

Undervisningsportfolio

1. Undervisnings-CV: Oversigt over undervisnings- og vejledningsopgaver med angivelse af fagområder, omfang, niveau (BA, kandidat, EVU, Ph.d) samt evt. censoropgaver.

Project Supervision

Since 1997 I have continuously been serving as assistant- and associate professor, and in this capacity, I have a long teaching history. I have been supervising at all levels in the department's educations in computer science and software engineering in multiple instances. In addition, I have supervised multiple groups on continued education. I am (and have been for several years) been acting as official censor in computer science, and recently (2022) computer engineering. Supervised PhD. Theses

- Zhang Zhengkui: Time and Cost Optimization of Cyber-Physical Systems by Distributed Reachability Analysis, 2017
- Shuhao Li: Games and Scenarios for Real-Time Systems Validation, 2010

- Marius Mikucionis: Online Testing of Real-Time Systems, 2010

Supervised MSc. Theses

- 2022 Andrei-Eugen Birta Ádám Blázsek: Offsetting Impermanent Loss Using Financial Derivatives in Smart Contracts
- 2022 Dimitar Stanchev Stefanov, Stoycho Anastasov Nenov: Block Reorgs Mitigation in Ethereum Proof-of-Stake
- 2021 Aleksandar Dimitrov Zahariev, Tsvetomir Dimitrov Ivanov, Delyan Antonov Iliev: UPPAAL as a SaaS
- 2020 Valér Orlovsky, KuberShaper.
- 2020 Kim Larsen, Martin Martin Fabrin Karkov, Optimizing the real-time reviewing for Cloud Rendering in 3D CGI Production.
- 2018 Mathias Vestergaard Rasmussen, Decentralised and Trustless User-Driven Rating Platform Resilient to Attacks
- 2016 Emil Gydesen: Energy Efficient Continuous Gesture Recognition
- 2016 Kasper Lind Sørensen and Simon Binderup Støvring: Context-Aware Home Automation Using Gestures on a Wearable
- 2015 Thomas Skinner Larsen: Model-based testing of Data-Vaults (IT-Vest)
- 2015 Brian Holbech, Christian Mortensen, Søren Knudsen: Homeport, an extension to allow automation of smart devices on heterogeneous networks
- 2013 Erland Larsen og Ib Havn: Sharing Real-Time Objects in Distributed Embedded Systems (IT-Vest)
- 2011 Janus Hansen, Rune Kristian Jensen, Martin Breum Rosenbeck: RawRocks - A fast-paced Peer-to-Peer Games
- 2011 Peter Schmidt Freiberg, Jimmy Merrild Krag, Brian Villumsen: Distributed parameter sweep for UPPAAL models
- 2010 Ron Cohen, Anders Ejlersen, Rasmus Kristensen: To Infinity and Beyond: Scaling Massively Multiplayer Games
- 2010 Peter Finderup, Thomas Birk Abildgaard, Robertas Backys: Energy Efficient Code Updates in Wireless Sensor Networks — Validation and enhancement of the GCP protocol
- 2007 Weiwei Zheng: Model-based Online Testing — A case study on SKOV feeding System
- 2006 Palle Ehmsen, Rene Vestergaard Madsen, and Morten Zinck: Multi-core 3D Game Engine Architecture
- 2005 Gunnar Hall, Piotr Kordy, and Dalia Vitkauskaite: Improvements on Online Testing with T-UppAal — Coverage Measurement and Reruns.
- 2005 Stanislav Levchenko: Automatic Online Real-Time Testing of Distributed Java Applications.
- 2003 Marius Mikucionis and Egle Sasnauskaite: On-the-fly Testing Using UPPAAL.
- 2001 Anders Lildballe and Torben W. Andersen: Seamless Handoff in MobileIPv6.
- 2001 Esben Bo Rasmussen and Klaus Torst Rasmussen: Authentication and Authorization in Stateless Autoconfiguration.
- 1999 Heino Juvoll Madsen, Thomas Poulsen and Thomas Bang: Multicasting Layered Video on ATM Networks.
- 1998 Morten Vadskær Jensen: Design and Implementation of an Efficient, Layered Video Codec for Heterogeneous Networks.

- 1997 Thomas Husfeldt, Finn Normann Pedersen, and Dao Van The: Adaptive Multi-media Scheduling.

- 1996 Anders Brahe and Bo Jensen. NOWS using Scalable Coherent Interface.

