

INISTA 2017
PRELIMINARY CONFERENCE PROGRAM

CONFERENCE VENUE

2017 IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA 2017)

Address:

Hotel Nadmorski
Ejsmonda Str., 2
81-409 Gdynia, Poland

The Hotel Nadmorski is located by the white beach of Gdansk Bay and the Seaside Boulevard - walking and cycling route along the coast. Over a meal and drinks, there will be the excellent opportunity to renew old acquaintances and build new ones.

PROGRAMME OVERVIEW

2017 IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA 2017)

July 2, 2017 (Sunday)

17:00 - 19:00	Registration
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July 3, 2017 (Monday)

	Room: Bursztynowa	Room: Rotariańska	Room: Pełowa
8:00 - 17:00	Registration		
9:00 - 9:30	Opening		
9:30 - 10:30	<p style="text-align: center;">Plenary session Constructive Preference Learning via Robust Ordinal Regression Prof. Roman Słowiński Chair: Prof. Piotr Jędrzejowicz Room: Bursztynowa</p>		
10:30 - 10:45	Group photo session		
10:45 - 11:15	Coffee break		
11:15 - 13:00	General Track 1 Collective Intelligence	General Track 2 Soft Computing	AIA 2017: Artificial Intelligence and Applications Part 1
13:00 - 14:00	Lunch		
14:00 - 15:00	<p style="text-align: center;">Plenary session Towards More Credible Empirical Research Prof. Lech Madeyski Chair: Prof. Ngoc Thanh Nguyen Room: Bursztynowa</p>		
15:00 - 15:30	Coffee break		
15:30 - 17:00	DADE 2017: Deployment Areas of Dynamic Environments	ADMMLT 2017: Advanced Data Mining and Machine Learning Techniques	AIA 2017: Artificial Intelligence and Applications Part 2
17:15 - 20:30	Welcome reception Place: Emigration Museum in Gdynia		

July 4, 2017 (Tuesday)

	Room: Bursztynowa	Room: Rotariańska	Room: Perłowa
8:30 - 17:00	Registration		
9:00 - 10:00	Plenary session Towards Better Understanding of Data: Sparse Coding, Additive Features, Perceptrons and Constrained Autoencoders Prof. Jacek M. Zurada Chair: Prof. Tülay Yildirim Room: Bursztynowa		
10:00 - 10:30	Coffee break		
10:30 - 11:30	General Track 3 Soft Computing	General Track 4 Smart Applications	MLMAT 2017: Machine Learning: Methodologies, Applications and Trends Part 1
11:30 - 11:40	Short break		
11:40 - 13:00	General Track 5 Soft Computing	General Track 6 Smart Applications	MLMAT 2017: Machine Learning: Methodologies, Applications and Trends Part 2
13:00 - 14:00	Lunch		
14:00 - 15:00	Plenary session Big Open Linked Data Prof. Kuo-Ming Chao Chair: Prof. Tzung-Pei Hong Room: Bursztynowa		
15:00 - 15:30	Coffee break		
15:30 - 17:00	PADL 2017: Practical Applications of Deep Learning	SINTEL 2017: Semantic Intelligence	IOD 2017: Innovative Outlier Detection
19:00 - 22:00	Conference dinner Place: Nadmorski Hotel, Gdynia		

July 5, 2017 (Wednesday)

	Room: Bursztynowa	Room: Rotariańska	Room: Perłowa
8:30 - 13:00	Registration		
9:00 - 10:00	NSLIS 2017: Neutrosophic Set and Logic in Intelligent Systems	General Track 7 Machine Learning	MLMAT 2017: Machine Learning: Methodologies, Applications and Trends Part 3
10:00 - 10:30	Coffee break		
10:30 - 12:00	General Track 8 Machine Learning	General Track 9 Machine Learning	General Track 10 Smart Applications
12:00 - 12:30	Closing		
12:30 - 13:30	Lunch		
13:30 - 19:00	Excursion to Gdańsk		

DETAILED PROGRAMME

2017 IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA 2017)

July 2, 2017 (Sunday)

17:00 - 19:00 - Registration

July 3, 2017 (Monday)

