

INES 2012 TECHNICAL PROGRAM

June 13, 2012, Wednesday

8:30 – 12:00	Registration	Room Caparica A
9:00 – 9:30	Opening Ceremony <i>INES 2012 Chairmen</i>	Room Caparica B
9:30 – 10:15	Plenary Session I <u>Session Chair:</u> <i>Luis Gomes</i> Software Agents: Can we Trust Them? Eugénio Oliveira Universidade do Porto, Portugal	Room Caparica B
10:15 – 10:30	Coffee break	
10:30 – 11:15	Plenary Session II <u>Session Chair:</u> <i>József K. Tar</i> Parallel Data Mining Revisited: Better, not Faster Michael R. Berthold Nycomed-Chair for Bioinformatics and Information Mining at Konstanz University, Germany	Room Caparica B
11:15 – 12:00	Plenary Session III <u>Session Chair:</u> <i>János Fodor</i> Fuzzy Decision Making in Space Applications Rita A. Ribeiro Universidade Nova Lisboa, Portugal	Room Caparica B
12:00 – 13:30	Lunch	
13:30 – 15:15	Session on Robot Control and Applications <u>Session Chair:</u> <i>Jose Barata</i>	Room Caparica B
13:30	Efficient Knowledge Representation in Intelligent Human-Robot Co-operation Annamária R. Várkonyi-Kóczy Óbuda University, Budapest, Hungary Balázs Tusor Japanese-Hungarian Laboratory, Budapest, Hungary	
13:45	Enabling Automated Programming of Welding Robots by Intelligent Identification of Weld Joints from Engineering Models Christian Hillbrand and Gerald Frank V-Research Industrial Research and Development, Dornbirn, Austria	
14:00	A Comparison of EKF, UKF, FastSLAM2.0, and UKF-based FastSLAM Algorithms Zeyneb Kurt-Yavuz and Sirma Yavuz Yildiz Technical University, Istanbul, Turkey	
14:15	Robust Control for Parallel Robotic Platforms I. M. Buzurovic* , and D. Lj. Debeljkovic** * Thomas Jefferson University, PA, USA ** University of Belgrade, Serbia	
14:30	Modification of PSO Algorithm for the Purpose of Space Exploration Marek Masár and Jan Zelenka Institute of Informatics, Slovak Academy of Sciences, Bratislava, Slovakia	
14:45	A Complex Path Planning Model Based on Localization's Error for Mobile Robots István Nagy Óbuda University, Budapest, Hungary	
15:00	Improvement of the Measurement Update Step of EKF-SLAM Zeyneb Kurt Yavuz, Sirma Yavuz Computer Engineering Department Yildiz Technical University, Istanbul, Turkey	

Fast Robot Voice Interface through Optimum-Path Forest

R. Nakamura, L. Pereira, D. Silva, P. Cardozo, C. Pereira, H. Ferasoli, S. Alves, R. Pires, A. Spadotto, J. Papa
Department of Computing - UNESP - Univ Estadual Paulista, Brasil

Special Materials Used in FDM Rapid Prototyping Technology Application

L. Novakova-Marcincinova, J. Novak-Marcincin, J. Barna and J. Torok
Technical University of Košice, Presov, Slovakia

Production Processes with Integration of CA Data in Augmented Reality Environment

J. Novak-Marcincin, J. Barna, M. Janak, L. Novakova-Marcincinova and V. Fecova
Technical University of Košice, Presov, Slovakia

Vibration Diagnostic Test for Effect of Unbalance

József Zoltán Szabó
Óbuda University, Budapest, Hungary

Twin Diagnostic Method for Industrial Robot Maintenance

Attila L. Bencsik
Óbuda University, Budapest, Hungary

15:15 – 15:45 Coffee break

15:45 – 17:15 Session on Image Processing, Recognition, Digital Circuits and Algorithms

Room Caparica B

Session Chair: *Annamária R. Várkonyi-Kóczy*

15:45 Hausdorff-Distance Enhanced Matching of Scale Invariant Feature Transform Descriptors in Context of Image Querying

J. I. Olszewska and D. Wilson
University of Huddersfield, United Kingdom

16:00 Comparison of Several Classification Algorithms for Gender Recognition from Face Images

Mutlu Sakarkaya, Fahrettin Yanbol and Zeyneb Kurt
Yildiz Technical University, Istanbul, Turkey

16:15 Detection of the Mite *Varroa Destructor* in Honey Bee Cells by Video Sequence Processing

