

Politecnico di Milano

Data Acquisition Systems

POLITECNICO
prof. Alessandro Pesatori
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Professor and office hours

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- Office hours
 - Tuesday h 16-18 (on appointment by mail)
 - 2° floor DEIB room 331

Teaching Materials

Handouts and transparencies (A. Pesatori)

<http://home.dei.polimi.it/pesatori/Pesatori/Teaching.html>

LabVIEW Student Edition downloadable on web:

<https://lumen.ni.com/nicif/us/academallvdl/content.xhtml>

PWD registering at:

<https://lumen.ni.com/nicif/i/contactmeacademic/content.xhtml>

Other teaching materials:

on professor's web page (slides, handouts, discussions, exercises)

Program Of The Course (1/2)

1^a Part (LES and EXE on Data Acq.):

D/A e A/D Converter for Data Acquisition
Exercises

Sampled Signals (references)
e quantization

Data Acquisition Board(DAQ)
Exercises

Communication interfaces (GPIB/RS-232/USB)

Data representation
Exercises

Program Of The Course (2/2)

2^a Part (EXE e LAB on DAQ and LabVIEW):

- LabVIEW SW introduction
- Configuration and use of the DAQ board
- Data Acquisition with LabVIEW and DAQ
- LabVIEW Data Elaboration
- Autonomous Programming with LabVIEW

Logistics Of The Course And Exam Modality

Teaching mix (hours):

4 LES of theory

8 LES of software programming

+ (optional) project with LabVIEW and microcontrollers

Exam:

Written test (25%) +

LabVIEW program SW (75%) +

(10%) project (optional)

Project with MICROcontroller

<https://developer.mbed.org/>



Development of a program on a
microcontroller interfaced through LabVIEW