



# Rajkiya Engineering College Banda

(Approved by AICTE New Delhi, Affiliated to AKTU & Recognized By Govt. of Uttar Pradesh)

(Atarra-Banda Road, Banda, Uttar Pradesh-210201)

## Department Of Mechanical Engineering

ISSUE NO. 1

# NEWSLETTER

2020

"I would like to express my sincere gratitude to the management, colleagues, and my dear students for their unwavering support in bringing out this Newsletter this year. Your constant encouragement and participation in the activities of the Mechanical Engineering Department are highly appreciated, and I look forward to your continued support in the coming years."



**Mr. Saurabh Tripathi**

(Head Of Department Of  
Mechanical Engineering)

In the year 2020-21, the Mechanical Engineering Department successfully conducted various curricular and co-curricular activities through periodic seminars, webinars, and workshops. The department also provided faculty development programs, industrial visits, and industrial training as integral parts of the course, equipping students with technical knowledge, critical thinking skills, and creativity to excel in the engineering profession. The release of the annual newsletter of the department gives immense pleasure, and it reflects the commitment of the department to create a conducive atmosphere for the development of young minds into bright professionals of the future. With the perseverance and commitment of both the faculty and students, I believe that the department will continue to be a trend-setter in offering an array of curricular and co-curricular activities to achieve academic excellence in the years to come.



**Prof. Vinay Kumar Pathak**

(Vice Chancellor, APJAKTU)



**Prof. Sheo Prasad Shukla**

(Director, Rajkiya Engineering College, Banda)

## Vision & Mission Of The Department

### Vision

To be recognized as pioneer Department of Mechanical Engineering education in the state of Uttar Pradesh for providing valuable resources for industry and society by 2030.

### Mission

1. To develop skills in students by providing them knowledge to succeed in Mechanical Engineering profession and higher studies.
2. To make students aware with new and cutting-edge technology.
3. To develop practicing engineers who investigate, research, design with awareness and concern for society and environment.
4. To provide ethical and value education by promoting activities addressing the societal needs.

# Program Educational Objectives

## Our graduates will :

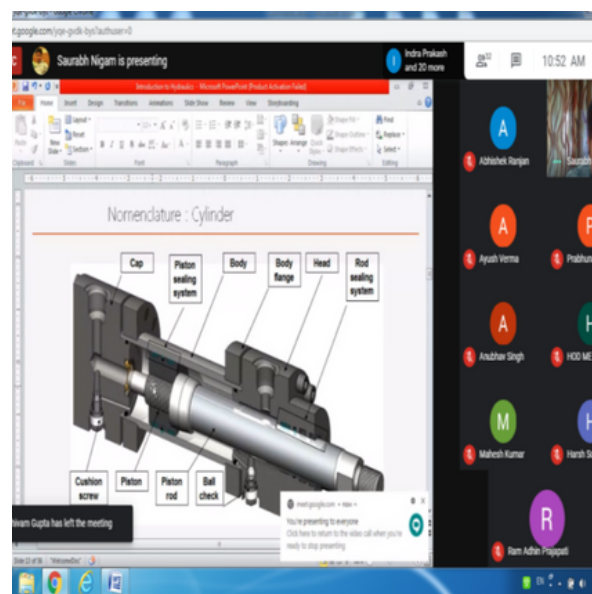
1. Possess core knowledge of the discipline to succeed in their careers.
2. Be practicing engineers with breadth of knowledge to fit into contemporary work culture of multidiscipline and multitasking.
3. Be thorough professionals with competence to work in teams as leaders, effective communicators with ethical values, with sensitivity to the needs and concerns of society and environment.

# Program Specific Outcomes

## Our graduates will be able to:

1. Model and analyse components or processes related to thermal and mechanical systems.
2. Apply the principles of Mechanical Engineering to find the solutions for problems related to society and environment.

## Expert Lectures



Topic: Expert Lecture on “Industrial Application of Hydraulics”

Expert Name: Mr Saurabh Nigam, Sr. Engineer, EATON Technologies Pvt Limited Pune.

