

MONDAY OCTOBER 4TH, 2021

NDT in Progress	
9:00 - 17:30	Registration
9:30 - 12:40	Workshop opening + Section I - Acoustic & ultrasonic methods, nonlinear and guided waves, time reversal and phased array applications
	Chairman: Zdeněk Převorovský
9:30 - 10:00	Testing of local SHM system designed for power plant pipeline <i>Zdenek Prevorovsky</i>
10:00 - 10:20	Classification of debonded regions in lap-joints using guided lamb wave technique <i>Dario Pasadas</i>
10:20 - 10:40	Improving the generated wave detectability for phased array based non-collinear wave mixing technique for PVC water mains inspection. <i>Nandini Chidambaram</i>
10:40 - 11:00	Coffee break
11:00 - 11:20	Broadband local wavenumber estimation for damage detection and quantification in CFRP components <i>Joost Segers</i>
11:20 - 11:40	Non-destructive detection of damage processes during fatigue loading in glass-fiber reinforced polymers <i>Johannes Wiener</i>
11:40 - 12:00	Ultrasonic reconstruction of the fiber architecture of (damaged) multi-layered composites <i>Xiaoyu YANG</i>
12:00 - 12:20	Examples of code compliant applications using Total Focusing Method (TFM) <i>Frederic Reverdy</i>
12:40 - 13:40	Lunch
13:40 - 15:30	Section II - Signal, image, and data processing including AI, numerical simulations, and NDT modelling
	Chairman: Frank Schubert
13:40 - 14:10	A numerical modeling tool for scanning air-coupled ultrasonic testing based on the elastodynamic finite integration technique (EFIT) <i>Frank Schubert</i>
14:10 - 14:30	Approaches combining multiple paths to extract probability of detection information of a guided wave-based structural health monitoring system. <i>Ahmed Bayoumi</i>
14:30 - 14:50	Acoustic material testing a progressive testing method. How to benefit from intelligent pattern recognition. <i>Jörg Ritter</i>
14:50 - 15:10	Semi-analytical modelling of perturbations in magnetic flux density due to narrow flaws in eddy current NDT. <i>Prashanth Baskaran</i>
15:10 - 15:30	Convergence study on wave propagation in a concrete beam. <i>Alaa Diab</i>
15:30 - 15:50	Coffee break
15:50 - 16:50	Poster Session
15:50 - 16:05	Fast inspection through arbitrary shape interfaces with Total Focusing Phased Array. <i>Guillermo Cosarinsky</i>
16:05 - 16:20	Mechanical manipulator for use in hot cell - application of nonlinear method NWMS in irradiated concrete testing <i>Zbynek Hlavac</i>
16:20 - 16:35	Influence of surface finishing to fatigue process in additive material <i>Vendula Skrivankova</i>
16:35 - 16:50	Use of non-destructive techniques to detect damage induced by corrosion of pre-stressing steel strands. <i>Monika Manychova</i>

