



DEMAND

PAVIATH INTEGRATED SOLUTION

ENGG ALLIED

MECHANICAL

VIBRATIONS AND ELEMENTS OF AEROELASTICITY

Paviath ONLINE

◆ MECH ALLIED ◆ AERONAUTICAL ENGINEERING ◆ SEMESTER – VI ◆ ENGINEERING CODE AE6602

COURSE OBJECTIVE

TO STUDY THE EFFECT OF TIME DEPENDENT FORCES ON MECHANICAL SYSTEMS AND TO GET THE NATURAL CHARACTERISTICS OF SYSTEM WITH MORE DEGREE OF FREEDOM SYSTEMS.
TO STUDY THE AEROELASTIC EFFECTS OF AIRCRAFT WING.

COURSE OUTCOME

GAINING UNDERSTANDING OF SINGLE AND MULTI DEGREE VIBRATING SYSTEMS
ABILITY TO USE NUMERICAL TECHNIQUES FOR VIBRATION PROBLEMS
KNOWLEDGE ACQUIRED IN AERO ELASTICITY AND FLUTTERING

COURSE CONTENT

UNIT I SINGLE DEGREE OF FREEDOM SYSTEMS.
UNIT II MULTI DEGREES OF FREEDOM SYSTEMS.
UNIT III CONTINUOUS SYSTEMS.
UNIT IV APPROXIMATE METHODS.
UNIT V ELEMENTS OF AEROELASTICITY

REFERENCE BOOKS

1. LEONARD MEIROVITCH, "ELEMENTS OF VIBRATION ANALYSIS", MCGRAW HILL INTERNATIONAL EDITION, 2007
2. GROVER, G.K., "MECHANICAL VIBRATIONS", 7TH EDITION, NEM CHAND BROTHERS, ROORKEE, INDIA, 2003
3. THOMSON W.T, "THEORY OF VIBRATION WITH APPLICATION" - CBS PUBLISHERS, 1990.
1. WILLIAM WEAVER, STEPHEN P. TIMOSHENKO, DONOVAN H. YOUNG, DONOVAN H. YOUNG, "VIBRATION PROBLEMS IN ENGINEERING" - JOHN WILEY AND SONS, NEW YORK, 2001
2. BISPLINGHOFF R.L., ASHELY H AND HOBMAN R.L., "AEROELASTICITY", ADDISON WESLEY PUBLICATION, NEW YORK, 1983.
3. WILLIAM W SETO, "MECHANICAL VIBRATIONS" - MCGRAW HILL, SCHAUM SERIES.
4. TSE, F.S., MORSE, I.F., HINKLE, R.T., "MECHANICAL VIBRATIONS" - PRENTICE HALL, NEW YORK, 1984.
5. DEN HARTOG, "MECHANICAL VIBRATIONS" CRASTRIS PRESS, 2008.

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

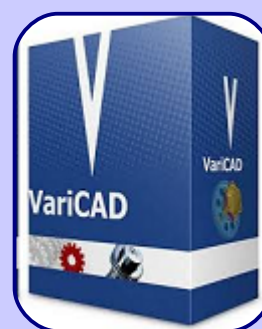
APM CAM/APM PLAIN/APM SCREW/APM STRUCTURE3D/APM DYNAMICS/APM BEAM/APM GRAPH/APM STUDIO
APM DRIVE/APM TRANS/APM SHAFT/APM BEAR/APM JOINT/APM SPRING/APM BASE/APM MECHANICAL DATA/APM MATERIAL DATA/APM SECTION DATA/APM CONSTRUCTION DATA/APM BOOK



APM WINMACHINE



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
VIBRATIONS AND ELEMENTS OF AEROELASTICITY	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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