Melvin Ramírez*, Juan P. Prendas, Carlos M. Travieso***, Rafael Calderón**** and Oscar Salas***
* Universidad de Costa Rica, San Pedro, Costa Rica
* Universidad Nacional de Costa Rica, Heredia, Costa Rica
** Instituto Tecnológico de Cartago, Costa Rica
*** University of Las Palmas de Gran Canaria, Spain
**** Universidad Nacional de Costa Rica, Heredia, Costa Rica

16:30 Knowledge-based Zooming Technique for the Interactive Visual Analysis of Mechatronic Systems

Helene Waßmann and Rafael Radkowski
Heinz Nixdorf Institute, Paderborn, Germany

16:45 On Extended Similarity Scoring and Bit-Vector Algorithms for Design Smell Detection

I. Polásek*, P. Liška*, J. Kelemen and J. Lang***
* Slovak University of Technology in Bratislava, Slovakia
** Silesian University, Opava, Czech Republic and School of Management, Bratislava, Slovakia

17:00 Test Calculation for Logic and Short-Circuit Faults in Digital Circuits

József Sziray
Széchenyi University, Győr, Hungary

15:45 – 17:15 Poster Session on Neural Network Applications

Room Almada

Neural Network-based Identification of Hand Movements Using Biomedical Signals

Tito G. Amaral^{1,2}, Octavio P. Dias^{1,3}, Andrzej Wolczowski⁴, V. Ferno Pires^{1,5}
¹ Escola Superior Tecnologia Setubal, Portugal
² Institute of Systems and Robotics (ISR), Coimbra, Portugal
³ Instituto de Engenharia de Sistemas e Computadores, Lisbon, Portugal
⁴ Wrocław University of Technology, Wrocław, Poland
⁵ Center for Innovation in Electrical and Energy Engineering, Lisbon, Portugal

Distributed Intrusion Detection System Using Self Organizing Map

Liberios Vokorokos, Anton Balaz and Jana Trelova
Technical University of Košice, Slovakia

Field Programmable Gate Array Implementation of Conic Section Function Neural Network: An Alternative to Analog CSFNN Circuitry

Metin Elitas, Oguzhan Yavuz and Burcu Erkmen

Yildiz Technical University, Turkey

17:45 Bus departs from Hotel Costa da Caparica

18:00 Welcome Reception

Convento dos Capuchos

June 14, 2012, Thursday

8:30 – 12:00 Registration Room Caparica A

8:30 – 10:00 Session on Sensor, Inspection and Monitoring Systems Room Caparica B

Session Chair: *Luis Gomes*

8:30 Neighbors Cooperation in WSN Based on Collective Decisions

Jan Nikodem*, Klempous Ryszard*, Maciej Nikodem*, Zenon Chaczko**

* Wroclaw University of Technology, Wroclaw, Poland

** University of Technology, Sydney, Australia

8:45 A Configurable Middleware for Processing in Heterogeneous Industrial Intelligent Sensors

José Cecílio*, Pedro Martins*, João Costa, Pedro Furtado***

* University of Coimbra, Coimbra, Portugal

** Polytechnic Institute of Coimbra, Coimbra, Portugal

9:00 Computer-aided System for Defect Inspection in the PCB Manufacturing Process

T. J. Mateo Sanguino* and M. Smolčić-Rodriguez**

* University of Huelva, Spain

** University of Applied Sciences, Germany

9:15 Design of a Calibration System for 1D Measuring Probes

Gyula Hermann

Obuda University, Budapest, Hungary

9:30 Remote Measurement and Control with Sensors via the BT Interface

Ondrej Krejcar*, Marek Penhaker**

* University of Hradec Kralove, Czech Republic

** VSB – TU Ostrava, Czech Republic

9:45 Using Model-Checking for the Detection of Non-Functional Feature Interactions

Tibor Répási*, Sandro Gießl, Christian Prehofer*****

*University of Augsburg

**LMU Munich

***Fraunhofer ESK

8:30 – 10:00 Poster Session on Electric Energy Systems and Control

Room Almada

Controlling a Power Converter as a Photovoltaic Power Source and Compensator in Smart-Grids