8:00 - 17:00 - Registration

9:00 - 9:30 - Opening ceremony

9:30 - 10:30 **Plenary session – Room: Bursztynowa**

Constructive Preference Learning via Robust Ordinal Regression

Prof. Roman Słowiński

Chair: Prof. Piotr Jędrzejowicz

10:30 - 10:45 – Group photo session

10:45 - 11:15 – Coffee break

11:15 - 13:00 – Parallel Sessions

General Track 1 – Room: Bursztynowa

Collective Intelligence

Chair: Prof. Ngoc Thanh Nguyen

1. Assessing the Quality of a Consensus Determined Using a Multi-level Approach
Adrianna Kozierkiewicz-Hetmańska, Marcin Pietranik
2. Prediction Markets as a Vital Part of Collective Intelligence
Rafał Palak, Ngoc Thanh Nguyen
3. Influence of Social Communication on Content-Based Recommendation
Bernadetta Maleszka, Marcin Maleszka
4. The Impact of Diversity on the Quality of Collective Prediction
Van Du Nguyen, Ngoc Thanh Nguyen
5. Evaluation of Agents' Management Impact on Performances in Coalition-Based Cooperation
Kaouther Bouzouita, Wided Lejouad Chaari, Moncef Tagina

General Track 2 – Room: Rotariańska

Soft Computing

Chair: Prof. Dariusz Barbuca

1. The Stability Analysis of Bat Algorithm
Janusz P. Paplinski, Mirosław Lazoryszczak

2. Adapting Code Maintainability to Bat-inspired Test Case Prioritization
Muhammed Maruf Öztürk
3. A Hybrid Optimization Method To Improve Driver's Comfort
Kornel Warwas, Szymon Tengler
4. Multi-criteria Trajectory Base Path Planning Algorithm for a Moving Object in a Dynamic Environment
Agnieszka Lazarowska
5. Solution of Fuzzy Differential Equations using Fuzzy Sumudu Transforms
Raheleh Jafari, Sina Razvarz

Special Session – Room: Perłowa

AIA 2017: Artificial Intelligence and Applications (part 1)

Chairs: Prof. Małgorzata Przybyła-Kasperek, Prof. Agnieszka Nowak-Brzezińska, Prof. Beata Zielosko

1. Feature Selection Based on the Rough Set Theory and Dispersed System with Dynamically Generated Disjoint Clusters
Małgorzata Przybyła-Kasperek
2. On Sequential Selection of Attributes to be Discretized for Authorship Attribution
Grzegorz Baron
3. Comparison of Similarity Measures in Context of Rules Clustering
Agnieszka Nowak-Brzezińska, Tomasz Rybotycki
4. Association ACDT as a Tool for Discovering the Financial Data Rules
Jan Kozak, Przemysław Juszczyk
5. Human Gait Recognition Based on Ground Reaction Forces in Case of Sport Shoes and High Heels
Derlatka Marcin

13:00 - 14:00 – Lunch

14:00 - 15:00 Plenary session – Room: Bursztynowa

Towards More Credible Empirical Research "

Prof. Lech Madeyski

Chair: Prof. Ngoc Thanh Nguyen

15:00 - 15:30 – Coffee break

15:30 - 17:00 – Parallel Sessions

Special Session – Room: Bursztynowa

DADE 2017: Deployment Areas of Dynamic Environments

Chairs: Prof. Jolanta Mizera-Pietraszko, Prof. Grzegorz Kołaczek,
Prof. Ronald R. Yager

1. Analysis of Dynamic Service Oriented Systems for Security Related Problems Detection
Grzegorz Kołaczek, Jolanta Mizera-Pietraszko

2. The Analysis Of The Low-Cost Flexibility Corridors
Marek Dudek
3. Testing the Wide-Sense Stationarity of Bandpass Signals for Underwater Acoustic Communications
Iwona Kochanska
4. Source-Target Mapping Model of Streaming Data Flow for Machine Translation
Jolanta Mizera-Pietraszko, Grzegorz Kołaczek, Ricardo Rodriguez Jorge
5. Secure Integration of Multiprotocol Instant Messenger
Sebastian Bala, Tomasz Wasilczyk

Special Session – Room: Rotariańska

ADMMLT 2017: Advanced Data Mining and Machine Learning Techniques

Chairs: Prof. Bay Vo, Prof. Tzung-Pei Hong, Prof. Loan T. T. Nguyen

1. The Trust Value Calculating for Social Network Based on Machine Learning
Wang Yuji
2. An Incremental Mining Algorithm for Erasable Itemsets
Tzung-Pei Hong, Kun-Yi Lin, Chun-Wei Lin, Bay Vo
3. Using Mutual Information for Feature Selection in Programmatic Advertising
Michał Ciesielczyk
4. An Improved Algorithm for Mining Frequent Inter- Transaction Patterns
Thanh-Ngo Nguyen, Loan T.T. Nguyen, Ngoc-Thanh Nguyen

