

Data Stream Mining & Processing

PROGRAMME



IEEE



IEEE 
UKRAINE SECTION

IEEE Ukraine Section (Kharkiv)
SP/API/C/EMC/COM
Societies Joint Chapter

IEEE Ukraine Section (West)
AP/ED/MTT/CPMT/SSC
Societies Joint Chapter

August 21–25, 2018

Lviv, Ukraine



2018 IEEE Second International Conference on
Data Stream Mining & Processing (DSMP)

Conference Programme

Tuesday, August 21, 2018

8 ³⁰ to 18 ³⁰	Registration (Reception, «Pivdennij-EXPO», Lviv)
10 ³⁰ to 11 ³⁰	Opening (Conference Hall, «Pivdennij-EXPO», Lviv) Yuriy Rashkevych , Dr.Sc., Prof. (Ministry of Education and Science of Ukraine, Kyiv, Ukraine) Fast learning algorithm for GMDH-SVM deep neural network in Data Stream Mining tasks Viktor Voloshyn , Ph.D., Ass. Prof. (IT Step University, Lviv, Ukraine) Data Science. IT Education. R&D. Welcome speech Yaroslav Lyubinets , Ph.D. (Chairman of SoftServe, Lviv, Ukraine) Research & Development. Science. Connection. Welcome speech Andriy Moskalenko , Deputy Mayor (Lviv City Council, Lviv, Ukraine) Smart City. Science. Evolution. Welcome speech Yaroslav Prytula , Ph.D., Ass. Prof. (Ukrainian Catholic University, Lviv, Ukraine) Changing the World with Data Science. Welcome speech Ievgen Pichkalov , Chairperson, Executive Director (IEEE Ukraine Section) IEEE in Ukraine: Growing step by step. Welcome Speech
11 ³⁰ to 12 ⁰⁰	Coffee-break (Food Zone, «Pivdennij-EXPO», Lviv)
12 ⁰⁰ to 13 ³⁰	Plenary Session #1 (Conference Hall, «Pivdennij-EXPO», Lviv) Yevgeniy Bodyanskiy , Dr.Sc., Prof. (Kharkiv National University of Radio Electronics, Ukraine) Neuro-Fuzzy Stacked Autoencoder for Deep Neural Network and its Online Learning Igor Aizenberg , Dr.Sc., Prof. (Manhattan College, USA) Complex-Valued Neural Networks: New Trends and Applications
13 ³⁰ to 14 ³⁰	Lunch (Cafe, «Pivdennij-EXPO», Lviv)
14 ³⁰ to 16 ⁰⁰	Plenary Session #2 (Conference Hall, «Pivdennij-EXPO», Lviv)

– Topics

- 1 – Big Data & Data Science Using Intelligent Approaches
- 2 – Dynamic Data Mining & Data Stream Mining
- 3 – Hybrid Systems of Computational Intelligence
- 4 – Machine Vision and Pattern Recognition



2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

	<p>Martin Štěpnička, Ph.D., Ass.Prof. (Institute for Research and Applications of Fuzzy Modeling Ostrava, Czech Republic) Fuzzy relational compositions, their extensions and their application to classification tasks</p> <p>Minho Jo, Dr. Sc., Prof. (Korea University, Sejong Metro, South Korea) Recovery of Incomplete Sensed Data by Deep Q-Learning Network</p>
16 ⁰⁰ to 16 ³⁰	Coffee-break (Food Zone, «Pivdennij-EXPO», Lviv)
16 ³⁰ to 18 ⁰⁰	Plenary Session #3 (Conference Hall, «Pivdennij-EXPO», Lviv) <p>Leonid Lyubchyk, Dr.Sc., Prof. (National Technical University «Kharkiv Polytechnic Institute», Ukraine) Online Ranking Learning on Clusters</p> <p>Vyacheslav Kharchenko, Dr.Sc., Prof. (National Aerospace University «Kharkiv Aviation Institute», Centre for Safety Infrastructure-Oriented Research and Analysis, Research and Production Company Radiy, Ukraine) Critical Computing and Big Data: Challenges and Solutions</p>
18 ⁰⁰ to 19 ⁰⁰	Transfer & Accommodation (Reception, Recreation Complex «Kryve Ozero», Novoiaivorivsk, Lviv Region)
19 ⁰⁰ to 20 ⁰⁰	Dinner (Restaurant, Recreation Complex «Kryve Ozero», Novoiaivorivsk)
21 ⁰⁰ to 22 ⁰⁰	The Program Committee Meeting

