Curriculum Vitae

Vijay Venu Vadlamudi
Associate Professor and Deputy Head of Department (Education),
Department of Electric Energy,
(*Formerly, Department of Electric Power Engineering*)
Faculty of Information Technology and Electrical Engineering,
Norwegian University of Science and Technology (NTNU),
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PERSONAL INFORMATION

Family name, First name:	**Vadlamudi, Vijay Venu**		
Age	**45**	Sex:	**Male**
Nationality:	**Norwegian**		
Researcher unique identifiers:	• https://orcid.org/0000-0002-6771-1574 • Scopus Author ID: 55512655700 • https://scholar.google.com/citations?user=TmBuk8QAAAAJ		
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EDUCATION

	Degree/Institution/Country
2006—2011	PhD, Department of Electrical Engineering, Indian Institute of Technology Bombay, India.
2004—2006	Master of Technology, Interdisciplinary Programme of Reliability Engineering, Department of Electrical Engineering, Indian Institute of Technology Bombay, India.
1996—2000	Bachelor of Technology, Electrical and Electronics Engineering, Jawaharlal Nehru Technological University College of Engineering, Hyderabad, India.

POSITIONS

Current Positions

	Job title/Name of Employer
2015—	Associate Professor, Department of Electric Energy (Formerly, Department of Electric Power Engineering), Norwegian University of Science and Technology (NTNU).
2025—	Deputy Head of Department (Education), Department of Electric Energy, NTNU.
2025—	Work Package Leader, FME SecurEL (Secure, Resilient, and Sustainable Electricity Grids). Note: FME stands for "*Forskningssenter for miljøvennlig energi*" in Norwegian, which in English translates to Centre for Environment-friendly Energy Research.
2025—	Member, PhD Study Programme Council, Department of Electric Energy, NTNU.
2023—	Coordinator of Pedagogical Seminars and Workshops at the Department of Electric Energy, NTNU.
2022—	Specialist in Electric Power Grids ("*Fagansvarlig – nett*"), The Norwegian Smartgrid Centre, Norway.
2021—	Deputy Representative of the Department in the Faculty Research Committee, Faculty of Information Technology and Electrical Engineering, NTNU.
2018—	Subject Editor (Power System Reliability), IET Generation, Transmission and Distribution.

Previous Positions

	Job title/Name of Employer/Country
2022—2025	Elected representative of the Department's permanent scientific staff (Professors, Associate Professors, Lecturers, and Researchers) in the Department's Extended Leader Group, Department of Electric Energy, NTNU.
2023—2024	Scientific Coordinator, FME CINELDI ("Centre for Intelligent Electricity Distribution").
2022—2024	Scientific Board Member, REDISET ("Resilient Digital Sustainable Energy Transition") – Project sponsored by NordGrid Programme.
2017—2021	Deputy Head of Department (Education), Department of Electric Power Engineering, NTNU, Norway.
2011—2015	Postdoctoral Research Fellow, Department of Electric Power Engineering, NTNU, Norway.
2010—2011	Visiting Researcher, Power Systems Research Group, Department of Electrical and Computer Engineering, University of Saskatchewan, Saskatoon, Canada.
2004—2010	Graduate Teaching Assistant, Department of Electrical Engineering, Indian Institute of Technology Bombay, India.

FELLOWSHIPS, AWARDS AND PRIZES

	Name of Institution/Country
2021—	Senior Member — IEEE, USA.
2012	Runner-up, in the RENERGI Grand Prix 2012, a popular-scientific presentation competition conducted by the Norwegian Research Council, Oslo, Norway, Nov. 2012.
2010	Canadian Commonwealth Scholarship, Canada.
2009	Young Researcher Award, Society for Reliability Engineering, Quality and Operations Management, New Delhi, India.
2009	Best Teaching Assistant Award, Department of Electrical Engineering, Indian Institute of Technology Bombay, India.
2008	IEEE Reliability Society Scholarship Award, IEEE, USA.

PROJECT MANAGEMENT EXPERIENCE

Year	**Project — Role — Funder**
2025—	**"SecurEL"** (Secure, Resilient and Sustainable Electricity Grids) **(A Norwegian Centre for Environment-friendly Energy Research)** • Role: Co-contributor to proposal writing, Project Manager from NTNU's side and Leader of Work Package#1 (titled "Security of Electricity Supply"). • Funding: Research Council of Norway.
2023—	**"DeCOOP"** (Development of Coupled Offshore and Onshore Power Grids) • Role: Co-contributor to proposal writing, project participant (PhD supervision, overall inputs, and participation in Steering Committee and Consortium meetings). • Funding: Research Council of Norway.
2022—2024	**Ocean Grid** – Sub Project (SP)#5 • Role: Project participant, Work Package#1 (Grid Expansion Optimisation) (Supervision of Postdoctoral researcher, overall inputs). • Funding: Research Council of Norway.
2020—2024	"**VulPro**" (Risk and Vulnerability Prognosis for Power System Development and Asset Management) • Role: Co-contributor to proposal writing, project participant (PhD supervision, overall inputs, and participation in Steering Committee and Consortium meetings). • Funding: Research Council of Norway.
2019—2024	"**RaPid**" (Resilient and Probabilistic Reliability Management of the Transmission Grid) • Role: Co-contributor to proposal writing, project participant (PhD supervision, overall inputs, and participation in Steering Committee and Consortium meetings). • Funding: Research Council of Norway.
2019—2020	New Study Programme at the Department of Electric Power Engineering, NTNU — **Electrification and Digitalisation** • Role: Project Leader, responsible for the planning, design and execution of necessary steps to get a new cross-departmental three-year Bachelor's Study Programme established at the Department. • Funding: NTNU.
2018—2022	**Erasmus Mundus+ Programme, for International Master's Degree in Renewable Energy in the Marine Environment** • Role: Representative of NTNU in the Consortium, responsible for the design of the academic offer from NTNU to complement the joint degree proposal. • Funding: European Union Erasmus+ Programme.
2016—2017	"**Cross-border Access to Capacity Mechanisms**" • Role: Principal Investigator • Funding: Statnett (Note: This was a consultancy project commissioned by Statnett.)
2015—2016	"**GARPUR**" (Generally Accepted Reliability Principle with Uncertainty modelling and through probabilistic Risk assessment) • Role: Task Leader and Participant, Work Package 6, Task 6.3. • Funding: Collaborative R&D project co-funded by the European Commission under the 7th Framework Programme.

