



DEMAND

PAVIATH INTEGRATED SOLUTION

ENGG ALLIED

MECHANICAL

FATIGUE AND FRACTURE

Paviath ONLINE

◆ MECH ALLIED ◆ AERONAUTICAL ENGINEERING ◆ SEMESTER VII ELECTIVES- II ◆ ENGINEERING CODE AE6007

COURSE OBJECTIVE

TO UNDERSTAND THE BASIC CONCEPTS INVOLVED IN FATIGUE ANALYSIS AND TO STUDY THE IMPORTANCE OF FRACTURE MECHANICS IN AEROSPACE APPLICATIONS.

COURSE OUTCOME

ABILITY TO APPLY MATHEMATICAL KNOWLEDGE
TO DEFINE FATIGUE BEHAVIORS
ABILITY TO PERFORM FATIGUE DESIGN
ABILITY TO ANALYSE THE FRACTURE DUE TO FATIGUE

COURSE CONTENT

UNIT I FATIGUE OF STRUCTURES.
UNIT II STATISTICAL ASPECTS OF FATIGUE BEHAVIOUR.
UNIT III PHYSICAL ASPECTS OF FATIGUE.
UNIT IV FRACTURE MECHANICS.
UNIT V FATIGUE DESIGN AND TESTING

REFERENCE BOOKS

1. PRASANTH KUMAR, "ELEMENTS OF FRACTURE MECHANICS", WHEETER PUBLICATION, 1999.
2. BARROIS W, RIPELY, E.L., "FATIGUE OF AIRCRAFT STRUCTURE," PERGAMON PRESS, OXFORD, 1983.
1. SIH C.G., "MECHANICS OF FRACTURE," VOL - I, SIJTHOFF AND W NOORDHOFF INTERNATIONAL PUBLISHING CO., NETHERLANDS, 1989.
2. KNOTT, J.F., "FUNDAMENTALS OF FRACTURE MECHANICS," - BUTERWORTH & CO., LTD., LONDON, 1983.

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

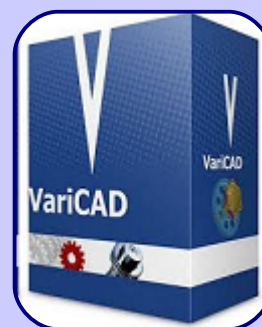
APM CAM/APM PLAIN/APM SCREW/APM STRUCTURE3D/APM DYNAMICS/APM BEAM/APM GRAPH/APM STUDIO
APM DRIVE/APM TRANS/APM SHAFT/APM BEAR/APM JOINT/APM SPRING/APM BASE/APM MECHANICAL DATA/APM MATERIAL DATA/APM SECTION DATA/APM CONSTRUCTION DATA/APM BOOK



APM WINMACHINE



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
FATIGUE AND FRACTURE	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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