Vitor Fernão Pires^{1,4}, J. F. Martins² and Chen Hao³

¹Instituto Politécnico Setúbal, Setúbal, Portugal

²CTS/UNINOVA and FCT/UNL, Lisbon, Portugal

³University of Mining and Technology, Xuzhou, China

⁴Center for Innovation in Electrical and Energy Engineering, Lisbon, Portugal

PMSM Control Framework with dSPACE Real-Time Control Platform

L. Pohl, L. Veselý

Brno University of Technology, Czech Republic

Simplification of Improved Frequency Analysis for Online Identification

I. Vesely, M. Sir and D. Zamecnik

Brno University of Technology, Brno, Czech Republic

Prediction Control of Interior Permanent Magnet Synchronous Machine with Field Weakening

Dusan Zamecnik, Ivo Vesely

Brno University of Technology, Czech Republic

Towards a Web Service Alert Software System for Standard Electrical Protective Devices

Vasco Delgado-Gomes*, José A. Oliveira-Lima*, João F. Martins*, Celson Lima and Pedro Pereira***

* Universidade Nova de Lisboa, Portugal

** Universidade Federal do Oeste do Pará, Santarém, Brazil

Towards an Energy Model for Supporting Real Time Building Energy Management

José A. Oliveira-Lima*, **João F. Martins***, **Celson Lima****, **Vasco Delgado-Gomes***, **João Murta Pina*** and **Grzegorz Benysek*****

* Universidade Nova de Lisboa, Portugal

** Universidade Federal do Oeste do Pará, Santarém, Brazil

*** University of Zielona Góra, Poland

Fast Fault Diagnosis in Power Transformers Using Optimum-Path Forest

A. N. Souza*, **C. C. O. Ramos****, **D. S. Gastaldello***, **R. Y. M. Nakamura***, **J. P. Papa***

* Univ Estadual Paulista, Bauru, São Paulo, Brazil

** University of São Paulo, Brazil

Shot Segmentation Algorithm for Online Video Event Detection

Luís Varela¹, **Rui P. Amaral^{1,2}**, **Tito G. Amaral^{1,3}**

¹ Instituto Politécnico de Setúbal, Setúbal, Portugal

² Instituto de Engenharia de Sistemas e Computadores, Lisboa, Portugal

³ Instituto de Sistemas e Robótica, Coimbra, Portugal

Intelligent System for Optimization of Production in Flexible Manufacturing Lines

A. Morosan, **I. Sarkany** and **F. Sisak**

Transilvania University, Brasov, Romania

10:00 – 10:15 Coffee break

10:15 – 12:15 Session on Manufacturing, Scheduling and Control Methods

Room Caparica B

Session Chair: *Juraj Paleček*

10:15 An Efficient Algorithm for Finding Minimal Cycle Time in Cyclic Job Shop Scheduling Problem

Czesław Smutnicki

Wroclaw University of Technology, Poland

10:30 SVM-based Dynamic Modeling for Machine Life Stage Identification and Machine Wear Estimation

Jun-Hong Zhou

A*STAR Singapore Institute of Manufacturing Technology, Singapore

Chee Khiang Pang and Xiaoyun Wang

National University of Singapore, Singapore

10:45 Development of Rafter Processing Machine for Korean Traditional Houses

Furqan Ullah, Sungmin Hong, and Kang Park

Myongji University, South Korea

11:00 Intelligent C.A.D.-based System for C.N.C. Machine Controlling by Genetic Algorithms

A. Tsagaris*, **D. Sigris**** and **G. Mansour****

*Technological Educational Institution of Thessaloniki, Greece

**Aristoteles University of Thessaloniki, Greece

11:15 Iterative Adaptive Control of a Strongly Underactuated Mechanical System with Limited Possibilities for State Observation

József K. Tar, Imre J. Rudas, Szabolcs Menthly

Óbuda University, Budapest, Hungary

11:30 Thrust Vectoring Nozzle for Small Turbojet Engine in Laboratory Conditions

L. Madarász, T. Lazar, L. Főző, R. Andoga, V. Gašpar and T. Karol'

Technical University of Košice, Slovakia

11:45 Event-driven Software Modeling of Combinational Logic Network-based Control Programs

József Kopják*, **János Kovács****

* Óbuda University, Budapest, Hungary

** Széchenyi István University, Győr, Hungary

12:00 Examination of SMA Connector Parameters

J. Paleček, M. Vestenický, P. Vestenický, J. Spalek

University of Žilina, Slovakia

10:15 – 12:15 Poster Session on Fuzzy Applications and Engineering Modeling

Room Almada

Using Topic Maps to Describe Engineering Knowledge and Geometry of CAD-designed Products

