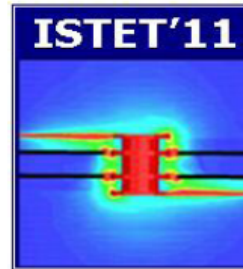


Joint Conference
3rd INDS'11 & 16th ISTET'11
THIRD INTERNATIONAL WORKSHOP ON NONLINEAR DYNAMICS AND SYNCHRONIZATION -- INDS'11
 &
SIXTEENTH INTERNATIONAL SYMPOSIUM ON THEORETICAL ELECTRICAL ENGINEERING -- ISTET'11

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



ALPEN-ADRIA UNIVERSITÄT
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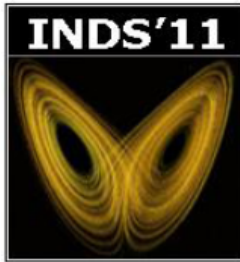
Day 1: July 25th, 2011

Time	Location	Event	Session Chair
08:00 - 08:30	Foyer 1 st 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 <i>(Ruhr-Universität Bochum, Germany)</i>	W. Halang
10:25 - 10:40	Foyer 1 st floor	Coffee break	
10:40 - 12:05	HS B	Keynote: Speeding up linear consensus in networks Prof. Martin Hasler <i>(EPFL, Switzerland)</i>	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~ <i>(*Alpen-Adria University Klagenfurt, Austria; ~Magna Powertrain AG & Co KG, Austria)</i>	
		Data Reconciliation and Bias Estimation in On-Line Optimisation Moufid Mansour <i>(University of Science and Technology, Algeria)</i>	
		CNN Based High Performance Computing for Real Time Image Processing on GPU Sasanka Potluri*; Alireza Fasih*; Laxminand Kishore Vutukuru*; Fadi Al Machot*; Kyandoghere Kyamakya* <i>(*Alpen-Adria University Klagenfurt, Austria)</i>	

13:00 - 13:30	Foyer 1 st 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* <i>(*Alpen-Adria University Klagenfurt, Austria)</i>	
		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* <i>(*Alpen-Adria University Klagenfurt, Austria; ~Carinthia University of Applied Sciences, Austria; #University of Potsdam, Germany)</i>	
		Realization of Synchronization of Coupled Multiple Delay Systems on FPGA Platform Viet-Thanh Pham*; Mattia Frasca*; Luigi Fortuna*; Tran Tuan Anh~; Thang Manh Hoang~ <i>(*University of Catania, Italy; ~Hanoi University of Science and Technology, Vietnam)</i>	
13:30 - 14:30	HS B	Keynote: Intel Software Development tools- Addressing Coding and analysis of C++ and fortran applications Edmund Preis*; Sören Plönnings~ <i>(*Intel; ~Institute Theoretical Electrical Engineering Hannover, Germany)</i>	W. Mathis
14:30 - 14:45	Foyer 1 st 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* <i>(*Humboldt University, Germany)</i>	Spherical-Multipole Analysis of Electromagnetic Scattering by an Elliptic Cone Ludger Klinkenbusch*; Michael Kijowski* <i>(*Christian-Albrechts-Universität zu Kiel, Germany)</i>	

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

16:40 - 17:00	<p>Synchronization of multi-directional multi-scroll chaos generators: A Hamiltonian approach</p> <p>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*</p> <p><i>(*BUAP, Mexico; ~Polytechnic University of Puebla, Mexico; #National Institute for Astrophysics, Optics and Electronics, Mexico; %UAT, IMSE and University of Sevilla, Mexico & Spain)</i></p>	<p>Numerical Modelling of Terahertz Systems for Nondestructive Evaluation of Dielectric Materials</p> <p>Przemyslaw Lopato*; Tomasz Chady*; Ryszard Sikora*; Stanislaw Gratkowski*; Marcin Ziolkowski*</p> <p><i>(*West Pomarian University of Technology, Poland)</i></p>
17:00 - 17:20	<p>Time-of-Flight Estimation using Synchronized Chaotic Systems</p> <p>Christian Wallinger*; Markus Brandner*</p> <p><i>(*Graz University of Technology, Austria)</i></p>	<p>The difference between voltage and potential difference</p> <p>Slavko Vujević*; Tonći Modrić*; Dino Lovrić*</p> <p><i>(*University of Split, Croatia)</i></p>
17:20 - 17:40	<p>Toward Complex Behavior and Synchronization in Networks and Chaos with Strong Anticipation</p> <p>Oleksandr S. Makarenko</p> <p><i>(National Technical University of Ukrain "KPI", Ukrain)</i></p>	<p>Electrodynamics of Moving Bodies Systematic Foundation of EM Theory</p> <p>Branko Mišković</p> <p><i>(Independent, Serbia)</i></p>
17:40 - 18:00	Foyer 1 st floor	Cold Beer Session
19:00 - 23:00	Social Event	

