◆ MECH ALLIED ◆ AERONAUTICAL ENGINEERING ◆ SEMESTER VII ELECTIVES– II ◆ ENGINEERING CODE AE6603

COURSE OBJECTIVE
TO STUDY THE BEHAVIOUR OF THE PLATES AND SHELLS WITH DIFFERENT GEOMETRY UNDER VARIOUS TYPES OF LOADS.

COURSE OUTCOME
ABILITY TO USE DIFFERENT THEORIES TO PLATE AND SHELL
PERFORM STABILITY AND FREE VIBRATION CALCULATIONS
USE OF DIFFERENT METHODS FOR STABILITY ANALYSIS

COURSE CONTENT
UNIT I CLASSICAL PLATE THEORY.
UNIT II PLATES OF VARIOUS SHADES.
UNIT III EIGENVALUE ANALYSIS.
UNIT IV APPROXIMATE METHODS.
UNIT V SHELLS

REFERENCE BOOKS
1. TIMOSHENKO, S.P. WINOWSKY. S., AND KREGER, "THEORY OF PLATES AND SHELLS", MCGRAW-HILL BOOK CO. 1990. 80
2. VARADAN. T. K. AND BHASKAR. K., "THEORY OF PLATES AND SHELLS", 1999, NAROSA.
1. FLUGGE, W. "STRESSES IN SHELLS", SPRINGER – VERLAG, 1985.
2. TIMOSHENKO, S.P. AND GERE, J.M., "THEORY OF ELASTIC STABILITY", MCGRAW-HILL BOOK CO. 1986.

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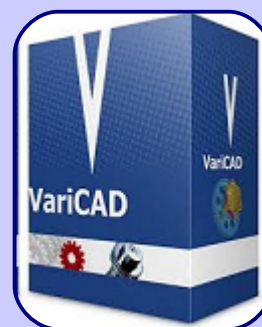◆ DOCUMENTATION & PRINTING

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
THEORY OF PLATES AND SHELLS	REGISTRATION	DOCUMENTS	COUNSELLING	OWN LAPTOP
ONLINE	2/UNIT TRAINING	4/UNIT ASSIGNMENT	2/UNIT ASSIGNED	SHEDULE
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