L. Goldhammer, H.-B. Woyand

University of Wuppertal, Germany

Introduction to Advanced Modeling and Control of Turbo-Prop Engines

J. Považan, R. Andoga, L. Főző, J. Judičák, L. Madarász

Technical University of Košice, Slovakia

New Challenges in Engineering Higher Education

József Gáti and Gyula Kártyás

Óbuda University, Budapest, Hungary

Stabilizing Fuzzy Static Output Control for a Class of Nonlinear Systems

Dusan Krokavec and Anna Filasová

Technical University of Košice, Slovakia

Cloud Computing as a Platform for Distributed Fuzzy FCA Approach in Data Analysis

Martin Sarnovský, Peter Butka, Jana Pócssová

Technical University of Košice, Slovakia

12:15 – 13:15 Lunch

13:15 – 15:15 Session on Energy Systems, Enterprise and Transport Systems

Room Caparica B

Session Chair: *João Catalão*

13:15 Intelligent Approach for Forecasting in Power Engineering Systems

G. J. Osório, H. M. I. Pousinho, J. C. O. Matias and J. P. S. Catalão

University of Beira Interior, Covilhã, Lisbon, Portugal

13:30 Power Trade Simulation

Péter Kádár, Andrea Varga

Óbuda University, Budapest, Hungary

13:45 Dynamic Artificial Neural Network for Electricity Market Prices Forecast

T. Pinto, T. M. Sousa and Z. Vale

Polytechnic of Porto, Portugal

14:00 Forecasting of Travel Demand in Urban Public Transport

Balázs Horváth

Széchenyi István University, Győr, Hungary

14:15 Interactive and Intelligent Business Support

Beáta Bojda, Gábor Máji, Gábor Mezőfi, Benedek Nagy

University of Debrecen, Hungary

14:30 Modeling the Traffic Accidents' Occurrence Probability and the Efficiency of Transport Safety Interventions

Tibor Sipos, Gergely Mátyás Gál, István Fütyü

Budapest University of Technology and Economics, Hungary

14:45 Fast Algorithm to Solve the Most Economical Path Problem in Sparse Matrices

K. Ambrus-Somogyi*, A. Bakó*, P. Földesi and J. Gáti***

*Óbuda University, Budapest, Hungary

**Széchenyi University, Győr, Hungary

15:00 ERP Change Management for Innovation and Sustainability Applied to User Interfaces

A. Selmeçi, I. Orosz, T. Orosz and Gy. Györök

Óbuda University, Székesfehérvár, Hungary

13:15 – 15:15 Poster session on Computer Applications

Room Almada

Medical Data Mining with Extended WEKA

R. Robu and C. Hora

University "Politehnica" from Timișoara, Romania

Computational Modeling of Multicellular Systems Evolution in Tissue Engineering

Andreea Robu*, Lacramioara Stoicu-Tivadar* and Adrian Neagu **

* "Politehnica" University, Timișoara, Romania

** "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

P-double Operators in the Pipeline System of DF-KPI Architecture

Norbert Ádám, Branislav Madoš and Anton Baláz

Technical University of Košice, Slovakia

Data Preprocessing for Efficient Evaluation of Network Traffic Parameters

Liberios Vokorokos, Adrián Pekár and Norbert Ádám

Technical University of Košice, Slovak Republic

15:15 - 15:30 Coffee break

15:30 – 17:30	Session on Fuzzy Applications, Product Modeling, Neural Networks and Stability <i>Session Chair: Dragutin Debeljkovic</i>	Room Caparica B
15:30	Clonal Selection-based Parameter Optimization for Sparse Fuzzy Systems Zsolt Csaba Johanyák Kecskemét College, Hungary	
15:45	Unsupervised Learning of Well Drilling Operations: Fuzzy Rule-based Approach Andri Riid Tallinn University of Technology, Estonia Nejm Saadallah International Research Institute of Stavanger, Norway	
16:00	Outage Parameters Fuzzy Modeling to Increase the Probability of Delivering Energy in DES Bruno Canizes, João Soares, Zita Vale and H. M. Khodr Polytechnic Institute of Porto, Portugal	
16:15	Coordinated Influence Request in Product Object Definition László Horváth and Imre J. Rudas Óbuda University, Budapest, Hungary	
16:30	Automatic Support of Standardization Processes in Design Models Gerald Frank and Christian Hillbrand V-Research GmbH, Dornbirn, Austria	
16:45	Adaptive Quasi-Optimal Gains Tuning of PI-Fuzzy Controllers Catarina Lucena^{*,**}, Luis Palma[*], Alberto Cardoso^{**}, Paulo Gil^{*,**} [*] Universidade Nova de Lisboa ^{**} University of Coimbra, Portugal	
17:00	Actuator Fault Estimation Using Neuro-Sliding Mode Observers Róbert Fónod and Dušan Krokavec Technical University of Košice, Slovak Republic	
17:15	LMI Approach to Non-Lyapunov Stability of Discrete Descriptor Time Delay Systems D. Lj. Debeljkovic[*], I. M. Buzurovic^{**}, S. B. Stojanovic^{***}, and T. Nestorovic^{****} [*] University of Belgrade, Serbia ^{**} Thomas Jefferson University, Philadelphia, USA ^{***} University of Nis, Leskovac, Serbia ^{****} Ruhr-Universität Bochum, Germany	
18:30	Bus departs from Hotel Costa da Caparica	
19:00	Banquet Palácio da Cruz Vermelha (Palácio dos Conde de Óbidos / Palácio da Rocha do Conde d'Óbidos)	