Special Session – Room: Perłowa

AIA 2017: Artificial Intelligence and Applications (part 2)

Chairs: Prof. Małgorzata Przybyła-Kasperek, Prof. Agnieszka Nowak-Brzezińska, Prof. Beata Zielosko

1. Backward Chaining Inference as a Database Stored Procedure — the Experiments on Real-world Knowledge Bases
Roman Simiński, Tomasz Xięski
2. Reasoning and Communicative Strategies in a Model of Argument-Based Negotiation
Marek Koit
3. Modeling of Unified Process Metamodel Structure in Association-Oriented Database Metamodel: Flowing Resources and Transformation
Marek Krótkiewicz, Marcin Jodłowiec, Wojciech Przemysław Hunek, Krystian Wojtkiewicz
4. Music Emotion Analysis Using Semantic Embedding Recurrent Neural Networks
Jan Jakubik, Halina Kwaśnicka
5. A Novel Approach for People Counting and Tracking from Crowd Video
M. Ayyüce Kizrak Sağun, Bülent Bolat

19:00 - 21:00 – Welcome Reception

Place: Emigration Museum in Gdynia

July 4, 2017 (Tuesday)

8:30 - 17:00 - Registration

9:00 - 10:00 **Plenary session – Room: Bursztynowa**

Towards Better Understanding of Data: Sparse Coding, Additive Features, Perceptrons and Constrained Autoencoders

Prof. Jacek M. Zurada

Chair: Prof. Tülay Yildirim

10:00 - 10:30 – Coffee break

10:30 - 11:30 – Parallel Sessions

General Track 3 – Room: Bursztynowa

Soft Computing

Chair: Prof. Lech Madeyski

1. Chaotic Moth Swarm Algorithm
Ugur Guvenc, Serhat Duman, Yunus Hinishlioglu
2. Opposition-Based Initialization and a Modified Pattern for Inertia Weight (IW) in PSO
Mehr Umer Farooq, Akhlaque Ahmad, Abdul Hameed
3. A Combinatorial Approach to Construct Core and Generic Gene Co-Expression Networks of Colon Cancer
Mustafa Özgür Cingiz, Göksel Biricik, Banu Diri

General Track 4 – Room: Rotariańska

Smart Applications

Chair: Dr. Tomasz Xięski

1. Processing Occlusions Using Elastic-net Hierarchical MAX Model of The Visual Cortex
Ali Alameer, Patrick Degenaar, Kianoush Nazarpour
2. Grade Analysis for Households Segmentation Based on Energy Usage Patterns
Tomasz Ząbkowski, Krzysztof Gajowniczek
3. Modelling Marshall Stability of Fiber Reinforced Asphalt Mixtures with ANFIS
Nihat Morova, Ekinhan Eriskin, Serdal Terzi, Sebnem Karahancer, Sercan Serin, Mehmet Saltan, Pinar Usta

Special Session – Room: Perłowa

MLMAT 2017: Machine Learning: Methodologies, Applications and Trends (part 1)

Chairs: Prof. Chung-Ming Ou, Prof. Chung-Ren Ou

1. Performance Comparison of Different Momentum Techniques on Deep Reinforcement Learning
Mehmet Sarigül, Mutlu Avci
2. The Evaluation of Heterogeneous Classifier Ensembles for Turkish Texts
Zeynep Hilal Kilimci, Selim Akyokus, Sevinç İlhan Omurca
3. A Hybrid Latent Dirichlet Allocation Approach for Topic Classification
Chi-I Hsu, Chaochang Chiu

11:30 - 11:40 – Short break

11:40 - 13:00 – Parallel Sessions

General Track 5 – Room: Bursztynowa

Soft Computing

Chair: Prof. Danuta Zakrzewska

1. The Fuzzy Properties of the Ship Control in Collision Situations
Mostefa Mohamed-Seghir
2. Thermal Based Exploration for Search and Rescue Robots/Furkan Çakmak, Erkan Uslu, M. Fatih Amasyali, Sirma Yavuz
3. SDP Algorithm for Network Reliability Evaluation
Petru Cașcaval, Sabina-Adriana Floria
4. Learning l^1 -Penalized Logistic Regressions with Smooth Approximation
Jacek Klimaszewski, Michał Sklyar, Marcin Korzeń

