



DEMAND

PAVIATH INTEGRATED SOLUTION

ENGG ALLIED

MECHANICAL

STRENGTH OF MATERIALS

Paviath ONLINE

AGRI ALLIED ♦ AGRICULTURE ENGINEERING ♦ SEMESTER III ♦ ENGINEERING CODE CE6306

**COURSE AIM**  
TO UNDERSTAND THE STRESSES DEVELOPED IN BARS, COMPOUNDS BARS, BEAMS, SHAFTS, CYLINDERS AND SPHERES.

#### COURSE OUTCOME

- UPON COMPLETION OF THIS COURSE, THE STUDENTS CAN ABLE TO APPLY MATHEMATICAL KNOWLEDGE TO CALCULATE THE DEFORMATION BEHAVIOR OF SIMPLE STRUCTURES.
- CRITICALLY ANALYSE PROBLEM AND SOLVE THE PROBLEMS RELATED TO MECHANICAL ELEMENTS AND ANALYSE THE DEFORMATION BEHAVIOR FOR DIFFERENT TYPES OF LOADS.

#### COURSE CONTENT

UNIT I STRESS, STRAIN AND DEFORMATION OF SOLIDS.  
UNIT II TRANSVERSE LOADING ON BEAMS AND STRESSES IN BEAM.  
UNIT III TORSION.  
UNIT IV DEFLECTION OF BEAMS.  
UNIT V THIN CYLINDERS, SPHERES AND THICK CYLINDERS

#### REFERENCE BOOKS

1. BANSAL, R.K., "STRENGTH OF MATERIALS", LAXMI PUBLICATIONS (P) LTD., 2007
2. JINDAL U.C., "STRENGTH OF MATERIALS", ASIAN BOOKS PVT. LTD., NEW DELHI, 2007
1. EGOR, P. POPOV "ENGINEERING MECHANICS OF SOLIDS" PRENTICE HALL OF INDIA, NEW DELHI, 2001
2. SUBRAMANIAN R., "STRENGTH OF MATERIALS", OXFORD UNIVERSITY PRESS, OXFORD HIGHER EDUCATION SERIES, 2007.
3. HIBBELER, R.C., "MECHANICS OF MATERIALS", PEARSON EDUCATION, LOW PRICE EDITION, 2007
4. FERDINAND P. BEEN, RUSSELL JOHNSON, J.R. AND JOHN J. DEWOLE "MECHANICS OF MATERIALS", TATA MCDRAW HILL PUBLISHING 'CO. LTD., NEW DELHI, 2005.

#### COURSE SOFTWARE

- ♦ APM WINMACHINE
- ♦ KOMPAS 2D/3D/PDM/BOM
- ♦ VARICAD 2D/3D/PDM/BOM
- ♦ DOCUMENTATION & PRINTING

#### APM WINMACHINE

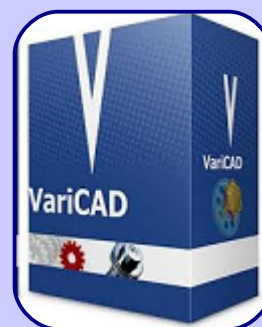
APM CAM/APM PLAIN/APM SCREW/APM STRUCTURE3D/APM DYNAMICS/APM BEAM/APM GRAPH/APM STUDIO  
APM DRIVE/APM TRANS/APM SHAFT/APM BEAR/APM JOINT/APM SPRING/APM BASE/APM MECHANICAL DATA/APM MATERIAL DATA/APM SECTION DATA/APM CONSTRUCTION DATA/APM BOOK



APM WINMACHINE



KOMPAS 3D



VARICAD

DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
STRENGTH OF MATERIAL	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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