June 15, 2012, Friday

8:15 – 12:00	Registration	Room Caparica A
8:15 – 10:00	Session on Industrial Problems <i>Session Chair: Ondrej Krejcar</i>	Room Caparica B
8:15	Visualisation of Heating Control Process for Home Automation Ondrej Krejcar University of Hradec Kralove, Czech Republic	
8:30	Fault Location in Underground Systems Using Artificial Neural Networks and PSCAD/EMTDC D. S. Gastaldello[*], A. N. Souza[*], C. C. O. Ramos^{**}, P. da Costa Junior[*] and M. G. Zago^{***} [*] Univ. Estadual Paulista, Bauru, Brazil ^{**} University of São Paulo, Brazil ^{***} FATEC, Bauru, Brazil	
8:45	Real Time Control System for Industrial Waste Water Management Éva Hajnal¹, Gábor Lakner², Péter Ivanics¹, Zoltán Molnár² and József Lakner¹ 1: Óbuda University, Székesfehérvár, Hungary 2: Hidrofilt Water Treatment Ltd., Nagykanizsa, Hungary	
9:00	A Multi-Agent System to Simulate Storage Activities in Warehouse of Chemical Substances Omar Gaci Comptoir de Logistiques - ISEL, Le Havre, France Hervé Mathieu LITIS - ISEL, Le Havre, France	

- 9:15 **T² Charts Applied to Mechanical Equipment Condition Control**
S. S. Lampeira* J. G. Requeijo J. M. Dias** and V. Vairinhos*****
 * Escola Naval, Almada, Portugal
 ** Universidade Nova de Lisboa, Portugal
 *** Alfeite, Almada, Portugal, CENTECH, Lisboa, Portugal
- 9:30 **Bayesian Restoration of Greenhouse Desk Temperature Measurements**
P. Eredics, K. Gáti, T. P. Dobrowiecki and G. Horváth
 Budapest University of Technology and Economics, Hungary
- 9:45 **A Dynamic Retail Monitoring and Control System**
Rahime Yilmaz[†], Engin Mendir[‡], Kenan Aydin[‡] and Coskun Bayrak[‡]
[†] Istanbul University, Turkey
[‡] University of Arkansas at Little Rock, AR, USA
[‡] Yildiz Technical University, Istanbul, Turkey
[‡] Istanbul Kultur University, Turkey
- 10:00 – 10:15 Coffee break
- 10:15 – 12:15 **PhD Special Session on Emerging Excellence in Intelligent Engineering** Room Caparica B
The session was organized by the Doctoral School of Applied Informatics, Óbuda University, Budapest, Hungary
Session Chair: László Horváth
- 10:15 **Fuzzyfied Robust Fixed Point Transformations**
Teréz A. Várkonyi
 Óbuda University, Budapest, Hungary
- 10:30 **Theory for Proactive Operating Systems**
Dániel Kristóf Kiss^{*,}, András Rövid^{*}**
^{*} Óbuda University, Budapest, Hungary
^{**} Mentor Graphics Corp., Budapest, Hungary
- 10:45 **Evaluation and Comparison of Cell Nuclei Detection Algorithms**
Sándor Szénási^{*}, Zoltán Vámosy^{*}, Miklós Kozlovsky^{}**
^{*} Óbuda University, Budapest, Hungary
^{**} MTA SZTAKI, Budapest, Hungary
- 11:00 **Minnesota Code: Evaluation of Fuzzy Ontology-based Approach**
Norbert Sram
 Óbuda University, Budapest, Hungary
- 11:15 **Flight Safety Improvements for Small Size Unmanned Aerial Vehicles**
Dániel Stojcsics
 Óbuda University, Budapest, Hungary
- 11:30 **Map Building with RGB-D Camera for Mobil Robot**
László Somlyai, Zoltán Vámosy
 Óbuda University, Budapest, Hungary
- 11:45 **CFG Extension for META Framework**
Zsolt Tóth, László Kovács
 University of Miskolc, Hungary
- 12:00 **Application of B-Splines in Modelling Anatomic Shapes from CT Scans**
Andrzej Wytyczak-Partyka, Ryszard Klempous
 Wrocław University of Technology, Poland
- Poster presentation within the special session
- SAP Logical Databases Applications Providing Business-Requirements-driven Solutions
Attila Selmeçi, Tamás Orosz
 Óbuda University, Székesfehérvár, Hungary
- 12:15 – 13:15 Lunch
- 13:15 – 15:15 **Session on Human Related Systems, Medical and Diagnostic Methods** Room Caparica B
Session Chair: Balázs Benyó
- 13:15 **University Life in Contactless Way - NFC Use Cases in Academic Environment**
Balázs Benyó, Bálint Sódor, Tibor Doktor, Gergely Fördös
 Budapest University of Technology and Economics, Hungary

