

DEMAND

# PAVIATH INTEGRATED SOLUTION

ENGG SPECIALIZED

MECHANICAL

DESIGN OF TRANSMISSION SYSTEMS

Paviath ONLINE

# ◆ SYLLABUS PROGRAM ◆ DESIGN OF TRANSMISSION SYSTEMS ◆ MECHANICAL ENGINEERING ◆ SPECIALIZED BRANCH

#### COURSE AIM

TO LEARN THE DESIGN PRINCIPLES OF VARIOUS MECHANICAL POWER TRANSMISSION SYSTEMS

#### 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 CONTENTS

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. IS 4460 : PARTS I TO 3 : 1995, GEARS – SPUR AND HELICAL GEARS –

CALCULATION OF LOAD CAPACITY. 2. IS 7443 : 2002, METHODS OF LOAD RATING OF WORM GEARS 2.13 / 743 . 2022. BELT DRIVES – PULLEYS AND V-RIBBED BELTS FOR Industrial Applications – Ph. P.J. PK, Pl. and PM 5. Ugural AC, "Mechanical Design, an integrated approach", tata

M.GGRAW-HLL. 2003.
PROFILES : DIMENSIONS
4. IS 21/22 : Part I: 1973, code of practice for selection, storage.
Installation and maintenance of belting for power transmission : Part

5. IS 2122: PART 2: 1991, CODE OF PRACTICE FOR SELECTION. STORAGE, Installation and Maintenance of Belting for Power Transmission : Part

#### REFERENCE BOOKS

I. 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. MAITRA G.M. AND PRASAD L.V., "HAND BOOK OF MECHANICAL DESIGN", II EDITION, TATA MCGRAW-HILL, 1985.

2. BHANDARL V.B., "DESIGN OF MACHINE ELEMENTS", TATA MCGRAW-HILL Publishing Company Ltd., 1994. 3. Prabhu. T.J., "Design of Transmission Elements", Mani Offset,

4. HAMROCK B.J., JACOBSON B. AND SCHMID S.R., "FUNDAMENTALS OF Machine Elements", Tata McGraw-Hill Book Co., 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

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PRODUCTION ENGG	MECH & AUTOMATION ENGG	MECH ENGG (SANDWICH)	ROBOTICS AND AUTOMATION	MECHATRONICS ENGG	
DESIGN OF TRANSMISSION Systems	DESIGN OF TRANSMISSION Systems	DESIGN OF TRANSMISSION Systems			
ELECTIVE VI	SEMESTER VI	ELECTIVE VII			
ME9353	MEGGOI	MEGGOI		ME6505	
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	SHEDULE	
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	