Date: 12/09/2020

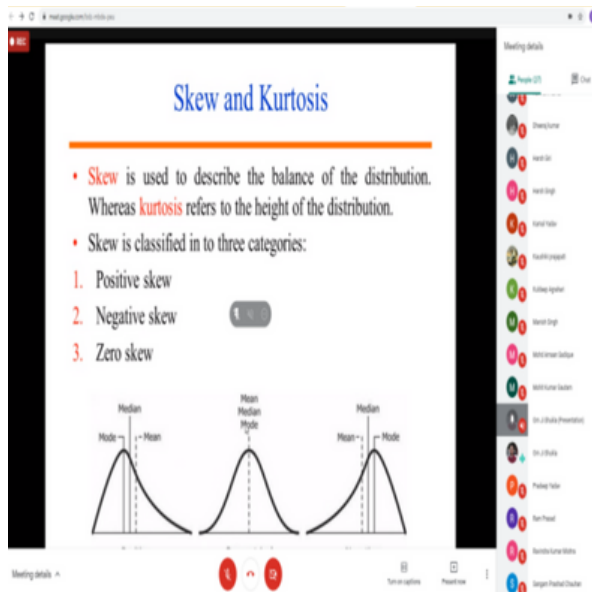
Timing: 10:30 AM onwards

Mode: Google Meet

### Lecture Outcome

- List the main industrial sectors using fluid power.
- Give valid reasons for deciding on the technical specification of a fluid power system.
- Explain the main factors involved in costing a fluid power system.
- Explain the safety regulations and implication in the design and running of a fluid power system.
- Explain the factors involved in deciding whether to use pneumatics and hydraulics.

## Expert Lectures



Topic: Expert Lecture on “Data Analytics for Mechanical Engineering”

Expert Name: DR. OM JI SHUKLA, Astd. Prof., NIT Patna

Date: 09/09/2020

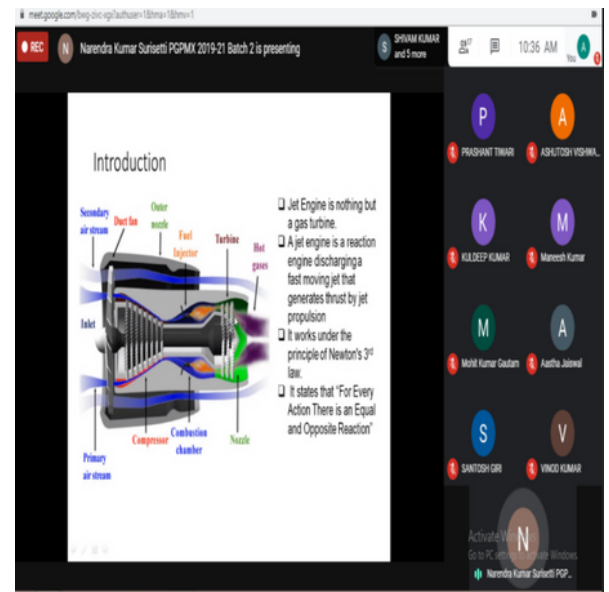
Timing: 03:00 PM onwards

Mode: Google Meet

### Lecture Outcome

- Data science is an ever-evolving domain. This is a challenging field that empowers you with a mindset to drive decision-making and business responsibilities, with the help of data and insights.
- Data science requires perseverance and patience, however, it is also well worth the ride.
- While switching from Mechanical Engineering to Data Science, you must always be open to unlearn and start afresh.
- Don't hesitate to try out new tools and experiment with your skills; this will help you stay relevant as per the emerging trends in the domain.

