MOHAMMAD MAHDI

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EDUCATION

M.Sc. Isfahan University of Technology, Control Engineering, Isfahan, Iran 2015

B.Sc. University of Sistan & Balouchestan, Electronics Engineering, Isfahan, Iran 2011

HONORS AND AWARDS

Isfahan Regional Electric Company's Graduate Academic Research Award 2015
My master thesis deemed to be valuable research regarding its contributions to renewable energies.

RESEARCH AND WORK EXPERIENCES

Thesis, Isfahan University of Technology, Iran, Isfahan 2015
Fault-Tolerant Predictive Control of a Wind Turbine Using Parameter Estimation
In this thesis, I designed and simulated a nonlinear MPC controller along with a Moving Horizon Estimator in order to control a faulty wind turbine benchmark model
Advisors: Dr. Iman Izadi, Dr. Javad Askari

Project, Materials and Energy Research Institute, Iran 2015-2016
Designing and Manufacturing of a 5-kilowatts PEM Fuel Cell
In this project, I had the following responsibilities

- Designing some analog and digital electronics for control subsystems
- Cooperation with the chief software engineer in order to maintain Control algorithms

Project, Materials and Energy Research Institute, Iran, Isfahan 2016
Designing and Manufacturing of Heat-Pipes for High-Performance Thermal Management Systems
In this project, I had the responsibility of creating a test setup for evaluation of heat-pipes' performance. I managed to implement a highly accurate temperature measurement system. I also developed the required software in MATLAB.

Project, Materials and Energy Research Institute, Iran, Isfahan 2016-2017
Designing and Manufacturing of a High-Frequency Magnetically Isolated Switching-Mode DC-DC Converter
In this project, I had the responsibility of designing the control loop in order to guarantee a rigorous stability criterion in all operating modes.

PUBLICATIONS

Conferences

[1] Mahdi, M., Dashti, I, Gurabi, M., Khorasani, M. A., Faghih, B., "An Economical Comparison between Diesel Generators and Fuel-Cells in Powering BTS Towers ", 4th Hydrogen and Fuel Cell Conference, Tehran, Iran, 2017 (In Persian)

[2] Golshah, S., Mahdi, M., Gurabi, H., Amini, A. Z., "Designing and Manufacturing of a High-Frequency Magnetically Isolated Switching-Mode DC-DC Converter", 16th International Conference of Iranian Aerospace Society, Tehran, Iran, 2017. (In Persian)

[3] Dashti, I., Asghari, S., Fuladi, B., Mahdi, M., Mehrabani, A., "Designing, Manufacturing and Operating a Heat-Pipe Testing System and Analyzing its Characteristics", 16th International Conference of Iranian Aerospace Society, Tehran, Iran, 2017 (In Persian)

PROFESSIONAL TRAINING

Basics of Measurement and Calibration Techniques, Workshop
Materials and Energy Research Institute, Iran, Isfahan, 2015
During this workshop, I learned many lessons about how to make an accurate measurement.

Instrumentation and Automation Engineering, Workshop
Iran Technical and Vocational Training Organization, 2011

- PLC programming
- Implementation of PID Process Control Algorithms for several educational single loops like those of temperature control, tank level control, pressure control, etc.

LANGUAGES

English: Very Well, **Persian**: Native Language

COMPUTER SKILLS

Programming: MATLAB, C/C++, LabVIEW (only basics)

Applications: Extensive Knowledge of Microsoft Office Package

REFERENCES

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