MAOSEN CHEN

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HIGHLIGHTS OF QUALIFICATION

- Experience in working on both individual and team projects
- Problem solving and modelling skills developed through past projects
- Strong knowledge in algorithm design and analysis
- Related Computer Skills: MATLAB, Simulink, PLECS, LabVIEW, AutoCAD, Embedded C Programming

EDUCATION

University of Toronto Sept 2015- June 2017
Master of Engineering (MEng) in Electrical and Computer Engineering (GPA 3.45)
The University of Manchester, UK Sept 2013- June 2015
Bachelor of Engineering (BEng) with honors in Electrical and Electronic Engineering, First Class Honors Degree (A equivalent)
North China Electric Power University (NCEPU), China Sept 2011- June 2013
Bachelor of Engineering (BEng) in Electrical Engineering and its Automation

RELATED EXPERIENCE

Control, Modeling and Practical Implementation of DC-DC Switch Mode Power Supply
Laboratory Project Jan 2016- May 2016

- Developed a MATLAB model of buck-boost converter with complete feedback loop for layout design and theoretical analysis
- Performed simulation and stability assessment of the converter layout design using PLECS
- Soldered components on PCB for practical implementation of the converter design, and used oscilloscope for test and analysis

Techno-Economic and Environmental Assessment of Domestic Multi-Energy System Model for Demand Response
Individual Research Project Sept 2014- May 2015

- Developed and performed tests of a MATLAB and VBA based domestic multi-energy demand model to generate comprehensive electricity, gas and thermal energy profile of dwellings at one-minute resolution
- Simulated and analyzed the characteristics of residential energy demand in a community of 200 houses with different heating technologies (e.g. EHP, micro-CHP and gas heater)
- Assessed the impact and effectiveness of typical control strategies (e.g. pre-heating, peak curtailment) for heating units in order to provide demand side response.
- Wrote thesis, designed poster and presented project to professors in oral exam

Embedded System Project
Group Project Sept 2013- May 2014

- Worked with other 4 fellow students to build a micro-controller based autonomous line following robot
- Performed tests of motor and designed gearbox using AutoCAD; Assembled and tested components; Designed PCB for sensing and motor drive circuit
- Implemented PID control for navigation using embedded C programming
- Wrote technical report, and presented project to peers and professors