

Curriculum vitae with track record

PERSONAL INFORMATION

Family name, First name: Novakovic, Vojislav

Date of birth: 01.03.1953

Sex: male

Nationality: Norwegian

Researcher unique identifier: ORCID identifier: 0000-0001-9712-5405

URL for personal web site: <https://www.ntnu.edu/employees/vojislav.novakovic>

EDUCATION

1982 PhD (Dr.ing.): Thesis: "Digital Control of Heating Coils" Defence date: 28.01.1982.

Department of Mechanical Engineering, Norwegian Institute of Technology, Trondheim Norway.

1977 Master (Dipl.ing.)

Faculty of Mechanical Engineering, University of Belgrade, Serbia.

CURRENT AND PREVIOUS POSITIONS

1994-present Professor

Department of Energy and Process Engineering, Norwegian University of Science and Technology (NTNU), Norway

1990-1994 Adjunct Professor

Department of HVAC Engineering, Norwegian Institute of Technology, Norway.

1983-1994 Researcher, Research Manager, Senior Researcher, Scientific adviser.

SINTEF Applied Thermodynamics, SINTEF Energy Research, Norway

FELLOWSHIPS, AWARDS AND PRIZES

2016 Plaque of Appreciation for contribution to development of the Faculty, Faculty of Mechanical Engineering, University of Banja Luka, Bosnia and Herzegovina

2013-present Appointed Visiting professor, University of Belgrade, Faculty of Mechanical Engineering, Serbia

2011 REHVA Professional Award for outstanding achievements in science and the improvements of energy efficiency and the indoor environment of buildings, The Federation of European Heating, Ventilation and Air Conditioning associations, Belgium

2010 Honorary Member, Norwegian Society of HVAC Engineers – NORVAC, Norway

2005 KGH Plaque of Appreciation for contribution to development of the HVAC science and practice, KGH - Serbian Journal for Heating, Refrigeration and Air-Conditioning, Serbia

2005 ASHRAE Fellow, American Society of Heating, Refrigerating and Air-Conditioning Engineers, USA

2003 Plaque of Appreciation for contribution to development of the Faculty, Faculty of Mechanical Engineering, University of Belgrade, Serbia

MOBILITY (research stays abroad)

2022 (2 mnts) Visiting scholar, University of Tokyo, Tokyo, Japan

2021 (3 mnts) Visiting scholar, University of Southern California, Los Angeles, USA

2015 (4 mnts) Visiting scholar, Shanghai Jiao Tong University, Shanghai, PR China

2014 (4 mnts) Visiting scholar, Lawrence Berkeley National Laboratory, Berkeley, CA, USA

2005 (4 mnts) Visiting scholar, Faculty of Mechanical Engineering, University of Belgrade, Serbia.

SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

1990-present Number of: Postdoc: 6, PhD: 6, Master Students: approximately 100

Department of Energy and Process Engineering, NTNU, Trondheim, Norway

TEACHING ACTIVITIES

1990-present Responsible teacher and/or Lecturer for MSc courses: Energy management in buildings, Indoor environment, HVAC Engineering, Building automation, Energy and the environment, and PhD courses: Simulation and optimization of thermal systems, Modelling energy and indoor environmental systems, Zero emission buildings.

Department of Energy and Process Engineering, Norwegian University of Science and Technology, Norway.

ORGANISATION OF SCIENTIFIC MEETINGS

2020 President of the Scientific committee, 1th International Nordic Conference on Building Performance Simulation – BuilSim Nordic 2020, Oslo, Norway. Number of participants: 100.

2011 President of the Organizing committee, 12th International Conference on Air Distribution in Rooms - RoomVent 2011, Trondheim, Norway. Number of participants: 200.

2003 President of the Organizing committee, 4th International Conference Cold Climate HVAC – CCHVAC 2003, Trondheim, Norway. Number of participants: 150.

