

## COURSE DETAILS

This course will provide the college students a base to automotive technology. They will learn about each and every driving systems involved in automation and get better understanding and grip on its application.

## COURSE MODULE

### AUTOMOTIVE COURSE SYLLABUS (3 Days)

#### 1. Introduction to automobile

- Review of Auto basics
- Automobile Working Cycle
- Basic Terms such as HP, Torque, Sp Fuel consumption, Gradiability, Wheel bases, Turning radius, Tracks, Road reactions, Vehicle stability etc

#### 2. Introduction to Passenger Cars

- Passenger Car Types
- Latest Car Models

#### 3. Modern Car engines

- Multipoint Injection Petrol engine
- Common Rail Direct Injection Diesel engine

#### 4. Modern Diesel Engines

- FIP
- ECU
- Common rail injection Systems

#### 5. Clutch

#### 6. Transmission

#### 7. Differential working /Functioning

#### 8. Suspension

- Independent suspension
- Antiroll bars
- Torsion bars
- Stabilizers

## PRACTICAL SESSION DETAILS (3 Days)

### 1. Parts study on following automotive parts

- Engine Assembly
- Clutch Assembly
- Gear Assembly
- Carburetor System
- Other Parts (brakes, ignition system etc.)

### 2. Study of under body parts - Location and inter connectivity (through presentation)

### 3. Assembly of an Automobile

## COURSE FEES

Rs. 500 per Individual

## BENEFITS OF COURSE

- A certificate of participation to trainees for the Course on “Automobile Basics & Advanced System Study”.

- The course providing insight into the structure and function of each component; vehicle integration; and related terms and working.

- Knowledge about appropriate use of sensors, actuators and mechanisms in Mechatronics applications.

- An approach to new technologies & technical advancement in modern cars will be taught. Helpful in training/internships/placements.

- STUDY KIT will be provided to every participant.

## RESOURCE PERSON

### Expert's Profile

**Mr. Rajkishor Singh**  
Head of Mechanical and Mechatronics Engineering  
Shobhit University Meerut  
Ph.D. from Shobhit University, Meerut (P)  
M.Tech. from U.P.T.U. Lucknow, U.P.  
B.Tech. from BIET Jhansi, U.P.

### Contact

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### Mr. Jitendra Jadon

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### Mr. Raman Gahlaut

Assistant Professor  
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M.Tech (P) From NITTTR Chandigarh (P.U.)  
B.Tech. from U.P.T.U. Lucknow, U.P.

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# Shobhit University

(Shobhit Institute of Engineering & Technology)

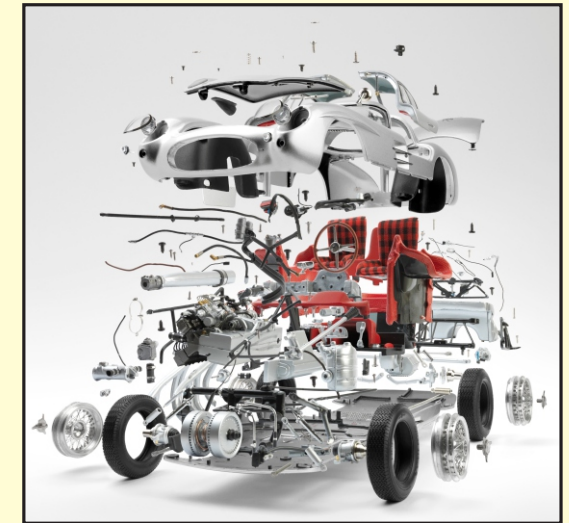
EDUCATION EMPOWERS

Established u/s 3 of UGC Act, 1956

A NAAC Accredited University

## Summer Short Term Course on Automotives

12<sup>th</sup> June - 18<sup>th</sup> June 2017



Organized By

**Mechanical Engineering Department**

**SHOBHIT UNIVERSITY, MEERUT**



### About Shobhit University

In 1989, 25 years ago, the organisation started its journey to empower the nation through education, specifically in rural India under the patronage of NICE society, envisaged by Babu Vijendra Kumar Ji, an illustrious agriculturist and social worker. Shobhit University aspires to construct an abode of knowledge which together with the creativity of mind will have the potential to attenuate the darkness and will actively contribute in the transformation of the world towards betterment. The University aims to make a tributary, facultative educational climate to facilitate integration of the younger generation into the logic of the current system and to develop instructional means for the betterment of the world. As a testimony to the mission and enterprise, the university has now come of age and offers a wide range of Mechanical & Mechatronics Engineering programs in Computer Engineering and IT, Electronics Engineering, Business Management, Biotechnology, Biomedical Engineering, Bioinformatics and Agri-informatics. The University aims to fulfil the mission to empower our youth particularly in rural areas through quality education and to turn intellect into empowerment through several novel initiatives. We remain passionate about our ethos and traditions as we look forward to a new resurgent India. The institution aspires in promoting skill development initiatives relevant to industries and global community at large through its International Skills development centre. Shobhit University retains its coveted position in the list of country's most emerging university and ranked among top 50 universities by various survey agencies. It has a strong record of collaborative research with number of projects involving many reputed laboratories of national and international importance which enables the university to bring laurels. University has signed memorandum of understanding with five universities around the globe for faculty and student exchange programs. The University fosters intellectual curiosity and provides opportunities for effective research abilities.

The University campus is cosmopolitan having a diverse pool of students from all parts of the subcontinents and other countries. Apart from the conventional way of teaching, the University regularly organizes workshops and seminars on recent trends on science and technology focussing the upliftment of the students. The University takes pride in its commendable placement record and a very dynamic globally placed Alumni Network. The University believes that education empowers and therefore it aims to create a conducive, enabling, academic climate to facilitate integration of the younger generation into logic of the present system.

### About the Department

The Department of Mechanical Engineering provides strong background to Engineering Students to cope up with the needs of emerging technology at National and International levels. The Department is the pioneer in offering Under Graduate course in Mechanical and Mechatronics Engineering and Post Graduate course in Mechanical Engineering besides Ph.D. programme in the different related research areas.

The department is having highly qualified and experienced faculty in all streams of Mechanical Engineering. Today, the world of Mechanical Engineering changes under the influence of advanced computational tools, improved simulation and analysis, and entirely different manufacturing protocols. This has opened up new vistas of research in the department, such as Fracture Mechanics, Rapid Prototyping, Computational Heat Transfer, Solar Energy, Advanced Materials, Supply Chain Management, Advanced Manufacturing Processes, CAD/CAM/CIM, Robotics and Mechatronics, Operations Management, Energy Management, and Control Engineering.



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## Registration Form

Name .....

Date of Birth .....

Gender .....

Designation .....

Highest Qualification .....

Specialization .....

Organization .....

Address of Communication .....

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Phone/Mobile .....

E mail .....

Date .....

.....

Signature of Applicant

### Registration Fee

- Registration fee : Rs 500/-

### Contact Person:

**Mr. Raj Kishor Singh**

Mechanical Engineering Deptt.

Shobhit University

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