



◆ MECHANICAL ENGINEERING GROUP ◆ SIXTH SEMESTER ◆ POLYTECHNIC CODE AEI

COURSE AIM

- ◆ UNDERSTANDING THE CONCEPT OF MACHINES
- ◆ MECHANISMS AND THEIR ELEMENTS
- ◆ STUDYING KINEMATICS ASPECTS OF VARIOUS LINKS IN MECHANISMS
- ◆ FOUNDATION FOR KINEMATICS SYNTHESIS, ANALYSIS
- ◆ DESIGN OF MECHANISMS
- ◆ UNDERSTANDING ANALYSIS
- ◆ TYPES OF LOADS, STRESSES & STRAINS
- ◆ MAIN CAUSES OF FAILURE OF MACHINE PARTS
- ◆ PRINCIPLES OF MACHINE DESIGN
- ◆ MECHANICAL PROPERTIES OF MATERIALS
- ◆ SELECTING MATERIALS FOR ENGINEERING APPNS

COURSE OBJECTIVE

- ◆ KNOW IMPORTANCE OF EARTH MOVING MACHINES & AGRICULTURAL MACHINES IN INDIA.
- ◆ IDENTIFY VARIOUS SYSTEMS & SUBSYSTEMS OF EARTH MOVING MACHINES & AGRICULTURAL MACHINES
- ◆ EXPLAIN WORKING & CONSTRUCTION OF VARIOUS SYSTEMS & SUBSYSTEMS IN EARTH MOVING MACHINES & AGRICULTURAL MACHINES
- ◆ CARRY OUT PREVENTIVE MAINTENANCE OF EARTH MOVING MACHINES & AGRICULTURAL MACHINES.

COURSE CONTENTS

- ◆ EARTH MOVING MACHINES
- ◆ INTRODUCTION
- ◆ TRACTOR DOZER
- ◆ LINE (ROPE OPERATED EXCAVATOR)
- ◆ LOADERS & EXCAVATORS
- ◆ TRACTOR.
- ◆ FORKLIFT TRUCK
- ◆ TIPPER & ROAD ROLLER

REFERENCE BOOKS

- ◆ JAGMAN SINGH ART OF EARTH MOVING
- ◆ RADICHEV TRACTORS AND AUTOMOBILE
- ◆ BURGE TRACTORS AND THEIR POWER UNITS
- ◆ TRUCKER EARTH MOVING PLANT

SAM (SYNTHESIS ANALYSIS MECHANISM)

- ◆ GENERAL ◆ DESIGN WIZARDS ◆ MODELLING
- ◆ INPUT MOTION ◆ CAD INTERFACE
- ◆ ANALYSIS ◆ RESULTS
- SALTIRE SOFTWARE**
- ◆ MATHS ILLUSTRATIONS
- ◆ GEOMETRY EXPRESSIONS
- ◆ MECHANICAL EXPRESSIONS
- ◆ ANALYTIS CAM

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



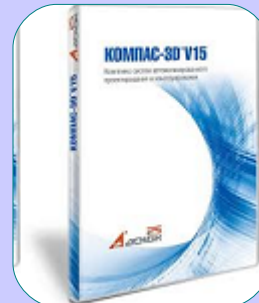
APM WINMACHINE



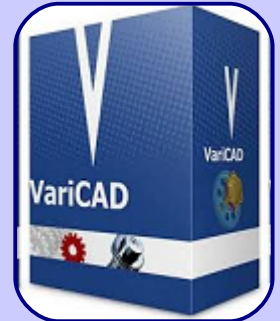
SALTIRE SOFTWARE



ARTAS SAM



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
SPECIAL PURPOSE VEHICLE	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