## Expert Lectures



Topic: Expert Lecture on “Application of Positive Displacement Pumps in Aerospace”

Expert Name: Mr Narendra Suriseti, Engineering Manager, Crain India Design Centre Pune

Date: 19/09/2020

Timing: 10:30 AM-11:30 AM

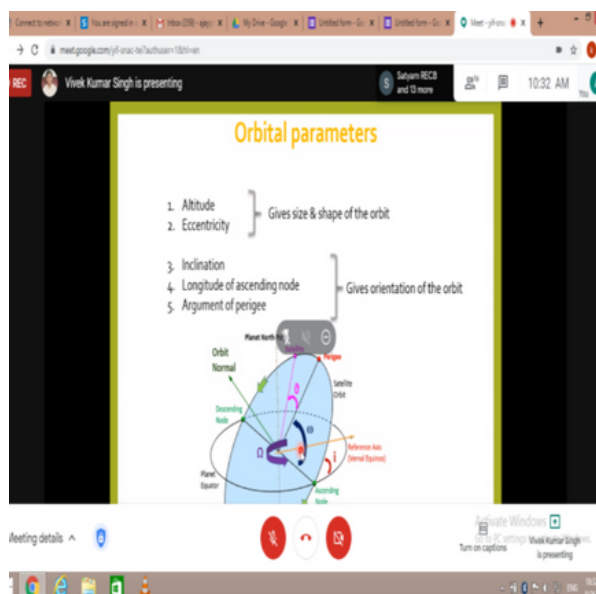
Mode: Google Meet

### Lecture Outcome

**On completion of this Expert Lecture, Students will be able to do the following.**

- History of Jet Engine
- Hydraulic Pump Function
- Pumps Classification
- Positive Displacement (PD) – Elements
- Positive Displacement PD– Pumps
- Product Validation

## Expert Lectures



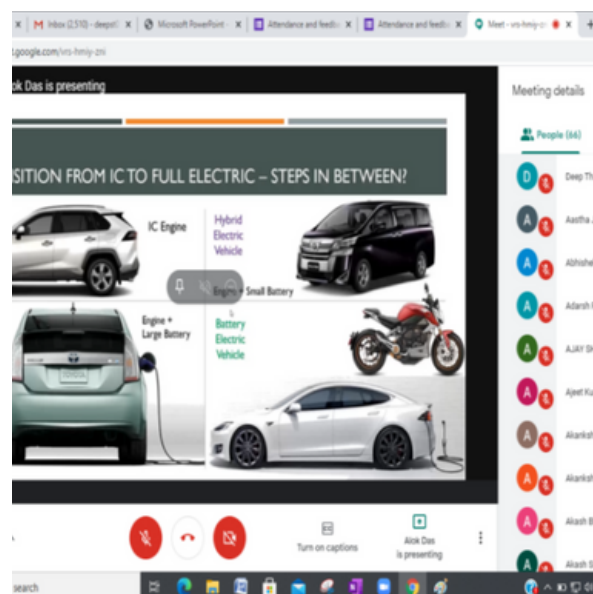
Topic: Expert Lecture on “Fundamentals of Satellite Thermal Control”  
 Expert Name: Mr Vivek Singh (Scientist, ISRO Ahmadabad)  
 Date: 26/09/2020  
 Timing: 10:00 AM-12:00 PM  
 Mode: Google Meet

### Lecture Outcome

**On completion of this Expert Lecture, Students will be able to do the following**

- Challenges in spacecraft thermal control
- Thermal control overview
- Design Philosophy
- Basics of Orbit
- Scope of research in spacecraft thermal management area
- Why do we need thermal control
- Typical requirement

