Curriculum vitae

Anders Thavlov

Contact Information

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Personal Data

Place and Date of Birth:	Copenhagen, Denmark – 3rd of June 1979
Family:	In a relationship and father of two

Employment and Experience Abroad

Since Sep 2015	**Postdoc** at DTU Elektro, Technical University of Denmark As a Postdoc, I have been involved in several projects, as listed in the project section below. – In the PowerLabDK project, I have developed of a methodology for validation of power system services delivered by aggregators and implemented the procedure of validation as well as an aggregation framework in the laboratory. – In the ERIGrid project, I was mainly doing project management as manager of transnational access to nine European smart grid laboratories and work package leader of one of 11 work packages. – In the iPower project, I was mainly developing software tools for lab integration of remote hardware run by the industrial partners in the project, e.g. Danfoss and Grundfos. – In the TwinPV project I was mainly developing software tools for lab integration of different computing tools and programming language, e.g. MATLAB and Python.
Mar 2012 – Jul 2012	**Visiting Scholar** at the Department of Electrical Engineering and Computer Sciences, University of California, Berkeley As a visiting scholar at UC Berkeley, I developed a heat dynamic model of a computer lab on the campus and integrated its heat control into a virtual power plant).
Feb 2010 – Aug 2015	**Ph.D. Student** at DTU Elektro, Technical University of Denmark The objective of my Ph.D. study, was to development a methodology for harnessing the potential of flexible electricity demand through aggregation of residential loads into a so-called virtual power plant (VPP). Using the VPP infrastructure residential energy consumption was optimised with respect to cost of energy or could alternatively be sold as ancillary power system services to system operators. The project was partly financed by and conducted in collaboration with DONG Energy, who provided part of the aggregation infrastructure, i.e. Power Hub.
Aug 2008 – Jan 2010	**Research assistant** at the Intelligent Energy Systems Programme, Risø DTU Development of software and visualisation tools for smart energy systems. Integration of access control system, developed by an external party, for control of access to lab entities.

Jun 2008 – Jul 2008	**Research assistant** at DTU Informatics, Technical University of Denmark Consulting work for the Danish Electricity Trust (Elsparefonden).
Aug 2007 – Jul 2008	**Student helper** at the Wind Energy Department, Risø National Laboratory for Sustainable Energy Development of applications for visualisations of smart grid energy systems.
Oct 2005 – Aug 2007	**Night watch** at a children's home with special needs at Broen, Gentofte Kommune Part time job as Night watch and caring assistant during the daytime .
Oct 2005 – Aug 2007	**Student helper** at Atchik-Realtime Part time job for administration of content management system (CMS) for distribution of Java games and ring tones for mobile phones through international mobile operators, including content to the TDC Fly Web portal. Software development on in-house CMS . Database migration of CMS database from Oracle to MySQL.
Jul 2000 – Oct 2005	Post Danmark Part time job for parcel pickup and delivery for business and private customers.
Aug 1999 – May 2000	Military service at Bornholms Værn Compulsory military service at the royal Danish Marine corps at Bornholms Værn.
Jun 1994 – 2001	Dansk Supermarket Miscellaneous part time employments at Føtex

Education

September 2015	**Doctor of Philosophy** (Ph.D.)
	Intelligent Energy Systems
	DTU Electro, Technical University of Denmark
	Thesis: *"Power System Integration of Flexible Demand in the Low Voltage Network"*
	Supervisors: Henrik W. Bindner (Senior Researcher, DTU Electro)
	Klaus B. Hilger (Head of Technical Concept Development, Dong Energy)
	Lars H. Hansen (Senior Engineer, DONG Energy)

June 2008	**Master of Science in Engineering** (M.Sc.E)
	Applied Mathematics and Computer Science
	DTU Informatics, Technical University of Denmark
	Thesis: *"Dynamic Optimization of Power Consumption"*
	Supervisors: Henrik Madsen (Professor, Head of section, DTU Compute)
	Niels Kjølstad Poulsen (Associate Professor, DTU Compute)

