



**Benha University**

*Dr. Mohamed Ahmed Ebrahim*

**Benha University**  
**Faculty of Engineering at Shoubra**  
**Electrical Engineering Dept.**



# ***Industrial Controls (1)***

*By*



*Associate Prof. / Mohamed Ahmed Ebrahim Mohamed*

E-mail: [mohamedahmed\\_en@yahoo.com](mailto:mohamedahmed_en@yahoo.com)

[mohamed.mohamed@feng.bu.edu.eg](mailto:mohamed.mohamed@feng.bu.edu.eg)

Web site: <http://bu.edu.eg/staff/mohamedmohamed033>





*Lecture (1)*  
*17 – 02 – 2019*





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**Course Code: EEC412**

**Prerequisites: EEC213 & EEC222**

**Study Hours: 3 Cr. hrs.**

**= [ 2 Lect. + 3 Lab ]**





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# Assessment:

**Final Exam: 40%.**

**Midterm: 30%.**

**Year Work & Quizzes: 20%.**

**Experimental/Oral: 10%.**

## Textbook:

**Industrial control**

**PLC and its applications**



# Syllabus

1

- Introduction to industrial controls.

2

- Detecting sensors and actuating elements.

3

- Relay logic and their applications.

4

- Introduction to PLC's and their types.

6

- Construction and hardware configuration and descriptions.

7

- Programming and testing basic functions.

Cont.

8

- Programming and testing advanced functions.

9

- Industrial applications using PLC.