INSTITUTIONAL RESPONSIBILITIES

1998-present Chair and Member of the Board for the MSc study programme: Energy and the environment, NTNU, Trondheim, Norway.

PROJECT MANAGEMENT EXPERIENCE

2020-(2023) Principal investigator for Norwegian part of the NRC – MOST funded collaborative project: “Key technologies and demonstration of combined cooling, heating and power generation for low-carbon neighbourhoods/buildings with clean energy – ChiNoZEN”

2014-2017 Project leader and Scientific responsible, The collaborative project inside HERD Energy: “Quality Improvement of Master programs in Sustainable Energy and Environment”. (HERD - The Norwegian Programme in Higher Education, Research and Development in the Western Balkans)

2010-2014 Project leader and Scientific responsible, The collaborative project inside HERD Energy: “MSc Study Program: Sustainable Energy and Environment in Western Balkans”.

2006-2010 Project leader and Scientific responsible, The collaborative project the Norwegian Programmer for South East Europe: “PhD Program: Sustainable Energy and Environment in Western Balkans”.

COMMISSIONS OF TRUST

Opponent at doctorate defenses at LTH, Lund, Sweden (1990), DTH, Denmark (1993), KTH, Stockholm, Sweden (1996, 2000), Chalmers, Gothenburg, Sweden (2005, 2008), Hong Kong Polytechnic University, Hong Kong (2009, 2011) and NTNU (2002, 2005, 2007, 2008, 2012, 2014, 2021, 2022)

MEMBERSHIPS OF ACADEMIES / SCIENTIFIC SOCIETIES

Since 1989 American Society of Heating, Refrigerating and Air-Conditioning Engineers – ASHRAE, USA

Since 1983 The Norwegian Society of HVAC Engineers – NORVAC, Norway

Since 1982 Serbian Society for Heating, Refrigeration and Air-Conditioning – SMEITS-KGH, Serbia

MAJOR COLLABORATIONS

2018-2023 IEA - Programme for Energy in Buildings and Communities, Annex 79: Occupant-Centric Building Design and Operation, Leader of the Norwegian national team.

2014-2017 IEA - Programme for Energy in Buildings and Communities, Annex 66: Definition and Simulation of Occupant Behavior in Buildings, Leader of the Norwegian national team.

2004-2013 ISO/TC 163/SC 2 'Thermal performance and energy use in the built environment Calculation methods', Chairman of the Sub-Committee TC 163/SC 2.

2009-2013 IEA - Programme for Energy Efficiency in Communities and Buildings, Annex 53: Total Energy Use in Buildings: Analysis & Evaluation Methods – Leader of the Norwegian national team.