Wednesday, August 22, 2018

8 ³⁰ to 9 ³⁰	Breakfast
9 ³⁰ to 11 ⁰⁰	Plenary Session #4 (Conference Hall 1, Recreation Complex «Kryve Ozero», Novoiaivorivsk, Lviv Region) <p>Andrew Smith, Ph.D., Ass. Prof. (University College Dublin, Ireland) Technology and Internal Models for Financial Businesses</p> <p>Volodymyr Mashtalir, Dr.Sc., Prof. (Kharkiv National University of Radio Electronics, Ukraine) Representative based Clustering of Long Multivariate Sequences with Different Lengths</p>

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

Volodymyr Mashtalir, Dr.Sc., Prof.

(Kharkiv National University of Radio Electronics, Ukraine)

Representative based Clustering of Long Multivariate Sequences with Different Lengths

Vitaliy Boyun, Dr.Sc., Prof.

(V. Glushkov Institute of Cybernetics of the National Academy of Sciences of Ukraine, Kyiv, Ukraine)

Bioinspired Approaches to the Selection and Processing of Video Information

9³⁰ to 11⁰⁰

Panel #1 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Andy Bosyi

(Founder and CEO MindCraft.ai, Ukraine)

Decision-Making Systems Based on Time Series

Elena Yegorova, Ph.D.

(Co-founder, CTO, LMX London, United Kingdom)

Data Processing for Behaviour Pattern Extraction: Applied Problems

Oleg Novosad

(CEO at Severenity; Senior Mobile Engineer, SoftServe;

Lecturer at IT Step University)

Location-based procedural generation of augmented reality portals

11⁰⁰ to 11³⁰

11³⁰ to 13⁰⁰

Coffee-break

Plenary Session #5 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Mike Hinchey, Ph.D., Prof., Emeritus Director

(President, International Federation for Information Processing (IFIP);

Professor of Software Engineering, University of Limerick; Emeritus

Director, Lero-the Irish Software Research Centre; Chair, IEEE UK &

Ireland section)

Building Resilient Space Exploration Missions

Sergii Babichev, Ph.D, Ass. Prof.

(Jan Evangelista Purkyně University in Usti nad Labem, Czech Republic)

Information Technology of Gene Expression Profiles Processing for Purpose of Gene Regulatory Networks Reconstruction

Bohdan Pavlyshenko, Ph.D., Ass. Prof.

(Data Scientist at SoftServe; Lviv National University, Ukraine)

Modern Approaches in Sales Predictive Analytics

– Topics

1 – Big Data & Data Science Using Intelligent Approaches

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

11³⁰ to 13⁰⁰

Panel #2 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Bohdan Kolchygin, Ph.D.

(Machine Learning Engineer, AltexSoft)

Under Construction: How to Debug Machine Learning Process

Denis Fragkakis Ph.D.

(Lead Data Scientist at Nested; Head of Data Science at LMX,
United Kingdom)

Data Processing for Reinforcement Learning: Advantages and Future

Artem Nikulchenko

(Chief Software Architect, Clearwater, FL, USA)

Using Google Cloud Platform Tools for Big Data Processing and Analyze

13⁰⁰ to 14⁰⁰

Lunch (Restaurant, Recreation Complex «Kryve Ozero», Novoiaavorivsk)

14⁰⁰ to 16⁰⁰

Panel #3 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Dmytro Liaskovsky

(Software Engineering Manager, Epam)

DLab - essential toolset for analytics

Vlad Vanzha

(Lead Engineer at Exponential Inc.)

Machine Learning Techniques in Advertisement

Semen Oskerko

(Student of IT STEP University, Ukraine)

**Hybrid Multidimensional Wavelet-Neuro-System and its Learning in
Pattern Recognition for IoT Application**

Abdullah Sheneamer, Ph.D., Ass. Prof.