INSTITUTIONAL RESPONSIBILITIES

	Name of Institution/Country
2025	Leader, Evaluation Committee for Associate Professor in "Distribution Grids and Decentralized Energy Systems", Department of Electric Energy, NTNU, Norway.
2022	Coordinator for strengthening the continuing education courses offered by the Department of Electric Energy (NTNU), for industry (Aker Solutions); the Department offered three course modules on the theme "Electrification and Energy Transition – Power System & Technology Perspectives" to employees of Aker Solutions in Autumn 2022.
2019—2021	Programme Manager at the Faculty of Information Technology and Electrical Engineering (NTNU, Norway) for the Master's programme in "Renewable Energy in the Marine Environment" (Erasmus Mundus+ Programme).
2015—2021	Member, Study Programme Council at the Faculty of Information Technology and Electrical Engineering (NTNU, Norway) for the 5-year integrated Master's programme "Energy and the Environment".
2018	Search Committees for Faculty Appointments at the Department of Electric Power Engineering, NTNU, Norway.
2018	Leader, Evaluation Committee for Associate Professor in "Microgrids", Department of Electric Power Engineering, NTNU, Norway.

COMMISSIONS OF TRUST IN ACADEMIC, PUBLIC OR PRIVATE ORGANISATIONS

	Role/Name of Institution
2022—2024	Scientific Board Member, REDISET ("Resilient Digital Sustainable Energy Transition") – Project sponsored by NordGrid Programme. Project partners: KTH (Sweden), Norwegian Smartgrid Centre, Norwegian Defence Research Establishment (FFI), Fingrid, Svenska Kraftnät, and University of Vaasa.
2019—2022	Member, IEEE Task Force on Composite System Reliability.
2019	Member, CIGRE Working Group C5.30 ("Blockchain Technologies in Power Markets").
2018	Technical Programme Committee Member, 18th Power Systems Computation Conference held in June 2018 in Dublin, Ireland.
2018—	Subject Editor (for Power System Reliability) in the journal IET Generation, Transmission and Distribution.
2018	Member, IEEE Task Force on Reliability Considerations in Emerging Cyber-Physical Energy System.
2016—2018	Associate Editor in the journal IET Generation, Transmission & Distribution.
2014—2017	Member, CIGRE Working Group C1.27 ("The Future of Reliability").
2012—2019	Vice-Chair, IEEE Working Group on Probability Applications for Common Mode Events (PACME) in Electric Power Systems: IEEE PES Reliability, Risk and Probability Applications Subcommittee (RRPA) (2018); Secretary (2014—2019); Member (2012—2019).
2011—	Reviewer – several international conferences and journals.

MEMBERSHIPS OF ACADEMIES / SCIENTIFIC SOCIETIES / NETWORKS

Name
• IEEE Power and Energy Society (2008—) • IEEE Reliability Society (2008—) • IEEE Education Society (2017—) • CIGRE (2015—)

COMPLETE LIST OF PUBLICATIONS

Journals:

J1) Matias Vistnes, Vijay Venu Vadlamudi, and Oddbjørn Gjerde, "A Fast and Scalable Iterative Solution of a Socio-Economic Security-Constrained Optimal Power Flow with Two-Stage Post-Contingency Control," *IET Generation, Transmission and Distribution,* Vol. 19, No. 1, Mar. 2025. https://doi.org/10.1049/gtd2.70055

J2) Jordon Grant, Iver Bakken Sperstad, Vijay Venu Vadlamudi, Samuel Perkin, and Erlend Sandø Kiel, "The Impact of High-Voltage Circuit Breaker Condition on Power System Reliability Indices," *IET Generation, Transmission and Distribution*, Vol. 18, pp. 3980-3994, Nov. 2024. https://doi.org/10.1049/gtd2.13333

J3) Mostafa Barani, Vijay Venu Vadlamudi, and Hossein Farzin, "Impact of Cyber Failures on Operation and Adequacy of Multi-Microgrid Distribution Systems," *Applied Energy*, Vol. 348, pp. 1-16, Oct. 2023. (Article#121437) https://doi.org/10.1016/j.apenergy.2023.121437

J4) Mostafa Barani and Vijay Venu Vadlamudi, "Analytical Approach for Adequacy Assessment of Cyber-Physical Multi-Microgrid Distribution Systems with Distributed Generation," *Electric Power Systems Research* (Special Issue – 22nd Power Systems Computation Conference, 2022), Vol. 212, pp. 1-11, Nov. 2022. (Article#108293) https://doi.org/10.1016/j.epsr.2022.108293

J5) Salman Zaferanlouei, Hossein Farahmand, Vijay Venu Vadlamudi, and Magnus Korpås, "BATTPOWER Toolbox: Memory-Efficient and High-Performance Multi-Period AC Optimal Power Flow Solver," *IEEE Transactions on Power Systems*, Vol. 36, No. 5, pp. 3921-3937, Sep. 2021. https://doi.org/10.1109/TPWRS.2021.3055429

J6) Mostafa Barani, Vijay Venu Vadlamudi, and Poul E. Heegaard, "Reliability Analysis of Cyber-Physical Microgrids: Study of Grid-Connected Microgrids with Communication-Based Control Systems," *IET Generation, Transmission and Distribution*, Vol. 15, No. 4, pp. 645-663, Feb. 2021. https://doi.org/10.1049/gtd2.12049

J7) PACME Working Group of the IEEE PES RRPA Subcommittee (Milorad Papic, Sudhir Agarwal, Ron N. Allan, Roy Billinton, Chris J. Dent, Svetlana Ekisheva, Daniel Gent, Kai Jiang, Wenyuan Li, Joydeep Mitra, Andrea Pitto, Alexander Schneider, Chanan Singh, Vijay Venu Vadlamudi, and Matthew Varghese), "Research on Common-Mode and Dependent (CMD) Outage Events in Power Systems– A Review," *IEEE Transactions on Power Systems*, Vol. 32, No. 2, pp. 1528-1536, Mar. 2017. https://dx.doi.org/10.1109/TPWRS.2016.2588881

J8) Vadlamudi Vijay Venu and Ajith K. Verma, "Enhanced Well-Being Analysis and Value-at-Risk (VaR) Dependent Reserve Determination in Deregulated Power Systems," *International Journal of Systems Assurance Engineering and Management*, Vol. 3. No. 1, pp. 24-32, Mar. 2012. https://dx.doi.org/10.1007/s13198-011-0062-9

