



Program Main Session

- 12:30 Welcome, *Monika Adsten, Energiforsk*
- 12:40 Industrial IIoT in nuclear - feasibility study, *Arto Laikari, VTT*
- 13:10 Computer Security Applications of IIoT Digital Twins for the Nuclear Sector, *Paul Smith, Austrian Institute of Technology*
- 13:40 Break/Join the discussion session
- 13:55 IoT and wireless at Ringhals NPP, *Andreas Björklund, Ringhals NPP*
- 14:15 IIoT and wireless at Loviisa NPP, *Tomas Nyström, Fortum*
- 14:35 EDF activities in IIoT, *Eric Perrier, EDF*
- 15:05 Break/Join the discussion session
- 15:20 GE activities in IIoT, *Nathan B Askwith, GE Power*
- 15:50 Implementation of IIoT and Wireless Technologies in US NPPs, *Chad Kiger, AMS Corporation*
- 16:20 Concluding remarks, *Arto Laikari, VTT*
- 16:30 End of webinar/join the discussion session



What is Energiforsk?

- Facilitates and communicates R&D through collaborative actions
 - Energy industry
 - Authorities
 - Suppliers, universities, consultants etc
- Owned by trading- and transmission organizations for electricity, heat and gas
- Active in the entire field of energy
 - Activities defined from industry needs
 - Close collaboration with financiers
 - From PhD to applied projects
- Visit www.energiforsk.se for more info



Digitalization

Instrumentation & Control systems



Concrete & civil works

Outlook & technology



GINO- grid interaction

RPV embrittlement



Vibrations

Polymers





Digitalization in nuclear

- Vision: Reduce maintenance and operation costs, increase availability and make nuclear an attractive industry
- Scope:
 - Feasibility/mapping projects
 - Strategic monitoring and knowledge transfer
 - Hub for discussion for Nordic NPP experts
- Steering group with plant experts
- Activities defined by steering group and procured



Activities

- **Ongoing**

- Digital worker – supporting the worker on-site
- Study on suitable artificial intelligence (AI) solutions for nuclear power plants
- Newsletter on digitalization in nuclear 10 times a year

- **Finalized**

- Feasibility study IIoT in nuclear applications
- Mapping of robotics and drones in nuclear applications
- Webinar on M&D centres
- Webinar on Metal additive manufacturing
- Field trip to UK



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Program Discussion sessions

- 13:40-13:55 Meet with Arto Laikari, VTT and Paul Smith, Austrian Institute of Technology
- 15:05-15:20 Meet with Andreas Björklund, Ringhals and Tomas Nyström, Fortum and Eric Perrier, EDF
- 16:30-16:45 Meet with Nathan B Askwith, GE Power and Chad Kiger, AMS Corporation

Information and house rules

- Majority of slides and videos will be published on the Energiforsk web
- Please keep microphone muted and camera switched off in main session
- You are encouraged to ask questions!
 - Raise hand or write in chat
 - When called upon by the moderator – please unmute microphone, turn on camera and present yourself before asking your question
- Join discussion forum during breaks/after the webinar



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