(Jazan University, Jazan, Saudi Arabia)

A Detection Framework for Semantic Code Clones and Obfuscated Code

14⁰⁰ to 16⁰⁰

Panel #4 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Volodymyr Lyubinets

(Software Engineer at Forethought, United States)

Taras Boiko (Co-founder, Vudu AI, Ukraine)

**Automated Triaging of Bugs and Tickets using Attention-based
Mechanisms in RNNs**

– Topics

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Yehor Lyebyedyev

(Data Scientist at Perfectial)

Analysis of Data Streams from Social Networks

Ievgen Gorovyi, Ph.D.,

(CEO, It-Jim)

**Custom Augmented Reality SDK: Concepts, Technical Solutions
and Deployment to Mobile Platforms**

16⁰⁰ to 16³⁰

16³⁰ to 18⁰⁰

Coffee-break

Panel #5 (Conference Hall 1,

Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Tetiana Gladkykh, Ph.D.

(Competence Manager, Data Science Group, SoftServe)

Music Content Selection Automation

Igor Manzhos, Ph.D.

(Data Science Engineer, Consultant, GlobalLogic)

**Using deep convolutional neural networks for medical
diagnostics**

Igor Mishchenko

(Data Science Engineer, Senior, GlobalLogic)

Medical data normalization with recurrent neural networks

16³⁰ to 18⁰⁰

Panel #6 (Conference Hall 2,

Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Oleg Voloshko, Ph.D.

(Head of Big Data products at Kyivstar)

Machine learning algorithms in solving telecom operator issues

Iryna Zaytseva

(Project Manager, uData School, Kyiv, Ukraine)

**Ukrainian education and data science business:
are there any touch points?**

Igor Vlasov, Ph.D.

(Compliance Manager, Fintech United Group)

Blockchain & Society

– Topics

1 – Big Data & Data Science Using Intelligent Approaches

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

18⁰⁰ to 18³⁰

Topic #1 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

**Ganna Ponomaryova, Igor Nevlydov, Oleksandr Filipenko
and Mariya Volkova**

**MEMS-based Inertial sensor signals and machine learning methods
for classifying robot motion**

**Iryna Perova, Olena Litovchenko, Yevgeniy Bodyanskiy,
Yelizaveta Brazhnykova, Igor Zavgorodnii and Pavlo Mulesa**

**Medical Data-Stream Mining in the Area of Electromagnetic
Radiation and Low Temperature Influence on Biological Objects**

**Polina Zhernova, Anastasiia Deineko, Yevgeniy Bodyanskiy
and Vladyslav Riepin**

**Adaptive Kernel Data Streams Clustering Based on Neural Networks
Ensembles in Conditions of Uncertainty About Amount and Shapes
of Clusters**

18⁰⁰ to 18³⁰

Topic #2 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

**Kirill Smelyakov, Dmytro Yeremenko, Vitalii Polezhai,
Anton Sakhon and Anastasiya Chupryna**

Braille character recognition based on neural networks

Gennady Chuiko, Olga Dvornik and Yevhen Darnapuk
**Shape evolutions of Poincaré Plots for electromyograms
in data acquisition dynamics**

Petro Kravets

Game Model for Data Stream Clustering

18³⁰ to 19³⁰

Plenary Session #6 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Dmytro Uzlov, Dr.Sc., Prof.

(National Police of Ukraine in Kharkiv region, Ukraine)

Using Data Mining for Intelligence Led Policing and Criminal Analysis

Volodymyr Stepashko, Dr.Sc., Prof.

(IRTC for Information Technologies and Systems)

**Inductive Modeling in the Context of Computational Intelligence
Approaches**

19³⁰ to 20³⁰

Dinner (Restaurant, Recreation Complex «Kryve Ozero», Novoiavorivsk)

20³⁰ to 21³⁰

Event

– Topics

1 – Big Data & Data Science Using Intelligent Approaches

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

Thursday, August 23, 2018

8³⁰ to 9³⁰

9³⁰ to 11⁰⁰

Breakfast

Topic #3 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Sergej Korjagin, Pavel Klachek and Irina Liberman
**Development of Hybrid Computational Intelligence by Knowledge
Genesis Method**

Igor Aizenberg and Kashifuddin Qazi
**Cloud Datacenter Workload Prediction using Complex-valued
Neural Networks**

Yegor Kovylin and Oleg Volkovsky
**Computer system of building of the semantic model
of the document information on submission**

**Alina Shafronenko, Yevgeniy Bodyanskiy, Artem Dolotov
and Galina Setlak**
**Fuzzy Clustering of Distorted Observations Based On Optimal
Expansion Using Partial Distances**

Nataliia Kashpruk, Anna Walaszek-Babiszewska and Marek Rydel
**On the Equivalence between AR Family Time Series Models
and Fuzzy Models in Signal Processing**

