

3 - d3. Search for information and engage in life-long self-learning discipline

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction		2	1
Position & speed measurements		2	1
Stress and strain measurements		2	1
Temperature measurements		2	1
Vibration and Acceleration Measurement		2	1
Pressure and flow Measurements		2	1
Semiconductor sensors and Microelectromechanical devices.		4	2
Analog interfacing		5	3
Data Acquisition Systems		5	2
New trends		4	2

Teaching And Learning Methodologies :

Interactive Lecturing
Brain Storming
Discussion
Experiential learning
Project
Research

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
1st Midterm	15.00	6	
2nd Midterm	15.00	11	
Assignments, Participation, & Quizzes	20.00		
Course Project	10.00	12	
Final Exam	40.00		

Recommended books :

- Text Book:
 1. Alciorre, David G. & Hystand, Michael B.; Introduction to Mechatronics and Measurement Systems - McGraw Hill, 4th Edition, 2012
 2. Bolton, William; Mechatronics: Electronic Control Systems in Mechanical and Electrical Engineering - Prentice Hall, 4th Edition, 2008
 3. Lecture notes and videos on the course Moodle page, FUE website.

