

Sahin Gullu

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Education

University of Central Florida, Orlando, FL Ph.D. in Electrical Engineering GPA 3.44	May 2023
Florida Institute of Technology, Melbourne, FL Master of Science in Electrical Engineering GPA 4.0	Dec 2017
Bulent Ecevit University, Zonguldak, Turkey Bachelor's in Electrical and Electronics Engineering GPA 3.54	June 2013

Skills

MATLAB, PSIM, RSoft, MS Office, Turkish

Experience

The University of Central Florida, Orlando, FL	Aug 2018 - present
<i>Project – Smart Battery Management System in PV-Battery-Micro Inverter Integrated Module</i>	
<ul style="list-style-type: none"> • Modeled Lithium-ion batteries using Equivalent Circuit Model • Estimated SOC & SOH with Ampere-hour Integral Estimation Method • Analyzed finding model parameters in MATLAB • Designed the algorithm of master control unit (MCU) • Researched Kalman Filter, Model Based Estimation Method, Thermal Management 	
<i>Project - High Speed Transmission in Multi-mode Fiber (MMF) by Exciting Fundamental Mode</i>	
<ul style="list-style-type: none"> • Designed Tapered Fiber in RSoft between Single mode Fiber (SMF) and MMF • Simulated High Speed Transmission from SMF to MMF in RSoft • Analyzed in MATLAB, 99% power in MMF in Fundamental Mode • Collected Impulse Response Measurement Experimentally in MMF • Researched Frequency Response of SMF and MMF 	
Florida Institute of Technology, Melbourne, FL	Aug 2015 - Dec 2017
<i>Thesis - Comparison of Reference Signal Received Power Measurements between Cell Phone and Scanning Receiver in LTE</i>	
<ul style="list-style-type: none"> • Configured PCTEL SeeGull EX+ and Cell Phone • Collected measurements with PCTEL SeeGull EX+ Receiver and Cell Phone • Coded, displayed, analyzed, and compared measurements in MATLAB 	
Bulent Ecevit University, Zonguldak, Turkey	Sept 2008 - June 2013
<i>Dissertation - Motors and Motor Drivers in Solar Powered Cars</i>	
<ul style="list-style-type: none"> • Designed Motor Driver with MATLAB and Proteus • Assembled and tested Motor Driver using Proteus • Published Dissertation at Bulent Ecevit University 	
<i>Undergraduate Research/Projects</i>	
<ul style="list-style-type: none"> • Designed Solar Powered Car with AutoCAD • Researched product Solar Panels • Designed line follower and sumo robot with MATLAB and Proteus 	
<i>Organizations</i>	
<ul style="list-style-type: none"> • Participated in Alternative Energy Vehicle Races, organized by TUBITAK, the Scientific and Technological Research Council of Turkey • Participated in Innovation Week, organized by the Turkish Exporters Assembly • Participated in International METU Robotics Days at Middle East Technical University 	

Elektral Inc. Company, Izmir, Turkey

July - Aug 2012

Electrical Engineer Intern

- Designed, assembled, and tested Walk Through Metal Detectors and Hand Metal Detectors with MATLAB
- Tested Ultrasonic Rat Repeller, Disco / Sound Noise Monitoring Device

A Telekom Company, Izmir, Turkey

June - July 2011

Electrical Engineer Intern

- Trained Basic Occupational Health & Safety, Electrical Works
- Collected data from towers
- Diagnosed power, maintenance & fails problems

Honors

- Scholarship for Master's degree and PhD in the USA, The Ministry of National Education
- Third in rankings at Bulent Ecevit University
- Scholarship for bachelor's degree, the Higher Education Credit and Dormitory Institution of the Ministry of Youth and Sports

Research Interests

- Battery Management System in EV & PV applications
- Converters, Inverters, and Rectifiers