



ICEM2020 – Gothenburg, Sweden, August 23-26, 2020

Special Session on

Large synchronous generators

Organized and co-chaired by:

Arne Nysveen, Norwegian University of science and technology, Norway

Urban Lundin, Uppsala University, Sweden

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Call for Papers

Synchronous machines totally dominate power generation in the world. The technology is mature, but new operation schemes, aging and pressure for reduced costs place new challenges to design and operation. The session focuses on topics related to large power generators. Hydropower and gas-fired powerplants are increasingly being used as balancing power to new renewables in a marked operated power system utilizing their flexibility (including pumped storage hydro). The generators must sustain faster and more frequent and faster power output ramping, tolerate off-design operation schemes. At the same time, power station owners are pushing for reduced maintenance and inspection cost. The session will present papers on new technology to meet these challenges, ancillary services from large generators, new and improved methods for fault detection and digitalization.

Topics of interest include, but are not limited to:

- Loss and cooling
- Forces and vibration
- Fault detection methods
- Dynamic loading and operation - digital twin
- Excitation systems
- Variable speed operation
- Calculation methods
- Design issues

Submission of papers: deadline follows the deadline for the regular papers.

All the instructions for paper submission are included in the conference website:

<http://www.icem.cc/2020>