Track record

1. The total number of publications during the career: 300
2. A limited list of publications:
 1. Hagos, Dejene Assefa; Novakovic, Vojislav (2022) On the role of demand response and key CCHP technologies for increased integration of variable renewable energy into a microgrid.. 2022 IEEE PES Innovative Smart Grid Technologies Europe - ISGT-Europe.
 2. Jinping, Li; Da, Cheng; Dandan, Wan; Juanjuan, Huang; Novakovic, Vojislav (2022) Effects of urea and plant ash on the thermostatic anaerobic fermentation and aerobic treatment processes of biomass.. Nongye gongcheng xuebao (Beijing). volum 38 (15).
 3. Li, Fada; Li, Jinping; Wang, Zhifeng; Wang, Jinming; Novakovic, Vojislav (2022) Effects of attapulgitic clay on anti-slagging behavior of densified biofuel.. Nongye gongcheng xuebao (Beijing). volum 38 (6).
 4. Li, Jinping; Jin, Shirong; Wan, Dandan; Li, Hui; Gong, Shuyuan; Novakovic, Vojislav (2022) Feasibility of annual dry anaerobic digestion temperature-controlled by solar energy in cold and arid areas.. Journal of Environmental Management. volum 318.
 5. Li, Jinping; Liu, Xiaomin; Han, Xiaoxing; Wei, Shifan; Novakovic, Vojislav (2022) Comparative study on shading performance of MHP-PV/T inside and outside Chinese greenhouse in winter.. Solar Energy. volum 240.
 6. Li, Jinping; Qu, Chaofan; Li, Caijun; Liu, Xiaomin; Novakovic, Vojislav (2022) Technical and economic performance analysis of large flat plate solar collector coupled air source heat pump heating system.. Energy and Buildings. volum 277.
 7. Liu, Wenjie; Yao, Jian; Jia, Teng; Zhu, Junjie; Novakovic, Vojislav (2022) The long-term operation and thermal disturbance investigation on a four-borehole-heat-exchanger residential heating system.. Applied Thermal Engineering. volum 219 (A). Yao, Jian; Liu, Wenjie; Dai, Yanjun; Zhu, Junjie; Novakovic, Vojislav. Two-phase flow investigation in channel design of the roll-bond cooling component for solar assisted PVT heat pump application. Energy Conversion and Management 2021 ;Volume 235.
 8. Annaqeeb, Masab Khalid; Zhang, Yixian; Dziedzic, Jakub Wladyslaw; Xue, Kai; Pedersen, Christoffer; Stenstad, Liv-Inger; Novakovic, Vojislav; Cao, Guangyu (2021) Influence of the surgical team activity on airborne bacterial distribution in the operating room with mixing ventilation system: A case study at St. Olavs Hospital.. Journal of Hospital Infection. volum 116.
 9. Hagos, Dejene Assefa; Novakovic, Vojislav; Li, Jinping (2021) On the integration of variable renewable energy into CCHP based microgrid in a low carbon neighbourhood.. 2021 IEEE PES Innovative Smart Grid Technologies Conference Europe - ISGT Europe.
 10. Sretenovic, Aleksandra; Jovanovic, Radisa; Novakovic, Vojislav; Nord, Natasa; Zivkovic, Branislav (2021) Hybrid artificial intelligence model for prediction of heating energy use.. Thermal Science.
 11. Yao, Jian; Dou, Pengbo; Zhao, Yao; Dai, Yanjun; Zhu, Junjie; Novakovic, Vojislav (2021) Co-generation ability investigation of the novel structured PVT heat pump system and its effect on the "Carbon neutral" strategy of Shanghai.. Energy. volum 239.
 12. Yao, Jian; Liu, Wenjie; Dai, Yanjun; Zhu, Junjie; Novakovic, Vojislav (2021) Two-phase flow

