

KRZYSZTOF ARENDT COMPLETED VISIT AT THE SIMULATION RESEARCH GROUP AT LBNL



Krzysztof Arendt finished his 6-months long stay in the Simulation Research Group at LBNL (February-July 2017). The two main outcomes of the stay are the parameter estimation toolbox for gray-box models (ModestPy*) and the EnergyPlus model editing tool (EPQuery**). Both tools are released as open source (BSD license). ModestPy is

currently used together with the optimization framework Controlem in the virtual building tests as part of WP4. On the other hand, EPQuery is used whenever extensive and repetitive modifications to any of the EnergyPlus models used in the project are needed, e.g. to generate a Functional Mock-up Unit (FMU). So far it has been primarily helpful with the OU44 building and virtual building models (both developed by Muhyiddine Jradi) as part of WP2 and WP4.

Despite the finished stay, Krzysztof still collaborates with LBNL and currently works on comparing the performance of ModestPy with other methods and tools used at LBNL (publication planned in spring 2018).

* <https://github.com/sdu-cfei/modest-py>

** <https://github.com/sdu-cfei/epquery>

BRICK PRESS RELEASE

The international consortium behind the Brick schema (WP3) has as an objective to develop and maintain a metadata scheme for buildings and bring the scheme into public and commercial use. The members of the consortium cover UC Berkeley, UC San Diego, UCLA, CMU, University of Virginia, IBM Research, and SDU.

ASHRAE BACnet committee, Project Haystack and the Brick initiative partner to integrate tagging and data modeling into ASHRAE Standard 223P.

This unified effort is aiming at a formally standardized application data modeling solution which can be implemented in various ways. For example, it will be able to be used for exchanging data over established communication protocols like the Haystack web services or BACnet, or being applied on data stored in databases and cloud applications. The first public review of the initial draft of 223P is envisioned for late 2018. Ultimately, ASHRAE Standard 223P is intended to be adopted as an ISO standard.

Aside from the engineering and automation efficiency improvements machine-readable semantic descriptions of data will provide, a single global standard will enable broader interoperability among applications.

Read the new journal paper on [Applied Energy](#) Brick: Metadata schema for portable smart building applications.

DANISH RESEARCH: NEW SOFTWARE MUST ENSURE THAT SENSORS DON'T BECOME A GDPR-PROBLEM



Progress on privacy protection presented at BuildSys by Fisayo Caleb Sangogboye highlights that sensors in the office are another speed bump that Danish companies must keep in mind in the work to be compliant before May 2018. Modern buildings are packed with sensors for intelligent management, but when GDPR comes into force in May 2018, it's another pitfall to be aware of. Therefore, researchers from SDU and UC Berkeley have developed a tool to make sensor data more anonymous, called PAD. The aim is to find the best compromise between privacy and optimized, intelligent management of buildings. Further information on [how to make sensor data more compliant](#) can be found following the link.

PROJECT ANNEX 66 IS COMPLETED



The IEA EBC ANNEX 66; Definition and Simulation Of occupant Behavior in buildings is now completed. The [latest version of their newsletter](#) highlights the occupant behavior research organized through the project's international conferences and symposiums. Participating Universities have collaborated providing input into a book summarizing many of the main results from the Annex project which has recently been published [titled Exploring Occupant Behavior in Buildings](#). For further information about the achievements of the project [visit the ANNEX webpage](#).

EnergiForum: COORDICY PRESENTATIONS



Several presentations have been given on COORDICY outcomes at a national forum organized by EnergiForum. Focusing on inspiration, experience exchange and debate about Smart Buildings. The previous [program](#) can be found via their webpage.

