

Curriculum Vitae

Personal information

Surname(s), given name(s): Kauhaniemi, Kimmo Tapio
Gender: Male
Date of writing the CV: 27.8.2018
Date and place of birth: 2.8.1963, Kankaanpää, Finland
Citizenship: Finnish
Current residence: Vaasa, Finland

Education and degrees

- D.Sc. (Tech)
- Tampere University of Technology, Tampere, Finland
 - Major subject: Electrical energy systems
 - Graduation date: 29.10.1993
- M.Sc. (Tech)
- Tampere University of Technology, Tampere, Finland
 - Major subject: Electricity distribution technology
 - Graduation date: 25.9.1987

Current position

Occupation or position held: Professor (Electrical Engineering)
Name and address of employer: University of Vaasa
School of Technology and Innovations
P.O.Box 700
FI-65101 Vaasa
Finland
Dates: From October 1999 until now.
(part-time until August 2005 and after that full-time)
Main activities and responsibilities:

- Education relating to the power systems with special focus on relay protection.
- Managing the research activities in the field of Smart Grids.
- Head of the research group Smart Electric Systems.
- Head of the Master's Programme in Energy and Information Technology

Previous work experience

Occupation or position held: Senior research scientist (part-time)
Name and address of employer: VTT Technical Research Centre of Finland, Vaasa, Finland
Dates: From January 2002 to August 2005

Occupation or position held: Senior researcher
Name and address of employer: ABB Corporate Research, Vaasa, Finland
Dates: From August 1997 to December 2001 (part-time from October 1999 to December 2001)

Occupation or position held: Full-time teacher
Name and address of employer: Savonia University of Applied Sciences, Kuopio, Finland
Dates: From August 1995 to June 1997

Occupation or position held: Various positions (mainly researcher)
Name and address of employer: Tampere University of Technology, Tampere, Finland
Dates: From January 1989 to July 1995

Research funding, leadership and supervision

Major externally funded projects:

- 2006-2008: Envade+, Energy storages for managing distributed generation
- 2009-2015: SGEM, Smart Grid and Energy Markets (a national program run by Cleen Ltd)
- 2014-2016: ECV-eCharge, Electric vehicle systems and grid integration (part of the national research platform ECV, Electrical Commercial Vehicles)
- 2014-2016: Sundom Smart Grid (part of the regional INKA program)
- 2015-2017: Protect-DG, New techniques for the management of power system faults and distributed generation (part of the regional INKA program, EU funding through the ERDF)
- 2015-2017: FESSMI, Future energy storage solutions in marine installations (part of the regional INKA program, EU funding through the ERDF)
- 2016-2018: SESP, Smart Energy Systems Research Platform (part of the regional AIKO program)
- 2017-2019: VINPOWER, Vaasa innovation platform for future power systems (EU funding through the ERDF)
- 2018-2021: FUSE, Future Smart Energy (Finnish – German collaboration project)

Notices:

- Projects have been funded mainly by national sources like Tekes (now Business Finland) if no otherwise stated
- All projects are partly funded by industrial partners
- Most of the projects are based on national level cooperation and involved also other partners than University of Vaasa

Roles and leadership:

- Responsible person in all of the above projects (on behalf of University of Vaasa): preparing the funding applications, project plans and reports as well as managing the research made by research staff.
- Head of the research group.

Supervision of doctoral students:

- Supervised 4 doctoral students graduated so far. Currently supervising 6 doctoral students.

Teaching merits

Competence:

- Teaching experience about university level courses since 1994, including two years as a teacher in a university of applied sciences (Kuopio, Finland).
- Full time Professor at the University of Vaasa since August 2005 (part-time since October 2009).

Roles and leadership:

- Head of the Master's Programme in Energy and Information Technology.
- Teaching regularly in four courses (both B.Sc. and M.Sc. level courses).
- Supervising several B.Sc. and M.Sc. theses annually.

Awards, prizes and honours

Teacher of the year in 2010, nominated by the student's association Tutti ry.

Certificate of Appreciation: Exceptional reviewer for the IEEE Transactions on Power Delivery, 2014

Other academic merits

Examination of doctoral theses:

- Pre-examiner for 10 dissertations in Finnish universities.
- Opponent for 12 dissertations in Finnish universities.
- Pre-examiner and opponent for one dissertation in universities abroad (University of Seville, Spain).

Peer reviewer in scientific journals:

- IET Generation, Transmission & Distribution (since 2006)

- IEEE Transactions on Smart Grids (since 2012)
- IEEE Transactions on Power Delivery (since 2012)
- IEEE Transactions on Power Systems (since 2014)
- Energies (since 2015)
- International Journal of Electrical Power & Energy Systems (since 2016)
- Applied Energy (since 2015)

Tasks, positions and memberships in conferences and professional organisations

- peer reviewer of several international conferences (CIRED, IEEE PowerTech, PSCC,...)
- member of scientific committee in 2018 19th International Scientific Conference on Electric Power Engineering (EPE)
- member of the national board of CIRED
- member of the CIGRE study committee C6
- member of IEEE

Publications

Most significant publications basing on number of citations

- Kauhaniemi, K, and L Kumpulainen. "Impact of Distributed Generation on the Protection of Distribution Networks." In Eighth IEE International Conference on Developments in Power System Protection, 315–318. IET Digital Library, 2004.
- Kumpulainen, Lauri, and Kimmo Kauhaniemi. "Distributed Generation and Reclosing Coordination." In Nordic Distribution and Asset Management Conference, 2004.
- Kumpulainen, Lauri, Kimmo Kauhaniemi, Pekka Verho, and Olavi Vahamaki. "New Requirements for System Protection Caused by Distributed Generation." In Electricity Distribution, 2005. CIRED 2005. 18th International Conference and Exhibition On, 1–4. IET, 2005.
- Kumpulainen, LK, and KT Kauhaniemi. "Analysis of the Impact of Distributed Generation on Automatic Reclosing." In Power Systems Conference and Exposition, 2004. IEEE PES, 603–608. IEEE, 2004.
- Laaksonen, H, K Kauhaniemi, and S Voima. "Microgrid Voltage Level Management and Role as Part of Smart Grid Voltage Control." In PowerTech, 2011 IEEE Trondheim, 1–8. IEEE, 2011.
- Memon, Aushiq Ali, and Kimmo Kauhaniemi. "A Critical Review of AC Microgrid Protection Issues and Available Solutions." Electric Power Systems Research 129 (2015): 23–31.
- Palizban, Omid, and Kimmo Kauhaniemi. "Energy Storage Systems in Modern Grids—Matrix of Technologies and Applications." Journal of Energy Storage 6 (2016): 248–259.
- Palizban, Omid, and Kimmo Kauhaniemi. "Hierarchical Control Structure in Microgrids with Distributed Generation: Island and Grid-Connected Mode." Renewable and Sustainable Energy Reviews 44 (2015): 797–813.
- Palizban, Omid, Kimmo Kauhaniemi, and Josep M Guerrero. "Microgrids in Active Network Management—Part I: Hierarchical Control, Energy Storage, Virtual Power Plants, and Market Participation." Renewable and Sustainable Energy Reviews 36 (2014): 428–439.
- Palizban, Omid, Kimmo Kauhaniemi, and Josep M Guerrero. "Microgrids in Active Network Management—Part II: System Operation, Power Quality and Protection." Renewable and Sustainable Energy Reviews 36 (2014): 440–451.

(full publication list available at http://lipas.uwasa.fi/~kauhanie/Kauhaniemi_publications.pdf)