



DEMAND

# PAVIATH INTEGRATED SOLUTION

ENGG ALLIED

MECHANICAL

DESIGN OF TRANSMISSION SYSTEMS

Paviath ONLINE

◆ MECHANICAL UNIVERSITY ◆ SEMESTER – VI ◆ ENGINEERING CODE ME9353

### COURSE AIM

TO LEARN THE DESIGN PRINCIPLES OF VARIOUS MECHANICAL POWER TRANSMISSION SYSTEMS.

1. MAITRA G.M. AND PRASAD L.V., "HAND BOOK OF MECHANICAL DESIGN", II EDITION, TATA MCGRAW-HILL, 1985.
2. BHANDARI, V.B., "DESIGN OF MACHINE ELEMENTS", TATA MCGRAW-HILL PUBLISHING COMPANY LTD., 1994.
3. PRABHU, T.J., "DESIGN OF TRANSMISSION ELEMENTS", MANI OFFSET, CHENNAI, 2000.
4. HAMROCK B.J., JACOBSON B. AND SCHMID S.R., "FUNDAMENTALS OF MACHINE ELEMENTS", TATA MCGRAW-HILL BOOK CO., 1999.
5. UBIRAL A.C, "MECHANICAL DESIGN, AN INTEGRATED APPROACH", TATA MCGRAW-HILL, 2003.

### COURSE OBJECTIVE

- ◆ TO GAIN KNOWLEDGE ON THE PRINCIPLES AND PROCEDURE FOR THE DESIGN OF POWER TRANSMISSION COMPONENTS.
- ◆ TO UNDERSTAND THE STANDARD PROCEDURE AVAILABLE FOR DESIGN OF TRANSMISSION SYSTEMS
- ◆ TO LEARN TO USE STANDARD DATA AND CATALOGUES..

### COURSE CONTENT

- UNIT I DESIGN OF TRANSMISSION SYSTEMS FOR FLEXIBLE ELEMENTS.
- UNIT II SPUR GEARS AND PARALLEL AXIS HELICAL GEARS.
- UNIT III BEVEL, WORM GEARS AND CROSSED HELICAL GEARS.
- UNIT IV DESIGN OF GEAR BOXES.
- UNIT V DESIGN OF CAM, CLUTCHES AND BRAKES

### REFERENCE BOOKS

1. SHIGLEY J.E AND MISCHKE C. R., "MECHANICAL ENGINEERING DESIGN", SIXTH EDITION, TATA MCGRAW-HILL, 2003.
2. SUNDARARAJAMOORTHY T. V AND SHANMUGAM .N, "MACHINE DESIGN", ANURADHA PUBLICATIONS, CHENNAI, 2003.
1. IS 4460 : PARTS 1 TO 3 : 1995, GEARS - SPUR AND HELICAL GEARS - CALCULATION OF LOAD CAPACITY.
2. IS 7443 : 2002, METHODS OF LOAD RATING OF WORM GEARS
3. IS 15151 : 2002, BELT DRIVES - PULLEYS AND V-RIBBED BELTS FOR INDUSTRIAL APPLICATIONS - PH, P.J, PK, PL AND PM PROFILES - DIMENSIONS
4. IS 2122 : PART 1: 1973, CODE OF PRACTICE FOR SELECTION, STORAGE, INSTALLATION AND MAINTENANCE OF BELTING FOR POWER TRANSMISSION : PART 1 FLAT BELT DRIVES.
5. IS 2122 : PART 2: 1991, CODE OF PRACTICE FOR SELECTION, STORAGE, INSTALLATION AND MAINTENANCE OF BELTING FOR POWER TRANSMISSION : PART 2: V-BELT DRIVES.

### COURSE SOFTWARE

- ◆ APM WINMACHINE (MULTIPHYSICS)
- ◆ KOMPAS 2D/3D/PDM/BDM
- ◆ VARICAD 2D/3D/PDM/BDM
- ◆ 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
DESIGN OF TRANSMISSION SYSTEMS	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