



DEMAND

PAVIATH INTEGRATED SOLUTION

ENGG ALLIED

MECHANICAL

AUTOMOTIVE ENGINE COMPONENTS DESIGN

Paviath ONLINE

◆ MECH ALLIED ◆ AUTOMOBILE ENGINEERING ◆ SEMESTER VI ◆ ENGINEERING CODE AT6601

COURSE OBJECTIVE

TO MAKE THE STUDENTS UNDERSTAND THE DESIGN CONCEPT AND PRINCIPLES OF VARIOUS ENGINE COMPONENTS. THESE CONCEPTS AND PRINCIPLES ARE FAMILIARIZED FOR DESIGN OF COMPONENTS.

COURSE OUTCOME

UPON COMPLETION OF THE COURSE, STUDENTS WILL BE ABLE TO IMPART KNOWLEDGE IN AUTOMOTIVE ENGINE. THE DETAILED CONCEPT, CONSTRUCTION AND PRINCIPLE OF OPERATION OF ENGINE AND VARIOUS ENGINE COMPONENTS, COMBUSTION, COOLING AND LUBRICATION SYSTEMS WILL BE TAUGHT TO THE STUDENTS. AT THE END OF THE COURSE THE STUDENTS WILL HAVE COMMAND OVER AUTOMOTIVE ENGINES AND THE RECENT DEVELOPMENT IN THE AREA OF ENGINES.

COURSE CONTENT

UNIT I INTRODUCTION.
UNIT II DESIGN OF CYLINDER, PISTON AND CONNECTING ROD.
UNIT III DESIGN OF CRANKSHAFT.
UNIT IV DESIGN OF FLYWHEELS.
UNIT V DESIGN OF VALVES AND VALVE TRAIN.

REFERENCE BOOKS

1. HELOT, P.M., "TORQUE CONVERTERS", CHILTON BOOK CO., 1962.
2. NEWTON AND STEEDS, "MOTOR VEHICLES", ILLIFFE PUBLISHERS, 1985.
3. DEVARAJANE, DR. G., KUMARASAN, DR. M., "AUTOMOBILE ENGINEERING", AMK PUBLISHERS, 2013.
1. SAE TRANSACTIONS 900550 & 930910.
2. HYDROSTATIC TRANSMISSIONS FOR VEHICLE APPLICATIONS, 1 MECH E CONFERENCE, 1981-88.
3. CROUSE, W.H., ANDLIN, D.L., "AUTOMOTIVE TRANSMISSION AND POWER TRAINS CONSTRUCTION", MCGRAW HILL, 1976.
4. HEINZ HEISLER, "ADVANCE VEHICLE TECHNOLOGY", BUTTERWORTH-HEINEMANN, 2002.

COURSE SOFTWARE

- ◆ APM WINMACHINE (MULTIPHYSICS)
- ◆ KOMPAS 2D/3D/PDM/BOM
- ◆ VARICAD 2D/3D/PDM/BOM
- ◆ UNIVERSAL MECHANISM(MBD).
- ◆ SAM (MECHANISM DESIGN)
- ◆ SALTIRE SOFTWARE
- ◆ DOCUMENTATION & PRINTING

APM WINMACHINE

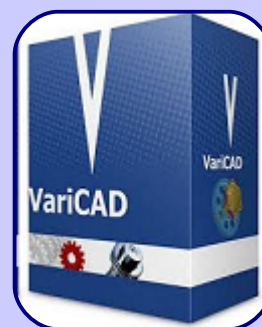
APM CAM/APM PLAIN/APM SCREW/APM STRUCTURE3D/APM DYNAMICS/APM BEAM/APM GRAPH/APM STUDIO
APM DRIVE/APM TRANS/APM SHAFT/APM BEAR/APM JOINT/APM SPRING/APM BASE/APM MECHANICAL DATA/APM MATERIAL DATA/APM SECTION DATA/APM CONSTRUCTION DATA/APM BOOK



APM WINMACHINE



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
AUTOMOTIVE ENGINE COMPONENTS DESIGN	REGISTRATION	DOCUMENTS	COUNSELLING	OWN LAPTOP
ONLINE	2/UNIT TRAINING	4/UNIT ASSIGNMENT	2/UNIT ASSIGNED	SCHEDULE
PRESENTATION	WEBINAR	NETWORK	PRESENTATION	2/UNIT ASSIGNED
PERIOD	2 HRS/1/UNIT IN SEQUENCE	NETWORKING/HRS*	PRESENTATION	* BROWSING FEE
PRICE (SEMESTER)	BY MAIL	* BROWSING FEE	NO COST	CERTIFICATE

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