1. Big Data Living Lab v. Mikkel Baun Kjærgaard, Associate Professor, SDU
2. Data in an ordinary building – what do we already have and how can we apply it? Mikkel Baun Kjærgaard, Associate Professor, SDU review data from the Mærsk building located at SDU – a classical building used for educational purposes.
3. Demonstration of software tools developed as part of COORDICY, Aslak Johansen, Postdoc, SDU

MASTER THESIS RESULTS IN PAPER AT PREMIER IoT CONFERENCE



Located in Orlando Florida the IEEE held a AMC/IEEE International Conference on Internet of Things Design and Implementation on April 17-20th. Where the masters thesis project was presented:

Brume - A Horizontally Scalable and Fault Tolerant Building Operating System
Almir Mehanovic, Thomas Heine Rasmussen, Mikkel Baun Kjærgaard (University of Southern Denmark).

RESILIENCE CONFERENCE



Green Tech Center in Vejle arranges a resilience conference on May 31st with interesting topics and speakers with two presenting from SDU. Bo Nørregaard Jørgensen presented within the Energy resilience group on Intelligent buildings. Also Nicola Tollin presented with the group and about Urban Resilience.

INTERNATIONAL NETWORKING & COLLABORATION

The results of COORDICY are disseminated through participation in the IEA-EBC Annex 60 - New Generation Computational Tools for Building & Community Energy Systems, Annex 66 - Definition and Simulation of Occupant Behavior in Buildings, and Annex 67 - Energy Flexible Buildings.

INTERNATIONAL WORKSHOPS

The June 1, 2017 international workshop, session focusing on;

- Closing the Energy Performance Gap in Energy-Efficient Public and Commercial Buildings.
- Advancing Energy Performance by Increasing Buildings Intelligence Quotient

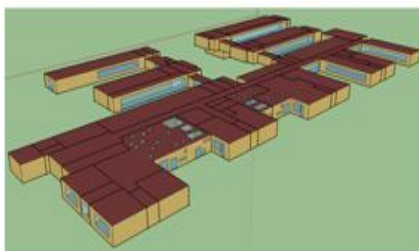
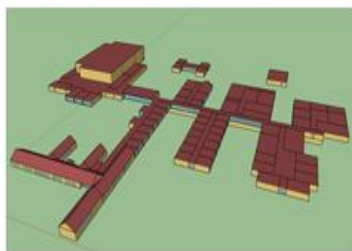
Presenters from LBL . Number of participants 35.

NATIONAL WORKSHOPS

November 30, 2017 Let's talk, workshop arranged by Aslak Johansen, 38 people in attendance. Where Mikkel Baun Kjærgaard, Associate Professor, PhD, at SDU will take us through some of the currently hot topics, abstract: The availability of sensors in mobile, wearable and IoT devices enables the collection of a wealth of data about us and the world around us. At this meetup SDU experts will share best practices for developing sensing-based software systems with mobile/wearable/IoT devices, handling privacy issues and sharing open data generated from sensors to enable a data-driven society.

Associate Professor Muhyiddine Jradi has served as an invited speaker in two Danvak and Schneider Electric workshops: "Fremtidens bygningsstyring" on August 22, 2017 in Ballerup Denmark and August 28, 2017 in Kolding Denmark, presenting updates on the work regarding building dynamic energy modeling and simulation under COORDICY Project.

ODENSE PUBLIC SCHOOLS RENOVATION IS UNDERWAY

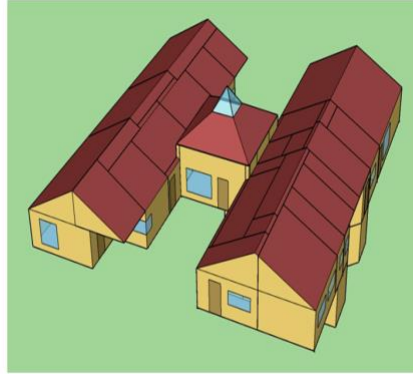
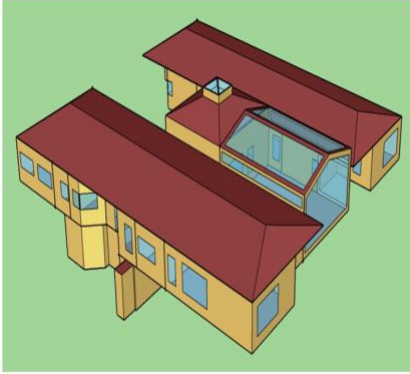