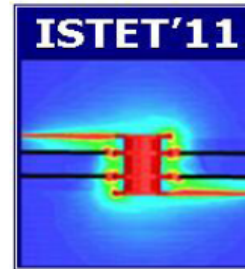


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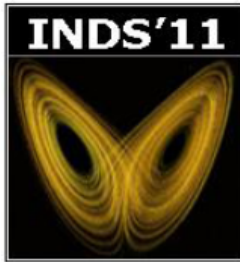


Day 2: July 26th, 2011

Time	Location	Event	Session Chair
09:00 - 10:25	HS B	<u>Keynote:</u> From Huygens' odd sympathy to the energy extraction from the sea waves Prof. Tomasz Kapitaniak <i>(Technical University of Lodz, Poland)</i>	M. Horn
10:25 - 10:40	Foyer 1 st floor	Coffee break	
10:40 - 12:05	HS B	<u>Keynote:</u> Electronic circuits predict failure of prominent algorithms used in bioinformatics Prof. Ruedi Stoop <i>(ETH Zurich, Switzerland)</i>	M. Horn
12:05 - 12:15	HS B	Poster Teaser 2	K. Kyamakya
12:15 - 13:00	Foyer basement	Lunch	
Poster Session 2: Nonlinear Dynamics and Synchronization (NDS) & Presentation of DEMOS by "INTEL"			
13:00 - 13:30	Foyer 1 st floor	Chaotic Modulation based on the Combination of CPPM and CPWM Nguyen Xuan Quyen*; Vu Van Yem*; Thang Manh Hoang* <i>(*Hanoi University of Science and Technology, Vietnam)</i>	
		Extended radiography system for identification of defect position in three dimensions Wojciech Chlewicki*; Piotr Baniukiewicz*; Tomasz Chady*; Andrzej Brykalski* <i>(*West Pomeranian University of Technology, Poland)</i>	
		Implementation of Chaotic Pulse-Position Modulation on FPGA Nguyen Tien Dat*; Thang Manh Hoang* <i>(*Hanoi University of Science and Technology, Vietnam)</i>	

		<p>Determining the Range of the Active and Reactive Power in AC Interval Parameter Circuits</p> <p>Lubomir Kolev <i>(Technical University of Sofia, Bulgaria)</i></p>
		<p>Hard-Coupled Modeling of Induction Shrink Fit to Gas-Turbine Active Wheel</p> <p>Václav Kotlan*; Pavel Karban*; Bohus Ulrych*; Ivo Dolezel~; Pavel Kus~ <i>(*University of West Bohemia, Czech Republic; ~ Czech Technical University, Czech Republic)</i></p>
13:30 - 13:45	Foyer 1st floor	Coffee break
Parallel Sessions P3 and P4		
15 minutes presentation + 5 minutes discussion	<p>P3: Electromagnetics and Electrical Engineering - 2 (EEE-2)</p> <p>HS B</p> <p>H. Buchachia</p>	<p>P4: Applications of Nonlinear Dynamics, chaos and Synchronization (A-NDS)</p> <p>HS C</p> <p>I. Sim</p>
13:45 - 14:05	<p>Oepomo's Algorithm for Computing Eigenvalue in System Engineering</p> <p>Tedja S Oepomo <i>(West LA, LA Harbor Colleges, California International University and National University, USA)</i></p>	<p>Study of the PM₁₀ Pollution Using Signal Analysis Methods</p> <p>Krzystof Siwek*; Stanislaw Osowski*; Bartosz Swiderski~ <i>(*Warsaw University of Technology, Poland; ~University of Life Sciences, Poland)</i></p>
14:05 - 14:25	<p>Output-to-Spectrum Assignment Algorithm for a LTE Cognitive Radio Filter Bank</p> <p>Thomas Schlechter <i>(Alpen-Adria University Klagenfurt, Austria)</i></p>	<p>A Method for Validation the Limit Cycles of High Order Sigma-Delta Modulators</p> <p>Valeri Mladenov <i>(Technical University of Sofia, Bulgaria)</i></p>
14:25 - 14:45	<p>Analysis of Square Coaxial Lines by using Equivalent Electrodes Method</p> <p>Alenka Milovanovic*; Branko Koprivica* <i>(*University of Kragujevac, Serbia)</i></p>	<p>Stability Analysis of Recurrent Neural Networks with Time-Varying Activation Functions</p> <p>Mohamad Mostafa*; Werner G. Teich*; Jürgen Lindner* <i>(*University of Ulm, Germany)</i></p>

