2025-09-01

SKC and ANItA

Annual Symposium 2025

at Chalmers University of Technology

Tuesday September 23d

09:00-09:30 Assembly

09:30-09:40 Introduction
Cilla Andersson, SKC
Sophie Grape, ANItA

09:40-10:00 *Preparations for new Nuclear power*
Carl Berglöf, Swedish Nuclear New-build Coordination Office

10:00-10:30 *Skills and workforce preparations for new nuclear*
Andreas Johansson, RISE

10:30-11:00 *Survey on competence needs and supply – where do we go?*
Klara Insulander Björk, SSM

11:00-11:30 Coffee break

11:30-12:00 *Innovative Approaches to Train Skills and Competences*
Anton Eksell, KSU

12:00-12:30 *Perspectives on Nuclear Power in Sweden*
Anders Johansson, Vattenfall

12:30-13:30 Lunch

13:30-14:30 Sigvard Eklunds Prize

14:30-15:00 Coffee break

15:00-16:00 Ongoing nuclear activities at CTH, UU, and KTH

16:00-16:30 *Summary and insights related to Nuclear Power today and tomorrow*
Johan Börjesson and Monika Adsten, Vattenfall/SKC

18:00 Visit to Universeum and Dinner

Wednesday September 24th

08:30-09:00 Assembly

09:00-10:10 Research Project Presentations session A1, B1 and C1

10:10-10:25 Break

10:25-11:35 Research Project Presentations session A2, B2 and C2

11:35-11:50 Break

11:50-13:00 Research Project Presentations session A3, B3 and C3

13:00-14:00 Lunch

Scanna QR-koden för mer information och anmälan:

www.skc.kth.se
www.linkedin.com/company/swedishnuclear
www.facebook.com/swedishnuclear

SKC Swedish Centre for Nuclear Technology

ANItA

www.uu.se/forskning/anita

2025-09-01

Research Project Presentations

at the SKC and ANItA Annual Symposium 2025

Most of the research projects that are funded by ANItA and SKC will be presented. Some of the PhD-projects are almost completed while others have just started. The presentations will be divided into three parallel tracks according to the schedule below.

Track A - Materials, Nuclear Chemistry and Severe Accidents

9:00-10:10, Session A1: Materials

- Mustafa Subasic - Corrosion fatigue in LWR environment at cyclic thermal and mechanical loads
- Shuyue Wang - Influence of ageing and radiation on ductile fracture in the DBT temperature region (*virtual presentation*)

10:25-11:35, Session A2: Chemistry

- Mats Jonsson/Fredrik Petersson - Experimental studies on boric acids effect on light water chemistry in small modular reactors
- Maria Helena Aubets Oliva - Dissolution and radionuclide release from corium in contact with water
- Anushka Jantwal - Diffusion-Limited Oxidation and Gradient studies on in-service materials in NPPs
- Esraa Darwish - Progress in Solvent Extraction Method for Spent Nuclear Fuel Recycling: Current Developments and Future Directions

11:50-13:00, Session A3: Severe accidents and nuclear safeguards

- Aurora Jahan - LAICA - Linking Academia to Industry in Criticality safety Analysis
- Claudia Olaru - Proliferation resistance assessment using the INPRO methodology: Introducing light-water SMRs in Sweden
- Jennika Greer - Atom probe tomography of irradiated AM 316 steel

Track B – Nuclear fuel and Simulations

9:00-10:10, Session B1: Fuel

- Arvid Andersson - Fuel Cladding Coatings for ATF
- Peter Andersson/Vikram Rathore - Evaluating fuel performance under load-follow conditions in small modular reactors using TRANSURANUS

10:25-11:35, Session B2: Chemistry

- Flavia Ferella - Economic performance of equilibrium cycles of AP300
- Flavia Ferella - Creation of a surrogate model for safety margins predictions for equilibrium cycles using machine learning
- Sandipan Dawn - NESSA - NEutron Source in uppSAla

11:50-13:00, Session B3: Reactor physics, calculations, simulations

- Ibrahim Batayneh - SEMRA: Steam Explosion Modelling and Risk Analysis for light water reactors (*virtual presentation*)
- Yi Meng Chan - Application of artificial neural networks in reactor physics calculations

Session C - New Nuclear and Small Modular Reactors

9:00-10:10, Session C1: ANItA research projects

- Salma Hussein- Core monitoring and diagnostics in SMRs
- Graeme Trundle - On the way from Forsmark natural circulation reactor tests to BWRX-300 modelling

10:25-11:35, Session C2: ANItA research projects

- Teodora Retegan/Mariam Saad - An overview of feasibility of utilizing different types of SMRs for production of hydrogen to meet the Swedish future demand
- Emil Ahlström - With the end in sight - what can we learn from nuclear decommissioning projects?
- Vidar Ekström - Learning from past experience – implications from Sweden's first nuclear program

11:50-13:00, Session C3: Associated research projects

- Christian Ekberg – MÅSTE = Multidisciplinary Commitments for Sweden's Gene IV Technology and Expertise
- Sophie Grape - Safety, security and safeguards for maritime nuclear energy