**Sergii Babichev, Volodymyr Lytvynenko, Maxim Korobchynskyi,
Jiří Škvor and Maria Voronenko**
**Information Technology of Gene Expression Profiles Processing
for Purpose of Gene Regulatory Networks Reconstruction**

Ali Rekik and Nissen Masmoudi
**A New Approach for Forming a Probabilistic Risk Assessment Model
of Innovative Project Implementation Under Risk**

**Viktor Morozov, Olena Kalnichenko, Andrii Khrutba,
Grigory Steshenko and Iuliia Liubyma**
**Managing of Change Streams in Projects of Development
Distributed Information System**

**Alexander Vlasenko, Olena Vynokurova, Nataliia Vlasenko
and Marta Peleshko**
**A Hybrid Neuro-Fuzzy Model for Stock Market Time-Series
Prediction**

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

9³⁰ to 11⁰⁰

Vladyslav Kotsovsky, Fedir Geche and Anatoliy Batyuk
Finite Generalization of the Offline Spectral Learning

Topic #4 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

**Dmytro Peleshko, Oleksii Maksymiv, Taras Rak, Orysia Voloshyn
and Bohdan Morklianyk**

Core Generator of Hypotheses for Real-Time Flame Detecting

Oleksii Gorokhovatskyi and Olena Peredrii
**Shallow Convolutional Neural Networks for Pattern Recognition
Problems**

**Volodymyr Gorokhovatskyi, Yevgenyi Putyatin,
Oleksii Gorokhovatskyi and Olena Peredrii**
**Quantization of the Space of Structural Image Features as a Way
to Increase Recognition Performance**

**Ali Al-Ammouri, Hasan Al-Ammori, Arsen Klochan
and Anastasia Degtiarova**
**Logic-Mathematical Model for Recognition the Dangerous Flight
Events**

**Yevgeniy Bodyanskiy, Nonna Kulishova
and Daria Malysheva**
**The Multidimensional Extended Neo-Fuzzy System and its Fast
Learning for Emotions Online Recognition**

Nataliya Boyko, Nataliya Shakhovska and Oleg Basystiuk
**Performance Evaluation and Comparison of Software for Face
Recognition, Based on Dlib and Opencv Library**

Andriy Klyuvak, Oksana Kliuvak and Ruslan Skrynkovskyy
Partial Motion Blur Removal

Sergei Yelmanov and Yuriy Romanyshyn
**A Generalized Description for the Perceived Contrast of Image
Elements**

**Maksym Korobchynskyi, Alexander Mariliv, Mihail Slonov
and Serhii Mieshkov**
**Method for Determining the Rational Time Intervals for Detecting
Objects by Thermal Imager**

11⁰⁰ to 11³⁰

Coffee-break

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

11³⁰ to 13⁰⁰

Topic #1 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Dmytro Lande, Valentyna Andrushchenko and Iryna Balagura
Data science in open-access research on-line resources

Nina Khairova, Svitlana Petrasova
and Włodzimierz Lewoniewski
Building the Semantic Similarity Model for Social Network Data
Streams

Gautam Pal, Gangmin Li and Katie Atkinson
Big Data Real Time Ingestion and Machine Learning

Andrii Berko and Vladyslav Alieksieiev
A method to solve uncertainty problem for Big Data sources

Yuriy Kondratenko and Nina Kondratenko
Computational Library of the Direct Analytic Models for Real-Time
Fuzzy Information Processing

Oleksandr Gerasin, Yuriy Zaporozhets
and Yuriy Kondratenko
Models of Magnetic Driver Interaction with Ferromagnetic Surface
and Geometric Data Computing for Clamping Force Localization
Patches

Volodymyr Ostakhov, Viktor Morozov and Nadiia Artykulna
Models of IT Projects KPIs and Metrics

Yuliya Kozina, Natalya Volkova and Daniil Horpenko
Mobile Application For Decision Support In Multi-Criteria Problems

11³⁰ to 13⁰⁰

Topic #2 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Vasyl Lytvyn, Victoria Vysotska, Yevhen Burov and Andriy Demchuk
Defining Author's Style for Plagiarism detection in Academic
Environment

Volodymyr Yuzevych, Ruslan Skrynkovsky and Bohdan Koman
Intelligent Analysis of Data Systems for Defects in Underground Gas
Pipeline

Liliya Chyrun, Iaroslav Kis, Victoria Vysotska and Lyubomyr Chyrun
Content Analysis Method for Cut Formation of Human Psychological
State

