

Teaching portfolio

1. Teaching CV: A list of teaching and supervision tasks, including specification of academic fields, scope, level (bachelor, master, continuing education, PhD). Please state the teaching method used (e.g. lecture, class teaching, exercises, supervision, examination, coexamination, distance teaching, internet-based teaching and evaluation of teaching). Please also indicate the language of instruction.

Course: • Power electronics/Effektelektronik, Bachelor course, Aalborg University, Aalborg, Denmark (2021-Present). • Control of Grid connected PV and WT systems, Master course, Aalborg University, Aalborg, Denmark (2020-Present). • Reliability, Master course, Aalborg University, Aalborg, Denmark (2021-Present). • Understand How to write a good paper for high level journals, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2018-Present). • Photovoltaic Power Systems – in theory and practice, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2020-Present). • Reliability in Power Electronics System, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2020-Present). • Reliability of Power Electronics in PV Systems - design and control solutions, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2022-Present). • Managing Harmonics in Modern Power Distribution Networks, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2022-Present). **Co-Supervised PhD Projects:** • Reliability Enhancement of 1500-V DC-link Photovoltaic Power Converters, Jinkui He, 2022. • Distributed Control and Advanced Modulation of Cascaded Photovoltaic-Battery Converter Systems, Yiwei Pan, 2022. • Efficient and Reliable Control of Multi-Level Dual-Active-Bridge Converter for Photovoltaic Systems, Chaochao Song, On-going. • Reliability-Oriented Design of a Microgrid System, Monika Sandelic, On-going. • Reliability-Oriented Control of Battery Energy Storage Systems, Muhammad Usman Tahir, On-going. • Condition Monitoring for Smart Power Electronic Converter Systems for Distributed Generation, Shuyu Oh, On-going. **Supervised/Co-Supervised Master Projects:** • Control for Reliability of Photovoltaic Inverters, Ruben Rodrigo Uzeda León, PED4 (Master thesis), 2019. • Design of Multiport Bi-directional GaN DC-DC Converter for Nano Satellite Systems, Estefanía Ruiz, Frederik Sabro Valeur, Gintaras Zubavicius, Nicolai Fransen, Nicolás Murguizur Bustos, PED3, 2019. • Design of Wind Turbine Converter Test-Bench for Reliability Testing, Daniel Bo Rønneest Andersen, Martin Benner Baastrand, Miguel Garnelo Rodríguez, Simon Thies, PED2, 2020. • Fault-Tolerant Operation for Grid-Connected Power Converters, Pawel Piotr Kubulus, Dan-Andrei Gumeni, PED3, 2020. • Fault-Tolerant Control for Multilevel Inverters, Gaia Petrillo, Jorge Suarez Porras, Morten Rahr Nielsen, Mathias Kirkeby, PED2, 2021. • Distributed Power Electronics for Second-Life Batteries, Jorge Suarez Porras, PED3-4 (Long Master thesis), 2021-2022. • Modelling of Active Neutral Point Clamped Converter System, David Levi Ng, Magnus Borg Wissing, Bendik Eikenes, Yuxin Jiang, Viktor Ferm, Eldho Babu, INTRO, 2022.

2. Study/programme administration and management: Experience in programme management and coordination. A list of study administration tasks, e.g. study board membership, chair of study board, semester or course coordinator, accreditation tasks, etc. Experience in planning teaching activities. Experience in programme development. Participating in committees and commissions etc. on education issues.

Course Coordinator: • Power electronics/Effektelektronik, Bachelor course, Aalborg University, Aalborg, Denmark (2021-Present).

3. Formal pedagogical training: A list of completed courses in university pedagogy, PBL courses, workshops, academic development projects, collegial guidance and supervision, etc. Written assessment from the course in university pedagogy for assistant professors. Participation in conferences on pedagogy and didactics. Please enclose any documentation of the above, such as course certificates, references, etc

Course/Workshop: • Supervisor Workshop, Aalborg University, Aalborg, Denmark (2019).

4. Other qualifications: Conference contributions and attendance, contributions to debates, scientific articles on pedagogical issues etc. Peer supervision, editorials, mentoring experience or other types of competence development activities.

Type your answer here...

5. Pedagogical development and research: Development of new courses, teaching materials, teaching methods, examination types or other types of pedagogical development. Didactic and pedagogical research. Cooperation with external collaboration partners.

Power electronics/Effektelektronik, Bachelor course, Aalborg University, Aalborg, Denmark (2021-Present). • Reliability in Power Electronics in PV Systems - design and control solutions, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2022-Present).

6. References on your teaching skills from superiors or colleagues. Teaching evaluations and any teaching awards received.

Type your answer here...

7. Personal reflections and initiatives: Here you may state any personal deliberations as regards teaching and supervision, any wishes and plans for further pedagogical development, plans for following up on student feedback/evaluations, etc. Personal reflections on your own pedagogical practice, including objectives, methods and implementation. This should include an analysis and a reasoned description of your pedagogical activities in relation to your pedagogical understanding and student learning. Thoughts on the teaching method at Aalborg University (which is largely based on group-organised project work and problem-based learning)

Type your answer here...

8. Any other information or comments.

Type your answer here...