SHUMENG WANG

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EDUCATION BACKGROUND

TU Delft *Delft, the Netherlands* 09.2020 - Expected 07.2022

- M.Sc. in Electrical Power Engineering (Specialization: Power Electronics)
- Advisor: Prof. Zian Qin, Thesis domain: **GaN Transistors, GaN-Based Power Converters**
- 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 *Leuven, Belgium* 09.2018 - 07.2020

- B.Sc. in Electronics Engineering, **Graduated with Cum laude**

Southwest Jiaotong University (SWJTU) *Chengdu, China* 09.2016 - 07.2020

- B.Eng. in Electrical Engineering and Automation (Mao Yisheng Honors College)

INTERNSHIP EXPERIENCE

ABB *Shenzhen, China* 09.2021 - 11.2021

- Research Intern, Supervisor: Dr. Ken Kuen-Faat Yuen, Mr. Yin Tang, Project domain: **Modular Power Inverter**
- Designed and refined topologies, implement PCB, conduct relevant electrical and thermal tests
- Prototypes capable of operating in parallel and three-phase mode, and operating in extreme overload conditions

RESERCH PROJECTS

TU Delft DCE&S *200kW Three-Phase Inverter* 05.2021 - 06.2021

- Advisor: Prof. Zian Qin
- Conducted double-pulse tests to evaluate performances of power diodes and transistors
- Designed filter and finished thermal design and control design, reached efficiency of 99% and THD of 3.5%

TU Delft DCE&S *Components Analysis of Boost Converter* 03.2021 - 04.2021

- Advisor: Prof. Thiago Batista Soeiro
- Evaluated performances of Si IGBT and SiC MOSFET, especially on transient behaviors
- Evaluated performances and losses of magnetic components and thermal components

TU Delft DCE&S *Coil Design for Inductive Power Transfer* 10.2020 - 11.2020

- Advisor: Prof. Jianning Dong
- Proposed a set of equations calculating parameters of core-free coupling coils in inductive power transfer system

SWJTU Energy Internet Lab *Multi-Frequency Wireless Power Transfer* 07.2019 - 09.2019

- 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

HONORS & AWARDS

2020.7 Cum laude at **KU Leuven**

2021.11 AWARD OF EXCELLENCE at **ABB**

SKILLS & TECHNIQUES

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