



Email: azzedine.yahiaoui@kfupm.edu.sa

Contact: +966 13 860 4738

Dr. Azzedine Yahiaoui (ASHREA, IEEE) Research Engineer/ Assistant Professor

Center of Excellence in Energy Efficiency (CEEE),
Interdisciplinary Research Center for Renewable Energy and Power
Systems (IRC-REPS)
King Fahd University of Petroleum & Minerals (KFUPM), Saudi Arabia

Executive Summary

A Professional Researcher with extensive experience in energy audits and assessment, energy efficiency and management, energy modelling and simulation, smart buildings, application of systems engineering concepts, analysis and design of control systems for different domains of engineering namely aerospace, automotive and buildings, multi-agent control systems, implementation and evaluation of distributed control systems, hybrid control systems, Intelligent and autonomous systems, verification and validation of complex systems, and buildings automation and control systems.

Education

- ❑ PhD in Distributed Simulation, Computing and Control Systems (Eindhoven University of Technology (TU/e) in the Netherlands, 2013)
- ❑ Master of Advanced Studies (MSc.) in Automatic Control Systems (University of Toulouse, LAAS-CNRS, France)
- ❑ Ingénieur d'Etat (equiv. MSc.) in Electronics Engineering specialized in Control Systems (University of Blida in Algeria)
- ❑ BSc. in Electrical and Communications Engineering (Institute of Science and Technology in Algeria)
- ❑ Baccalaureate in Electrical Engineering (Technical High School of Bejaia in Algeria)

Distinguished Projects / Seminars / Teaching

Main KFUPM Projects as PI:-

- Energy Audit and assessment for KFUPM Boys' High School Building, King Fahd University of Petroleum & Minerals (KFUPM), KSA, 2019.
- Energy Audits and assessment for KFUPM Mosques, King Fahd University of Petroleum & Minerals (KFUPM), KSA, 2020.
- A 50K Challenge Competition in Energy Efficiency, King Fahd University of Petroleum & Minerals (KFUPM), KSA, 2021.
- Energy Efficiency improvement in KFUPM Mosques, King Fahd University of Petroleum & Minerals (KFUPM), KSA, 2021.

Seminars at KFUPM:-

- Integration of Advanced Control Systems in Building Environments, Systems Engineering Department, King Fahd University of Petroleum & Minerals (KFUPM), KSA, Feb. 2019.
- A Fully Automated Office Building: Application to a Real Test-Cell Case Study, AEE Saudi Chapter Meeting, Dhahran Techno Valley (DTV)-KFUPM, KSA, April 2019.

Teaching at KFUPM :-

- Simulation Based Design Tools for Energy Efficient Buildings
- Energy Audits and Assessment
- Linear Control Systems.
- Intelligent Energy Systems

Research Summary

- Number of Published Papers : 41 (or more)
- Citations (no idea)
- H-Index (no idea)
- Number of Patents
- Books etc. (3 chapters)

Award and Recognitions

Skills and Expertise

- Multidisciplinary Background
- Systems Engineering (i.e., requirements analysis, EIA-632 standard, and IEEE-1220 standard,...)
- Control Engineering (especially advanced control systems such as HCSs, MASs,...)
- Modeling & Simulation of complex and dynamic systems (including random simulation)
- Parallel & Distributed Simulation (such as grid computing, distributed control system,...)
- Verification & Validation of complex systems (especially evaluation of dependability,...)
- Measurements, data collection and data analysis
- Writing technical reports and scientific papers, reviewing research papers and proposals, and other technical materials.