J9) V. Vijay Venu and A. K. Verma, "A Probabilistic Transmission Pricing Methodology Considering Transmission Reliability Margins," *International Journal of Systems Assurance Engineering and Management*, Vol. 1. No. 2, pp. 113-119, Jun. 2010. https://dx.doi.org/10.1007/s13198-010-0023-8

J10) V. Vijay Venu and A. K. Verma, "Reliability Management and Improvement for Planning and Operational Process Enhancement Measures in Deregulated Power Systems Using ATC," *International Journal of Reliability, Quality and Safety Engineering*, Vol. 17, No. 3, pp. 275-289, Jun. 2010. https://dx.doi.org/10.1142/S0218539310003809

J11) V. Vijay Venu and A. K. Verma, "Reliability of Electric Power Systems: Challenges in the Deregulated Environment – A Research Perspective," *International Journal of Systems Assurance Engineering and Management*, Vol. 1, No. 1, pp. 24-31, Mar. 2010. https://dx.doi.org/10.1007/s13198-010-0013-x

J12) V. Vijay Venu and A. K. Verma, "Reinforcement of Power System Reliability Measures through Joint Deterministic and Probabilistic Approaches," *International Journal of Reliability, Quality and Safety Engineering*, Vol. 16, No. 6, pp. 551-566, Dec. 2009. https://dx.doi.org/10.1142/S0218539309003575

J13) A. K. Verma and V. Vijay Venu, "Revised Well-Being Analysis Applied to Reserve Adequacy Studies in Vertically Integrated Power Utilities," *International Journal of Communications in Dependability and Quality Management*, Vol. 12, No. 1, pp. 101-110, Mar. 2009.

J14) A. K. Verma and V. Vijay Venu, "Adequacy-Based Power System Reliability Studies in the Deregulated Environment," *International Journal of Reliability, Quality and Safety Engineering*, Vol. 15, No. 2, pp. 129-141, Apr. 2008. https://dx.doi.org/10.1142/S0218539308002988

Conferences:

C1) Jordon Grant, Samuel Perkin, Håkon Toftaker, Iver Bakken Sperstad, and Vijay Venu Vadlamudi, "High Voltage Circuit Breaker Condition-dependent Failure Rate with Covariates," *Proc. 70th Annual Reliability, Availability and Maintainability Symposium*, Albuquerque, New Mexico, Jan. 2024. https://doi.org/10.1109/rams51492.2024.10457806

C2) Matias Vistnes, Vijay Venu Vadlamudi, Sigurd Hofsmo Jakobsen, and Oddbjørn Gjerde, "Solving Security-Constrained Optimal Power Flow Using Analytical Benders' Cuts," *Proc. 6th International Conference on Smart Energy Systems and Technologies* (SEST), Mugla, Turkey, Sep. 2023. https://doi.org/10.1109/SEST57387.2023.10257488

C3) Jordon Grant, Iver Bakken Sperstad, Jørn Foros, and Vijay Venu Vadlamudi, "Health Index Calculation Using Failure Modes, Effects, and Criticality Analysis for High Voltage Circuit Breakers," *Proc. 33rd European Safety and Reliability Conference*, Southampton, United Kingdom, Sep. 2023. https://doi.org/10.3850/978-981-18-8071-1_P128-cd https://www.rpsonline.com.sg/proceedings/esrel2023/pdf/P128.pdf

C4) Matias Vistnes, Jordon Grant, and Vijay Venu Vadlamudi, "Understanding Interdependencies in Cyber-Physical Power Systems – A Review," *Proc. 14th Annual IEEE Power and Energy Conference*, Illinois, Chicago, Mar. 2023, pp. 1-8. https://doi.org/10.1109/PECI57361.2023.10197827

C5) Kari Walstad and Vijay Venu Vadlamudi, "Electric Utility Customer Segmentation from Advanced Metering System Data Using K-Shape Clustering – A Norwegian Case Study," *Proc. IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe) Conference*, Novi Sad, Serbia, Oct. 2022, pp. 1-6. https://doi.org/10.1109/ISGT-Europe54678.2022.9960585

C6) Sondre Johan Kjellin Berg, Vijay Venu Vadlamudi, and Dimosthenis Peftitsis, "Improving distribution transformer reliability in micro grids with distributed generation," *Proc. 26th International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM)*, Sorrento, Italy, Jun. 2022, pp. 118-123. https://doi.org/10.1109/SPEEDAM53979.2022.9842053

C7) Matias Vistnes, Stine Fleischer Myhre, Olav Bjarte Fosso, and Vijay Venu Vadlamudi, "A Monte Carlo Method for Adequacy Assessment of Cyber-Physical Distribution Systems," *Proc. 17th International Conference on Probabilistic Methods Applied to Power Systems* (PMAPS), Jun. 2022, pp. 1-6. https://doi.org/10.1109/PMAPS53380.2022.9810570

C8) Sondre Johan Kjellin Berg, Fredrik T. B. W. Göthner, Vijay Venu Vadlamudi, and Dimosthenis Peftitsis, "Investigation of the Effect of Operating Conditions on Reliability of DC-link Capacitors in Microgrids", *Proc. IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe) Conference*, The Hague, The Netherlands, Oct. 2020, pp. 1-5. https://doi.org/10.1109/ISGT-Europe47291.2020.9248937

C9) Sondre Johan Kjellin Berg, Fredrik T. B. W. Göthner, Vijay Venu Vadlamudi, and Dimosthenis Peftitsis, "The Effect of Non-optimal Operating Conditions on Reliability of Inverters in Microgrids", *Proc. IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG)*, Dubrovnik, Croatia, Sep./Oct. 2020, pp. 1-5. https://dx.doi.org/10.1109/PEDG48541.2020.9244343

C10) **Vijay Venu Vadlamudi** and Gerard Doorman, "Interconnector Participation in Capacity Mechanisms: A New De-rating Approach," *Proc. 14th International Conference on the European Energy Market (EEM)*, Dresden, Germany, Jun. 2017, pp. 1-6. https://dx.doi.org/10.1109/EEM.2017.7981872

C11) Salman Zaferanlouei, Magnus Korpås, Hossein Farahmand, and Vijay Venu Vadlamudi, "Integration of PEV and PV in Norway Using Multi-Period ACOPF – Case Study," *Proc. 12th IEEE PowerTech Conference*, Manchester, UK, Jun. 2017, pp. 1-6. https://dx.doi.org/10.1109/PTC.2017.7981042

