

# NDT in Progress 2015

## PRELIMINARY PROGRAM

Situation - October 06, 2015

Monday 12, Oct. 2015		
09:00 - 17:00		Registration
11:00 - 11:30		Workshop opening
11:30 - 13:00		Session 1 - chair: Z. Prevorovsky
11:30	AT	<b>In situ calibration of acoustic emission sensors</b> J. Kober*, Z. Prevorovsky; Institute of Thermomechanics, Academy of Sciences of the Czech Republic, Czech Republic
12:00	AT	<b>Ultra Sniffer New – LEAK Detection Method</b> R. Brockmann; private, innovator of a new atmospheric leak testing method (UST method), Germany
12:30	AT	<b>Introduction to the AFF Universal File Format and its Use for NDT Data</b> M. Drab*, M. Hanak; DAKEL, Czech Republic
13:00 - 14:00		Lunch
14:00 - 16:00		Session 2 - chair: P. Mazal
14:00	NDT	<b>Progress in NDT methods and topics during the last 15 years</b> Z. Prevorovsky; Institute of Thermomechanics AS CR, Czech Republic
14:30	NDT	<b>Modelling of the Influence of Iron Oxide Layers on Microstructural Damage of Boiler Tubes</b> J. Angelo; Federal University of ABC, Brazil
15:00	VIB	<b>Modal Analysis as High Sensitive NDT Method of Compressor Blades</b> M. Witos; Air Force Institute of Technology (ITWL), Poland
15:30	VIB	<b>Identification of semi-rigid joints in plane steel frame structures using swarm optimization techniques and genetic algorithm</b> J. Pal*, S. Banerjee, P. Majumder; Indian Institute of Technology Bombay, India
16:00 - 16:30		coffee break
16:30 - 18:30		Sessions 3 - chair: K. Hajek
16:30	VT,UT	<b>Multimodal 2D and 3D imaging using a combined optical coherence tomography and non-contact photoacoustic imaging system</b> E. Leiss-Holzinger*, J. Bauer-Marschallinger, A. Buchsbaum, T. Berer; Research Center for Non Destructive Testing GmbH (RECENDT), Austria
17:00	IRT	<b>Non-destructive testing of electronic components overheating using infrared thermography</b> K. Petrosyants*, I. Kharitonov; Moscow Institute of Electronics and Mathematics of National Research University "Higher School of Economics" (MIEM), Russia
17:30	UT-EMI	<b>Damage Detection of Reinforced Concrete Elements Retrofitted with FRP by Using a Wireless Measurement System</b> T. Triantafillou; University of Patras (UPAT), Greece
canceled	RT	<b>charging wirelessly the robot inside pipeline</b> M. Chaari; National Engineering School of Sfax, Tunisia

Tuesday 13, Oct. 2015		
09:00 - 13:00		Registration
09:00 - 11:00		Sessions 4 - chair: S. Hirsekorn
9:00	UT - NL	<b>Some Aspects of Signal Processing for Nonlinear Pulse Ultrasonic Mixing Spectroscopy</b> K. Hajek; University of Defence, Czech Republic
9:30	UT - NL	<b>Nonlinear Time Reversal for Non Destructive Testing of complex medium: a review based on multi-physics experiments and signal processing strategies</b> S. Dos Santos*, M. Lints, N. Poirot, Z. Dvorakova, A. Salupere, M. Caliez, Z. Prevorovsky; Institut National des Sciences Appliquées Centre Val de Loire (INSA CVL), France
10:00	UT - NL	<b>Characterization of the Anisotropy and Directional-Dependent Nonlinearity of the Human Skin In-vivo Using Ultrasound</b>