In collaboration with Odense Municipality, five public schools, Seden School, Ejerslykke School, Paarup School, Kroggaard School and Rasmus Rask school were selected to serve as case studies under the COORDICY project to carry out full energy modelling, performance simulation and renovation assessment. 3D models were developed with accurate representation of the geometry and construction characteristics of various Blocks. Onsite inspection has been conducted and data regarding the building constructions and materials as well as schedules, ventilation units and heating system specifications was collected. All these data and information were considered in developing the holistic energy models for the schools, using a package of

Sketchup-OpenStudio-EnergyPlus, taking into account different characteristics, constructions, specifications, schedules and sub-systems. The energy models were calibrated against actual meter data. Using the developed models, multiple energy management and retrofit combinations were analyzed and evaluated on the level of the whole school. The technical, economic and environmental impacts of the different measures were reported and favorable measures were recommended and highlighted. The renovation of the 5 schools is currently Underway with the aim to perform post-renovation analysis.

Associate Professor Muhyiddine Jradi (mjr@mmpi.sdu.dk)

AARHUS DAYCARE CENTERS RENOVATION ASSESSMENT COMPLETED

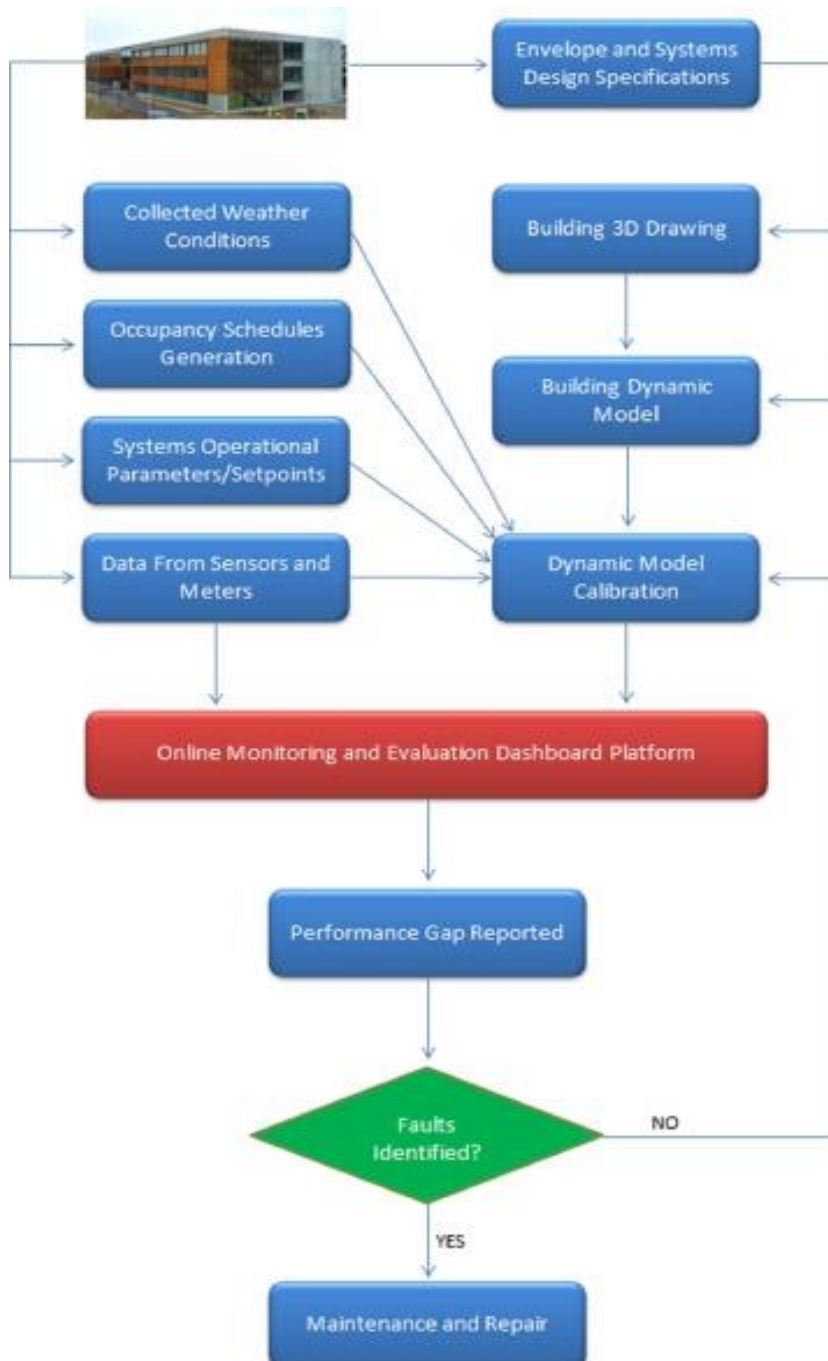


In collaboration with Aarhus Municipality, four daycare centers, Bøgevangen 101 and Runevej 107-109, Hasselhaven 1 and Hasselhaven 3 were selected as case studies under COORDICY aiming to improve the centers energy performance implementing renovation measures and techniques. A detailed energy model was developed for each center employing a package of Google Sketchup, OpenStudio and

EnergyPlus energy modelling and simulation tools. The energy models were calibrated against actual meter data. Using the developed models, multiple energy management and retrofit combinations were analyzed and evaluated from the technical, economic and environmental perspectives. Based on the technical and economic analysis, a favorable renovation package was highlighted, comprising of LED lights, efficient equipment, main heating water circulation pump replacement and ventilation system upgrade, allowing an average energy savings of 27.7% in the 4 buildings with a payback period of less than 4 years and average CO₂ emissions reduction of 5.1 tonnes/year across the 4 buildings. The selected renovation measures are currently being implemented in the building with the aim to carry-out an overall comprehensive post-renovation technical and anthropologic assessment.

