



DEMAND

PAVIATH INTEGRATED SOLUTION

ENGG ALLIED

MECHANICAL

COMPOSITE MATERIALS AND STRUCTURES

Paviath ONLINE

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

### COURSE OBJECTIVE

TO MAKE THE STUDENT UNDERSTAND THE ANALYSIS OF COMPOSITE LAMINATES UNDER DIFFERENT LOADING CONDITIONS AND DIFFERENT ENVIRONMENTAL CONDITIONS.

### COURSE OUTCOME

UNDERSTANDING THE MECHANICS OF COMPOSITE MATERIALS  
ABILITY TO ANALYSE THE LAMINATED COMPOSITES FOR VARIOUS LOADING CASES  
KNOWLEDGE GAINED IN MANUFACTURE OF COMPOSITES

### COURSE CONTENT

UNIT I MICROMECHANICS.  
UNIT II MACROMECHANICS.  
UNIT III LAMINATED PLATE THEORY.  
UNIT IV FABRICATION PROCESS AND REPAIR METHODS.  
UNIT V SANDWICH CONSTRUCTIONS

### REFERENCE BOOKS

1. DAM ISHA, "MECHANICS OF COMPOSITE MATERIALS,"
2. AUTAR K KAW, "MECHANICS OF COMPOSITE MATERIALS," CRC PRESS, 1997.
3. MADHURI MUKHAPADHYAY, "MECHANICS OF COMPOSITE MATERIALS AND STRUCTURES," UNIVERSITY PRESS, 2004
1. AGARWAL, B.D., AND BRODTMAN, L.J., "ANALYSIS AND PERFORMANCE OF FIBRE COMPOSITES," JOHN WILEY AND SONS, INC., NEW YORK, 1995.
2. LUBIN, G., "HANDBOOK ON ADVANCED PLASTICS AND FIBRE GLASS", VON NOSTRAND REINHOLD CO., NEW YORK, 1989.
3. CALCOTE, L.R. "THE ANALYSIS OF LAMINATED COMPOSITE STRUCTURES", VON - NOSTRAND REINHOLD COMPANY, NEW YORK 1998.
4. ALLEN BAKER, "COMPOSITE MATERIALS FOR AIRCRAFT STRUCTURES", AIAA SERIES, II EDITION, 1999.

### 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

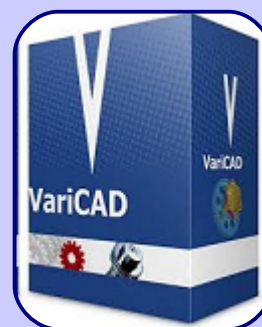
APM CAM/APM PLAIN/APM SCREW/APM STRUCTURE3D/APM DYNAMICS/APM BEAM/APM GRAPH/APM STUDIO  
APM DRIVE/APM TRANS/APM SHAFT/APM BEAR/APM JOINT/APM SPRING/APM BASE/APM MECHANICAL DATA/APM MATERIAL DATA/APM SECTION DATA/APM CONSTRUCTION DATA/APM BOOK



APM WINMACHINE



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
COMPOSITE MATERIALS AND STRUCTURES	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

info@paviathintegratedsolution.com -www.paviathintegratedsolution.com www.paviathjobportal.com