



The Combustion Institute

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Terese Løvås

2022 Candidate Profile: The Combustion Institute Board of Directors

Reasons for Nomination

I have been a member of the Combustion Institute for over 20 years and served as President of the Scandinavian-Nordic Section of the Combustion Institute between 2011-2019, and President of the Federation of European Sections from 2014 to present. I have had various other roles serving the CI and I am currently joint Editor for the PROCI. I have worked in the field of combustion throughout my career and have experienced how the focus has shifted from improving fossil-based combustion processes to embracing new energy carriers and novel concepts for future energy and transport systems.



With the tremendous advancement in both experimental and numerical research, the Combustion Institute is in a unique position to both promote fundamental science in combustion and related disciplines, as well as advance the transition towards clean and sustainable energy systems. I will be dedicated to contributing to further strengthen the Combustion Institute's position, and to promote that our new members meet a modern and transparent international organization with a clear vision.

See the next page for the candidate's curriculum vitae.

Curriculum vitae Prof. Terese Løvås

DATE OF BIRTH: 13th of June, 1973,
Tønsberg, Norway
NATIONALITY: Norwegian
TELEPHONE: +47 91897007
CIVIL STATUS Married, 2 children
RESEARCHER ID ResearcherID: [G-1513-2011](https://orcid.org/0000-0003-2010-394X), ORCID:
<https://orcid.org/0000-0003-2010-394X>



EDUCATION

- Doctor in Philosophy of Engineering (PhD), Lund Institute of Technology, Lund University, Sweden. Thesis topic: *Automatic Reduction Procedures for Chemical Mechanisms in Reactive Systems*, 2002.
- Master degree, University of Cambridge, UK, 2008.
- Cand.Scient. (MSc), Niels Bohr Institute for Astronomy, Physics and Geophysics, Copenhagen University, Denmark, 1998.
- Cand.Mag. (BSc), Institute of Mathematical Sciences, University of Tromsø, Norway, 1996.

CURRENT POSITION

2009 – Professor and Head Department of Energy & Process Engineering (2017 -), Norwegian University of Science and Technology (NTNU), Trondheim, Norway. Group leader ComKin group (4 PhDs and 3 Postdocs/Researchers)

PREVIOUS POSITIONS AND PROFESSIONAL EXPERIENCE

- 2008 – 2009 Associate Professor in Process and Gas Technologies, Department of Engineering and Safety, University of Tromsø. Built up activity related to atmospheric dispersion modelling for arctic conditions. The research projects funded 1 post doc later recruited as permanent staff.
- 2006 – 2008 Lecturer in Energy Technologies, School of Engineering and Material Science, Queen Mary, University of London, UK. Built up activity related to CFD for energy conversion systems and turbulent reacting flows. The research projects funded in total 3 post docs and researchers and 2 PhDs.
- 2005 – 2008 College Lecturer in Engineering and Fellow of Churchill College, Cambridge, UK.
- 2003 – 2006 Research Associate, Department of Engineering, University of Cambridge, UK. Funded by EPSRC. Developing models for chemistry-turbulence interaction in turbulent reacting flows based on DNS. Focus on autoignition events at high altitude relevant for gas turbine relight.

INSTITUTIONAL RESPONSIBILITIES

- 2014 – 2017 Head of Thermal Energy Research group, Dep. of Energy & Process Engineering, NTNU.
- 2014 – 2017 Member of Leader group, Department of Energy & Process Engineering, NTNU.
- 2014 – President of the Federation of European Sections of the Combustion Institute
- 2013 – Member for Board, Centre of Combustion Science and Technology (CECOST), Sweden
- 2011 – 2019 President of the Scandinavian-Nordic Sections of the Combustion Institute
- 2014 – 2015 Member for Board Directors Nominations Committee, Combustion Institute

RELEVANT PROJECT MANAGEMENT AND ORGANISATIONAL SKILLS

20 years' experience after PhD conducting research and teaching at higher education institutions in engineering subjects. 6 years Head of Department of Energy and Process Engineering. Areas of interest; theoretical and experimental research of combustion/gasification of alternative fuels (bio, hydrogen, ammonia), modelling of gasification of solid biofuels (reactive multiphase flows) for biofuel production, investigation of particle formation in turbulent reacting flows using direct numerical simulations, dynamic chemical models for combustion in engines and turbines, studies of characteristics of surrogate fuels including modelling for modern low emitting fuels.