Associate Professor Muhyiddine Jradi (mjr@mmmi.sdu.dk)

OBEPME: AN ONLINE BUILDING ENERGY PERFORMANCE MONITORING AND EVALUATION TOOL TO REDUCE ENERGY PERFORMANCE GAPS



Aiming to better characterize, evaluate and bridge buildings performance gaps, an online building energy performance monitoring and evaluation tool ObepME was developed under COORDICY, serving as a basis for fault detection and diagnostics and forming a backbone for continuous commissioning. A calibrated building dynamic energy model is developed and employed to automatically run on a daily basis and simulate the building transient performance for the previous day. The simulated energy consumption results form a baseline to which the actual collected data are compared to evaluate the dynamic energy performance gap. The OU44 University building in Denmark is considered as a case study to implement the proposed framework. The calibrated model was employed in the ObepME tool to automatically and continuously monitor and evaluate the OU44 building energy performance, on the level of the whole building and individual energy systems consumption, throughout the period from February to mid-March 2017. The reported dynamic energy performance gap was around -2.85% , -3.47% and 5.48% for heating, total electricity and ventilation system electricity consumption. In addition, specific observations were made on a daily basis in terms of the overall electricity, heating, lighting and ventilation energy consumption as highlighted by the ObepME tool. The ObepME tool is currently configured and set to run automatically as a part of the OU44 building continuous commissioning and performance

evaluation aiming to identify possible discrepancies and deviations paving the way for a methodical preventive fault detection and diagnostics process on various levels in the building. In addition, a dashboard platform for building performance monitoring and visualization is also under development.

M. JRADI, K. ARENDT, F.C. SANGOGBOYE, C.G. MATTERA, E. MARKOSKA, M.B. KJÆRGAARD, C.VEJE, B.N. JØRGENSEN, ObepME: An Online Building Energy Performance Monitoring and Evaluation Tool to Reduce Energy Performance Gaps. Energy and Buildings 2018;166:196-209.
<https://www.sciencedirect.com/science/article/pii/S0378778817340707#fig0003>

STATUS AND PROGRESS IN THE ONGOING WORK PACKAGES

WP1: Sensing and Modeling of Occupant Behavior (SDU, DTI, Vemco)

Results: New algorithms have been added to OccuRE in terms of PreCount and PROMT validated in a relevant environment for TRL5. For a new method named PAD for privacy protection an experimental proof of concept exists at TRL3.

