



DEMAND

PAVIATH INTEGRATED SOLUTION

ENGG SPECIALIZED

MECHANICAL

THEORY OF ELASTICITY AND PLASTICITY

Paviath ONLINE

◆ SYLLABUS PROGRAM ◆ THEORY OF ELASTICITY AND PLASTICITY ◆ SPECIALIZED BRANCH

COURSE OUTCOME

- ABILITY TO DEFINE AND CALCULATE STRESS AND STRAIN UNDER VARIOUS LOADING CONDITIONS WITHIN ELASTIC LIMIT.
- UNDERSTANDING CONSTITUTIVE EQUATIONS DEFINING ELASTIC PROPERTIES OF MATERIALS.
- ABLE TO MODEL THE MATERIALS IN PLASTIC ZONE AND ABILITY TO CONDUCT PLASTIC STRAIN ANALYSIS.

COURSE CONTENTS

- UNIT I ANALYSIS OF STRESS AND STRAIN.
- UNIT II CONSTITUTIVE EQUATIONS.
- UNIT III SOLUTION OF SOME SPECIAL BOUNDARY VALUE PROBLEMS.
- UNIT IV PLASTICITY.
- UNIT V PLASTIC STRAIN ANALYSIS.

COURSE OBJECTIVE

TO UNDERSTAND AND USE THE THEORY FOR ELECTRIC AND PLASTIC BEHAVIORAL ANALYSIS OF METALLIC MATERIALS.

1. BORESI A.P, SCHMIDT R.J AND SIEGEBOTTOM O.M, "ADVANCED MECHANICS OF MATERIALS", JOHN WILEY AND SONS, INC., FIFTH EDITION, 1993.
2. DURELLI A.J, PHILLIPS E.A AND TSAO C.H, "INTRODUCTION TO THE THEORETICAL AND EXPERIMENTAL ANALYSIS OF STRESS AND STRAIN", MCGRAW HILL, NEW YORK, 1958.
3. CALLADINE C.R, "PLASTICITY FOR ENGINEERS", ELLIS HORWOOD, 1985.
4. DIETER G.E, "MECHANICAL METALLURGY", MCGRAW HILL, 1988.
5. DALLY J.W AND RILEY W.F, "EXPERIMENTAL STRESS ANALYSIS", MCGRAW HILL INTERNATIONAL EDITIONS, THIRD EDITION, 1991.

REFERENCE BOOKS

1. TIMOSHENKO S.P AND GOODIER J.N, "THEORY OF ELASTICITY", MCGRAW HILL INTERNATIONAL EDITIONS, THIRD EDITION, 1970.
2. SOKOLNIKOFF I.S, "MATHEMATICAL THEORY OF ELASTICITY", MCGRAW HILL INTERNATIONAL EDITIONS, SECOND EDITION, 1956.
3. JHONSON W AND MELLOR P.B, "ENGINEERING PLASTICITY", VAN NOSTRANT REINHOLD, 1983.
4. CHAKRABARTHY J., "THEORY OF PLASTICITY", MCGRAW HILL CO, 1987.

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

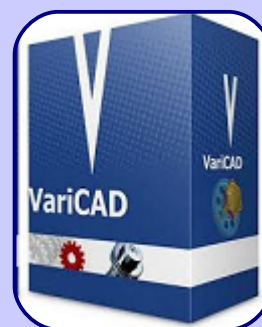
APM CAM/APM PLAIN/APM SCREW/APM STRUCTURE3D/APM DYNAMICS/APM BEAM/APM GRAPH/APM STUDIO
APM DRIVE/APM TRANS/APM SHAFT/APM BEAR/APM JOINT/APM SPRING/APM BASE/APM MECHANICAL DATA/APM MATERIAL DATA/APM SECTION DATA/APM CONSTRUCTION DATA/APM BOOK



APM WINMACHINE



KOMPAS 3D



VARICAD

PRODUCTION ENGG	MECH & AUTOMATION ENGG	MECH ENGG (SANDWICH)	ROBOTICS AND AUTOMATION	MECHATRONICS ENGG
		THEORY OF ELASTICITY AND PLASTICITY		
		ELECTIVE II		
		MS6004		
DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
THEORY OF ELASTICITY AND PLASTICITY	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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