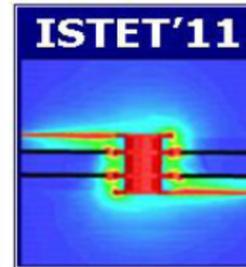**INDS'11**

Joint Conference
3ⁿᵈ INDS'11 & 16ᵗʰ ISTET'11
THIRD INTERNATIONAL WORKSHOP ON NONLINEAR DYNAMICS
AND SYNCHRONIZATION -- **INDS'11**
&
SIXTEENTH INTERNATIONAL SYMPOSIUM ON THEORETICAL
ELECTRICAL ENGINEERING -- **ISTET'11**

JULY 25 – 27, 2011
UNIVERSITY OF KLAGENFURT
(KLAGENFURT; AUSTRIA)

ALPEN-ADRIA UNIVERSITÄT
KLAGENFURT I WIEN GRAZ

ISTET'11

Day 1: July 25th, 2011

Time	Location	Event	Session Chair
08:00 - 08:30	Foyer 1ˢᵗ floor	**Registration**	
08:30 - 09:00	HS B	**Opening**	**W. Mathis H. Lengauer (Vize Rector)**
09:00 - 10:25	HS B	**Keynote:** **Electromagnetics, systems theory, fluid dynamics and some fundamentals in physics** Prof. Alfred Fettweis *(Ruhr-Universität Bochum, Germany)*	**W. Halang**
10:25 - 10:40	Foyer 1ˢᵗ floor	**Coffee break**	
10:40 - 12:05	HS B	**Keynote:** **Speeding up linear consensus in networks** Prof. Martin Hasler *(EPFL, Switzerland)*	**W. Halang**
12:05 - 12:15	HS B	**Poster Teaser 1**	**K. Kyamakya**
12:15 - 13:00	Foyer basement	**Lunch**	
		Poster Session 1: Nonlinear Dynamics and Synchronization (NDS) & Presentation of DEMOS by "INTEL"	
		A Robust and Optimal LQR Controller Design for Electric Power Steering System Christian Chitu*; Jochen Lackner*; Martin Horn*; Helmut Waser~; Markus Kohlböck~ *(*Alpen-Adria University Klagenfurt, Austria; ~Magna Powertrain AG & Co KG, Austria)*	
		Data Reconciliation and Bias Estimation in On-Line Optimisation Moufid Mansour *(University of Science and Technology, Algeria)*	
		CNN Based High Performance Computing for Real Time Image Processing on GPU Sasanka Potluri*; Alireza Fasih*; Laxminand Kishore Vutukuru*; Fadi Al Machot*; Kyandoghere Kyamakya* *(*Alpen-Adria University Klagenfurt, Austria)*	

13:00 - 13:30	Foyer 1st floor	**Adaptive Contrast Enhancement Involving CNN-based Processing for Foggy Waether Conditions & Non-Uniform Lighting Conditions** Christopher Schwarzlmüller*; Fadi Al Machot*; Alireza Fashi*; Kyandoghere Kyamakya* *(*Alpen-Adria University Klagenfurt, Austria)*	
		A Novel Real-Time Emotion Detection System from Audio Streams Based on Bayesian Quadratic Discriminate Classifier for ADAS Fadi Al Machot*; Ahmad Haj Mosa~; Kosai Dabbour#; Alireza Fasih*; Christopher Schwarzlmüller*; Mouhanndad Ali~; Kyandoghere Kyamakya* *(*Alpen-Adria University Klagenfurt, Austria; ~Carinthia University of Applied Sciences, Austria; #University of Potsdam, Germany)*	
		Realization of Synchronization of Coupled Multiple Delay Systems on FPGA Platform Viet-Thanh Pham*; Mattia Frasca*; Luigi Fortuna*; Tran Tuan Anh~; Thang Manh Hoang~ *(*University of Catania, Italy; ~Hanoi University of Science and Technology, Vietnam)*	
13:30 - 14:30	HS B	<u>**Keynote:**</u> **Intel Software Development tools-Addressing Coding and analysis of C++ and fortran applications** Edmund Preis*; Sören Plönnings~ *(*Intel; ~Institute Theoretical Electrical Engineering Hannover, Germany)*	**W. Mathis**
14:30 - 14:45	**Foyer 1st floor**	**Coffee break**	