WP2: Building Modeling and Simulation (SDU, LBNL, DTI)

Results: TRL6 Dynamic building energy model completed and employed in other WP's tool chains for analysis. Virtual building model developed for methodology validation. Generic zone-modeling framework based on functional mock-up interfacing successfully validated and integrated into WP4.

WP3: Building Operating System Services platform - BOSS (SDU, UC Berkeley)

Results: Building properties extensions to Brick has been validated in the lab at TRL4. Brick has been adopted for standardisation by the ASHRAE Bacnet working group. A new decentralised building operating system exists as an experimental proof of the concept for TRL3.

WP4: Multi-objective Coordination Framework

Results: Using local zone FMU during optimization, Controlem and has been used to control indoor climate on 7 zones simultaneously. Experiments took into account historical occupancy- and weather data, and proved viability of load shifting, achieving TRL4.

WP5: Building Diagnostics Framework (SDU, DTI, Schneider, Remoni, NASA Ames)

Results: Adverse effect and critical event prediction tested with data from building OU44 at TRL4. A new multi-modal approach for anomaly detection is validated at TRL5. Additional data validation and FDD approaches are validated at TRL4. Together with NASA Ames, adverse effect and critical event prediction is tested with data from building OU44 at TRL4. A new multi-modal approach for anomaly detection is validated at TR5. More data validation and FDD approaches are validated at TRL4.

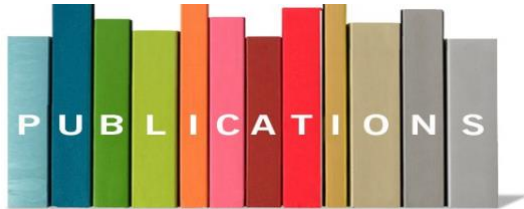
WP6: Tool Suite Construction (SDU, LBNL, UC Berkeley, Develco Products)

Results: A TRL6 version of the software tool ObepME for 'online benchmarking and diagnostics of building energy-performance' is developed and deployed under operational conditions on building OU44. A first version, TRL4, of 'securing energy-efficient building operation by advancing building intelligence' is under development. A TRL6 version of 'simulating the effect of different combinations of energy-retrofit technologies combined with advanced building intelligence on buildings' is implemented and assessed in 11 case study buildings under WP7.

WP7: Case Studies (all project partners)

Results: Energy Modelling, simulation and renovation assessment have been completed and reported for 4 Daycare Centers in Aarhus, 5 Public Schools in Odense and an Office Building. The table below demonstrates the progress in each case study work.

