Undervisningsportfolio

1. Undervisnings-CV: Oversigt over undervisnings- og vejledningsopgaver med angivelse af fagområder, omfang, undervisningsniveau (bachelor, kandidat, efter-/videreuddannelse, ph.d.). Type af undervisningsform angives, f.eks. forelæsning, holdundervisning, øvelse, vejledning, eksamination, censur, fjernundervisning, internetbaseret undervisning og evaluering af undervisning. Undervisningssprog angives.

Courses:

1. Cybersecurity for Microgrids, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2021-Present)
2. Power Electronics - From Fundamentals to Advanced Topics, Industrial/PhD course, Aalborg University, Aalborg, Denmark (2021-Present)
3. Realtidssystemer og Programmeringssprog, Bachelors course (Assistant Teacher), 2022.
4. Introduction to Reliability, Masters course (Assistant Teacher), 2023.

Co-supervised PhD projects:

1. STABILITY AND RELIABILITY VALIDATION OF A MICROGRID SYSTEM, Yubo Song (2020-Present)
2. Dynamic Stabilization of DC Microgrids Based on Model Predictive Control of Point-of-Load Converters, Yuan Li (2021-Present)
3. Condition Monitoring for Smart Power Electronic Converter Systems for Distributed Generation, Shuyu Ou (2022-2025)

Supervised Masters projects
1. Atomic Parallelism of Low-Inertia Power Systems, Kristian Skafte Jensen (2022)
2. Synchronization Stability of Inverter Based Resources during Faults on Low Voltage Grids, Kaustubh Bhatnagar, Master Thesis, 2022.
3. Robust Converter Control with microgrid-support functions during abnormal conditions, Kaustubh Bhatnagar, Master Project, 2021.
3. Anomaly Management in Power Electronics Based Power Systems, Mohit Nair, Adam Pramanah Fitrah, Kaustubh Bhatnagar, 2021.

2. Administration og ledelse af uddannelse: Erfaring med uddannelsesledelse og –koordinering. Oversigt over studieadministrative opgaver, eksempelvis medlem af studienævn, studieleder, semesterkoordinator, fagkoordinator, akkreditering m.v. Erfaringer med planlægning af uddannelsesafvikling. Erfaring med udvikling af uddannelser. Deltagelse i udvalg, kommissioner m.m. vedr. uddannelse.

3. Formel pædagogisk uddannelse: Oversigt over gennemførte universitetspædagogiske kursusforløb, PBL-kurser, workshops, udviklingsprojekter, kollegial supervision o.l. Udtalelse fra universitetspædagogikum. Deltagelse i konferencer om pædagogik og didaktik. Dokumentation i form af kursusbeviser, udtalelser m.m. vedlægges.

PhD Supervision Course (2022)
This course involved sharing different experiences and cases on optimizing the performance of PhD students considering a healthy and stress-free mentorship environment.

4. Andre kvalifikationer: Bidrag til konferencer, debatindlæg, videnskabelige artikler om pædagogiske emner m.v. Kollegasupervision, redaktørarbejde, erfaring som mentor og anden kompetenceudvikling.

5. Pædagogisk udvikling og forskning: Udvikling af nye kurser, undervisningsmateriale, undervisnings- og eksamensformer eller andet udviklingsarbejde. Didaktisk og pædagogisk forskning. Samarbejde med eksterne samarbejdspartnere.

Cybersecurity for Microgrids PhD course

6. Udtalelser om undervisningskompetencer fra foresatte og kolleger. Undervisningsevalueringer og eventuelle udmærkelser for undervisningsvaretagelse.

7. Evt. personlige refleksioner og initiativer: Personlige overvejelser knyttet til undervisning og vejledning, ønsker til og planer for pædagogisk videreudvikling, planer for opfølgning på undervisningsevalueringer m.v. Refleksioner over eget pædagogiske arbejde, dets målsætninger, metoder og gennemførelse. I refleksionen analyseres og motiveres dine pædagogiske aktiviteter i forhold til din pædagogiske forståelse og de studerendes læring. Tanker om undervisningsformen på Aalborg Universitet, der har et stort indhold af gruppeorganiseret projektarbejde og problembaseret læring (PBL).

I believe the key “ingredients” to successful teaching is the ability to communicate and inspire students. However, course materials in electrical engineering are often abstract in nature. They are the result of the excessive use of mathematical equations to explain complex theories, which is alienating to younger generation of students.

I strongly believe field trips for power engineering could be an asset to the understanding as industrial practices are often overviewed during graduate studies. However, these trips could allow them to experience the next generation control room technologies and interact with the engineers to have a technical know-how of contingency solutions and redundancy measures. It can become exciting for the students after knowing what they learnt could make a difference to society rather than fulfilling a requirement for their academic degrees.

Apart from giving lectures, supervision of M.Sc. students is also my responsibility. I always prefer frequent discussions at the start to ensure students understand the scope of their research projects. The initial guidance will be gradually relaxed to allow opportunities for students to develop independent research abilities. Meanwhile, a positive working environment is created between students through words of encouragements and advices. My vision is to organically grow a strong research team that will always uphold the prestige of the academic institution.

8. Andet.