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

Vasyl Lytvyn, Victoria Vysotska, Olga Lozynska, Oksana Oborska
and Dmytro Dosyn

**Methods of Building Intelligent Decision Support Systems Based
on Adaptive Ontology**

Fedir Geche, Oksana Mulesa, Veronika Voloshchuk
and Anatoliy Batyuk

**About Kernel Structure Construction of the Generalized Neural
Functions**

Olga Smotr, Nazarii Burak, Yuriy Borzov and Solomija Ljaskovska
**Implementation of Information Technologies in the organization
of Forest Fire Suppression Process**

Oleg Riznyk, Olexandr Povshuk, Yurii Kynash and Yurii Noga
Transformation of Information Based on Noisy Codes

Serhii Rybalchenko

**Big Data Automatic System of Analysis and Trading
on Financial Markets**

Anna Vergeles, Dmytro Prokopenko, Alexander Khaya
and Nataliia Manakova

**Unsupervised Real-Time Stream-Based Novelty Detection
Technique**

Anastasiia Deineko, Polina Zhernova, Boris Gordon,
Oleksandr Zayika, Iryna Pliss and Nelya Pabyrivska
**Data Stream Online Clustering Based on Fuzzy Expectation-
Maximization Approach** information on submission

Mesbaholdin Salami, Farzad Movahedi Sobhani
and Mohammad Sadegh Ghazizadeh

**Development of a New Algorithm Based on Simulation –
Optimization Algorithms for Big Data Mining to Improve Prediction
of Future Electricity Prices in the Iranian Electricity Market**

Solomija Ljaskovska, Igor Malets, Yevgen Martyn
and Oleksandr Prydatko

**Information Technology of Process Modeling in the Multiparameter
Systems**

13⁰⁰ to 14⁰⁰

Lunch (Restaurant,

Recreation Complex «Kryve Ozero», Novoiavorivsk)

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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

14⁰⁰ to 16⁰⁰

Topic #3 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Nelya Pabyrivska and Viktor Pabyrivskyy
**Inverse Problem for Two-Dimensional Heat Equation
With an Unknown Source**

Yuliia Tatarinova
**AVIA: Automatic Vulnerability Impact Assessment
on the target system**

Dmytro Chumachenko
**On intelligent multiagent approach to viral hepatitis B epidemic
processes simulation**

**Olena Vynokurova, Dmytro Peleshko, Viktor Voloshyn,
Semen Oskerko and Yuriy Borzov**
**Hybrid Multidimensional Wavelet-Neuro-System and its Learning
Using Cross Entropy Cost Function for Patterns Recognition**

Olexiy Azarov, Leonid Krupelnitsky and Hanna Rakytyanska
**A Fuzzy Model of Television Rating Control with Trend Rules Tuning
based on Monitoring Results**

**Yaroslav Sokolovskyy, Maryana Levkovich, Olha Mokrytska
and Vitalij Atamanyuk**
**Mathematical modeling of two-dimensional deformation-relaxation
processes in environments with fractal structure**

Shashi Bhushan, Raju Pal and Svetlana G Antoshchuk
**Energy Efficient Clustering Protocol for Heterogeneous Wireless
Sensor Network: A Hybrid Approach using GA and K-means**

**Pavlo Vitynskyi, Roman Tkachenko, Ivan Izonin
and Hakan Kutucu**
**Hybridization of the SGTM Neural-like Structure through Inputs
Polynomial Extension**

Igor Aizenberg and Zain Khaliq
Analysis of EEG using MLMVN
Galyna Chornous and Ihor Nikolskyi
**Business-Oriented Feature Selection for Hybrid Classification Model of
Credit Scoring**

Zhengbing Hu and Oleksii Tyshchenko
**A Hybrid Neuro-Fuzzy Element: a New Structural Node for Evolving
Neuro-Fuzzy Systems**

Kostyantyn Kharchenko, Oleksandr Beznosyk and Valeriy Romanov

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14⁰⁰ to 16⁰⁰

Implementation of Neural Networks with help of a Data Flow Virtual Machine

**Viktor Mashkov, Jiří Fišer, Volodymyr Lytvynenko
and Maria Voronenko**

Self-diagnosis of the systems with intermittently faulty units

Topic #4 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Boyun Vitaliy

Bioinspired approaches to the selection and processing of video information

**Vyacheslav Moskalenko, Alona Moskalenko,
Artem Korobov, Olha Boiko, Serhii Martynenko
and Oleksandr Borovenskyi**

Model and training methods of autonomous navigation system for compact drones

**Olena Vynokurova, Yevgeniy Bodyanskiy, Dmytro Peleshko
and Yuriy Rashkevych**

The Autoencoder Based on Generalized Neo-Fuzzy Neuron and its Fast Learning for Deep Neural Networks