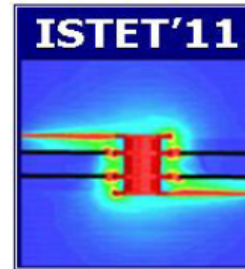
14:45 - 15:05	<p>Ground impedance of cylindrical metal plate buried in homogeneous earth</p> <p>Slavko Vujević*; Zdenko Balaz~; Dino Lovrić*</p> <p><i>(*University of Split, Croatia; ~Croatian Motorways Ltd., Croatia)</i></p>	<p>Computer-Aided Extraction of Small-Signal Model Parameters of Heterojunction Bipolar Transistors</p> <p>Elissaveta Gadjeva*; Marin Hristov*</p> <p><i>(*Technical University of Sofia, Bulgaria)</i></p>
15:05 - 15:20	Foyer 1st floor	Coffee break
15:20 - 15:40	<p>Analysis and Comparison of the Analytical and Experimental methods modeling the Electrostatic Field</p> <p>Simona Filipova-Petrakieva*; Kiril Stoykov*; Valeri Mladenov*</p> <p><i>(*Technical University Sofia, Bulgaria)</i></p>	<p>Intelligent System for Radiogram Analysis - software application</p> <p>Ryszard Sikora*; Tomasz Chady*; Piotr Baniukiewicz*; Przemyslaw Lopato*; Lech Napierala*; Tomasz Pietruszewicz*; Grzegorz Psuj*</p> <p><i>(*West Pomeranian University of Technology, Szczecin, Poland)</i></p>
15:40 - 16:00	<p>Waveguide flange's shape optimization in microwave enhanced infrared landmines' detection</p> <p>Barbara Szymanik*; Stanislaw Gratkowski*</p> <p><i>(*West Pomeranian University of Technology, Poland)</i></p>	<p>Higher Order Sigma-Delta Modulator Loopfilter Paralel From Representation In Z And S Domain</p> <p>Georgi Tsenov*; Valeri Mladenov*</p> <p><i>(*Techical University of Sofia, Bulgaria)</i></p>
16:00 - 16:20	<p>Fully Time-Domain Simulation of Multiconductor Transmission Line Systems</p> <p>Lubomír Brančík*; Bretislav Sevcík*</p> <p><i>(Brno University of Technology, Czech Republic)</i></p>	<p>Toward Ultrasound Detection of Acoustic Windows for Transcranial Doppler Ultrasound and related</p> <p>Tony Souza-Daw*; Thang Manh Hoang~; Tien Dzung Nguyen~</p> <p><i>(*RMIT Vietnam, Vietnam; ~Hanoi University of Science and Technology, Vietnam)</i></p>
16:20 - 16:40	<p>Equations of Electrodynamics - Final Essence of EM Phenomena</p> <p>Branko Mišković</p> <p><i>(Independent, Serbia)</i></p>	<p>Non-intrusive Car Driver's Emotion Recognition Using Thermal Camera</p> <p>Abhiram Kolli*; Alireza Fasih*; Fadi Al Machot* ; Kyandoghene Kyamakya*</p> <p><i>(*Alpen-Adria University Klagenfurt, Austria)</i></p>
16:40 - 17:00	Foyer 1st floor	Cold Beer Session



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Day 3: July 27th, 2011

Time	Location	Event	Session Chair
09:00 - 10:25	HS B	<u>Keynote:</u> Dr. Gerd Heinz: Two Decades of Interference Network Research Dr. Gerd Heinz <i>(GFAI Berlin, Germany)</i>	M. Huemer
10:25 - 10:40	Foyer 1 st floor	Coffee break	
10:40 - 12:05	HS B	<u>Keynote:</u> The Compram methodology a multidisciplinary approach for handling complex societal problems Prof. Dorien DeTombe <i>(Amsterdam, Netherlands)</i>	M. Huemer
12:05 - 12:15	HS B	Poster Teaser 3	K. Kyamakya
12:15 - 13:10	Foyer basement	Lunch	
13:10 - 13:30	Foyer 1st floor	Poster Session 3: Presentation of DEMOS by "INTEL"	
13:30 - 13:45	Foyer 1 st floor	Coffee break	
Parallel Sessions P5 and P6			
15 minutes presentation + 5 minutes discussion	P5: Nonlinear Dynamics, chaos Synchronization - 2 (NDS-2) HS B J. C. Chedjou	P6: Control, Analog Circuits and Measurements (CACM) HS C C. Chitu	
13:45 - 14:05	Frequency limitations from the circuit realization of Saw-tooth based Multi-scroll Oscillators Rodolfo Trejo-Guerra*; Esteban Tlelo-Cuautle*; Jesus Manuel Muñoz-Pacheco~; Carlos Sánchez-López#	An Improvement of Particle Swarm Optimization and its Application to a Model-Free PI^λ D^μ Tuning Problem Deniz Sevis*; Yagmur Danizhan*	