		D. Tokar*, Z. Prevorsevsky; Institute of Thermomechanics, Academy of Sciences of the Czech Republic (ASCR), Czech Republic
10:30	UT -L	<b>Contact laser-ultrasonic evaluation of carbon-fiber reinforced composites</b>
		A. Karabutov; Lomonosov Moscow State University, Russia
<b>11:00 - 11:30</b>		<b>coffee break</b>
<b>11:30 - 13:00</b>		<b>Sessions 5 - chair: A. Karabutov</b>
11:30	UT -L	<b>Laser-ultrasonic measurement of local elastic moduli</b>
		E. Cherepetskaya; the National University of Science and Technology "MISIS"(NUST "MISIS"), Russia
12:00	UT	<b>A Reference Free Method for Damage Detection and Location Based on Geometric Similarity</b>
		M. Salmanpour*, Z. Sharif Khodaei, M. Aliabadi; Imperial College London, United Kingdom
12:30	UT	<b>Interpolation Analysis Of Ultrasonic Guided Wave Signals In The Temperature Domain</b>
		R. Liou*, J. Michaels; National Pingtung University, Taiwan, Republic of China
<b>13:00 - 14:00</b>		<b>Lunch</b>
<b>14:00 - 16:00</b>		<b>Sessions 6 - chair: J. Grum</b>
14:00	UT	<b>Materials evaluation and defect detection by elastic wave propagation and scattering phenomena</b>
		S. Hirsekorn; NDT Consultant, Germany
14:30	UT	<b>Pipeline construction: how NDT modelling can help developing, optimizing and validating AUT procedures</b>
		R. Molica Nardo*, D. Cerniglia; University of Palermo, Italy
15:00	UT	<b>Ultrasonic guided wave propagation and detection of high density core region in a honeycomb composite sandwich structure using embedded piezoelectric transducers</b>
		S. Sikdar*, S. Banerjee; Indian Institute of Technology Bombay, India
15:30	UT	<b>A multichannel ultrasound pulser with arbitrary signal excitation unit for scanning acoustic microscopy</b>
		A. Juhrig*, S. Kümmritz, M. Wolf, E. Kühnicke; Technical University Dresden, Germany
<b>16:00 - 16:30</b>		<b>coffee break</b>
<b>16:30 - 18:30</b>		<b>Poster session 7 - A. Savin</b>
16:30	AT	<b>Acoustic Emission Crack Detection in Injection Molding</b>
		J. Grum*, T. Kek, D. Kusic, A. Hancic; University of Ljubljana, Faculty of Mechanical Engineering, Slovenia
16:40	AT	<b>New areas of application of acoustic emission method</b>
		P. Mazal*, L. Komenda, F. Vlasic, V. Bukacek, M. Jana; Brno University of Technology, Czech Republic
16:50	AT	<b>Shortest Ways Finding in Discrete Bodies.</b>
		M. Chlada; Institute of Thermomechanics of the CAS, v. v. i., Czech Republic
17:00	UT	<b>Boundary Amplitude Mitigated Transducer Placement Optimisation (BAMtpo) for Guided Wave Structural Health Monitoring</b>
		M. Salmanpour*, M. Aliabadi, Z. Sharif Khodaei; Imperial College London, United Kingdom
17:10	UT	<b>Post Deployment Repairable and Modifiable (pdRAM) Smart SHM Layer Concept.</b>
		M. Salmanpour*, Z. Sharif Khodaei, M. Aliabadi; Imperial College London, United Kingdom
17:20	UT	<b>Study on the Lamb wave propagation in the monocrystalline silicon wafers using large aperture line-focused PVDF transducer</b>
		J. Oh, D. Kim, I. Jung, K. Han, Y. Kim*; Korea Science Academy of KAIST, South Korea
17:30	UT	<b>Propagation property of the Leaky surface acoustic wave on the monocrystalline silicon using large aperture line-focused PVDF transducer</b>
		S. Kim, Y. Noh, M. Son, D. Lee, Y. Kim*; Korea Science Academy of KAIST, South Korea
17:40	UT	<b>Surface acoustic wave propagation in thin textured BST films</b>
		A. Njeh*, M. Ben Ghazlen, A. Chaabani, W. Donner; Faculty of Sciences of Sfax, Tunisia
17:50	UT	<b>Influence of Transducer Coupling in Ultrasonic Testing</b>
		L. Carbol*, I. Kusák, J. Martinek, P. Vojtkůvková; Brno University of Technology, Faculty of Civil Engineering, Czech Republic
18:00	RT	<b>A robot inspection system allows the detection of defects in adhesive bonds between CFRP components by using active thermography, leading to reduced cycle times</b>
		M. Busch*, B. Faupel, D. Weyrich; ZeMA Zentrum für Mechatronik und Automatisierungstechnik (Centre for Mechatronics and Automation), Germany

18:10	ET	<b>A new approach of microwave resonant methods for bone replacement biomaterials testing</b>
		D. Faktorová, A. Savin*, M. Pápežová, R. Steigmann, F. Nový, O. Bokůvka; National Institute of Research and Development for Technical Physics (NIRDTP), Romania
canceled	UT	<b>Study and evaluation of advanced TOFD method for inspection of polyethylene pipes but welding</b>
		M. Taghipour; Pars Leading Inspection Company, Iran
<b>19:30 - 22:00</b>		<b>Social dinner</b>

**Wednesday 14, Oct. 2015**

**Sessions 8 - chair: K. Petrosyans**

<b>09:00- 11:30</b>		
9:00	ET	<b>Complementary near field techniques for assesment of fiber reinforced composites</b>
		A. Savin*, R. Steigmann, N. Iftimie, M. Pápežová, D. Faktorová; National Institute of Research and Development for Technical Physics (NIRDTP), Romania
9:30	ET	<b>Monitoring of water infiltration in autoclaved aerated concrete masonry construction blocks by EIS</b>
		S. Rubene; Riga Technical university, Latvia
10:00	ET	<b>Eddy Current Array no Contact Screw Inspection</b>
		C. Patrick; Olympus europa, France
10:30	MATER	<b>Material characterization of layered structures by the simultaneous determination of sound velocity and thickness</b>
		S. Kümmitz*, M. Wolf, E. Kühnicke; Technische Universität Dresden, Germany
11:00	MATER	A wave propagation model for simultaneous determination of thickness and sound velocity of layered structures.
		Mario Wolf, Elfgard Kühnicke, TU Dresden, Dresden, Germany
11:30	ET	<b>Segregation of samples on the basis of variation in tempering temperature and time by using non-destructive eddy current testing</b>
		Javeria Hashmi, National University of Science and Technology , Islamabad, Pakistan
<b>11:30 – 12:00</b>		<b>coffee break</b>
<b>12:00 – 13:00</b>		General discussion & Workshop closure