Parallel Sessions P1 and P2		
15 minutes presentation + 5 minutes discussion	**P1: Nonlinear Dynamics, chaos and Synchronization - 1 (NDS-1)** HS B H. Buchachia	**P2: Electromagnetics and Electrical Engineering - 1 (EEE-1)** HS C Z.Li
14:45 - 15:05	**Impulsive Control for the Synchronization of Stochastic Dynamical Networks** Jianquan Lu*; Jürgen Kurths*; Nariman Mahdavi*; Jinde Cao* *(*Humboldt University, Germany)*	**Spherical-Multipole Analysis of Electromagnetic Scattering by an Elliptic Cone** Ludger Klinkenbusch*; Michael Kijowski* *(*Christian-Albrechts-Universität zu Kiel, Germany)*

15:05 - 15:25	**Self-Adaptive Attractor-Shaping for Oscillators Networks** Julio Rodriguez*; Max-Olivier Hongler*; Philippe Blanchard~ *(*Ecole Polytechnique Federale de Lausanne, Schwitzerland; ~Universität Bielefeld, Germany)*	**Electromagnetic Forces in Synchronous Turbogenerator Rotor Slot Wedges** Mykhailo G. Panteliat*; Oszkar Bíró*; Andrej Stermecki* *(*Graz University of Technology, Austria)*
15:25 - 15:45	**Image Edge Detection with Discretely Spaced FitzHugh-Nagumo Type Excitable Elements** Atsushi Nomura*; Makoto Ichikawa~; Koichi Okada*; Hidetoshi Miike*; Tatsunari Sakurai~; Yoshiki Mizukami* *(*Yamaguchi University, Japan; ~Chiba University, Japan)*	**SPICE Model for Effective and Accurate Time Domain Simulation of Power Transformers** Lucian Mandache*; Dumitru Topan*; Mihai Iordache~; Ioana Gabriela Sirbu* *(*University of Craiova, Romania; ~University Politehnica of Bucharest, Romania)*
15:45 - 16:05	**Geometrical Interpretation of Jump Phenomena in Nonlinear Dynamical Circuits** Tina Thiessen*; Wolfgang Mathis* *(*University of Hannover, Germany)*	**2D Computation and Measurement of Electric and Magnetic Fields of Overhead Electric Power Lines** Slavko Vujević*; Dino Lovrić*; Tonći Modrić* *(*University of Split, Croatia)*
16:05 - 16:20	**Foyer 1st floor**	**Coffee break**
16:20 - 16:40	**Synchronization of Flashing Electronic Oscillators** Erna Káptalan*; Zsuzsa Sárközi*; Arthur Tunyagi*; Szilárd Boda*; Zoltán Néda* *(*Babes-Bolyai University, Romania)*	**Advanced Adaptive Algorithms in Finite Element Method of Higher Order of Accuracy** Ivo Dolezel*; Pavel Karban~; Frantisek Mach~; Bohus Ulrych~ *(*Czech Technical University, Czech Republic; ~University of West Bohemia, Czech Republic)*

16:40 - 17:00	**Synchronization of multi-directional multi-scroll chaos generators: A Hamiltonian approach** Ernesto Zambrano-Serrano*; Jesus Manuel Muñoz-Pacheco~; Olga Félix-Beltran*; Rodolfo Trejo-Guerra#; Luz del Carmen Gómez-Pavón*; Esteban Tlelo-Cuautle#; Carlos Sánchez-López%; Arnulfo Luis-Ramos* *(*BUAP, Mexico; ~Polytechnic University of Puebla, Mexico; #National Institute for Astrophysics, Optics and Electronics, Mexiko; %UAT, IMSE and University of Sevilla, Mexico & Spain)*	**Numerical Modelling of Terahertz Systems for Nondestructive Evaluation of Dielectric Materials** Przemyslaw Lopato*; Tomasz Chady*; Ryszard Sikora*; Stanislaw Gratkowski*; Marcin Ziolkowski* *(*West Pomarian University of Technology, Poland)*
17:00 - 17:20	**Time-of-Flight Estimation using Synchronized Chaotic Systems** Christian Wallinger*; Markus Brandner* *(*Graz University of Technology, Austria)*	**The difference between voltage and potential difference** Slavko Vujević*; Tonći Modrić*; Dino Lovrić* *(*University of Split, Croatia)*
17:20 - 17:40	**Toward Complex Behavior and Synchronization in Networks and Chaos with Strong Anticipation** Oleksandr S. Makarenko *(National Technical University of Ukrain "KPI", Ukrain)*	**Electrodynamics of Moving Bodies Systematic Foundation of EM Theory** Branko Mišković *(Independent, Serbia)*
17:40 - 18:00	**Foyer 1st floor**	**Cold Beer Session**
19:00 - 23:00	**Social Event**	