General Track 6 – Room: Rotariańska

Smart Applications

Chair: Dr. Adrianna Kozierkiewicz-Hetmańska

1. Atanassov's Intuitionistic Fuzzy Risk Estimation of the Ship System Failures Based on the Expert Judgments
Hoang Nguyen
2. Interactive 7-DOF Motion Controller Of The Operator Arm (ExoArm 7-DOF)
Paweł Herbin, Mirosław Pajor
3. A Framework for Improving Process Robustness with Quantification of Uncertainties in Industry 4.0
Cinzia Giannetti
4. Mastering Strategies in a Board Game of Imperfect Information for Different Search Techniques
Michał Przybylski, Dariusz Król

Special Session – Room: Perłowa

MLMAT 2017: Machine Learning: Methodologies, Applications and Trends (part 2)

Chairs: Prof. Chung-Ming Ou, Prof. Chung-Ren Ou

1. The Effects of Different Wavelet Degrees on Epileptic Seizure Detection from EEG Signals
Gunes Ekim, Nuri Ikizler, Ayten Atasoy
2. A Methodology for Improving Complex Sales Success in CRM Systems
Doru Rotovei, Viorel Negru
3. Stereotyped Gesture Recognition: An Analysis between HMM and SVM
Marcos Y. O. Camada, Jês J. F. Cerqueira, Antonio Marcus N. Lima

13:00 - 14:00 – Lunch

14:00 - 15:00 Plenary session – Room: Bursztynowa

Big Open Linked Data

Prof. Kuo-Ming Chao

Chair: Prof. Tzung-Pei Hong

15:00-15:30 – Coffee break

15:30-17:00 – Parallel Sessions

Special Session – Room: Bursztynowa

PADL 2017: Practical Applications of Deep Learning

Chair: Prof. Ayşegül Uçar

1. Comparison of Convolutional Neural Network Models for Food Image Classification
Gözde Özsert Yiğit, Buse Melis Özyıldırım
2. Operational Data Augmentation in Classifying Single Aerial Images of Animals
Emmanuel Okafor, Rik Smit, Lambert Schomaker, Marco Wiering
3. A Multi-Biometric Recognition System Based On Deep Features of Face and Gesture Energy Image
Onur Can Kurban, Tülay Yildirim, Ahmet Bilgiç
4. Deep Convolutional Encoder-Decoder Network with Model Uncertainty for Semantic Segmentation
Shuya Isobe, Shuichi Arai
5. Deep Convolutional Neural Networks for Facial Expression Recognition
Ayşegül Uçar

Special Session – Room: Rotariańska

SINTEL 2017: Semantic Intelligence

Chairs: Prof. Kambiz Badie, Prof. Maryam Tayefeh Mahmoudi

1. A New Approach to Zone Identification Based on Considering Features with High Semantic Richness
Kambiz Badie, Nasrin Asadi, Maryam Tayefeh Mahmoudi
2. Compositional Adaptation in Case – Based Reasoning based on the Semantic Relations between the Components in the Cases
Kambiz Badie, Maryam Tayefeh Mahmoudi
3. Under Question Cultural Boundaries: A Semiospheric Perspective based on Enabling Aspects of Mythical Characters
Emilia Nercissians
4. Social Semiotic Aspects of Instagram Social Network
Mohammadreza Mirsarraf, Hamidreza Shairi, Abotorab Ahmadpanah
5. Ranking Nodes By Silentsness
Soheil Ghanbari, Hasan Heydari, Ali Moeini

Special Session – Room: Perłowa

IOD 2017: Innovative Outlier Detection

Chairs: Prof. Piotr S. Szczepaniak, Prof. Agnieszka Duraj

1. Scattering of Acoustical Waves by a Hard Strip and Outlier Phenomenon
V. F. Emets, Jan Rogowski

2. Multiobjective Genetic Algorithm for Outliers Detection
Lukasz Chomatek, Agnieszka Duraj
3. Outlier Detection in Medical Data Using Linguistic Summaries
Agnieszka Duraj
4. Outlier Mining in Rule-Based Knowledge Bases
Agnieszka Nowak - Brzezińska
5. Resolving Classical Concurrency Problems Using Adaptive Conflictless Scheduling
Mateusz Smolinski