**Sergey Rassomakhin, Alexandr Kuznetsov, Vladimir Shlokin, Ivan
Bilozetsev and Roman Serhienko**

Mathematical model for the probabilistic minutia distribution in biometric fingerprint images

**Yevgeniy Bodyanskiy, Iryna Pliss, Daria Kopaliani
and Olena Boiko**

Deep 2D-Neural Network and Its Fast Learning

**Andriy Yerokhin, Valerii Semenets, Alina Nechyporenko, Oleksii
Turuta and Andrii Babii**

F-transform 3D point cloud filtering algorithm

**Petr Hurtik, David Číž, Oto Kaláb, David Musiolek, Petr Kočárek
and Martin Tomis**

Software for visual insect tracking based on F-transform pattern matching

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Roman Martsyshyn, Yulia Miyushkovych, Lubomyr Sikora,
Natalya Lysa and Rostyslav Tkachuk

**Technology of Remote Recognition the Dart-Arrow
on the Target**

Anatoliy Kovalchuk and Nataliia Lotoshynska

**Elements of RSA algorithm and extra noising in a binary linear-
quadratic transformations during encryption and decryption of
images**

Sergii Mashtalir, Volodymyr Mashtalir and Mykhailo Stolbovyi
**Representative Based Clustering of Long Multivariate Sequences
with Different Lengths**

Sergii Mashtalir, Olena Mikhnova and Mykhailo Stolbovyi
Sequence Matching for Content-Based Video Retrieval

16⁰⁰ to 16³⁰

16³⁰ to 18³⁰

Coffee-break

Topic #2 (Conference Hall 1,

Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Gennadiy Churyumov, Vladimir Tokarev, Vitalii Tkachov
and Stanislav Partyka

**Scenario of Interaction of the Mobile Technical Objects in the
Process of Transmission of Data Streams in Conditions of Impacting
the Powerful Electromagnetic Field**

Oleksandr Prydatko, Ivan Solotvinsky, Yuriy Borzov, Oleksii Didyk
and Olga Smotr

**Informational System of Project Management in the Areas of
Regional Security Systems' Development**

Leonid Lyubchyk and Galyna Grinberg
Online Ranking Learning on Clusters

Vitalii Bulakh, Lyudmyla Kirichenko and Tamara Radivilova
Time series classification based on fractal properties

Olga Zavgorodnia, Ivan Mikheev and Oleksandr Zyma
**Identifying European e-learner profile by means
of data mining**

Galyna Kriukova and Mykola Glybovets

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**High-performance Data Stream Mining by means of embedding
Hidden Markov Model into Reproducing Kernel Hilbert Spaces**

Daniel Ambach and Oleksandra Ambach

**Forecasting the oil price with a periodic regression ARFIMA-GARCH
process**

**Valentyna Volkova, Ivan Deriuga, Vadym Osadchyi
and Olga Radyvonenko**

**Improvement of character segmentation using recurrent neural
networks and dynamic programming**

Sergiy Golub and Nataliia Khymytsia
The method of clodinamik monitoring

**Sergii Khlamov, Vadym Savanevych, Olexander Briukhovetskyi,
Artem Pohorelov, Vladimir Vlasenko and Eugen Dikov**
CoLiTec software for the astronomical data sets processing

Anastasiya Doroshenko
**Piecewise-linear Approach to Classification based on Geometrical
Transformation Model for Imbalanced dataset**

**Alexey Roenko, Feliks Sirenko, Yevhen Chervoniak
and Ievgen Gorovyi**

Data Processing Methods For Mobile Indoor Navigation

Topic #4 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiahorivsk, Lviv Region)

**Oleh Berezsky, Oleh Pitsun, Natalia Batryn, Kateryna Berezska,
Nadiya Savka and Taras Dolynyuk**

Image Segmentation Metric-Based Adaptive Method

**Igor Malets, Oleksandr Prydatko, Vasyl Popovych
and Andriy Dominik**

**Interactive Computer Simulators in Rescuer Training and Research
of their Optimal Use Indicator**

Roman Melnyk and Yurii Kalychak
**Analysis of Metal Defects by Clustering the Sample and Distributed
Cumulative Histogram**