C12) **Vijay Venu Vadlamudi**, Camille Hamon, Oddbjørn Gjerde, Gerd Kjølle, and Samuel Perkin, "On Improving Data and Models on Corrective Control Failures for Use in Probabilistic Reliability Management," *Proc. 14th International Conference on Probabilistic Methods Applied to Power Systems*, Beijing, China, Oct. 2016, pp. 1-6. https://dx.doi.org/10.1109/PMAPS.2016.7764089

C13) Oddbjørn Gjerde, Gerd Kjølle, Sigurd Jakobsen, and Vijay Venu Vadlamudi, "Enhanced Method for Reliability of Supply Assessment – An Integrated Approach," *Proc. 19th Power Systems Computation Conference*, Genoa, Italy, Jun. 2016, pp. 1-7. https://dx.doi.org/10.1109/PSCC.2016.7540989

C14) Vijay Venu Vadlamudi, Oddbjørn Gjerde, and Gerd Kjølle, "Impact of Protection System Reliability on Power System Reliability: A New Minimal Cutset Approach," *Proc. 13th International Conference on Probabilistic Methods Applied to Power Systems*, Durham, United Kingdom, Jul. 2014, pp. 1-6. https://dx.doi.org/10.1109/PMAPS.2014.6960645

C15) PACME Working Group of the IEEE PES RRPA Subcommittee, "Effects of Dependent and Common Mode Outages on the Reliability of Bulk Electric System – Part I: Basic Concepts," *Proc. IEEE PES General Meeting*, Washington DC Metro Area, USA, Jul. 2014, pp. 1-5. https://dx.doi.org/10.1109/PESGM.2014.6938967

C16) PACME Working Group of the IEEE PES RRPA Subcommittee, "Effects of Dependent and Common Mode Outages on the Reliability of Bulk Electric System – Part II: Outage Data Analysis," *Proc. IEEE PES General Meeting*, Washington DC Metro Area, USA, Jul. 2014, pp. 1-5. https://dx.doi.org/10.1109/PESGM.2014.6938968

C17) Vijay Venu Vadlamudi, Oddbjørn Gjerde, and Gerd Kjølle, "Impact of Substation Configuration on Protection System Failure Propagation and its Effect on Reliability of Supply," *Proc. 18th Power Systems Computation Conference*, Wroclaw, Poland, Aug. 2014, pp. 1-8. https://dx.doi.org/10.1109/PSCC.2014.7038454

C18) Vijay Venu Vadlamudi, Oddbjørn Gjerde, and Gerd Kjølle, "Consideration of Transmission Protection System Response in Reliability of Electricity Supply Analysis – Case Study," *Proc. CIGRE Session,* Paris, France, Aug. 2014, pp. 1-12. https://e-cigre.org/publication/C1-107_2014-consideration-of-transmission-protection-system-response-in-reliability-of-electricity-supply-analysis--case-study

C19) Vijay Venu Vadlamudi, Oddbjørn Gjerde, and Gerd Kjølle, "Dependability and Security-based Failure Considerations in Protection System Reliability Studies," *Proc. IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe) Conference*, Copenhagen, Denmark, Oct. 2013, pp. 1-5. https://dx.doi.org/10.1109/ISGTEurope.2013.6695264

C20) Gerd Kjølle, Vijay Venu Vadlamudi, Sigurd Kvistad, and Kjell Anders Tutvedt, "Potential for Improved Reliability and Reduced Interruption Costs Using Smart Grid Technologies," *Proc. 23rd International Conference on Electricity Distribution (CIRED)*, Stockholm, Sweden, Jun. 2013, pp. 1-5. https://dx.doi.org/10.1049/cp.2013.0870

C21) Vijay Venu Vadlamudi, Oddbjørn Gjerde, and Gerd Kjølle, "Incorporation of Protection System Failure Modes in Composite Power System Reliability Studies," *Proc. 7th Annual CIGRÉ Canada Conference on Power Systems*, Montreal, Canada, Sep. 2012, pp. 1-12.

C22) Vijay Venu Vadlamudi and Rajesh Karki, "Reliability-based Appraisal of Smart Grid Challenges and Realization," *Proc. IEEE Power and Energy Society General Meeting*, San Diego, USA, Jul. 2012, pp. 1-7. https://dx.doi.org/10.1109/PESGM.2012.6345744

C23) Vijay Venu Vadlamudi, Rajesh Karki, Gerd Kjølle, and Kjell Sand, "Challenges in Smart Grid Reliability Studies," *Proc. 12th Intl. Conference on Probabilistic Methods Applied to Power Systems*, Istanbul, Turkey, Jun. 2012, pp. 1035-1040. ISBN: (Electronic Proceedings) 978-605-63278-0-3

C24) V. Vijay Venu and A. K. Verma, "A Novel Adequacy Resiliency Paradigm for Power System Reliability Measures," *Proc. IEEE Power and Energy Society General Meeting*, Minneapolis, USA, Jul. 2010, pp. 1-6. https://dx.doi.org/10.1109/PES.2010.5589360

C25) A. K. Verma and V. Vijay Venu, "A Modeling Paradigm for Extending Well-Being Analysis to a Composite Bilateral Contracts Market," *Proc. IEEE PES Power Systems Conference and Exposition*, Seattle, USA, Mar. 2009, pp. 1-6. https://dx.doi.org/10.1109/PSCE.2009.4839959

C26) A. K. Verma and V. Vijay Venu, "A Tracing-Based Realistic State Space Selection Method for Composite Power System Reliability Assessment in the Restructured Scenario," *Proc. IEEE Power and Energy Society General Meeting*, Pittsburgh, USA, Jul. 2008, pp. 1-6. https://dx.doi.org/10.1109/PES.2008.4596380

Book Chapters/Technical Reports:

B1) **Book Chapter:** "DC and AC Contingency Solvers in Composite Power System Adequacy Assessment" published in the book titled "Advances in RAMS (Reliability, Availability, Maintainability and Safety) Engineering," 2020, Springer, ISBN 978-3-030-36517-2. (Chapter authors: Øystein Stake Laengen and Vijay Venu Vadlamudi) https://doi.org/10.1007/978-3-030-36518-9_1

