



PAGE 1

PAVIATH INTEGRATED SOLUTION

POLYTECH

MECHANICAL

STRENGTH OF MATERIALS

Paviath ONLINE

◆ STRENGTH OF MATERIALS ◆ MECH. ENGG. GROUP ◆ THIRD SEMESTER ◆ POLYTECH. CODE ME/PG/PT/AE/MH/MI

COURSE AIM

- ◆ UNDERSTANDING ANALYSIS
- ◆ TYPES OF LOADS, STRESSES & STRAINS
- ◆ MAIN CAUSES, FAILURE OF MACHINE PART
- ◆ PRINCIPLES OF MACHINE DESIGN
- ◆ MECHANICAL PROPERTIES OF MATERIALS
- ◆ SELECTING MATERIALS FOR ENGG APPLN

COURSE OBJECTIVE

- ◆ UNDERSTANDING FUNDAMENTALS OF SOLID MECHANICS
- ◆ ACQUIRING ELEMENTARY KNOWLEDGE OF STRESSES, STRAINS & MATERIAL PROPERTIES
- ◆ UNDERSTANDING & ANALYZING THE BASIC PRINCIPLES INVOLVED IN THE BEHAVIOR OF MACHINE PARTS UNDER LOAD IN THE CONTEXT OF DESIGNING IT
- ◆ UNDERSTANDING & ANALYZING THE MECHANICAL PROPERTIES OF THE VARIOUS MATERIALS

COURSE CONTENTS

- ◆ MECHANICAL PROPERTIES OF MATERIALS, SIMPLE STRESSES & STRAINS
- ◆ STRAIN ENERGY
- ◆ BENDING MOMENT & SHEAR FORCE
- ◆ MOMENT OF INERTIA
- ◆ BENDING & SHEAR STRESSES
- ◆ COMBINATION OF BENDING & DIRECT STRESSES
- ◆ PRINCIPAL PLANES & PRINCIPAL STRESSES
- ◆ TORSION

REFERENCE BOOKS

- ◆ ANDREW PYTEL FEDRIN AND L.SINGER STRENGTH OF MATERIAL
- ◆ G.H.RUDER STRENGTH OF MATERIAL
- ◆ B.K.SARKAR STRENGTH OF MATERIAL
- ◆ DR. R. K.BANSAL A TEXTBOOK STRENGTH OF MATERIAL
- ◆ S RAMAMRUTHAM STRENGTH OF MATERIAL
- ◆ R.S.KHURMI STRENGTH OF MATERIAL
- ◆ G.K.NARULA, K.S.NARULA MATERIALS SCIENCE

COURSE SOFTWARE

- ◆ APM WINMACHINE
- ◆ KOMPAS 2D/3D/PDM/BOM
- ◆ VARICAD 2D/3D/PDM/BOM
- ◆ DOCUMENTATION & PRINTING

APM WINMACHINE

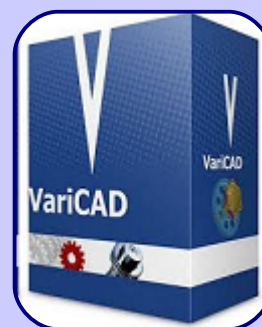
APM CAM/APM PLAIN/APM SCREW/APM STRUCTURE3D/APM DYNAMICS/APM BEAM/APM GRAPH/APM STUDIO
APM DRIVE/APM TRANS/APM SHAFT/APM BEAR/APM JOINT/APM SPRING/APM BASE/APM MECHANICAL DATA/APM MATERIAL DATA/APM SECTION DATA/APM CONSTRUCTION DATA/APM BOOK



APM WINMACHINE



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
STRENGTH OF MATERIAL	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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