TUESDAY OCTOBER 5TH, 2021

NDT in Progress		NDE for safety		NDT Expo
8:00 - 17:30	Registration			10:30 - 17:00
9:30 - 10:40	Section NDT III - NDT for Industry 4.0, digital twins, SHM, and additive manufacturing	10:00 - 10:40	Conference opening + Section I	
	Chairman: Serge Dos Santos	Chairman: Pavel Mazal		
9:30 - 10:00	Guidance roadmap for Ultrasonic Nonlinear Imaging within Industry 4.0: the importance of signal, image and data analysis <i>Serge Dos Santos</i>			
10:00 - 10:20	NDT 4.0 – A technology overview. <i>Lennart Schulenburg</i>			
10:20 - 10:40	Vibration-based condition monitoring by ensemble deep learning. <i>Vahid Yaghoubi</i>	10:10-10:40	The thickness and continuity testing of dielectric coatings by using high voltage testing method <i>Vladimir Syasko</i>	
10:40 - 11:00	Coffee break			
11:00 - 12:00	Section NDT III - NDT for Industry 4.0, digital twins, SHM, and additive manufacturing	11:00 - 12:45	Section II	
	Vibrational quality classification of metallic turbine blades under measurement uncertainty. <i>Liangliang Cheng</i>	Chairman: Pavel Mazal		
11:00 - 11:20		11:00 - 11:25	Role of NDE in asset management <i>Peter Trampus</i>	
11:20 - 11:40	A simulation platform for structural health monitoring <i>Fabrice Foucher</i>	11:25 - 11:45	Automated defect detection in CFRP using flash infrared thermography and deep learning method <i>Zongfei Tong</i>	
11:40 - 12:00	Ultrasonic testing for railways according to various standards and methods <i>Stanislav Starman</i>	11:45 - 12:05	First results from a robotic test cell with a contact-free spot-weld inspection technology <i>Josef Pörnbacher</i>	
		12:05 - 12:25	Use of the MMM method for detection of cracks in the welded joint of pipelines <i>Jaroslav Brom</i>	
		12:25 - 12:45	OHL (overhead lines) integrity assessment system through AI integrated multidisciplinary tools <i>Givanildo Almeida</i>	
12:00 - 14:00	Lunch; Installation posters			
13:00 - 14:40	Section NDT IV - Electromagnetic and magnetic methods, optical imaging of defects	14:00 - 15:40	Section III - Transportation, bearings	
	Magnetic Barkhausen noise analysis for microstructural effects separation during flow forming of metastable austenite AISI 304L <i>Julian Roza Vasquez</i>	Chairman: Libor Topolář		
13:00 - 13:20		14:00 - 14:25	Development of an ultrasonic testing system for press connectors of railway catenary wires <i>Frank Schubert</i>	
13:20 - 13:40	Influence of constitutive elements of ferromagnetic shape memory Heusler alloys over thermomechanical properties <i>Adriana Savin</i>	14:25 - 14:45	Use of pulsed eddy current for the assessment of corrosion in ship decks plates <i>Gabriel Cyr</i>	
13:40 - 14:00	Performance of time- and frequency-domain analysis techniques in flash thermographic inspection of monolithic and sandwich composite parts <i>Gaëtan Poelman</i>	14:45 - 15:05	Non destructive examination of cargo vaporizers and condensers in ships carrying liquefied petroleum gases in bulk (LPG carriers) <i>Tejas Ingale</i>	
14:00 - 14:20	Accurate extraction of the harmonic thermal response in active infrared thermographic NDT <i>Saeid Hedayatrasa</i>	15:05 - 15:25	Condition monitoring of toroidal bearings using acoustic emission <i>Housam Mohammad</i>	
14:20 - 14:40	Analysis of Ballistic Impacts on Composite materials by Infrared Active Thermography <i>Stephane Boubanga Tombet</i>	15:25 - 15:40	Phased-array UT and ET automation for large and geometrically complex parts examination by means of robotics <i>Lurii Iaremko</i>	
14:40 - 16:00	Coffee break			
15:00 - 16:00	Section NDT V - Radiographic methods, infrared and terahertz wave testing			
15:00 - 15:20	New focal spot range: mesofocus <i>Marcel Odermatt</i>			
15:20 - 15:40	X-ray inspection - bringing speed and accuracy together <i>Michael Hubler</i>			
15:40 - 16:00	Concepts to improve air cooling in portable x-ray systems <i>Jan Bressendorff</i>			
16:00 - 16:30	Workshop closure			

