NUCLEAR SCIENCE AND TECHNOLOGY SYMPOSIUM
Marina Congress Centre, Helsinki, 29.-31.10.2019

SYP2019 – NUCLEAR SCIENCE AND TECHNOLOGY SYMPOSIUM

Nuclear Science and Technology Symposium SYP2019 will be held in Marina Congress Center, Helsinki, Finland on October 30th - 31st 2019 by Finnish Nuclear Society ATS. Nearly 200 nuclear professionals and students will gather for two days of scientific and technical presentations and panels. Adjacent to the Symposium will be SYP2019 Exhibition.

KEYNOTES BY LEADING PROFESSIONALS

Keynote speakers address the current situation in nuclear industry:

- Operating plants and new development in Finland
- EDF EPR under operation, commissioning or construction: FA3, TSN and HPC
- Main EPR projects under development : JAITAPUR, SIZEWELL C
- Future low-carbon electricity systems and uranium resources
- Future nuclear fuel technologies and ATF
- Ensuring competence for safe and efficient operation
- Nuclear technology for space settlements and exploration

THE REGISTRATION FEE INCLUDES

- Welcome Reception at Helsinki City Hall on Tuesday October 29th on 18:00-19:30
- Access to the conference events, conference materials and services, buffet lunches and coffee breaks
- SYP2019 Exhibition
- Conference dinner at Sipuli on Wednesday October 30th

ENROLL NOW: ats-fns.fi/en/syp2019

DL FOR NORMAL REGISTRATION IS

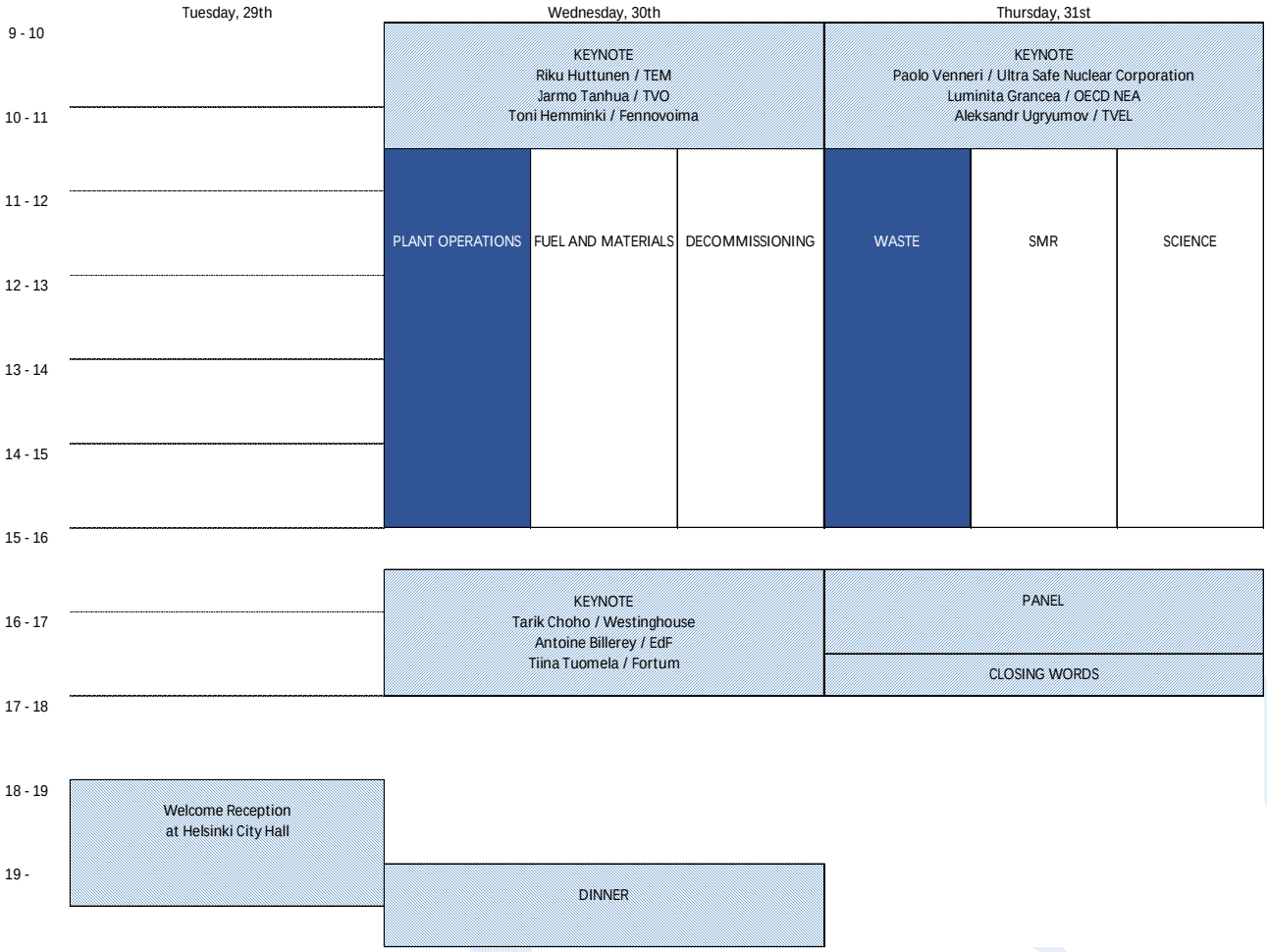
15.10.2019

Antoine Billerey, EDF | Toni Hemminki, Fennovoima | Tiina Tuomela, Fortum | Riku Huttunen, TEM | Luminita Grancea, OECD | Jarmo Tanhua, TVO | Alexander Ugryumov, TVEL | Paolo Venneri, USNC | Tarik Choho, Westinghouse

