

## DRAFT CONFERENCE PROGRAM

<b>25.1.2023 - Wednesday</b>	
Morning plenary session	
08:15	Registration
08:45	Opening ceremony and formalities
09:00	<b>Keynote Lecture 1 – Dr. ERNST NIEDERLEITINGER</b> <i>Nuclear Concrete, and how to live with it more easy using NDE</i>
Session: NDE for quality control and quality assurance	
Session chair (To be confirmed)	
09:45	Talk 1 - Multi-sensory monitoring and ultrasound for quality assurance at underground sealing structures (Vera Lay)
10:05	Talk 2 - Monitoring of durability parameters of the reinforced concrete structure for the disposal of low and intermediate level radioactive waste (Javier Sanchez)
10:25	Coffee break
10:40	Talk 3 - Electrochemical techniques for non-destructive evaluation of corrosion damage on steel liners in concrete (Nina Gartner)
11:00	Talk 4 - Calibration process of a capacitive probe for monitoring of reinforced concrete nuclear structures (Ibrahim Houssein)
11:20	Talk 5 - Comparison of simulations and measurements of radar and ultrasound inspections of concrete structures (Jean-Marie Henault)
11:40	Talk 6 - Evaluation of anisotropic material parameters in damaged concrete using ultrasound velocity measurements (Alexis Fedoroff)
12:00	Talk 7 - Where durability analysis can benefit from NDT? (Arto Köliö)
12:20	Lunch break
Afternoon session	
Session: NDE reliability, standardization and robotics	
Session chair (To be confirmed)	
13:20	Talk 8 - DIN 4871: Qualification of NDT Personnel in Civil Engineering (NDT-CE) (Sascha Feistkorn)
13:40	Talk 9 - Reliability Assessment of NDT in Civil Engineering – the German Approach for Standardization (normPOD) (Sylvia Kessler)
14:00	Talk 10 - Machine learning will change NDE (Tuomas Koskinen)
14:20	Talk 11 - Improvement of numerical tools for the ultrasonic NDE of concrete: the fundamental role of the Interfacial Transition Zone (Manda Ramaniraka)
14:40	Talk 12 -
15:20	Talk 13 - A general review of the history of nuclear robotics (Philippe Garrec)
15:40	Coffee break
16:00	Talk 14 - ACES: A Teleoperated Robotic Solution to Pipe Inspection from the Inside (Eric Lucet)
16:20	Talk 15 - How to conduct numerical Impact Echo simulations for non-destructive testing at concrete structures for the nuclear industry (Fabian Dethof)
16:40	Talk 16 - Assessment procedure of determining properties of hardened reinforced concrete structures (Fahim Al-Neshawy)
17:00	Adjourning for the day
19:00	<b>Conference dinner (Dipoli)</b>

<b>26.1.2023 – Thursday</b>	
Morning plenary session	
08:50	Formalities about the conference
<b>09:00</b>	<b>Keynote Lecture 2 – SALVADOR VILLALOBOS</b> <b><i>Advancements for Inspections of Nuclear Power Plants</i></b>
Session: NDE for concrete characterization	
	<b>Session chair (To be confirmed)</b>
09:45	Talk 17 - Towards a harmonization of permeability measurements under pressure and in vacuum (Hugo Cagnon)
10:05	Talk 18 - Non-destructive testing of mock-up of reactor pressure vessel cavity (Zbyněk Hlaváč)
10:25	Coffee break
10:40	Talk 19 - Assessing the concrete of Nuclear Power Plants containment by NDT (Vincent Garnier)
11:00	Talk 20 - Monitoring of electrical properties of slag concrete during the hydration phase by embedded resistivity sensors (Marie-Ange Eid)
11:20	Talk 21 - Effect of carbonation on non-destructive strength and durability assessment of limestone-based concrete (Bart Craeye)
11:40	Talk 22 - Detection of Alkali Reactivity in Accelerated Concrete Prisms by NDE (Pirkko Kekäläinen)
12:00	Talk 23 - Non-destructive testing of reactor containment mock-up (Zbyněk Hlaváč)
12:20	Lunch break
Afternoon session	
Session: Existing and emerging NDE technologies for concrete	
	<b>Session chair (To be confirmed)</b>
13:20	Talk 24 - ONDULYS : a new portable surface wave probe with dry contact transducers applied on the VerCoRs Mock-up (Abraham Odile)
13:40	Talk 25 - On the multi-frequency resistivity measurement of concrete (Adel Benidir)
14:00	Talk 26 - Advanced tomographic imaging techniques for quality assessment of concrete structures by means of ultrasound (Andrey Bulavinov)
14:20	Talk 27 - Towards corrosion assessment in steel cylinder concrete pipes using the Pulsed Eddy Current Technique (Sokratis Iliopoulos)
14:40	Talk 28 - Diagnostic of corrosion in liner embedded into concrete (Frédéric Taillade)
15:20	Talk 29 - Detecting capability of NDE methods in steel-concrete (SC) structures (Ludovic Fülöp)
15:40	Coffee break
16:00	Talk 30 - Inspection of Concrete/Steel/Concrete pipes by ultrasonic methods (Raveendran Thilakson)
16:20	Talk 31 - Towards passive ultrasonic sounding of a steel-concrete-steel containment structure using embedded optical fibers (Maximilien Lehujeur)
16:40	Talk 32 - Studies Into the Use of Non-linear Ultrasound to Detect Corroded Steel Plates Embedded in Concrete (Markus Nilsson)
17:00	Adjourning for the day

<b>27.1.2023 – Friday</b>	
Morning plenary session	
08:50	Formalities about the conference
09:00	<b>Keynote Lecture 3 – Prof. JARI PUTTONEN</b> <i>Aging management of reinforced concrete for the safety of nuclear power plants</i>
Session: NDE for damage detection of reinforced concrete structures I	
Session chair (Fahim Al-Neshawy - Aalto)	
09:45	Talk 33 - Applying linear and non-linear resonant ultrasonic techniques to assess the formation of Alkali-aggregate reaction in concrete (Silva Klayne)
10:05	Talk 34 - Smart Concrete Sensor for mechanical damage assessment (Jean-Paul Balayssac)
10:25	Coffee break
10:40	Talk 35 - In-situ corrosion rate measurements on reinforced concrete structures (Javier Sanchez)
11:00	Talk 36 - Monitoring of concrete property gradients by embedded ultrasonic sensors (Rouba Hariri)
11:20	Talk 37 - Non-destructive method to detect the state of corrosion of a tie rod and to measure the tension in a strand (Frederic Taillade)
11:40	Talk 38 - Non-destructive testing of coarse aggregates irradiated by neutron and gamma radiation for European project ACES (Zbyněk Hlaváč)
12:00	Talk 39 - Post-tension cables monitoring system (Frederic Taillade)
12:20	Lunch break
Afternoon session	
Session: NDE for damage detection of reinforced concrete structures II	
Session chair (To be confirmed)	
13:20	Talk 40 - Using GPR and cover meter for locating the steel reinforcement in reinforced concrete structures (Fahim Al-Neshawy)
13:40	Talk 41 - SFCW GPR Array concrete inspection on nuclear sites (Manuela Kaufmann)
14:00	Talk 42 - Laser-induced breakdown spectroscopy to investigate the chemical composition of concrete (Gerd Wilsch)
14:20	Talk 43 - Combined NDT methods to determine the variations in compressive strength throughout concrete structures (Fahim Al-Neshawy)
<b>14:40</b>	<b>Closing Ceremony</b>