

SHUMENG WANG

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EDUCATION BACKGROUND

TU Delft	<i>Delft, the Netherlands</i>	09.2020 - Expected 07.2022
<ul style="list-style-type: none">● M.Sc. in Electrical Power Engineering (Track: Power Electronics and Electrical Machines)● Advisor: Prof. Pavol Bauer, Prof. Zian Qin, Thesis topic: GaN-Based Hot-Swappable MAB Converter● Related courses: Control System Design (10/10), Electromagnetics (9.5/10), Semiconductor Device Physics (9/10), Power Electronics (9/10), Power Electronic Components (9/10), Advanced Power Electronics (9/10)		
KU Leuven	<i>Leuven, Belgium</i>	09.2018 - 07.2020
<ul style="list-style-type: none">● B.Sc. in Electronics Engineering, Graduated with Cum laude		
Southwest Jiaotong University (SWJTU)	<i>Chengdu, China</i>	09.2016 - 07.2020
<ul style="list-style-type: none">● B.Eng. in Electrical Engineering and Automation (Mao Yisheng Honors College)		

RESEARCH PROJECTS

TU Delft DCE&S	<i>Master Thesis Project</i>	12.2021 - Expected 07.2022
<ul style="list-style-type: none">● Advisor: Prof. Pavol Bauer, Prof. Zian Qin● Converter details: ~2kW GaN-based multi-DC-voltage-ratings Multi-Active-Bridge (MAB) DC/DC converter● Proposed hot-swapping buffer circuit for MAB converter for surge current and surge voltage limiting● Designed decentralized control strategy for modular hot-swapping active bridges● Designed planar multi-port transformer with PCB winding for minimum leakage inductance● Implementing a prototype (ongoing)		
TU Delft DCE&S	<i>Coil Design for Inductive Power Transfer</i>	10.2020 - 11.2020
<ul style="list-style-type: none">● Advisor: Prof. Jianning Dong● ~40W inductive power transfer (IPT) coil with 20mm vertical distance and efficiency of ~95% in simulation● Proposed a set of numerical methods calculating parameters of core-free coupling coils in IPT system		
SWJTU Energy Internet Lab	<i>Multi-Frequency Wireless Power Transfer</i>	07.2019 - 09.2019
<ul style="list-style-type: none">● Advisor: Prof. Ruikun Mai, Prof. Yong Li, Dr. Shunpan Liu● Made an oral literature review, proposed new circuit topologies and made analysis through Simulink simulation		

INTERNSHIP EXPERIENCE

ABB	<i>Shenzhen, China</i>	09.2021 - 11.2021
<ul style="list-style-type: none">● Research Intern, Supervisor: Dr. Ken Kuen-Faat Yuen, Mr. Yin Tang, Project domain: Modular Power Inverter● Designed and refined topologies, implement multiple versions of prototypes, conduct relevant tests● Prototypes capable of operating in parallel and three-phase mode, and operating in extreme overload conditions		

HONORS & AWARDS

2021.11 AWARD OF EXCELLENCE at **ABB**

SKILLS & TECHNIQUES

- **Computer skills:**
Circuit Analysis and PCB Design: PLECS, LTspice, MATLAB (Simulink), Multisim, Altium Designer, Eagle
Finite Element Modelling Analysis (FEM/FEA): Julia, FEMM
Microcontroller and FPGA Programming: C, Assembly code, Xilinx Vivado
Other Software Skills: C, Java, Linux, MySQL, LabVIEW, Python
- **Language skills:**
Chinese: Native, English: TOEFL iBT 103