FENNOVOIMA fortum tvo Westinghouse

PRELIMINARY LIST OF PRESENTATIONS (version 1.10.2019 - subject to changes)

DL FOR NORMAL REGISTRATION IS 16.10.2019



FENNOVOIMA fortum tvo Westinghouse

TRACK 1: PLANT OPERATIONS

M. Heikkilä et al.
- Experience utilizing Apros simulator in a renewal with digital I&C

B. Wahlström et al.
- Human and Organisational Factors in Perspective

H. Pirkkalainen
- Utilizing Machine Learning in Nuclear Power Plant Lifecycle Management

M. Hartikainen
- I&C accelerated ageing and I&C re-engineering PWR Steam Generator Secondary Maintenance Strategy

R. Rintamaa et al.
- Surveys of development needs for licensing model of nuclear installations in Finland - Main findings and recommendations

M. Bolander
- *PWR Steam Generator Secondary Maintenance Strategy*

K. Hassinen
- Licensing of NP Projects, experiences in Finland

J. Lehmuskoski
- Radiocarbon field measurements at a nuclear facility with cavity ring-down spectroscopy

TRACK 2: FUEL AND MATERIALS

W. Karlsen
- New VTT Hot Cells in Operation

J. Heikinheimo et al.
- High-Temperature Experimental Techniques for Nuclear Fuel Separate Effect Tests

H. Loukusa et al.
- Advanced Cladding Materials for Accident Tolerant Fuels

J. Peltonen et al.
- Coolant-cladding interaction models in FINIX fuel behaviour module

C. Huotilainen et al.
- Jules Horowitz Reactor – the Future of European Materials Testing Reactors

S. Jaeckel
- Fuel Integrity Under Dry And Wet Storage

S. Siltanen et al.
- Simultaneous Reconstruction of Emission and Attenuation in Passive Gamma Emission Tomography of Spent Nuclear fuel

H. Loukusa
- Full-core uncertainty analysis of nuclear fuel behavior

TRACK 3: DECOMMISSIONING

M. Airila et al.
- Lessons learned during planning and first phases of decommissioning of the Finnish TRIGA FiR 1

N. Bergh
- International Decommissioning Planning and Cost Estimating Feedback

A. Leskinen et. al.
- Intercalibration Exercise for Difficult-To-Measure Radionuclides in Activated Steel

C. Gautier et al.
- Improvement of Different Analytical Techniques to Characterize Radionuclides Difficult to Measure and Toxics in Nuclear Waste

A. Räty et al.
- Activity Characterisation Methods in FiR1 Decommissioning Project

V. Oinonen
- Decommissioning of Loviisa NPP

K. Sipilä
- Digital Twins for Smarter Decommissioning

P. Juutilainen et al.
- Impact of Fuel Type and Discharge Burnup on Spent Fuel Properties

TRACK 4: WASTE

M. Nieminen et al.
- Development of gasification based thermal treatment of LILW

M. Olin et al.
- MIND - Development of the Safety Case Knowledge Base about the Influence of Microbial Processes on Geological Disposal of Radioactive Wastes

E. Holt et al.
- *PREDIS - Pre-disposal management of radioactive waste*

I. Ropponen et al.
- Loviisa NPP solidification plant - Journey from pre-design to full-scale operation

O. Nummi
- The safety case for Loviisa LILW repository 2018

E. Myllykylä
- Dissolution of spent nuclear fuel - Results from completed EU-project REDUPP and ongoing project DISCO

TRACK 5: SMR

V. Tulkki
- ELSMOR - towards Licensing European Small Modular Reactors

K. Värri et al.
- The Possible Role of Modular Nuclear Reactors in District Heating – Case Helsinki Region

M. Rämä
- Flexible nuclear co-generation as a heat supply for district heating

T. Truong et al.
- Reactor Core Conceptual Design for a Small Modular LUT Heat Experimental Reactor

K. Kallemets
- Achieving 33GWe annual newbuild with startup model and financing

J. Kalilainen
- High Temperature Gas-cooled Reactors in a European Electricity Supply Environment; Main Outcomes of a Project in PSI

V. Valtavirta
- Kraken – The upcoming Finnish reactor analysis framework

U. Lauranto
- Evaluating the fulfilment of control rod related nuclear design bases for an SMR core using the Kraken computational framework

TRACK 6: SCIENCE

J. Sovijärvi
- Voluntary Radiation Measurement Team

H. Penttilä
- Independent Fission Yield Studies at the JYFL Accelerator Laboratory

H. Penttilä
- Nuclear Data activities in EURATOM FP7

T. Linden et al
- Constructing a Farnsworth-Hirsch fusor for neutron generation

M. Olin et al.
- EURAD HITEC: Influence of temperature on the behaviour of clay-based material

D. Kaartinen
- Comparison of Calculation Codes in Radiation Detector Placement and Performance Analysis