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PAVIATH INTEGRATED SOLUTION

POLYTECH

MECHANICAL

DESIGN OF MACHINE ELEMENTS

Paviath ONLINE

◆ MECHANICAL ENGINEERING GROUP ◆ SIXTH SEMESTER ME ◆ POLYTECHNIC CODE SEVENTH SEMESTER MH/MI

COURSE AIM

- ◆ ENABLING THE STUDENT TO DESIGN & DRAW SIMPLE MACHINE COMPONENTS USED IN SMALL AND MEDIUMSCALE INDUSTRIES
- ◆ FUNDAMENTAL KNOWLEDGE OF APPLIED MECHANICS, STRENGTH OF MATERIALS, ENGINEERING MATERIALS AND THEORY OF MACHINES IS ESSENTIAL
- ◆ DEVELOPING ANALYTICAL ABILITIES TO GIVE SOLUTIONS TO ENGG. DESIGN PROBLEMS.

REFERENCE BOOKS

- ◆ V.B.BHANDARI INTRODUCTION TO MACHINE DESIGN
- ◆ R.K.JAIN MACHINE DESIGN
- ◆ PANDYA & SHAH MACHINE DESIGN
- ◆ JOSEPH EDWARD SHIGLEY MECHANICAL ENGG. DESIGN
- ◆ PSG COIMBATORE DESIGN DATA BOOK
- ◆ ABDULLA SHARIFF HANDBOOK OF PROPERTIES OF ENGINEERING MATERIALS & DESIGN DATA FOR MACHINE ELEMENTS
- ◆ HALL, HOLWENKO, LAUGHLIN THEORY AND PROBLEMS OF MACHINE DESIGN
- ◆ ROBERT L.MOTT.JONG TANG MACHINE ELEMENTS IN MECHANICAL DESIGN
- ◆ JACK A. COLLINS, HENRY R. BUSBY MECHANICAL DESIGN OF MACHINE ELEMENTS AND MACHINES.

COURSE OBJECTIVE

- ◆ ANALYZE THE VARIOUS MODES OF FAILURE OF MACHINE COMPONENTS UNDER DIFFERENT LOAD PATTERNS.
- ◆ DESIGN AND PREPARE PART AND ASSEMBLY DRAWINGS
- ◆ USE DESIGN DATA BOOKS AND DIFFERENT CODES OF DESIGN.
- ◆ SELECT STANDARD COMPONENTS WITH THEIR SPECIFICATIONS FROM MANUFACTURER'S CATALOGUE.
- ◆ DEVELOP DRAWINGS ON CAD SOFTWARE.

COURSE CONTENTS

- ◆ INTRODUCTION TO DESIGN
- ◆ DESIGN OF SIMPLE MACHINE PARTS
- ◆ DESIGN OF SHAFTS, KEYS AND COUPLINGS & SPUR GEARS
- ◆ DESIGN OF POWER SCREWS
- ◆ DESIGN OF SPRINGS
- ◆ DESIGN OF FASTENERS
- ◆ ANTIFRICTION BEARINGS
- ◆ ERGONOMICS & AESTHETIC CONSIDERATION IN DESIGN

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



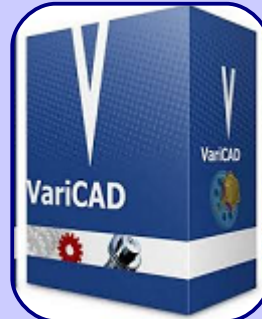
SALTIRE SOFTWARE



ARTAS SAM



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
DESIGN OF MACHINE ELEMENTS	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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