- 13:30 Low Order Models for Human Controller – Mouse Interface
L. Brito Palma*, **F. Vieira Coito*** and **P. Sousa Gil ****
 * Universidade Nova de Lisboa, Caparica, Portugal
 ** CISUC-Coimbra
- 13:45 Management of Escape Route Signs Using Cellular Automata
Jan Zelenka, T. Kasanický
 Institute of Informatics, Slovak Academy of Sciences, Bratislava, Slovakia
- 14:00 The Impact of Collocational Features in Turkish Word Sense Disambiguation
Bahar Ilgen, Eşref Adali, A. Cüneyd Tantuğ
 Istanbul Technical University, Turkey
- 14:15 Model-based Control Algorithms for Optimal Therapy of High-Impact Public Health Diseases
L. Kovács*, P. Szalay*, T. Ferenci*, J. Sági*, P. Sas*, D. A. Drexler*, I. Harmati*, B. Benyó* and A. Kovács**
 * Budapest University of Technology and Economics, Hungary
 ** "Politehnica" University of Timișoara, Romania
- 14:30 Personalized Therapy Selection by Using Multi-objective Optimization
Ivars Karpics
 Riga Technical University, Latvia
- 14:45 Model-based Analysis of Cerebrovascular Oscillation Using the System Circle of Willis
József Homlok*, Zoltán Benyó, András Iring**, Balázs Benyó***
 *Budapest University of Technology and Economics, Hungary
 **Semmelweis University, Budapest, Hungary
- 15:00 A Three Step Algorithm Based on Biorthogonal Wavelets for an Intelligent Cardiac Remote Monitoring System
Beatrice Arvinti, Marius Costache and Alexandru Isar
 "Politehnica" University of Timișoara, Romania
- 15:15 – 15:30 Coffee break
- 15:30 – 16:30 Session on Clustering and Classification Room Caparica B
Session Chair: *Carlos M Travieso Gonzalez*
- 15:30 Partitional Clustering of Tick Data to Reduce Storage Space
Gábor I. Nagy and Krisztián Buza
 Budapest University of Technology, Hungary
- 15:45 Katydid Acoustic Classification on Verification Approach based on MFCC and HMM
Victor A. Elizondo Chaves*, Carlos M. Travieso, Arturo Camacho* and Jesús B. Alonso****
 * University of Costa Rica, Costa Rica
 ** University of Las Palmas de Gran Canaria, Spain
- 16:00 Intelligent Pattern Classification Approach to Power Quality Events
S. R. Mohanty*, N. Kishor, P. K. Ray**, and J. P. S. Catalão***
 * University of Beira Interior, Covilha, and CIEEE-IST, Lisbon, Portugal
 ** Motilal Nehru National Institute of Technology, Uttar Pradesh, India
- 16:15 DBSCAN-GM: An Improved Clustering Method Based on Gaussian Means and DBSCAN Techniques
Abir Smiti, Zied Elouedi
 University of Tunis, Tunisia
- 16:30 Closing Ceremony Room Caparica B