Lab Internship for Overseas Students in Shenzhen Technology University

Internship in Laboratory of Thermal Modeling and Optimization
(Reference Number: Intern/a/201809/02)

Lab Introduction

We are a research team from the Sino-German College of Intelligent Manufacturing, Shenzhen Technology University, Shenzhen, China. Our team focuses on the research of safety and efficiency of Li-ion battery in new energy vehicles at different temperatures. To be specific, we are researching three kinds of problems: 1) Mathematical description method of nonlinear distributed electro thermal coupling behavior for Li-ion battery pack; 2) Nonlinear multi-field coupling model simplification method based on space-time separation; 3) Intelligent identification algorithm based on model prior knowledge in high dimensional space. In addition, we have a world-class simulation and experimental verification platform with respect to Li-ion battery such as thermal chamber, li-ion battery, battery testing system, BMS and computer. Apart from that, teachers here are experts with rich research experience in this area. we are looking for candidates who can help us complete experiments based on our platform, analysis experimental data and optimize models.

Your Tasks

1. To write a code for some intelligent algorithms such as Genetic Algorithm.
2. To complete the simulation experiment and physical experiment independently.
3. To analyze experimental data and write the report.
4. To read some scientific articles and contribute to the optimization of our Li-ion battery model.

Requirements

1. Enrolled student in Energy Science, Computer Science, Mathematics, Control Science and Engineer, Industrial Engineering or similar with experience in Li-ion battery Research
2. Knowledge of Matlab/Python is a plus
3. Experience in using Comsol is a plus
4. Fluent in English, Chinese is a plus
5. Excellent communication skills and presentation skills is a plus

Benefits

1. Feel at home. We provide you with a laptop, comfortable working space, free drinks and more
2. Fun at work and beyond. Join our regular team events - there's always something to celebrate!

Supervisor

Dr. SHEN Wenjing
Assistant Professor of Sino-German College of Intelligent Manufacturing
2002-2006 Bachelor Degree in Central South University, Changsha, China
2006-2009 Master Degree in Central South University, Changsha, China
2013-2017 Ph.D. Degree in City University of Hong Kong, China (in Systems Engineering and Engineering Management)
Current Research Interest: modelling of thermal distribution in industrial processes, data-based modelling, and optimization
Academic Achievements: more than 10 journal papers; 8 invention technology patents
Awards: Hong Kong Government Scholarship, Outstanding Graduate of CSU, Outstanding Graduate of Hunan Province, Excellent Graduate Leader, Shenzhen overseas high-level talents "Peacock Plan" Class C talent.

Please send a full curriculum vitae and passport copy together with copies of qualification documents by email

to **international_internship@sztu.edu.cn** with the email subject as "Reference Number – Job title – Full name of applicant".

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