## Expert Lectures



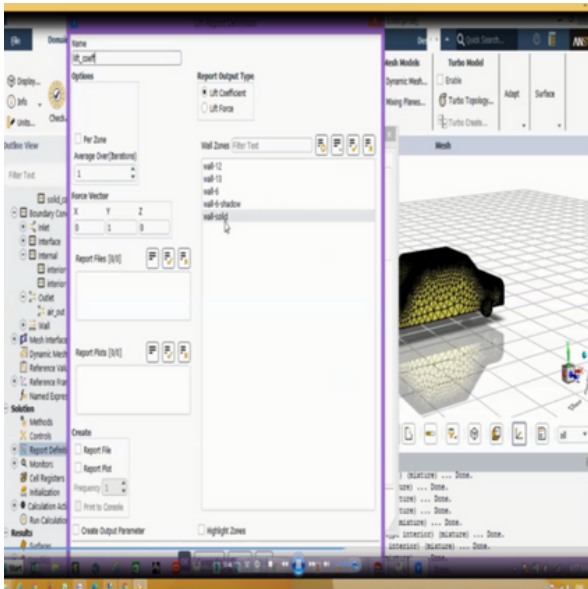
Topic: Expert Lecture on “Electric Mobility”  
 Expert Name: Mr Alok Das (Head & Chief Operating Officer, Revolta Motors Pvt Ltd, Pune)  
 Date: 24/09/2020  
 Timing: 11:00 AM-12:00 PM  
 Mode: Google Meet

### Lecture Outcome

**On completion of this Expert Lecture, Students will be able to do the following.**

- Why is Automotive Sector Important?
- Present Situation- The EV Push
- 100 Years of Efforts
- Direct Transmission or Steps in between
- Full Electric Power train
- Autonomous Cars
- Electric Mobility in India
- Present Situation – Case Study
- (Norway, United States, China)
- Shall the focus be only Electric Vehicle?
- The Value Chain

# Short Term Training

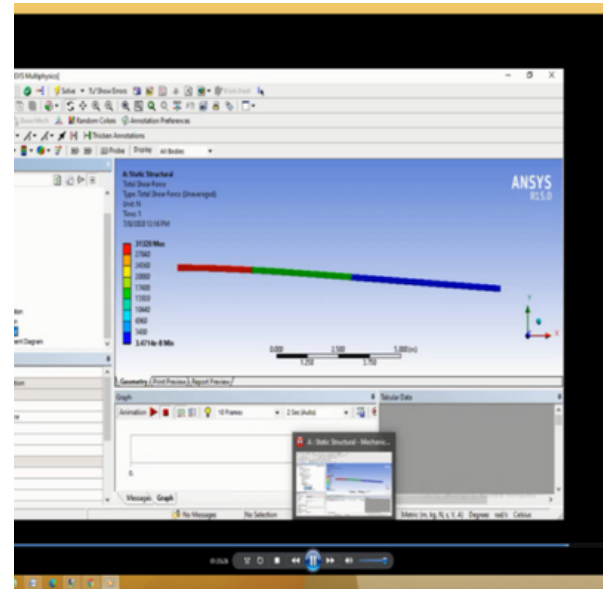


Topic: "Advance Skills of ANSYS Software"  
 Expert Name: Er Virendra Singh, Mechanical Design Engineer, Tata Motors, Lucknow  
 Duration: 14/09/2020 to 23/09/2020  
 Timing: 04:30 PM-06:30 PM  
 Mode: Zoom  
 Year: 4th

## Lecture Outcome

- Virtually Test design, quickly and accurately.
- Design optimization by analyzing dozens of iterations automatically.
- Design of Higher Performing Products which are both lighter and stiffer.
- Gain Confidence in Your analyses

# Short Term Training



Topic: "Product Design and Analysis using ANSYS"  
 Expert Name: Er Anuj Kumar, Manager Training, Cetpa Infotech Pvt. Ltd., Lucknow  
 Duration: 14/09/2020 to 23/09/2020  
 Timing: 06:30 PM-08:30 PM  
 Mode: Zoom  
 Year: 3rd

## Lecture Outcome

- Virtually Test design, quickly and accurately.
- Design optimization by analyzing dozens of iterations automatically.
- Design of Higher Performing Products which are both lighter and stiffer.
- Gain Confidence in Your analyses.

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## EDITORS NAME

### FACILITY MEMBERS

- Mr. Saurabh Tripathi
- Mr. Ankush Kumar Rajput
- Mr. Deep Singh Thakur

### STUDENT MEMBERS

- Mr. Priyam Goyel
- Ms. Shreya Shrivastav