19:00 - 22:00 – Conference dinner
Place: Nadmorski Hotel, Gdynia

July 5, 2017 (Wednesday)

8:30 - 13:00 – Registration

9:00 - 10:00 – Parallel Sessions

Special Session – Room: Bursztynowa
NSLIS 2017: Neutrosophic Set and Logic in Intelligent Systems
Chair: Prof. Piotr Jędrzejowicz

Special Session on Neutrosophic Set and Logic in Intelligent Systems - Introduction to Neutrosophic theory and its Applications by Prof. Florentin Smarandache

General Track 7- Room: Rotariańska
Machine Learning

Chair: Prof. Ireneusz Czarnowski

1. Evaluating the Effect of Voting Methods on Ensemble-Based Classification
Florin Leon, Sabina-Adriana Floria, Costin Bădică
2. Ensemble Approach for Time Series Analysis in Demand Forecasting - Ensemble Learning
A. Okay Akyuz, Mitat Uysal, Berna Atak Bulbul, M. Ozan Uysal
3. Stacking and Rotation-based Technique for Machine Learning Classification with Data Reduction
Ireneusz Czarnowski, Piotr Jędrzejowicz

Special Session – Room: Perłowa
MLMAT 2017: Machine Learning: Methodologies, Applications and Trends (part 3)

Chairs: Prof. Chung-Ming Ou, Prof. Chung-Ren Ou

1. A New Approach to Recognize Activities in Smart Environments Based on Cooperative Game Theory
Elaheh Ordoni, Ali Moeini, Kambiz Badie
2. Associative Memory based on Network Dynamics
Chung-Ming Ou
3. Monthly Car Sales Prediction using Internet Word-of- Mouth (eWOM)
Chaochang Chiu, Chia-Houng Shu

10:00 - 10:30 – Coffee break

10:30 - 12:00 – Parallel Sessions

General Track 8 – Room: Bursztynowa

Machine Learning

Chair: Dr. Ewa Ratajczak-Ropel

1. Basic Clustering Algorithms Used for Monitoring the Processes of the ATM's OS
Michał Maliszewski, Urszula Boryczka
2. Audio Features Dedicated to the Detection of Arousal and Valence in Music Recordings
Jacek Grekow
3. Distributed Image Retrieval with Color and Keypoint Features
Michał Łągiewka, Marcin Korytkowski, Rafał Scherer
4. Comparison of Expert Algorithms with Machine Learning Models for Real Estate Appraisal
Bogdan Trawiński, Zbigniew Telec, Jacek Krasnoborski, Mateusz Piwowarczyk, Michał Talaga, Tedeusz Lasota, Edward Sawiłow

General Track 9 – Room: Rotariańska

Machine Learning

Chair: Dr. Dariusz Król

1. Towards Facts Extraction from Text in Polish Language
Tomasz Boiński, Adam Chojnowski
2. Unsupervised Feature Selection Using Reversed Correlation for Improved Medical Diagnosis
Agnieszka Wosiak, Danuta Zakrzewska
3. A Deep Spiking Machine-Hearing System for the case of Invasive Fish Species
Konstantinos Demertzis, Lazaros Iliadis, Vardis-Dimitris Anezakis
4. Applying Map-Reduce to Imbalanced Data Classification
Joanna Jędrzejowicz, Jakub Neumann, Piotr Synowczyk, Magdalena Zakrzewska

General Track 10 – Room: Perłowa

Smart Applications

Chair: Dr. Mostefa Mohamed-Seghir

1. A Robust Genetic Programming Model for a Dynamic Portfolio Insurance Strategy
Siamak Dehghanpour, Akbar Esfahanipour
2. Real-time Ground Filtration Method for a Loader Crane Environment Monitoring System Using Sparse LIDAR Data
Karol Miądlicki, Mirosław Pajor, Mateusz Saków
3. Adaptive Phasor Estimation Technique During Off-Nominal Frequency
Omar Sami Thiab, Łukasz Nogal, Ryszard Kowalik
4. Modeling and Querying Trajectories using Neo4j Spatial and TimeTree for Carpool Matching
Fuat Bakkal, Süleyman Eken, Nurullah Samed Savaş, Ahmet Sayar

12:00 - 12:30 - Closing ceremony