

EE218 Instrumentation and Measurements

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laborator y	
EE238	2	4	2	2	0	3

COURSE AIM

This course aim to investigate different methods for remote measuring , study how transducers operate and their characteristic, and to study how to analyze data obtained from measurements.

COURSE WEEKLY CONTENTS

- 1 Introduction to feedback control (1).
- 2 Introduction to Process control.
- 3 Physical Measurements.
- 4 Introduction to feedback systems.
- 5 Liquid level instruments.
- 6 Liquid flow instruments.
- 7 Temperature measurements. + Midterm Exam
- 8 Displacement + velocity measurements.
- 9 Force and torque measurements.
- 10 Data analysis.
- 11 Error detectors/comparators.
- 12 12th week assessment + Electric/pneumatic transducers.
- 13 Cont(Amplifier transducers).
- 14 Actuation.
- 15 Revision.

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	10	MARKS		→	30
To be freely distributed among possible assessments							
8 to 12	←		20	MARKS		→	20
13 to 15	←		10	MARKS		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

Textbook Textbook Janarder Prasad, M.N. Jayaswal, "Instrumentation and process control" McGRAW-hill

Other C.J. Chesmond "Basic control system technology"
Austin and Pickersgill "Instrumentation and control"