June 2004	**Bachelor of Science** (Fagpakke) – Applied Physics and Micro Technology
	Microelectronics Centre (MIC), Technical University of Denmark
	Thesis: *"Black Silicon Nanostructures"*
	Supervisors: Anders Michael Jørgensen (Deputy Director, DTU Danchip)
	Jörg Hübner (Director, DTU Danchip)

June 1999	**High school**, Borupgaard Amtsgymnasium

June 1996	**Public school**, Smørum Friskole

Languages

Danish:	Native language
English:	Fluently

Computer skills

Programming:	Very experienced in Java, MATLAB and Python, R and LaTeX.
	Experienced in C, C++, C#, MySQL, PostgreSQL, JavaServer Pages (JSP) and Bash (Unix shell).
	Basic knowledge in HTML, PHP and PEARL
Development tools:	Very experienced user in Eclipse IDE, IntelliJ IDEA, Apache Maven, Apache Ant, Git, Apache Subversion (SVN) and CVS.
Operating system:	Very experienced used in Windows and Linux/Unix.
Office:	Very experienced user of Excel, Word and PowerPoint.

Projects

iPower   iPower is a Danish strategic platform where universities and industrial partners consolidates innovation and research activities with the purpose of developing future smart-grid technologies and concepts. The iPower platform links research, innovation and demonstration to actual product development by specifying technologies, requirements and methods for Smart Grid products.

– link to iPower

PowerLabDK   This objective of this project was to implement and test aggregators and aggregator algorithms using the laboratory infrastructure provided by DTUs PowerLabDK.

– link to PowerLabDK

RTLabOS   The aim of RTLabOS was identify best practice and requirements for a future laboratory infrastructure, and from this suggest architecture solutions and develop feasibility studies for the most critical and challenging functionality.

– link to RTLabOS

ERIGrid   Project funded under the European Unions Horizon 2020 programme. The objective of the project is to support and develop new technologies for Smart Grid solutions and concepts in Europe by integration of 18 European smart grid laboratories, thus establishing a joint pan-European research infrastructure. The aim is to develop a holistic methodology for analysing, validating and testing smart grid configurations through jointly developed common methods, concepts, and procedures. Furthermore, ERIGrid offers free transnational access to the partners smart grid research infrastructures.

–link to ERIGrid

TwinPV   Project funded under the European Unions Horizon 2020 programme. The project aims to increase the performance of one academic institution (University of Cyprus) by teaming it with other leading research partners in Europe (Technical University of Denmark and Austrian Institute of Technology). The increase in performance is achieved through knowledge transfer and exchange of staff and best practice

– link to TwinPV

Teaching

Autumn 2011 – "Modelling and Analysis of Sustainable Energy Systems" as teaching assistant.

Memberships

- Institute of Electrical and Electronics Engineer (IEEE)
- Danish Society of Engineers (IDA)
- Danish Smart Grid Research Network (DSGRN)

Supervision

During my employment at DTU i have supervised several B.Sc. and M.Sc. students as well as one PhD student.

Position of trust and other Experiences

- Co-founder of Danish Smart Grid Research Network (DSGRN), currently holding 800+ member. The network is a non-profit organisation founded by four PhD students in January 2011. The objective of network is to coordinate smart-grid research and disseminate key findings among members. The organisation strives to arrange 2-3 network events annually at different locations in Denmark. Typically, the events are hosted and sponsored alternately by industry, public and academic institutions. Networking events takes place over a full day and typically consists of 6-7 presentations from the industry, grid utilities, academia and research projects.

- Committee member of dive club Kyklop.

Interests and Activities

In my spare time, I spend much time on my racing bike, driving around in North Zealand, and practice different types of water sports, e.g., diving, playing underwater rugby and sailing. Also I love travelling and cooking, and enjoying food and wine in general.