Sergei Yelmanov and Yuriy Romanyshyn
Image Contrast Enhancement Using a Modified Histogram Equalization

**Yevhen Zadorozhnii, Yevhenii Tverdokhlib, Tetiana Fedoronchak
and Natalia Myronova**

16³⁰ to 18³⁰

– Topics

- 1 – Big Data & Data Science Using Intelligent Approaches
- 2 – Dynamic Data Mining & Data Stream Mining
- 3 – Hybrid Systems of Computational Intelligence
- 4 – Machine Vision and Pattern Recognition



2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

Development and implementation of human face alignment and tracking in video streams

Mariya Nazarkevych, Ivanna Klyujnyk and Hanna Nazarkevych
Investigation the Ateb-Gabor filter in biometric security systems

Bohdan Durnyak, Oleksandr Tymchenko Jr., Oleksandr Tymchenko and Bohdana Havrysh

Applying the Neuronetchic Methodology to Text Images for Their Recognition

Volodymyr Sherstiuk, Marina Zharikova and Igor Sokol
Forest Fire Monitoring System Based on UAV team, Remote Sensing, and Image Processing

Yuriy Furgala, Yuriy Mochulsky and Bohdan Rusyn
Evaluation of Objects Recognition Efficiency on Mapes by Various Methods

Tetiana Gladkykh, Taras Hnot and Roman Grubnyk
Music content selection automation

Galyna Shcherbakova, Victor Krylov, Maksym Gerganov, Svitlana Antoshchuk and Marina Polyakova, Anatoly Sachenko
Areal Multistart Method of Optimization for Image Recognition

Maksym Kovalchuk, Vasyl Koval, Anatoliy Sachenko and Diana Zahorodnia

Development of Real-time Face Recognition System Using Local Binary Patterns

19⁰⁰ to 20⁰⁰

Dinner (Restaurant,
Recreation Complex «Kryve Ozero», Novoiaavorivsk)

20⁰⁰ to 22⁰⁰

Event

Friday, August 24, 2018

8³⁰ to 9³⁰

Breakfast

9³⁰ to 10³⁰

Topic #1 (Conference Hall 1,
Recreation Complex «Kryve Ozero», Novoiaavorivsk, Lviv Region)

Olena Basalkevych and Olexandr Basalkevych
Fuzzy reconstructions in linguistics

– Topics

- 1 – Big Data & Data Science Using Intelligent Approaches
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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

**Mykola Malyar, Oleksey Voloshyn, Volodymyr Polishchuk
and Marianna Sharkadi**

Fuzzy mathematical modeling financial risks

**Peter Bidyuk, Aleksandr Gozhyj, Iryna Kalinina, Zdislaw Szymanski
and Volodymyr Beglytsia**

**The Methods Bayesian Analysis of the Threshold Stochastic
Volatility Model**

Max Garkavtsev, Natalia Lamonova and Alexander Gostev
**Choosing a Programming Language for a New Project from a Code
Quality Perspective**

Viktor Putrenko, Nataliia Pashynska and Sergiy Nazarenko
**Data Mining of Network Events with Space-Time Cube
Application**

Vasyl Palchykov and Yuriy Holovatch
**Bipartite graph analysis as an alternative to reveal clusterization
in complex systems**

**Dariusz Puchala, Kamil Stokfiszewski, Kamil Wieloch
and Mykhaylo Yatsymirskyy**
**Comparative Study of Massively Parallel GPU Realizations of
Wavelet Transform Computation with Lattice Structure and Matrix-
Based Approach**

Vladyslav Alieksieiev
**One approach of approximation for incoming data stream in IoT
based monitoring system**

**Anatoliy Batyuk, Volodymyr Voityshyn
and Volodymyr Verhun**
**Software Architecture Design of the Real-Time Processes
Monitoring Platform**

**Myroslav Komar, Vladimir Golovko, Anatoliy Sachenko,
Vitaliy Dorosh and Pavlo Yakobchuk**
**Deep Neural Network for Image Recognition Based on the Caffe
Framework**

Mansouri Sadek, Mbarek Charhad, Ali Rekik and Mounir Zrigui
**A Framework for Semantic Video Content Indexing using textual
Information**

