

*In the name of God*

# Industrial Automation

by

**Arya Aghili-Ashtiani, PhD**



# About this course

- Course name: Industrial Automation (اتوماسیون صنعتی)
- My name: Arya Aghili-Ashtiani (آریا عقیلی آشتیانی)
- My Contacts
  - Email address: [arya.aghili@gmail.com](mailto:arya.aghili@gmail.com)
  - Homepage: <http://faculty.tafreshu.ac.ir/aghili/fa>



# References

- Main book
  - K.L.S. Sharma, *Overview of Industrial Process Automation*, 2<sup>nd</sup> Edition, Elsevier (2017)
  - K.L.S. Sharma, *Overview of Industrial Process Automation*, Elsevier (2011).
- Class slides/notes
- Other books
  - B. R. Mehta, Y. J. Reddy, *Industrial Process Automation Systems*, Elsevier (2015).
  - T. K. Kiong, A. S. Putra, *Drives and Control for Industrial Automation*, Springer-Verlag (2011).
- Some other useful references will be introduced along the semester ...



# TOC

- ▶ 1. Why automation
- ▶ 2. Automation System Structure
- ▶ 3. Instrumentation Subsystem
- ▶ 4. Control Subsystem
- ▶ 5. Human Interface Subsystem
- ▶ 6. Automation Strategies
- ▶ 7. Programmable Control Subsystem
- ▶ 8. Hardware Structure of Controller
- ▶ 9. Software Structure of Controller
- ▶ 10. Programming of Controller
- ▶ 11. Advanced Human Interface
- ▶ 12. Types of Automation Systems
- ▶ 13. Special-Purpose Controllers
- ▶ 14. System Availability
- ▶ 15. Common Configurations
- ▶ 16. Advanced Input/Output System



# Grading Policy ( $\pm 10\%$ )

Item	Points	Date	Description	Conditions
Active Participation in Class	+2			
Mid-Exams	5			
Assignments	5			
Lecture	5			
Final exam	5			
<b>Total</b>	<b>20+2</b>			



END