B2) **Book Chapter:** "*Reliability-Centric Studies in Smart Grids: Adequacy and Vulnerability Considerations*" published in the book titled "Reliability Modeling and Analysis of Smart Power Systems," 2014, Springer, ISBN 978-81-322-1797-8. (Chapter authors: Vijay Venu Vadlamudi, Rajesh Karki, Gerd Kjølle, and Kjell Sand.) https://dx.doi.org/10.1007/978-81-322-1798-5_1

B3) **Technical Report:** Vijay Venu Vadlamudi, Oddbjørn Gjerde, and Gerd Kjølle, "The Impact of Protection Systems on Power System Reliability," SINTEF Energy Research Technical Report TR A7439, Norway, Nov. 2014. https://hdl.handle.net/11250/2465346

Papers Under Preparation/Review:

UP1) M. Vistnes, V. V. Vadlamudi, O. Gjerde, and L. Roald, "Adapting Power Systems Operations to Adverse Weather through Probabilistic Security Criteria," *Under Preparation*.

UP2) Ø. R. Solheim, B. A. Høverstad, M. Korpås, and V. V. Vadlamudi, "Scaling up: An attention-based graph neural network reinforcement learning approach to remedial actions for medium sized Monte Carlo power system reliability studies," *Under Preparation*.

UP3) S. Singh, S. Chapaloglou, V. V. Vadlamudi, and H. Svendsen, "Decomposition Methods for Solving Transmission Expansion Planning: A Comprehensive Review," *Under Preparation*.

UP4) V. A. B. Ramirez, V. V. Vadlamudi, and I. B. Sperstad, "Integrating Practice and Research: A Holistic Review of Long-Term Planning Methods for Hybrid AC/DC Transmission Grids," *Under Preparation*.

Master's Thesis Supervision at NTNU

S. No.	Title	Student	Year
1	Power Flow Studies in Stochastic Framework	Andreas Halvor Bock	2015—2016
2	Reliability-based Reserve Connections in the Sheringham Shoal Offshore Wind Farm	Mari Slettahjell	2015—2016
3	Equilibrium Modeling of a Power Market with a Capacity Market Designed to Promote Flexible Capacity	Petter N. Christiansen	2015—2016
4	Composite Distribution System Reliability Evaluation — Effect of Interaction between Distribution Substation and Primary Distribution System	Zaw Win Htun	2016—2017
5	Power Flow Tracing: Methods and Algorithms - Implementation Aspects	Kjersti Berg	2016—2017
6	Reliability-based Derating Approach for Interconnectors	Kjetil Koldingsnes	2016—2017
7	A Substation Level State Estimator for Local Data Processing — Algorithms for Power System Monitoring	Bård Haga Bringeland	2016—2017
8	Reliability Evaluation of Energy-Limited Hydro-Electric Generation Systems	Henrik Jøssund Karlsen	2017—2018
9	Generation System Adequacy Studies in the Presence of Wind Energy Resources	Mads Bjørkeland	2017—2018
10	Application of Monte Carlo Simulation to Power System Adequacy Assessment	Øystein Stake Laengen	2017—2018
11	Probabilistic Load Flow Studies: Analytical and Approximate Methods	Mari Holtet Eie	2017—2018
12	Incorporating Demand Side Response in Power System Adequacy Studies	Anette Solheim	2018—2019
13	Multi-Period AC Optimal Power Flow for Distribution Systems with Energy Storage	Line Nyegaard	2018—2019
14	Contribution of Energy Storage to Generation Adequacy	Håvard Dahl Mediaas	2019—2020
15	Electric Utility Customer Segmentation from Advanced Metering Systems Data	Kari Walstad	2019—2020
16	Quantifying the Impact of Integrating Wind Power on Composite Power System Reliability	Jo S. Skjævesland, Joakim Horpestad	2020—2021
17	Contribution of Microgrid to the Reliability of Distribution Systems	Karoline B. Johansen, Hilde Enevoldsen	2020—2021
18	Reactive Power Considerations in Reliability Assessment of Power Systems	Ingvild G. Birkeland, Kristian Bjørgve	2020—2021
19	A Study of the RBTS Distribution System Reliability with the Incorporation of Distributed Generation and Batteries	Alexander Finn	2021—2022
20	Quantifying the Capacity Value of Wind Power in Composite Power Systems	Martin Widding	2021—2022
21	Performance Efficiency and Reliability Analysis of Offshore Wind Power Plants — A Case Study of Utsira Nord	Emil Aune Jakobsen	2022—2023
22	Investigation of the Application of Optimal Power Flow in the Assessment of Power System Reliability	William Flesland Blytt	2022—2023
23	Simplified Steady-State Model for Probabilistic Operational Planning of a Power System	Anne Wiig Arnesen	2023—2024
24	Implementation of Methods for Generation Adequacy Assessment with Wind Considerations	Julian Wuijts	2023—2024
25	Capacity Credit Assessment for Generation Systems including Wind Considerations	Aleksander Halstensen	2024—2025
26	Development of Open-Source Software for Reliability Assessment of Distribution Systems using RELRAD Methodology	Sondre Modalsli Aaberg	2024—2025
27	Long-term Grid Development of Coupled Offshore and Onshore Power Grids	Bilal Ahmed Sheikh	2025—
28	Security of Supply Studies in Distribution Systems — Reliability Considerations	Jørgen Bratvold	2025—
29	Security of Supply Studies in Distribution Systems — Resilience Considerations	Lars Røsås Michaelsen, Sigurd Guttorm Helberg	2025—
30	Security of Supply Studies in Distribution Systems — Vulnerability Considerations	Cédric Haagenrud	2025—

Note: Bachelor's thesis co-supervision — «*Datadrevet feildeteksjon i distribusjonsnettet: feilplasserte nettkunder og feil transformatorkonstant*» Students: Sigve Fjelddalen, Tarjei Reite, Rønnaug Stav. Year: 2024.