RESEARCH PUBLICATIONS



1. Bharathan Balaji, Arka Bhattacharya, Gabriel Fierro, Jingkun Gao, Joshua Gluck, Dezhi Hong, Aslak Johansen, Jason Koh, Joern Ploennigs, Yuvraj Agarwal, Mario Bergés, David Culler, Rajesh K Gupta, Mikkel Baun Kjærgaard, Mani Srivastava, Kamin Whitehouse. 2018. Brick: Metadata schema for portable smart building applications. In Applied Energy, Elsevier
2. Mikkel Baun Kjærgaard, Fisayo Caleb Sangogboye. 2017. Categorization Framework and Survey of Occupancy Sensing Systems. In Journal of Pervasive and Mobile Computing, Elsevier, Vol. 38, pp. 1-13.
3. Fisayo Caleb Sangogboye, Krzysztof Arendt, Ashok Singh, Christian Veje, Mikkel Baun Kjærgaard, Bo Nørregaard Jørgensen. 2017. Performance comparison of occupancy count estimation and prediction with common versus dedicated sensors for building model predictive control. In Building Simulation, Springer Vol. 10, Issue 6, pp. 829-843.
4. M. JRADI, K. ARENDT, F.C. SANGOGBOYE, C.G. MATTERA, E. MARKOSKA, M.B. KJÆRGAARD, C. VEJE, B.N. JØRGENSEN, ObepME: An Online Building Energy Performance Monitoring and Evaluation Tool to Reduce Energy Performance Gaps. Energy and Buildings 2018;166:196-209.
5. M. JRADI, C. VEJE, B.N. JØRGENSEN. A Dynamic Energy Performance-Driven Approach for Assessment of Buildings Energy Renovation – Danish Case Studies. Energy and Buildings 2018;158:62-76.
6. M. JRADI, C. VEJE, B.N. JØRGENSEN, Dynamic Energy Performance-Driven Approach for Renovation Assessment of Danish Public School Ejerslykkeskolen. 31st International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS2018), Guimarães, Portugal. (Accepted)
7. M. JRADI, C. VEJE, B.N. JØRGENSEN. Deep Energy Renovation of the Maersk Office Building in Denmark Using a Holistic Design Approach. Energy and Buildings 2017;151:306-319.
8. M. JRADI, C. VEJE, B.N. JØRGENSEN, Deep Energy Retrofit vs Improving Building Intelligence – Danish Case Study. Building Performance Analysis Conference and SimBuild 2018, Chicago, USA. (Accepted)
9. M. JRADI, F.C. SANGOGBOYE, C.G. MATTERA, M.B. KJÆRGAARD, C. VEJE, B.N. JØRGENSEN. A World Class Energy Efficient University Building by Danish 2020 Standards. Energy Procedia 2017;132:21-26.
10. M. JRADI, P. LECUELLE, K.M.H. MADSEN, C. VEJE, B.N. JØRGENSEN. Dynamic Model-Driven Energy Retrofit of Bøgevangen and Runevej Daycare Centers in Aarhus. Energy Procedia 2017;132:975-981.
11. M. JRADI, C. VEJE, B.N. JØRGENSEN. Towards Energy Efficient Office Buildings in Denmark: The Maersk Building Case Study. 29th International Conference on Efficiency, Cost, Optimization,

12. Simulation and Environmental Impact of Energy Systems (ECOS 2016), 19-23 June, 2016, Portorož, Slovenia.
13. M. JRADI, C. VEJE, B.N. JØRGENSEN, Technical and Economic Assessment of a Danish Public School Energy Renovation using Dynamic Energy Performance Model. Building Performance Analysis Conference and SimBuild 2018, Chicago, USA. (Accepted)
14. Mattera, Claudio Giovanni, Hamid Reza Shaker, and Muhyiddine Jradi. "Building fault detection and diagnostics using dynamic energy performance model." In *International Journal of Low-Carbon Technologies*, 2018: To be submitted.
15. Elena Markoska, Aslak Johansen, Sanja Lazarova-Molnar. 2018. A Framework for Fully Automated Performance Testing for Smart Buildings. In Springer AISC.