WEDNESDAY OCTOBER 6TH, 2021

Defektoskopie 2021		NDE for safety		NDT in Progress	NDT Expo
8:30 - 18:00	Registration			9:30 - 12:00	10:00 - 16:00
10:00 - 10:40	Opening + Section I	9:00 - 10:40	Section IV - Concrete structural health and Condition Monitoring, Public Safety		
	Chairman: Libor Topolář	Chairman: will be specified later			
		9:00-9:20	A basic study of Impact Elastic Wave Method to Expanding the Applicability of Grouting Condition Evaluation in PC Tendon Ducts <i>Kentaro Yamashita</i>		
		9:20-9:40	Next Generation Tank Floor Scanning – Total Inspection Efficiency <i>Stuart Kenny</i>		
		9:40-10:00	NDT and Inspection Applied in Fireproofing coating systems <i>Jorge Reyna</i>		
10:00 - 10:05	Opening ceremony <i>Libor Topolář</i>	10:00-10:20	Vibration-based feature extraction for artificial damages in small scale cutting discs of tunnel boring machines <i>Sebastian Priebe</i>		
10:05 - 10:40	50let konferenci Defektoskopie aneb (ne)snesitelná lehkost nedestruktivního zkoušení v Československu (osobní pohled do historie účastníka 50 konferenci) <i>Bernard Kopec</i>	10:20-10:40	Assessment of pipe wall corrosion using high order ultrasonic guided waves <i>Donatas Cirtautas</i>		
10:40 - 11:00	Coffee break				
11:00 - 12:40	Section II - NDT practice + Section - Certification, education and standardization	11:00 - 12:50	Section V - New ways in NDT		
	Chairman: Josef Neugebauer	Chairman: Peter Tscheliesnig			
11:00 - 11:20	Posouzení svarového spoje. Nejasnosti při vizuálním zkoušení <i>Josef Neugebauer</i>	11:00 - 11:25	Acoustic anisotropy in products obtained by the method of selective laser melting <i>Vitaly Muravev</i>		
11:20 - 11:40	Možnosti nedestruktivního zkoušení křemíkových materiálů <i>Pavel Mareš</i>	11:25 - 11:50	Acoustic Emission Testing - a safety tool for pressure equipment used over decennia with specific view on the EN 14584 <i>Peter Tscheliesnig</i>		
11:40 - 12:00	Nedestruktivní testování hlav válců, sedel a ventilů ve výrobě a servisu <i>Břetislav Škrbek</i>	11:50 - 12:10	Combining NDTs with digital photogrammetry survey and ambient vibration detection for performance diagnosis in historic architectures toward conservative and compatible measures <i>Mariella De Fino</i>		
12:00 - 12:20	Zvyšování a ověřování odborné způsobilosti pracovníků NDT provádějících zkoušky na vybraných zařízeních jaderných elektráren <i>Josef Neugebauer</i>	12:10 - 12:30	Acoustic emission based damage monitoring to study fracture in cementitious mortars under fatigue loading <i>Nuhamin Eshetu Deresse</i>		
12:20-12:40	Semi-Automated System for Rail Axle and Wheels Service Inspection Using Ultrasonic Testing <i>Stanislav Starman</i>	12:30 - 12:50	A powerful new way of collecting NDE 4.0 data – Aerial robotic systems (drones) for visual and contact based inspections and data gathering <i>Robert Dahlstrom</i>		
12:30 - 14:00	Lunch				
14:00 - 15:40	Section III - Acoustic NDT methods	14:00 -15:20	Section VI		
	Chairman: Václav Svoboda	Chairman: Zdeněk Převorovský			
14:00 - 14:20	Aplikace akustické emise a magnetické paměti materiálu pro detekci a lokalizaci defektů v potrubí <i>Václav Svoboda</i>	14:00 - 14:20	Ultrasonic attenuation and flash thermography techniques to evaluate void content in out-of-autoclave manufactured laminated thermoplastic composites <i>Achraf Ben Fekih</i>		
14:20 - 14:40	Vysokoteplotní ultrazvukové zkoušení technikou Phased Array <i>Jana Veselá</i>	14:20 - 14:40	Corrosion depth inspection of storage tank top based on improved ultrasonic guided wave reflection coefficient <i>Wencai Liu</i>		
14:40 - 15:00	Modernization of R-mat test equipment using a combination of diagnostic methods <i>Pavel Mazal</i>	14:40 - 15:00	Potential of active thermography as a non-destructive testing method for quality assurance of welded joints <i>Eugen Prints</i>		
15:00 - 15:20	Metoda akustické emise aplikovaná na zatěžované vzorky malt / Acoustic emission method applied to loaded mortar specimens <i>Luboš Pazdera</i>	15:00 - 15:10	Digitalization underfloor inspection for railway <i>Daniel Werner</i>		
15:20 - 15:40	Inspekte předepnutého lana při korozní zkoušce metodou akustické emise <i>Václav Svoboda</i>	15:10 - 15:20	Active thermography to detect defects in wood samples of interest for cultural heritage <i>Massimo Ripa</i>		
15:00 - 16:00	Coffee break				
16:00 - 18:00	CNDT annual meeting				
19:00 - 22:00	Social evening				

THURSDAY 7TH, 2021

Defektoskopie 2021		NDT Expo
8:30 - 13:00	Registration	10:00 - 13:00
9:00 - 10:40	Blok ATG	
9:00 - 9:20	Proč je Written Practice důležitá pro zaměstnavatelský systém kvalifikace NDT personálu / Why Written Practice Matters in Employer-Based Qualification Sytem for NDT Personnel <i>Tomáš Zavadil</i>	
9:20 - 9:40	Automatická vizuální kontrola ložiskových kroužků s využitím metod strojového vidění / Automatic visual inspection of bearing rings using machine vision methods <i>Veronika Kadlecová</i>	
9:40 - 10:00	Co přináší nová revize předpisu pro personální kvalifikaci ASME-ANDE-1:2020 / What Brings The New Revision of Personnel Qualification Standard ASME ANDE-1:2020 <i>Tomáš Zavadil</i>	
10:00 - 10:20	Možnosti využití techniky ECA – Eddy Current Array / Possibilities of using the ECA – Eddy Current Array technique <i>Petr Tichý</i>	
10:20 - 10:40	Mezilaboratorní zkoušení způsobilosti NDT laboratorů dle ISO 17043 jakožto nástroj pro kontinuální zlepšování / Inter-Laboratory Proficiency Testing of NDT Labs According To ISO 17043 as a Tool For Continuous Improvement <i>Tomáš Zavadil</i>	
10:40 - 11:00	Coffee break	
11:00 - 12:30	Section Def. VI (TNK 80)	
12:30 - 13:00	Lunch	



BETTER CM & NDT – WARRANTY OF QUALITY, RELIABILITY AND SAFETY