PhD Supervision at NTNU

S. No.	PhD Title /Theme	Candidate	Period & Date of Defence
Main Supervision			
1	Reliability Studies in ICT-dominated Power Systems	Mostafa Barani	2018—2022 (07 June 2023)
2	The Impact of High-Voltage Circuit Breaker Condition on Power System Reliability	Jordon Ashley Grant	2021—2024 (03 March 2025)
3	Probabilistic Short-Term Operational Planning of Large-Scale Power Systems using Security-Constrained Optimal Power Flow	Matias Vistnes	2021—2024 (15 May 2025)
4	Development of Coupled Offshore and Onshore Power Grids	Victor Andreu Bañuls Ramirez	2024—
—	Optimal Design, Operation, and Control of Microgrids for Security of Supply	Sondre Johan Kjellin Berg	2018—2022 (Discontinued)
Co-Supervision			
1	Local Electricity Markets: Evaluating Pricing Mechanisms, Fairness and Privacy	Marthe Fogstad Dynge	2020—2024 (06 Dec. 2024)
2	Advancing Power Systems: Harnessing the Potential of Artificial Intelligence and Distributed Ledger Technology	Ugur Halden	2020—2024 (12 Sep. 2024)
3	Reinforcement Learning in Handling Failures in Power Systems	Øystein Rognes Solheim	2020—
Advisor for Postdoctoral Candidate:			
1	Theme: Grid Expansion Optimisation	Shipra Singh	2023—2025

PhD Assessment Committees at NTNU

S. No.	Student	Thesis Title	Year
1	Emil Hillberg	Perception, Prediction and Prevention of Extraordinary Events in the Power System	Jan. 2016
2	Mehdi K. Zadeh	Stability Analysis Methods and Tools for Power-Electronics-Based DC Distribution Systems, Applicable to On-Board Electric Power Systems and Smart Microgrids	Oct. 2016
3	Martin Kristiansen	Multinational Transmission Expansion Planning: Exploring Engineering-Economic Decision Support for a Future North Sea Offshore Grid	May 2019
4	Christian Naversen	Modelling Approaches for Hydro-Dominated System Balancing	Apr. 2021
5	Erlend S. Kiel	Methods for quantifying and communicating risks and uncertainties related to extraordinary events in power systems	Sep. 2021
6	Daniel dos Santos Mota	Control and Stability of Isolated Grids with Synchronous and Non-Synchronous Generation	Dec. 2023
7	Berhane Darsene Dimd	Digital Solar Electricity: The Role of Artificial Intelligence, Machine Learning, and Energy Optimization	Nov. 2025 (Defence scheduled)

International PhD Assessment Committees

S. No.	Student, University	Thesis Title	Year
1	Nicola Viafora, Technical University of Denmark (DTU), Denmark.	Flexible Utilization of Transmission Grid Capacity for Wind Power Integration	Aug. 2020
2	Guanchi Liu, The University of Melbourne, Australia.	Multi-Service Supply Adequacy Assessment Framework in Renewables-Dominated Power System	Jan. 2022
3	Wadih Naim, KTH Royal Institute of Technology, Sweden.	Data Importance in Power System Asset Management	Jan. 2024

PEDAGOGICAL CV

(Note: This is also provided separately as Appendix#E in the Pedagogical Portfolio)

My documented educational competence includes the formal training I received, knowledge from the courses, seminars, and workshops I voluntarily chose to participate in, and from my experience with pedagogical leadership.

1) I have been working as Associate Professor at the Department of Electric Energy (formerly, Department of Electric Power Engineering), NTNU, since June 2015. As a postdoctoral research fellow at NTNU, I was an instructor in multiple courses at the Department in the period January 2014—May 2015. Thus, I have 10+ years of experience teaching in higher education.

2) I participated in NTNU's Educational Program for New Academic Staff (PEDUP), conducted from January through November 2016. At that time, this programme included an estimated workload of 100 hours.

3) I have participated in several pedagogical seminars, modules, and conferences, which have contributed to my educational competence. A sample few include the following:

- **a.** Day-long seminar celebrating NTNU becoming a member of the global CDIO initiative, in May 2017. Professor Ed Crawley from MIT was the keynote speaker.
- **b.** NTNU's two-day PhD-supervisor seminar in Spring 2019.
- **c.** NTNU's seminar on Team-Based Learning in February 2019, which consisted of an estimated workload of 5 hours.
- **d.** 20-hour PEDUP module titled "ICT in learning" in Autumn 2019.
- **e.** Virtual conference of the CDIO Europe-UK & Ireland Regional Meeting in January 2021.
- **f.** Participated in the in-person three-part seminar series (half-day each) on pedagogical development and learning, organized at the Department of Electric Power Engineering, NTNU. The speakers were Kristina Edström and Jacob Kuttenkeuler from KTH, Sweden.
  - I. Seminar#1: The Teaching Trick — Improving Student Learning Without Spending More Time Teaching. October 2021.
  - II. Seminar#2: Developing Engineering Education with CDIO. November 2021.
  - III. Seminar#3: Teaching and Assessment in Project-based Learning. March 2022.
- **g.** 20-hour UNIPED module titled "*Entreprenørskap for bedre undervisning*" in Spring 2022.
- **h.** Participated in a half-day workshop titled "SALSA-based design of courses," conducted by NTNU's Section for Teaching and Learning Support — February 2023
- **i.** Participated in a half-day workshop conducted by Kristina Edström at NTNU on Student Led Tutorials — August 2023.
- **j.** Participated in the workshop series on integrating sustainability in engineering education, held in Spring 2024 at NTNU, organised by the Center for Science and Engineering Education Development (SEED), NTNU.
- **k.** Participated in *Læringsfestivalen* at NTNU, Spring 2024.
- **l.** Participated in the SEED seminar "Progression through the curriculum," NTNU, Spring 2025.
- **m.** Participated in the SEED workshop "Reshaping Engineering Education: Addressing Complex Human Challenges," NTNU, Spring 2025.
- **n.** Participated in the SEED workshop, "Interdisciplinary projects as a tool to support future competence profiles in STEM education programmes," NTNU, Spring 2025.
- **o.** Participated in the Nordic Journal of STEM Education (NJSTEME) Workshop during the MNT ("*Matematikk, Naturfag og Teknologi*") conference in Trondheim in 2025.
- **p.** Participating in the pilot "FTS i praksis: Fagfelleveiledning og Læringsfellesskap," NTNU, Autumn 2025.