- investigation in channel design of the roll-bond cooling component for solar assisted PVT heat pump application.. Energy Conversion and Management. volum 235.
13. Annaqeeb, Masab Khalid; Zhang, Yixian; Dziedzic, Jakub Wladyslaw; Xue, Kai; Pedersen, Christoffer; Stenstad, Liv-Inger; Novakovic, Vojislav; Cao, Guangyu (2021) Influence of the surgical team activity on airborne bacterial distribution in the operating room with mixing ventilation system: A case study at St. Olavs Hospital.. Journal of Hospital Infection. volum 116.
 14. Hagos, Dejene Assefa; Novakovic, Vojislav; Li, Jinping (2021) On the integration of variable renewable energy into CCHP based microgrid in a low carbon neighbourhood.. 2021 IEEE PES Innovative Smart Grid Technologies Conference Europe - ISGT Europe.
 15. Sretenovic, Aleksandra; Jovanovic, Radisa; Novakovic, Vojislav; Nord, Natasa; Zivkovic, Branislav (2021) Hybrid artificial intelligence model for prediction of heating energy use.. Thermal Science.
 16. Yao, Jian; Dou, Pengbo; Zhao, Yao; Dai, Yanjun; Zhu, Junjie; Novakovic, Vojislav (2021) Co-generation ability investigation of the novel structured PVT heat pump system and its effect on the “Carbon neutral” strategy of Shanghai.. Energy. volum 239.
 17. Yao, Jian; Liu, Wenjie; Dai, Yanjun; Zhu, Junjie; Novakovic, Vojislav (2021) Two-phase flow investigation in channel design of the roll-bond cooling component for solar assisted PVT heat pump application.. Energy Conversion and Management. volum 235.
 18. Annaqeeb, Masab Khalid; Dziedzic, Jakub Wladyslaw; Yan, Da; Novakovic, Vojislav.: Development of a Library for Building Surface Layout Simulator. Environmental Science and Engineering 2020 s. 1137-1144
 19. Annaqeeb, Masab Khalid; Markovic, Romana; Novakovic, Vojislav; Azar, Elie.: Non-Intrusive Data Monitoring and Analysis of Occupant Energy-Use Behaviors in Shared Office Spaces. IEEE Access 2020 ;Volum 8. s. 141246-141257
 20. Das, Anooshmita; Annaqeeb, Masab Khalid; Azar, Elie; Novakovic, Vojislav; Kjærgaard, Mikkel B.: Occupant-centric miscellaneous electric loads prediction in buildings using state-of-the-art deep learning methods. Applied Energy 2020 ;Volum 269.(115135) s. -
 21. Dziedzic, Jakub Wladyslaw; Da, Yan; Novakovic, Vojislav.: Exploring possibilities to quantify the qualitative description of occupant behaviour. International Conference Organised by IBPSA-Nordic, 13th–14th October 2020, OsloMet. BuildSIM-Nordic 2020. Selected papers. SINTEF akademisk forlag 2020 ISBN 978-82-536-1679-7. s. 333-342
 22. Dziedzic, Jakub Wladyslaw; Yan, Da; Sun, Hongsan; Novakovic, Vojislav.: Building occupant transient agent-based model – Movement module. Applied Energy 2020 ;Volum 261. s. -
 23. Kristiansen, A. B.; Satola, Daniel; Lee, Kate; Zhao, B.; Ma, Tao; Wang, Ruzhu; Gustavsen, Arild; Novakovic, Vojislav.: Feasibility study of an off-grid container unit for industrial construction. Sustainable cities and society 2020 ;Volum 61.
 24. O'Brien, W.; Tahmasebi, F.; Andersen, R. K.; Azar, E.; Barthelmes, V. M.; Belafi, Z. D.; Berger, Ch.; Dong, Ch.; Simone, M.; d'Oca, S.; Hong, T.; Jin, Q.; Khovalyg, D.; Lamberts, R.; Novakovic, V.; Park, J. Y.; Plagmann, M.; Rajus, V.; Vellei, M.; Verbruggen, S.; Wagner, A.; Willems, E.; Yan, D.; Zhou, J: An international review of occupant-related aspects of building energy codes and standards. Building and Environment 2020 ; Volum 179.
3. Research monographs and any translations thereof
 1. Georges, Laurent; Haase, Matthias; Novakovic, Vojislav; Schild, Peter.: International Conference Organised by IBPSA-Nordic, 13th–14th October 2020, OsloMet. BuildSIM-Nordic 2020. Selected papers. SINTEF akademisk forlag 2020 (ISBN 978-82-536-1679-7) 359 s.
 2. Hestnes, A.G., Eik-Nes, N.L. (edt.): Zero Emission Buildings, Fagbokforlaget 2017, ISBN: 978-82-

450-2055-7, Co-author.

3. Andresen, I., Kleiven, T., Malvik, B., Ryghaug, M. (edt.): Smarte energieffektive bygninger, Tapir Akademisk Forlag 2007, ISBN 978-82-519-2237-1, Co-author.

4. Enøk i bygninger – effektiv energibruk (Efficient use of energy in buildings); ISBN 82-00-40909-0; 1st edition 1992; 2nd edition 1996; 3rd edition 2007, Chief editor and co-author.