SHUMENG WANG

Telephone: +32-484991950 | Email: S.Wang-46@student.tudelft.nl | Webpage: shumengwang.com

EDUCATION BACKGROUND

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

- 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 *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)

ONGOING RESEARCH PROJECTS

TU Delft DCE&S *Master Thesis Project* 12.2021 - Expected 07.2022

- Advisor: Prof. Pavol Bauer, Dr. Zian Qin, Ir. Sachin Yadav
- 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 adaptive decentralized control strategy for modular hot-swapping active bridges
- Designed planar multi-port transformer with PCB winding for minimum leakage inductance
- Implementing a GaN-based prototype **(ongoing)**

PUBLICATION

- **Shumeng Wang**, Sachin Yadav, Zian Qin, The hot-swapping design for inherently decoupled multi-active-bridge converter. (2022) (working paper)

INTERNSHIP EXPERIENCE

ABB *Shenzhen, China* 09.2021 - 11.2021

- Research Intern, ABB China Central Research Centre (CNCRC)
- 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**

2020.07 Cum laude at **KU Leuven**

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