4) The following educational leadership roles serve as further evidence of my acquisition of educational competence through experience:

- **a.** In capacity as Deputy Head of Department (Education) from 2017—2021, I demonstrated educational leadership by initiating and leading discussions with colleagues on policy aspects and support mechanisms for effective educational (learning and teaching) practices at the Department, especially through the conduct of regular Teachers' Meetings.
- **b.** From January 2019—September 2020, I was the project leader, responsible for the planning, design and execution of necessary steps to get a new cross-departmental three-year Bachelor's Study Programme titled "Electrification and Digitalisation" (ELDIG) established at the Department of Electric Power Engineering, NTNU.
- **c.** Since Spring 2023, I am the coordinator of pedagogical seminar/workshop series at the Department of Electric Energy (formerly, Department of Electric Power Engineering). These seminar/workshop series are rooted in the overarching principles of NTNU's project on "*Fremtidens teknologistudier*" (FTS); these are specifically targeted for the continued development of competence among Department's permanent scientific staff (FTS Principle V), especially in the areas of contextual learning and student-active learning (FTS Principles II and IV).

ACADEMIC DEVELOPMENT PROJECTS AT NTNU & PEDAGOGICAL COLLABORATION

	Project and role, funding agency
2018—2022	Erasmus Mundus+ Programme (for International Master's Degree in Renewable Energy in the Marine Environment), funding from EU, representative of NTNU in the project, involved in the design of academic offer and the overall proposal preparation.
	Details: I served as one of the two representatives from the Department of Electric Power Engineering for the European Union's Erasmus+ initiative — an Erasmus Mundus application for a joint Master's Programme titled "Renewable Energy in the Marine Environment" (REM), with Universities from Spain, France, and the UK: University of the Basque Country, École Centrale de Nantes, and the University of Strathclyde. I was responsible for the design of the academic offer from NTNU to complement the joint degree proposal, and was actively involved in discussions with partners from start to finish over a period of one and a half years (2016—2017). The Programme was operational from 2018—2022 and has received commendation from the European Commission for its good practices. A successful application for the Erasmus Programme's renewal was made in 2020. The Programme is named REM+ and is operational during 2021—2026. • https://www.master-rem.eu/ • https://www.master-remplus.eu/
2019—2020	Project Leader, New Study Programme at the Department of Electric Power Engineering — Electrification and Digitalisation (working title "Digital Electrical Energy Programme — DEEP"). Funding from NTNU.
	Details: This was the first new study programme conceived and implemented at the Department of Electric Power Engineering, from the ground up, in over 25 years. The study programme was developed by a Task Force of colleagues, which I led. Our tasks included the pragmatic development of the 'emnevegg' (courses in the programme) and the creation of programme-level learning outcomes (Knowledge - Skills - General Competence), inspired by the CDIO Standard #2, and informed by feedback from academic and industry stakeholders. We emphasised curricular progression and focused on aligning course-level learning outcomes with programme-level outcomes. I organised workshops seeking inputs from the stakeholders from industry in the design of the study programme, making sure the relevance of the programme was anchored also in the workforce needs of the electric power industry. The programme is now successfully operational, and the foundation I laid as Project Leader has served as the basis for several subsequent rounds of upgrades made by others. • https://www.ntnu.no/studier/bieldig
2022	Coordinator for strengthening the continuing education courses offered by the Department, for industry (Aker Solutions). The Department offered three course modules on the theme "Electrification and Energy Transition — Power System & Technology Perspectives" to employees of Aker Solutions in Autumn 2022.

DISSEMINATION

	Type of Dissemination
2024	Conference submission titled "Quantifying the impact of student-active learning through feedback collection," presented as a poster at EARLI Special Interest Group (SIG) 27 Conference, Trondheim, November 2024. (This work was based on my experiences with the course TET4205 — Autumn 2023.) https://www.earli.org/sig-27-conference-2024 • EARLI stands for The European Association for Research on Learning and Instruction. • The theme of the SIG 27 conference is "Educational design and research using responsible online process measures."

PEDAGOGICAL MANAGEMENT (at NTNU)

	Position
2015—2021	Member, Study Programme Council at the Faculty of Information Technology and Electrical Engineering, for the 5-year integrated Master's programme "Energy and the Environment" ("*Energi og miljø*").
2018—2021	Programme Manager at the Faculty of Information Technology and Electrical Engineering, for the Master's programme in "Renewable Energy in the Marine Environment (REM)" (Erasmus Mundus+ Programme).

EDUCATIONAL LEADERSHIP (at NTNU)

- Deputy Head of Department (Education) (2025—).
- Deputy Head of Department (Education) (2017—2021).
- Leader of Teachers' Meetings at the Department of Electric Power Engineering (2017—2021).
- Coordinator of pedagogical seminars and workshops at the Department of Electric Energy (2023—ongoing).

TEACHING ACTIVITIES

AT NTNU: I have a wide range of experience teaching engineering students at various levels: 2nd year, 3rd year, 4th year, 5th year, and PhD. I was the village leader of the course "Experts in Teamwork" (EiT). I have also taught in Continuing Education course modules.

Level	Year	Semester	Course Code	Course Name	Role	Involvement
2nd Year	2016–2018	Spring	TET4155	Infrastructure for Energy Transmission and Distribution	Instructor	33%
3rd Year	2021	Autumn	TET4105	Power System Analysis 1	Conceived the course, Instructor	40%
4th Year	2022	Autumn	TET4205	Power System Analysis 2	Conceived the course, Coordinator & Instructor	90%
4th Year	2023	Autumn	TET4205	Power System Analysis 2	Coordinator & Instructor	90%
4th Year	2024, 2025	Autumn	TET4205	Power System Analysis 2	Coordinator & Instructor	80%
4th Year	2020, 2021	Autumn	TET4115	Power System Analysis	Coordinator & Instructor	90%
4th Year	2018, 2019	Autumn	TET4115	Power System Analysis	Coordinator & Instructor	15%
4th Year	2015–2017	Autumn	TET4115	Power System Analysis	Coordinator & Instructor	80%
5th Year	2015	Autumn	ELK16	Specialisation Course (3.75 credits) – Advanced Power System Analysis	Conceived the course, Co-ordinator & Instructor	100%
5th Year	2016–2017	Autumn	ELK16	Specialisation Course (3.75 credits) – Advanced Power System Analysis	Co-ordinator & Instructor	100%
5th Year	2020–2023	Autumn	TET4510	Specialisation Projects	Joint Coordinator	80%
5th Year	2020–2024	Spring	TET4900	Masters Projects	Joint Coordinator	80%
EiT	2017	Spring	TET4853	Experts in Teamwork – Energy Sustainability	Village Leader	100%
EiT	2016	Spring	TET4853	Experts in Teamwork – Energy Sustainability	Joint Village Leader	100%
PhD	2020, 2022	Autumn	ET8207	Power System Reliability	Coordinator & Instructor	100%
PhD	2015, 2017	Autumn	ET8207	Power System Reliability	Guest Lecturer	25%
EVU*	2020, 2021	Autumn	ET6205	The Distribution Grid of the Future	Instructor	25%

Note: All courses correspond to 7.5 ECTS unless otherwise stated.
*EVU – *Etter- og videreutdanning*, Continuing Education.

