, the department intake capacity is 90 students per year at the B. Tech. The department has competent and committed faculty members drawn from the industry sector, and the core faculty are experienced professionals and academicians who enhance the delivery of academic programs. There are 26 teaching faculty members in the department and most of them have at least 10 years of experience.

The department has evolved a comprehensive student-centric learning approach, designed to add significant value to the learner's understanding in an integrated manner through workshops, lab sessions, assignments, training, seminars, projects and independent study. The hands-on training offered by our CAD/CAM laboratory in the latest design and analysis software brings in a formal method of familiarizing with the industrial practices. This helps the students to apply their classroom knowledge to live industrial problems. The department is equipped with ten laboratories, and nine workshops. The laboratories and computing facilities are made available to the students and staff until late at night and on all working days.

Vision

To make the Mechanical Engineering Programme a Centre of Excellence in professional education and research.

Mission

- To provide quality education for moulding competent professionals in mechanical
- engineering
- To facilitate continuous learning environment
- To promote collaborative activities and positive contributions to society

About ISME

ISME seeks to bring together individuals, and institutions and Govt . Agencies & industries and Education to evolve and develop Engineering practices in India. Apart from upgrading the professional skills of its members, ISME also aims at the following:

To spread the benefits of Engineering Education to the less privileged. To advance the status and roles of engineering practice

To facilitate interaction between members of Engineering Societies throughout the world.

To represent the opinion of Members of the society, on matters related to the objects of society.

To promote the values of Engineering and Technology and its applications.

Promoting continuing education and training.

In ASIET, ISME plays major role in conducting webinars, technical talks and conducting trainings for students and faculties.

ISME Webinar Series

The Department of Mechanical Engineering, in collaboration with the Indian Society of Mechanical Engineers (ISME) chapter, successfully organized a series of webinars focusing on the latest advancements and trends in the field of mechanical engineering. The topics covered were:

1. **Recent Trends in Additive Manufacturing**
2. **Micromachining**
3. **Applications and Warm Forming of Aluminum Alloys**

Webinar 1: Recent Trends in Additive Manufacturing

Key Points Covered:

- Overview of Additive Manufacturing (AM) technologies and their evolution.
- Discussion on the latest materials used in AM, including metals, polymers, and composites.
- Advances in 3D printing techniques, such as Selective Laser Sintering (SLS), Fused Deposition Modeling (FDM), and Stereolithography (SLA).
- Applications of AM in various industries like aerospace, automotive, healthcare, and consumer goods.

- Future trends and potential impacts of AM on traditional manufacturing processes.

Department of Mechanical Engineering

in association with

Institution's Innovation Council

Webinar
on



"Recent Trends in Additive Manufacturing"

SCAN & JOIN



Free Registration

Speaker

Dr.Dinesh Kumar R

Post Doc, IIT GUWAHATI

DATE :6 Sept 2020

TIME : 10 AM -11 AM

WHO CAN PARTICIPATE: RESEARCH SCHOLARS, FACULTY AND STUDENTS

E Certificate will be provided to all successful participants



Adi Shankara
INSTITUTE OF ENGINEERING AND TECHNOLOGY



INSTITUTION'S
INNOVATION
COUNCIL

Coordinators

Mr. Vishnu S
94 46 90 2426

Mr. Sandeep O S
94 47 315 415

Webinar 2: Micromachining

Key Points Covered:

- Introduction to micromachining and its significance in precision manufacturing.
- Techniques such as Micro-Electro-Mechanical Systems (MEMS), Laser Micromachining, and Electrochemical Micromachining.
- Applications of micromachining in electronics, medical devices, and microfluidics.
- Challenges in micromachining, including tool wear, accuracy, and surface finish.
- Recent advancements and future directions in micromachining technologies.



**Department of
Mechanical Engineering**
in association with
Institution's Innovation Council

is
Organising
a Webinar on

Micromachining and it's applications

by



Dr.Nithin Tom Mathew

Assistant Professor
BITS Pilani

SCAN & JOIN

Date : 17th July 2020
10 AM to 11 30 AM
(Free Registration)



Coordinators
Mr.Arun P Das
9495220163
Mr. Sandeep O S
9447315415

E Certificate will be provided to all successful participants

Webinar 3: Applications and Warm Forming of Aluminum Alloys

Key Points Covered:

- Properties and advantages of aluminum alloys in manufacturing.
- Overview of warm forming processes and their benefits over traditional cold forming techniques.
- Applications of aluminum alloys in automotive, aerospace, and construction industries.
- Case studies demonstrating successful implementation of warm forming in industrial applications.
- Challenges and solutions in the warm forming of aluminum alloys, such as temperature control, tool design, and material behavior.

Department of Mechanical Engineering
in association with
Institution's Innovation Council
Webinar
on



"Warm Forming of Aluminium Alloys"

SCAN & JOIN



Free Registration



Speaker

Dr. Sudhy S Panicker
Research Associate
Department of
Mechanical Engineering,
The University of Sheffield, Sheffield, UK.

DATE : 11 Aug 2020 TIME : 2 PM - 3 PM

WHO CAN PARTICIPATE: RESEARCH SCHOLARS, FACULTY AND STUDENTS

Free Certificate will be provided to all successful participants



Coordinators

Mr. Sreenivasan S N
96 33 155 106

Mr. Sandeep O S
94 47 315 415

Engine assembly and Dis assembly Training

The Department of Mechanical Engineering, in association with the Indian Society of Mechanical Engineers (ISME) chapter, successfully organized an intensive training program focused on engine assembly and disassembly. The program aimed to provide practical, hands-on experience to students and professionals, enhancing their understanding of engine mechanics and assembly processes.