	<p>(*National Institute for Astrophysics, Optics and Electronics, Mexico; ~Polytechnic University of Puebla, Mexico; #UAT, IMSE-CNM CISC-US, Mexico and Spain)</p>	<p>(*Bogazici University, Turkey)</p>
<p>14:05 - 14:25</p>	<p>Nonlinear Dynamics of a Liénard Delayed-Feedback Optoelectronic Oscillator</p> <p>Bruno Romeira*; José Figueiredo*; Charles Ironside~; Kris Seunarine~; Julien Javaloyes#</p> <p>(*Universidade of Algarve, Portugal; ~University of Glasgow, United Kingdom; #Universitat de les Illes Balears, Spain)</p>	<p>Constant switching frequency techniques for sliding mode control in DC-DC converters</p> <p>Matteo Agostinelli*; Robert Priewasser*; Stefano Marsili~; Mario Huemer*</p> <p>(*Alpen-Adria University Klagenfurt, Austria; ~Infineon Technologies Austria AG, Austria)</p>

14:25 - 14:45	<p>"Multi-moment" Nonlinear Filtering of Chaos</p> <p>Valeri Ya Kontorovich*; Zinaida Lovtchikova~</p> <p>(*Cinvestav-IPN, Mexico; ~UPIITA-IPN, Mexico)</p>	<p>Nonlinear Adaptive Control of a Continuous Stirred Tank Reactor with Time Varying Parameters</p> <p>Ehsan Moshksar*; Faridoon Shabani-Nia*; Reza Eslamloueyan*</p> <p>(*Shiraz University, Iran)</p>
14:45 - 15:05	<p>Stability of Linear Circuits with Interval Data: A Case Study</p> <p>Zygmunt Garczarczyk</p> <p>(Silesian University of Technology, Poland)</p>	<p>Socio-Technical Requirements for the System Dynamics Modeling of the Driving Action Chains in Cooperative Traffic Systems</p> <p>Oana Mitrea</p> <p>(IFZ, University of Klagenfurt, Austria)</p>
15:05 - 15:20	Foyer 1st floor	Coffee break
15:20 - 15:40	<p>Applications of System Dynamics for Communities Detection in Complex Networks</p> <p>Nikolai Nefedov</p> <p>(Nokia Research Center, Switzerland)</p>	<p>Automatic Synthesis of Chaotic Attractors Using Surrogate Functions</p> <p>Carlos Sánchez-López*; Jesus Manuel Muñoz-Pacheco~; Victor Carbajal-Gómez#; Rodolfo Trejo-Guerra#; Esteban Tlelo-Cuautle#</p> <p>(*UAT, IMSE-CNM and CISC-US, Mexico and Spain; ~Polytechnic University of Puebla, Mexico; #National Institute for Astrophysics, Optics and Electronics, Mexico)</p>
15:40 - 16:00	<p>Power Quality Improvement for Grid Connected Wind Energy System using FACTS device</p> <p>Yuvaraj V*; Pratheep Raj E*; Mowlidharan A*; Thirugnanamoorthy L*</p> <p>(Anna University of Technology, Coimbatore, India)</p>	<p>Quantitative Comparisons of Digital Chaotic Circuits for use in Communications</p> <p>Alan J Michaels</p> <p>(Harris Corporation, USA)</p>
16:00 - 16:20	<p>Implementation of Fractal Image Encoding/Decoding on DSP</p> <p>Duong Phu Thai*; Nguyen Tien Dzung*; Thang Manh Hoang*; Tony de Souza-Daw~</p> <p>(*Hanoi University of Technology, Vietnam; ~Center of Technology, RMIT Vietnam)</p>	<p>Characteristics study of an electronic systems design strategy that includes the traditional strategy and the modified traditional strategy</p> <p>M. A. San Pablo Juárez*; A. Zemliak*; E. Ríos Silva*</p> <p>(*Benemérita Universidad Autónoma de Puebla, Mexico)</p>

16:20 - 16:40	<p>Automatic Detection of Objects in Radiographic Images</p> <p>Piotr Baniukiewicz*; Ryszard Sikora*</p> <p><i>(*West Pomeranian University of Technology, Poland)</i></p>	<p>Hardware-Software Co-Simulation Environment for a Multiplier Free Blocker Detection Approach for LTE Systems</p> <p>Vajje Sravanthi*; Thomas Schlechter*</p> <p><i>(*Alpen-Adria University Klagenfurt, Austria)</i></p>
16:40 - 17:00	HS B	Closing Session: Feedback and diverse announcements
17:00 - 17:30	Foyer 1 st floor	Cold Beer Session