My Teaching Philosophy — Vijay Venu Vadlamudi

My Present Pedagogical Approach

My present pedagogical approach is fundamentally inquiry-based, characterised by iterative cycles of *do-reflect-think-act*, driven by the pursuit of optimal conditions for student learning, and guided by a central question: How can I best support students in unlocking their learning potential, and navigating the struggles and rewards of the learning process?

Reflections on Student Learning

An underlying theme in my journey to acquire pedagogical competence has been the challenge of figuring out when and how students learn effectively, and what could be done to realise student learning in an effective way. In this section, I share the essence of my understanding of student learning — gained through a variety of resources at my disposal, over several years: my own experience, experiences of colleagues, empirical observations from my teaching practice, pedagogical theories, and research available in literature.

When Do Students Learn?

I have come to appreciate and understand, from my own experience and experiences of colleagues, and then comparing some of my experiences with what Arild Raaheim[1] discusses, that students learn:

- when they are motivated
- when they are respected
- when they are stretched and challenged
- when they are 'engaged'
- when they are given feedback
- when they work in collaboration with peers
- when they are involved and made responsible
- when they feel welcomed and valued
- when they are exposed to a variety of relevant instruction (teaching) methods and assessment methods
- when the learning environment is 'inclusive'
- when the teacher is passionate, committed, and caring.

I have endeavoured to build a learning environment that allows the realisation of the above conditions.

How Do Students Learn?

Students learn by 'constructing' their own learning through relevant learning activities. For a major part of my teaching career, I employed lectures as the primary 'activity' in the classroom as I had felt that the subject matter complexity demanded expository instruction to cover the knowledge needs of students, especially the Threshold Concepts[2]. Lectures had also afforded logistical convenience in courses with huge enrollment of students. It took a while for me to understand that a teaching style that relied on too many lectures could end up having the same effect as offering TEDx[3] sessions — the sessions are motivating, but do not necessarily activate the students to channel that motivation into action.

Through Kolb's Experiential Learning Theory[4] (ELT), I gained insights into the mechanism of how learning occurs among students. The way most students learn efficiently is by doing, which enables them to '*grasp and transform experience*.' Even though learning is an intrinsically individual process, when the learning takes place in interaction and collaboration with peers and teachers, both the cognitive and the metacognitive processes improve considerably. Students come to the classrooms with a vast array of cognitive abilities and skills, with immense potential to contribute to the learning environment with the diversity of their learning processes, and this potential could be tapped into, through the design of group problem-solving tasks that require them to adopt "Inquiry-Based Learning"[5] — guided learning that trains students to ask the 'right questions' as to what needs to be learned (and which resources are required) in order to answer the questions, 'do' the required learning to answer the questions, and share their learning.

Students learn through the *do-reflect-think-act* closed loop. They learn by doing: gaining an experience, and then reflecting on what they have done: 'what did I experience' and then thinking/concluding: 'why did the experience turn out the way it did' or 'why did that happen', and then acting upon what they have learned from the experience by trying it out in a different context or in a similar context in a different or better way, or simply acting on figuring out: 'what do I do next'.

I realised that my skills as a teacher would be put to better use if I deployed classroom activities to facilitate the learning process through collaboration in groups, rather than providing knowledge merely in the form of lectures. The required functional knowledge needed for in-class collaboration on group tasks could be imparted through

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[1] A. Raaheim, "Råd og tips til deg som underviser," Gyldendal Akademisk, Oslo, 2013.

[2] J. H. F. Meyer, R. Land, and C. Baillie (Eds.), "Threshold Concepts and Transformational Learning," Sense Publishers, Boston, 2010.

[3] https://www.ted.com/tedx/events

[4] D. A. Kolb, "Experiential Learning: Experience as the Source of Learning and Development," 2nd Edition, Pearson FT Press, New Jersey, 2014.

[5] https://www.queensu.ca/ctl/resources/instructional-strategies/inquiry-based-learning

Blended Learning – select-few pre-recorded lecture videos that students could watch individually at their own pace, before coming to the classes. The goal of lectures should be to give students an overview of the required central concepts and make visible the complexity of connections students need to make in organising their knowledge[6]. Lectures in the form of pre-recorded videos could suffice to meet this goal. The goal of lectures is also to motivate further learning in students; lectures could also lead the student through the 'digital chaos' of other options available to them.

The concept of Zone of Proximal Development[7] (ZPD) talks about what results in reducing the distance (gap) between what the student already knows (pre-requisites) and what the student should know from the intended learning outcomes: collaboration with peers and more experienced others (teachers). This points towards activities designed for learning-by-doing in groups, as an effective means of student learning. The group activities designed could also be scaffolded[8], as with lecturing, to enable cognitive leaps among students, to enable them to synthesise the threshold concepts.

Some Miscellaneous Information:

Philosophy and Beliefs about Collegiality:

As the saying goes, it takes a village to raise a child. I have benefited greatly from a collegial environment at the Department, where continuous encouragement has supported my pedagogical development. I am driven by a compelling sense of duty to engage my colleagues in our academic "*fellesskap*". Students learn more effectively through peer collaboration within the do–reflect–think–act cycle (as articulated in Experiential Learning Theory). By extension, I believe the same holds true for teachers: collegial collaboration, whether in course development, "*kollegaveiledning*", addressing pedagogical challenges, or sharing teaching practices, is a powerful driver of professional engagement and mutual growth.

[6] https://www.uio.no/tjenester/it/utdanning/pedagogiske-tips/undervisningsplanlegging/velg-relevante-aktiviteter/

[7] A. I. Podolskiy, "Zone of Proximal Development," in Encyclopedia of the Sciences of Learning by N. M. Seel (Ed.), Springer, Boston, 2012.

[8] C. McLauchlan, T. Goldfinch, and P. Ciufo, "Pedagogy for the Practising Engineer: A Closed Loop Feedback Control Analogy to Teaching and Learning," *Proceedings of the IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE)*, Australia, 2018, pp. 1-8.