TALKS / PRESENTATIONS



1. C.T. Veje, N. Boel from Schneider Electric, "See The World In a New Way: Optimize your building with predictable control and operation" In March 2017 at Energiforum in Denmark.
2. B.N. Jørgensen, "Active use of data from buildings" Presentation given by Professor MSO from SDU at Siemens Teknologiforum 6 April 2017
3. Gabe Fiero from UC Berkely, "Brick and associated tools", November 13 2017
4. B.N. Jørgensen, "The Future of Demand-side Management" - Smart Buildings, System Integration of Renewables and the Future Grid workshop part of the opening event for the Sino-Danish Center in Beijing. September 24 - 25, 2017
5. M. JRADI, Task C.2.7: OU44 Building Case Study - University of Southern Denmark, IEA Annex67, Graz, Austria, 29 September 2017.
6. K. Arendt, "OU44 building: Candidate emulator for MPC benchmarking", IBPSA Project 1 Expert Meeting, 27-28 February 2018, Berlin, Germany
7. K. Arendt, MPC formulation: Pareto frontier vs. cost function, IBPSA Project 1 Expert Meeting, 27-28 February 2018, Berlin, Germany
8. K. Arendt, "Building modeling tools for MPC and energy flexible buildings: ModestPy and EPQuery", IEA Annex67 meeting, 28 September 2017, Graz, Austria
9. K. Arendt, "COORDICY modeling and multi objective optimization approach" at the IBPSA Project 1 Expert Meeting, Berlin February 2018.
10. C.T. Veje, K. Arendt, presentation on the Ibpsa project 1. Germany, Berlin.
11. C.T. Veje, SIGFOX The perspectives of "Internet of Things IoT" March 2, 2017, held at the Green tec center in Vejle.
12. C.T. Veje, SIGFOX The perspectives of "Internet of Things IoT" February 28 2017, held in Copenhagen.

13. M.B. Kjærgaard, IoT for energy efficient control and regulation of lighting, ventilation and heating. March 9, 2017 IoT Styring seminar at Clean Cluster
14. M.B. Kjærgaard, The use of data for indoor climate and energy consumption in relation to optimization of building operations. March 20, 2017. At the Live Lab Green tec center in Vejle.
15. M.B. Kjærgaard, Invited Talk: University of Berkeley – Tuesday January 9th 2018. Occupant Behavior Sensing and Applications within Energy Informatics
16. M. JRADI, A World Class Energy Efficient University Building by Danish 2020 Standards. Accepted for 11th Nordic Symposium on Building Physics, 11-14 June 2017, Trondheim, Norway.
17. M. JRADI, Dynamic Dynamic Model-Driven Energy Retrofit of Bøgevangen and Runevej Daycare Centers in Aarhus. 11th Nordic Symposium on Building Physics, 11-14 June 2017, Trondheim, Norway.
18. M. JRADI, Building Energy Performance Modeling and Simulation - COORDICY Project. Danvak - Fremtidens bygningsstyring, Schneider Electric, Ballerup, 22 August 2017.
19. M. JRADI, Building Energy Performance Modeling and Simulation - COORDICY Project. Danvak - Fremtidens bygningsstyring, Schneider Electric, Kolding, 28 August 2017.
20. M. JRADI, Online Whole-Building Energy Benchmarking - OU44 Building Case Study. COORDICY Workshop, UC Berkeley, 1 June 2017.
21. M. JRADI, Balancing Deep Energy Retrofit and Improving Building Intelligence – Danish Case Studies. COORDICY Workshop, UC Berkeley, 1 June 2017.
22. M. JRADI, COORDICY Project and Automated Performance Testing. Energieffektivitet- og fleksibilitet i store bygninger, Odense, Denmark, 23 November 2016.
23. M. JRADI, Model-Based Performance Gap Monitoring. Thematic workshop 1: Energy performance: Closing the gap and utilizing the potential, New York Energy Week 2016, 16 June 2016.
24. M. JRADI, Model Driven Retrofit Strategies. Thematic workshop 2: Energy retrofitting: Model & data driven approaches, New York Energy Week 2016, 16 June 2016.

BOOK CHAPTERS



1. Bing Dong, Mikkel Baun Kjærgaard et al. 2017. Chapter on Occupancy Sensing in the book Exploring Occupant Behavior in Buildings, Springer.

