



DEMAND

PAVIATH INTEGRATED SOLUTION

ENGG SPECIALIZED

MECHANICAL

PRODUCT DESIGN AND DEVELOPMENT

Paviath ONLINE

◆ SYLLABUS PROGRAM ◆ PRODUCT DESIGN AND DEVELOPMENT ◆ SPECIALIZED BRANCH

COURSE AIM

SEQUENCE OF PROCEDURE FOR PRODUCT DEVELOPMENT OR REVERSE ENGINEERING
 CONCEPT LITERATURE FROM BASIC SCIENCE AND INNOVATION LITERATURE
 CONCEPT MODELLING FROM MECHANISM DESIGN-LAYOUT-ELEMENT-ASSEMBLY-MULTIBODY
 KINEMATIC ANALYSIS-KINETOSTATIC ANALYSIS-COMPARING ANALYSIS REPORT OF EXISTING PRODUCT
 OPTIMIZING VALUE FOR SPECIFICATION ON KINEMATICS & KINETOSTATICS VALUE
 2D/3D/BOM/PROCESS DRAWING FOR MANUFACTURING PROTOTYPE
 TESTING PROTOTYPE ON NOISE & VIBRATION, OTHER PARAMETERS
 ACCURACY ON GRADE WILL DECIDE APPLICATION & COST
 COMPARING AND OPTIMIZING TESTING VALUES ON UNCERTAINTY WITH
 ◆ MATHEMATICAL MODELLING ◆ MECHANISM DESIGN ◆ MATHEMATICAL TECHNOLOGY ◆ MULTIBODY DYNAMICS PROGRAMS OUTPUT

COURSE CONTENTS

UNIT I PRODUCT DEVELOPMENT PROCESS.
 UNIT II ESTABLISHING THE PRODUCT SPECIFICATIONS.
 UNIT III CONCEPT SELECTION.
 UNIT IV NEED FOR INDUSTRIAL DESIGN.
 UNIT V PRINCIPLES OF PROTOTYPING

COURSE OBJECTIVE

TO IMPART KNOWLEDGE ON PRINCIPLES AND PRACTICES OF PRODUCT DESIGN CONSIDERING THE CUSTOMER WANTS AND NEEDS.

REFERENCE BOOKS

1. KARL, T.ULRICH STEVEN D.EPPINGER, PRODUCT DESIGN AND DEVELOPMENT, MCGRAW HILL, INTERNATIONAL EDITIONS, 2003.
1. S.ROSENTHAL, EFFECTIVE PRODUCT DESIGN AND DEVELOPMENT, IRWIN, 1992.
2. CHARLES GEVIRTZ DEVELOPING NEW PRODUCTS WITH TQM, MCGRAW HILL INTERNATIONAL EDITIONS, 1994.

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

PRODUCTION ENGG	MECH & AUTOMATION ENGG	MECH ENGG (SANDWICH)	ROBOTICS AND AUTOMATION	MECHATRONICS ENGG
		PRODUCT DESIGN AND DEVELOPMENT		PRODUCT DESIGN AND DEVELOPMENT
		ELECTIVE V		SEMESTER VI ELECTIVE I
		IE6011		IE6011
DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
PRODUCT DESIGN AND DEVELOPMENT	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