Course Teaching

- Computer Architecture and Operating Systems, B.Sc., 2021, 2022
- Internetworking and web-programming, B.Sc. level. 2020, 2021, 2022
- Computer Architecture. B. Sc. Level 2017,2018, 2019, 2020
- Distributed Systems, MS level, 2019
- Distributed Systems and Networks (w. Josva Kleist), 2011, 2012, 2013, 2014, 2015, 2016
- Advanced Topics in Distributed Systems. M.Sc. Level. 2011, 2012, 2014, 2015, 2016, 2017
- Embedded Real-Time Systems (With A. P. Ravn, Arne Skou, René Rydhof Hansen). Continued Education, 2013
- Model-driven and component based development of embedded systems (With AP. Ravn, Arne Skou), M.Sc. level. Continued Education, 2011
- Basic Embedded Systems (with AP. Ravn, Tom Pedersen). M.Sc. level. 2009, Continued Education
- Distributed Real-Time Systems (With AP. Ravn). M.Sc. level. Continued Education, 2006
- Introduction to Concurrency and Operating Systems. B.Sc Level. Numerous Instances.
- Introduction to Distributed Systems. B.Sc. level. Numerous Instances.
- Test and Verification of Software. M.Sc. level. Numerous Instances.
- Modelling, Testing and Validation. B.Sc. level. Numerous Instances.
- Professional System Administration (Curricula development and coordination, with others). B.Sc. level, 3 Instances

•Specialization Course in Distributed Systems. M.Sc. level. Numerous Instance.

2. Studieadministration: Oversigt over studieadministrative opgaver, eksempelvis medlem af studienævn, studieleder, semesterkoordinator, fagkoordinator, akkreditering m.v.

- Flere instanser som semester koordinator
- Fagkoordinator IT-Vest.
- BAIT udd gruppe medlem.

3. Universitetspædagogiske kvalifikationsforløb: Oversigt over gennemførte universitetspædagogiske kursusforløb, PBL-kurser, workshops, udviklingsprojekter, kollegial supervision o.l.

- AAU Pedagogical course for assistant professors (Adjunkt pædagogikum), Oct. 1997- feb. 1999
- Coaching - dig selv i rollen som coach, part 1 (2007) and part 2(2008)
- Krop og Stemme (AAU PUC), 2008
- Digital Transformation, 2020
- Paedagogical supervisor for new assistant professor, ????, 2019
- Mentor for new foreign supervisor, 2022

4. Anden form for kvalificering: Konferencedeltagelse, debatindlæg, oplæg m.v. i relation til uddannelse, "Undervisnings dag", o.l.

- Undervisningsdag: Multiple instances before 2015, 2015

5. Undervisningsudviklingsforløb og undervisningsmateriale: Oversigt over medvirken til udvikling af nye moduler, undervisningsmateriale, uddannelser, e-learning, samarbejde med eksterne samarbejdspartnere o.l.

Professional System Administration (Curricula development and coordination, with others).
Studieordensrevision, flere instanser for Datalogi, SW, and BAIT, herunder Curricula development for courses in distributed systems and networks, operating systems, Internetworking and web-programming.

6. Nominering til og/eller modtagelse af undervisningspriser.

Skriv dit svar her...

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.

Jeg har introduceret begrebet "Student Lectures" (Studenter forelæsning) i kurset i Avancerede Distribuerede Systemer. Lektionen er en præsentation (varighed 30-35 min) med formålet at undervise ligesindede af et selv valgt emne indenfor kursets læringsmål. Lektionen er et muligt eksaminsspørgsmål ved mundligt eksamen, som består i en forkortet udgave. Dette har haft flere positive effekter: engagere studerende, aktivere studerende i selvstudie/forberedelses tiden del af de 5 ECTS, og dække et bredere fagområde.

Jeg bruger power-point (for) meget, men det er fordelagtigt da min tavleorden/håndskrift er forfærdelig, og tillader genbrugbar foreberedelse i en tid med meget undervisning og reduceret forberedelsestid. Den klassiske opgave-regning udføres fifty-fifty.

Fremover overvejer jeg at nedbryde den klassiske forelæsning i mindre faglige portioner, som måske skal være tilrådighed som pod/pencasts med evt suppleret med øvelser, quiz'er. Forelæsningen kan da bruges til at give mere baggrund, overblik, sammenhæng med relaterede emner, og fokus på vigtige tekniske emner. På den anden side skal der være en vis portion fremstilling a specifikke svære tekniske emner, da de forventes at skulle kunne forklare disse til eksamen, og undervisningen skal forberede dem på den situation. Jeg er tøvende med at gå full-in i flipped class-room filosofien.

Jeg har til hensigt at undervise studerende og "flytte" dem uanset deres startniveau. Generelt har jeg som mål at gøre det så godt som jeg formår under de omstændigheder "virkeligheden" byder mig.

Jeg har gjort gode og dårlige erfaringer med omlægning til video-baseret undervisning under corona tiden. I IWP og CAOS skal der indgå flere interaktive opgaver under forelæsningerne og strammes op om de studerendes opgaveregning. Mere flipped.

8. Andet.

Skriv dit svar her...