Venue: Mechanical Block

Trainers/Instructors: [Prof Eldhose K Joy, Prof Sandeep O S]

Participants: Mechanical Students

Objectives:

- To provide participants with hands-on experience in the assembly and disassembly of engines.
- To enhance understanding of engine components and their functions.
- To familiarize participants with the tools and techniques used in engine assembly and maintenance.
- To foster practical skills that complement theoretical knowledge in mechanical engineering.

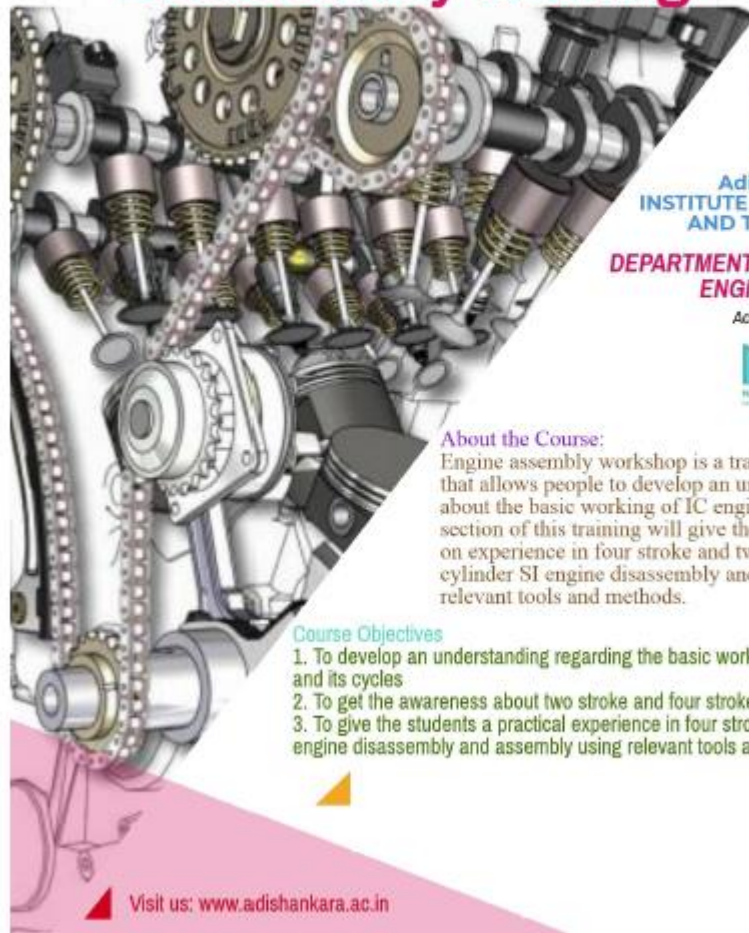
Engine Assembly & Disassembly Training



Adi Shankara
INSTITUTE OF ENGINEERING
AND TECHNOLOGY

DEPARTMENT OF MECHANICAL
ENGINEERING

Accredited By



About the Course:

Engine assembly workshop is a training workshop that allows people to develop an understanding about the basic working of IC engines. The practical section of this training will give the students a hands on experience in four stroke and two stroke single cylinder SI engine disassembly and assembly using relevant tools and methods.

Course Objectives

1. To develop an understanding regarding the basic working of IC engines and its cycles
2. To get the awareness about two stroke and four stroke I C engine parts
3. To give the students a practical experience in four stroke single cylinder engine disassembly and assembly using relevant tools and methods.

Visit us: www.adishankara.ac.in





ISME Training Programme

Training on CNC Machine

VMCs use cutters to extract metal from a work piece and provide a vertical spindle. Because of this vertical orientation, the tools on a VMC normally operate in a vertical work plane. HMCs use a spindle on a horizontal work plane and cutting tools to extract metal from a work piece. Tools stick out of the side of the tool holder and cut through the side of a work piece with a horizontally focused spindle, encouraging chips to fall away from the table. CNC Milling Course will go over the CNC programming process, setting up and running a CNC machining centre, and the fundamentals of computer numerical control for milling operations using the Fanuc and Siemens controllers. The series covers the fundamentals of CNC, construction, the machining process, programming, tooling, work keeping instruments, and operating, programming, and commissioning the Fanuc and Siemens controls. This CNC course includes examples of all common Mill operations, such as drilling and tapping with Canned Cycles, contour milling, and other common Mill operations

About VMC Milling Operator Course @ ASIET Kalady

The aim of this course is to teach students with technical backgrounds how to programme and operate VMC and HMC Milling and Turning machines. This course fills the gap between what students with a professional background already know and what they need to understand in order to start using VMC machine tools. Engineers, innovators, and manufacturers often use the components, products, and machining operations. Work holding techniques suitable for prototype and short-run development are described in detail and illustrated.





What you'll learn after completion of this course

CNC MANUAL PROGRAMMING (MILLING)	CNC MACHINE OPERATING (MILLING)
Introduction of CNC,G & M codes	User settings & Basic configuration
Co-ordinate system Absolute & Incremental method	Home reference
Feed, Speed, Tool changing Commands	Control panel & types of keys
Tool Length Compensation	Operation keys & its functions
Work Coordinate System	Control the bed & spindle movement
Motion Commands(G0 & G01)	Tool management (Adding tool to magazine)
Program Format	Execution of basic operating commands using MDI mode
Motion Commands(G02,G03,G04)	Difference between MCS & WCS
Motion Commands(G02&G03with I&J value)	Offset setting parameters
Cutter Radius Compensation(CRC)	Take work offset
Compensation Commands(G41,G42,G40)	Take height offset
Facing	Check work offset & tool offset
Sub Program Creation	
Canned Cycles	Use of Wear offset

Training for faculties





Training for Students





