



LUNDS UNIVERSITET
Lunds Tekniska Högskola



Would you like to:
Prepare yourself for a globalized world
Learn about the renewable energy for the future
Learn about fuel cells
Work experimentally
Try to live and work in a different culture
Do your master thesis in China

Master thesis at UESTC in Chengdu, China with focus on Experimental Fuel Cell Research

Department of Energy Sciences (Lund University) is offering the possibility to perform your master thesis at the School of Energy Science and Engineering at UESTC (University of Electronic Science and Technology of China).

The costs for travel (flights) and accommodation in Chengdu are covered for 2 students per year by a research project from Åforsk research foundation

The research will focus on experimental SOFC (solid oxide fuel cell) research such as new types of anode material development (perovskite type that is expected to tolerate sulfur poisoning and carbon deposition), high-temperature electrolysis (achieving highly efficient electrolysis of steam and carbon dioxide to fuels using a solid oxide cell) or electrochemical diagnosis of SOFC (understanding the electrochemical processes especially when the cells are operated with complex gases containing various impurities). Associate Professor Tingshuai Li will be responsible for the scientific work at UESTC. Dr Li has international research experience both from Nanyang Technological University in Singapore and University of South Carolina in USA.

The University of Electronic Science and Technology of China (UESTC) is a research-intensive University in Chengdu, China. UESTC was selected as one of the 39 research-intensive universities in China that gain special funding under "Project 985" for developing into world-class universities. Most Chinese students live at campus and it is possible also for you to stay at the campus student accommodation. The campus is located around 20 km from downtown, i.e. it is a short trip from "real" China, at campus, to "international" China, in downtown.

Chengdu is the capital of Sichuan province in Southwest China and the urban area houses around 14 million inhabitants. Chengdu has a monsoon-influenced humid subtropical climate and is largely mild and humid. It has four distinct seasons, blessed with abundant rainfall, and relieved from both sweltering summers and freezing winter. The distinct characteristic of Sichuan cuisine is the use of spicy chilies and peppercorns. Chengdu is an officially recognized UNESCO City of Gastronomy. The nature around Chengdu is famous for its scenery. Chengdu airport have direct flights to Europe.

Department of Energy Sciences is also offering a project course (MVK115 Project – Energy Technology, 7.5 ETCS), which can be used to perform a literature pre-study or to write a scientific article after the master thesis. Please contact Martin Andersson if you are interested.

Interested?

Contact Assistant Professor Martin Andersson at martin.andersson@energy.lth.se

Evaluation from a LTH student (W) that went to UESTC during 2015:

Did your exchange studies improve your knowledge regarding global issues (for example from experiencing different cultures)?

Yes very much so. You read about China-related issues in the paper all the time but to see and experience the culture on sight gives a much more complex and multifaceted picture. Through the time spent in China I have gained understanding in some cultural phenomena and international relations that else would have gone unnoticed by for me.

How did your exchange studies depend your knowledge within your field of studies?

It deepened my knowledge in a promising clean energy production method by letting me do experimental work with major freedom which really forced one to explore and read a lot of articles about state-of-the art fuel cell research. This really opened up my mind to how great challenges alternative methods of electricity production faces to being able to compete with conventional power sources.

Did your exchange studies help in your preparations for your future academic or industrial career?

Yes I would very much like to think so. Almost all the major companies are dependent on export and thus interaction with different cultures is very common in the workplace today. To go through a project working in such a different culture like the Chinese culture has really prepared me for working in an international environment.

Did you received sufficient preparation before the exchange?

Yes I received sufficient preparation.

Do you have any suggestions to improve similar exchange "semesters"?

I think to have the possibility to spend a whole semester or a whole year in China would have been very appreciated.

Evaluation from two LTH students (W) that went to UESTC during 2016: