◆ SYLLABUS PROGRAM ◆ PRECISION EQUIPMENT DESIGN ◆ SPECIALIZED BRANCH

COURSE OUTCOME
UPON COMPLETION OF THIS COURSE THE STUDENT CAN ABLE TO USE OF QUALITY CONCEPTS PARTS, ACCURACY REQUIREMENTS OF MACHINE TOOLS AND USE OF LATEST MACHINING PROCESS SUCH AS MICRO MACHINING AND MICRO FABRICATION.

COURSE CONTENTS
UNIT I INTRODUCTION TO PRECISION ENGINEERING.
UNIT II MOTION ERRORS.
UNIT III DESIGN STRATEGIES FOR MACHINE TOOLS.
UNIT IV PARALLEL KINEMATIC MACHINES (PKM).
UNIT V PRECISION CONTROL.

COURSE OBJECTIVE
TO IMPART KNOWLEDGE IN THE INCREASING QUALITY CONCEPTS OF PARTS, ACCURACY REQUIREMENT OF MACHINE TOOLS AND ALSO TO INTRODUCE LATEST TOPICS IN MANUFACTURING LIKE MICRO MACHINING AND SMART MATERIALS SO AS TO EQUIP THEM TO JOIN CORE ELECTRONIC MANUFACTURING INDUSTRIES.

REFERENCE BOOKS
1. SAMIR MEKID, "INTRODUCTION TO PRECISION MACHINE DESIGN AND ERROR ASSESSMENT", CRC-PRESS, TAYLOR AND FRANCIS GROUP, NEW YORK, 2009.
2. ALEXANDER H SLOCUM, "PRECISION MACHINE DESIGN", PRENTICE HALL PUBLISHERS, 1992.
3. MOORE W R, "FOUNDATIONS OF MECHANICAL ACCURACY", THE MOORE SPECIAL TOOL COMPANY, BRIDGEPORT, CONNECTICUT, 1970.
4. NAKAZAWA H, "PRINCIPLES OF PRECISION ENGINEERING", OXFORD UNIVERSITY PRESS, OXFORD, 1994.
5. SMITH S.T. CHETWYND D.G. "FOUNDATIONS OF ULTRA – PRECISION MECHANISM DESIGN", GORDON AND BREACH PUBLISHERS, SWITZERLAND, 1992.

COURSE SOFTWARE
◆ APM WINMACHINE (MULTIPHYSICS)
◆ KOMPAS 2D/3D/PDM/BOM
◆ VARICAD 2D/3D/PDM/BOM
◆ UNIVERSAL MECHANISM(MBD).
◆ SAM (MECHANISM DESIGN)
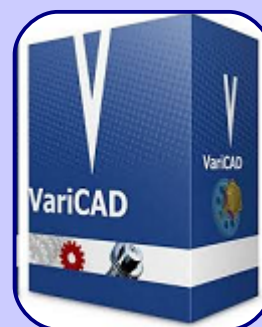◆ SALTIRE SOFTWARE
◆ DOCUMENTATION & PRINTING

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
			PRECISION EQUIPMENT DESIGN	
			SEMESTER – VII	
			R06701	
DESCRIPTION	ONLINE	TRAINING CENTRE	WEBINAR	REMARKS
PRECISION EQUIPMENT DESIGN	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