BACHELOR PROJECTS AND MASTER'S THESIS



1. *Brume – A Horizontally Scalable and Fault Tolerant Building Operating System*. Almir Mehanovic, Thomas Helne Rasmussen.
2. *Fault Detection and Diagnostics of Ventilation Systems of OU44 Smart Building at SDU*, by Emil Kjøller Alexandersen, Mads Bang Løvkvist Larsen.
3. *Rule-Based Fault Detection in Smart Buildings* by Mathis Riber Skydt, Sebastian Skals Engelsgaard
4. Kristian Emil Oxholm Bloch-Hansen and Casper Fälling Thielsen: "Improving the overall intelligence and energy performance of the NASA Sustainability Base", Master's Project, MMMI, University of Southern Denmark, Odense 2018. Advisor: Associate Professor Muhyiddine Jradi.
5. Sandra Sommer Schmidt Andersen and Morten Hagenau: "A Tool determining the impact of Energy Renovation on Buildings of different Age", Bachelor Project, MMMI, University of Southern Denmark, Odense 2018. Advisor: Associate Professor Muhyiddine Jradi.
6. Rasmus Halfdan Sandahl Jensen and Jacob Alstrup Engvang: "Impact of energy performance modeling and renovation of buildings owned by Defence Command Denmark", Bachelor Project, MMMI, University of Southern Denmark, Odense 2018. Advisor: Associate Professor Muhyiddine Jradi.
7. Mathis Riber Skydt and Sebastian Skals Engelsgaard: "Rule-Based Fault Detection in Smart Buildings", Bachelor Project, MMMI, University of Southern Denmark, Odense 2018. Advisor: Associate Professor Hamid Reza Shaker and Associate Professor Muhyiddine Jradi.
8. Emil Kjøller Alexandersen and Mads Bang Løvkvist Larsen: "Fault Detection and Diagnostics of Ventilation Systems of OU44 Smart Building at SDU", Bachelor Project, MMMI, University of Southern Denmark, Odense 2018. Advisor: Associate Professor Hamid Reza Shaker and Associate Professor Muhyiddine Jradi.
9. Rasmus Camillus Jeppesen and Henrik Engelbrecht Foldager: "Energy Performance Modeling, Simulation and Retrofit of Seden School", Bachelor Project, MMMI, University of Southern Denmark, Odense 2017. Advisor: Associate Professor Muhyiddine Jradi.
10. Lau Holm Albertsen and Mads Emil Blønd Andersen: "Energy performance management for buildings, using PV systems and heat pumps – OU44 case study", Bachelor Project, MMMI, University of Southern Denmark, Odense 2017. Advisor: Associate Professor Muhyiddine Jradi.

RESEARCH TRAINING - INTERNATIONALIZATION



Following Postdocs and PhDs conduct their research in context of the COORDICY project. International research Exchange is included in the list.

1. Postdoc, Aslak Johansen, completed his research exchange to UC Berkeley in spring 2016
2. Postdoc, Krzysztof Arendt, research exchange to LBNL February-July 2017, focus on building performance modeling and simulation, including generic zone modeling and HVAC modeling.
3. PhD student, Ana Ionesi, research exchange to LBNL in fall 2015
4. PhD student, Gabriel Fierro, research exchange to SDU during summer 2015
5. PhD student, Morten Gill Wollsen, research exchange to NASA Ames in spring 2016
6. PhD student, Emil Holmegaard, research exchange to UC Berkeley in spring 2016
7. PhD student, Peter Nellesmann, research exchange to UC Berkeley and LBNL spring 2017
8. PhD student, Elena Markoska, research exchange to UC Berkeley and LBNL spring 2017
9. PhD student, Fisayo Sangogboye, research exchange to LBNL spring 2017
10. PhD student, Claudio Mattera, research exchange being planned for fall 2017
11. PhD student, Aisha Umair, Change of exchange plan due to visa conflict, Aarhus University, spring 2017
12. PhD student, Newsha Ghoreishi, Change of exchange plan due to visa conflict, Aarhus University, 2018

CONCLUDING REMARKS



At the beginning of 2018 Heidi Maglekær Jensen has changed positions within SDU to Academic Secretary as TEK Dean Secretarial in the Faculty of Engineering. Sonja Anna Charlotte Ruhnke will be taking over the project organizational role. Coordinating meetings, reports, internal newsletters, web editing, translations, and follow up activities. Please contact her if you have any inquiries.

The next newsletter will be in October 2018. If you have any input for the next newsletter please contact Sonja Anna Charlotte Ruhnke sacr@tek.sdu.dk or +45 51 94 79 37.