Topic #3 (Conference Hall 2,
Recreation Complex «Kryve Ozero», Novoiahorivsk, Lviv Region)

9³⁰ to 11³⁰

– Topics

- 1 – Big Data & Data Science Using Intelligent Approaches
- 2 – Dynamic Data Mining & Data Stream Mining
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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

Ievgen Gorovyi, Vitalii Vovk, Maksim Shevchenko, Valerii Zozulia
and Dmytro Sharapov

**Embedded Vision Modules for Text Recognition and Fiducial
Markers Tracking**

Sergii Kondratiuk and Iurii Krak

**Dactyl Alphabet Modeling and Recognition Using Cross Platform
Software**

Lukasz Wieczorek and Przemyslaw Ignaciuk

**Intelligent support for resource distribution in logistic networks
using continuous-domain genetic algorithms**

Ihor Shelevytsky, Victoriya Shelevytska, Vlad Golovko
and Bogdan Semenov

**Segmentation and parametrization of the phonocardiogram
for the heart conditions classification in newborns**

Oleksandr Dumin, Dmytro Shyrokorad, Gennadiy Pochanin,
Vadym Plakhtii and Oleksandr Prishchenko

**Subsurface Object Identification by Artificial Neural Networks
and Impulse Radiolocation**

Ivan Tsmots, Oleksa Skorokhoda, Yurii Tsybmal, Taras Tesluyk
and Viktor Khavalko

**Neural-Like Means for Data Streams Encryption and Decryption
in Real Time**

Mykola Dyvak, Iryna Oliynyk, Andriy Pukas and Andriy Melnyk
**Selection the "Saturated" Block from Interval System of Linear
Algebraic Equations for Recurrent Laryngeal Nerve Identification**

Paweł Tarasiuk and Mykhaylo Yatsymirskyy

Optimized Concise Implementation of Batcher's Odd-Even Sorting

Topic 12 (Conference Hall 1)
Recreation Complex «Kryve Ozero», Novoiavorivsk, Lviv Region)

Yurij Holovatch, Ralph Kenna and Olesya Mryglod

**Data Mining in Scientometrics: usage analysis for academic
publications**

Hanna Rudakova, Oksana Polyvoda and Anton Omelchuk

**Using Recurrent Procedures to Identify the Parameters
of the Large-sized Object Moving Process Model in Real Time**

Andriy Lozynskyy, Igor Romanyshyn, Bohdan Rusyn
and Volodymyr Minialo

10³⁰ to 11³⁰

– Topics

- 1 – Big Data & Data Science Using Intelligent Approaches
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2018 IEEE Second International Conference on Data Stream Mining & Processing (DSMP)

**Robust Approach to Estimation of the Intensity of Noisy Signal
with Additive Uncorrelated Impulse Interference**

Bohdan Pavlyshenko

Using Stacking Approaches for Machine Learning Models

**Romanna Malets, Igor Malets, Heorgiy Shynkarenko
and Petro Vahin**

**Modeling of Thermoviscoelasticity Time Harmonic Variational
Problem for a Thin Wall Body**

Oleh Suprun, Olena Sipko and Vitaliy Snytyuk

Educational Schedule Development using Evolution Technologies

Volodymyr Lyubinets, Deon Nicholas and Taras Boiko

**Automated labeling of bugs and tickets using attention-based
mechanisms in recurrent neural networks**

Yehor Lyebyedyev and Mykola Makhortykh

**#Euromaidan: Quantitative analysis of multi-lingual framing
of 2013-2014 Ukrainian protests on Twitter**

11³⁰ to 12³⁰

Reserved

12³⁰ to 13³⁰

Lunch (Restaurant,
Recreation Complex «Kryve Ozero», Novoiavorivsk)

13³⁰ to 19⁰⁰

Independence Day Party (Lviv)

19³⁰ to 20⁰⁰

Closing Ceremony (Restaurant,
Recreation Complex «Kryve Ozero», Novoiavorivsk)

20⁰⁰ to 23³⁰

Conference Feast – Banquet (Restaurant,
Recreation Complex «Kryve Ozero», Novoiavorivsk)

Saturday, August 25, 2018

8³⁰ to 9³⁰

Breakfast

10⁰⁰ to 11⁰⁰

Transfer To Railway Station

– Topics

- 1 – Big Data & Data Science Using Intelligent Approaches
- 2 – Dynamic Data Mining & Data Stream Mining
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