

IPID4all Doctorate Research Exchange with Carl von Ossietzky University of Oldenburg

Feedback report

Your first name, last name, degree title

Yuan Shi, Master student

Host university

Carl von Ossietzky University of Oldenburg

Home research group + address

*Hydrogen Energy Research Group
School of Automotive Engineering
Wuhan University of Technology
Hubei 430070, China*

Host research group + address

*Research Group Cascade Use (CCU)
Carl von Ossietzky University of Oldenburg,
26129 Oldenburg, Germany*

Home supervisor

Prof. Jinsheng Xiao

Host supervisor

Dr. Alexandra Pehlken

Exchange period

2017.06.01-2017.08.25

Exchange topic

- *Part reuse and material recovery of new energy vehicles in China*
- *Scrap tire recycling in China*

Introduction

With the help of the programme "IPID4all - Mobile Doctorates in System Integration of Renewable Energy", it is helpful to strengthen technical cooperation of renewable resources. It provides a good way to share the information and exchange ideas and experiences for renewable energy even the new energy vehicles. I'm very glad to be member of the Research Group Cascade Use (CCU). Dr. Alexandra Pehlken is very good leader and teacher. In the aspects of living and working, she gave me much support and help in Carl von Ossietzky University of Oldenburg. I took part in the class of BioenergyII and passed the exam. I had my own seat in the office where I can do my researchs. Camilo who is master student of Dr. Alexandra, taught me how to use the Stan software. Adriana who is master student of Dr. Alexandra, and me built the cars with the fisher technique. Dr. Alexandra Pehlken arranged different task for me in different period. I reported my result to her in different period. I learned much knowledge from Dr. Alexandra Pehlken and her members. I thank them for giving my guidance and confirmation.

Research Undertaken

- Participated in the class of BioenergyII and passed the exam.
- Translated the book in Chinese and a leaflet related to car recycling quotas form Chinese to English.
- Collected the data of recycling scrap tire in China.
- Checked Chinese statistics with scrap tire recycling reports in China.
- Learned the paper of Resource Constraints for the Diffusion of Fuel Cell Vehicles: Assessing the Role of Recycling in Meeting Future Platinum Demand. And researched on the techniques and strategies for recovery and reuse of hydrogen fuel cell vehicles.

Personal Experience

- 2017.06.02

I visited the Research Group Cascade Use (CCU) and knew her members under the guide of Dr. Alexandra Pehlken.

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- 2017.06.08
I joined in the activity of "Sommerfest" which sponsored by International Student Office — Uni Oldenburg.
- 2017.06.26
I went on the excursion to the solar plant with Dr.Hans Holtorf and his master students.
- 2017.08.05
Our Chinese students were happy to have a Chinese tea and light dinner with Germany teachers and students. And we got on the culture exchange between China and Germany.
- 2017.08.21
After I gave the presentation of my stay and research objects in the Research Group Cascade Use (CCU), they hold a little farewell party for me. We exchanged gifts with each other. CCU is a big and lovely family.

Conclusions

I translated the book in Chinese and a leaflet related to car recycling quotas form Chinese to English. I summarised it for Dr. Alexandra Pehlken with the most important information in it. I do my research on scrap vehicles and scrap tires, which involved in the research topics of the Cascade Use group. I presented my work in a power point presentation to the members of CCU. I integrated myself very well into CCU, and was highly accepted by other colleagues. Finally I got the certificate of the exam in Bioenergy and the confirmation letter of research visit in the Post Graduate Programme Renewable Energies (PPRE) at Oldenburg University. I thank the DAAD funded programme "IPID4all - Mobile Doctorates in System Integration of Renewable Energy". It gave me the chance to study in Oldenburg University.



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Fig.1 After giving a lecture to Research Group Cascade Use (CCU) of Dr. Alexandra Pehlken on Aug. 21th.

Outlook

- The Research Group Cascade Use (CCU) at Carl von Ossietzky University of Oldenburg and the Hydrogen Energy Research Group at Wuhan University of Technology are planning to publish a joint paper on the topic “Potential market and strategies for part reuse and material recovery of new energy vehicles in China”, and perfect a peer reviewed journal paper on scrap tire recycling challenges in China.
- The co-supervision of the thesis/dissertation is planned. The students in the Hydrogen Energy Research Group at Wuhan University of Technology will collect data which is *the most important information in papers*.
- The student exchange would be planned between the Research Group Cascade Use (CCU) at Carl von Ossietzky University of Oldenburg and the Hydrogen Energy Research Group at Wuhan University of Technology through further developing programs. We welcome Dr. Alexandra Pehlken and her members to Wuhan University of Technology.
- In order to broaden research of renewable energy, the Hydrogen Energy Research Group at Wuhan University of Technology has intention to collaborate with Prof. Michael Wark of Department of Chemistry on renewable energy.

Acknowledgement

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The logo for DAAD (German Academic Exchange Service) consists of the letters "DAAD" in a bold, blue, sans-serif font.

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