



28-29 November, 2018

Lviv, Ukraine

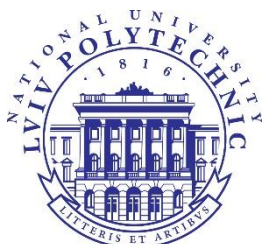
<http://science.lpnu.ua/iddm-2018>

iddm.workshop@gmail.com

The 1st International Workshop on Informatics & Data-Driven Medicine

WORKSHOP PROGRAMME

Organizers



Lviv Polytechnic National University,
Ukraine

<http://www.lp.edu.ua/en>



Danylo Halytsky Lviv State Medical
University, Ukraine

<http://meduniv.lviv.ua>



Zaporozhye National
Technical University, Ukraine

<http://www.zntu.edu.ua/>

with the support of the



International
Neural Networks Society
Ukrainian Regional Chapter

<http://inns-ukraine.com.ua/>

Partners

GlobalLogic
Innovation by Design

<https://www.globallogic.com/ua/>



<https://mastis.pro/>



<http://dochub.com.ua/>

28-30 November, 2018, Lviv, Ukraine

General IDDM 2018 Timetable

November 28	
09.00-09.45	Registration (123b, building XX, Knyazya Romana str, 5)
09.40-10.00	Conference opening (123b, building XX, Knyazya Romana str, 5)
10.00-12.45	Section 1. Artificial intelligence (123b, building XX, Knyazya Romana str, 5)
14.00-16.40	Section 2. Information systems in medicine (123b, building XX, Knyazya Romana str, 5)
November 29	
10.00-12.40	Section 1. Artificial intelligence, (123b, building XX, Knyazya Romana str, 5)
16.30-18.30	Section 2. Information systems in medicine (Sonata Hotel, Morozna str. 14)
November 30	
12.00-13.00	Close ceremony (123b, building XX)

TIME FOR PRESENTATIONS

Paper presentation – 10 min.

Discussion, questions – 5 min.



IDDM 2018

**The 1st International Workshop on
Informatics & Data-Driven Medicine**

November 28

Section 1. Artificial intelligence

Chairman: Prof. Sergey Subbotin

10:00 – 10:15	Sergey Subbotin, Elena Kirsanova	The Regression Tree Model Building Based on a Cluster-Regression Approximation for Data-Driven Medicine
10:15 – 10:30	Serhii Leoshchenko, Andrii Oliinyk, Sergey Subbotin, Nataliia Gorobii, Tetiana Zaiko	Synthesis of Artificial Neural Networks Using a Modified Genetic Algorithm
10:30 – 10:45	Tetiana Hovorushchenko, Olga Pavlova, Mykola Fedula	Improving the Input Information for Medical Software Requirements Specifications using Ontology-Based Intelligent Agent
10:45 – 11:00	Hanna Pylieva, Artem Chernodub, Natalia Grabar, Thierry Hamon	Improving Automatic Categorization of Technical vs. Laymen Medical Words using FastText Word Embeddings
11.00 – 11.30	Coffee break	
11:30 – 11:45	Serhii Lupenko, Volodymyr Pasichnyk, Natalia Kunanets, Oleksandra Orobchuk, Mingtang Xu	The Axiomatic-Deductive Strategy of Knowledge Organization in Onto-based e-learning Systems for Chinese Image Medicine
11:45 – 12:00	Yuksel Celik, Hakan Kutucu	Solving the Tension/Compression Spring Design Problem by an Improved Firefly Algorithm
12:00 – 12:15	Dmytro Zubov, Utku Kose, Ali Jasim Ramadhan, Andrey Kupin	Mesh Network of eHealth Intelligent Agents in Smart City: A Case Study on Assistive Devices for Visually Impaired People
12:15 – 12:30	Jan Rabcan, Elena Zaitseva, Vitaly Levashenko Eugene Fedorov, Valentyna Lukashenko, Volodymyr Patrushev, Andriy Lukashenko, Kostiantyn Rudakov, Serhii Mitsenko	Electroencephalogram Signals Analysis by Fuzzy Classifiers based on Cumulative Mutual Information
12:30 – 12:45		The Method of Intelligent Image Processing Based on a Three-Channel Purely Convolutional Neural Network
12.45 – 14.00	Lunch	

Section 2. Information systems in medicine

Chairman: Prof. Nataliya Shakhovska

14:00 – 14:15	Olga Cherednichenko, Nadiia Babkova, Olga Kanishcheva	Complex Term Identification for Ukrainian Medical Texts
14:15 – 14:30	Wingfrid Auzinger, Ivanna Dronyuk, Olga Fedevych, Yurii Klishch, Piotr Lipinski	Information technology of traffic modeling using the Ateb- functions theory for improving service delivery in eHealth systems and networks
14:30 – 14:45	Yaroslav Sokolovskyy, Maryana Levkovych, Olha Mokrytska, Yaroslav Kaplunskyy	Mathematical Models of Biophysical Processes Taking Into Account Memory Effects and Self-Similarity
14:45 – 15:00	Victoria Vysotska, Vasyl Lytvyn, Yevhen Burov, Aleksandr Gozhyj, Stepan Makara	The Consolidated Information Web-Resource about Pharmacy Networks in City
15.00 – 15.30	Coffee break	
15:30 – 15:45	Volodymyr Pasichnyk, Nataliia Kunanets, Serhii Martsenko, Oleksandr Matsiuk, Olesia Mytnyk, Oleksii Duda, Pawel Falat	Telecommunication Infrastructures for Telemedicine in Smart Cities
15:45 – 16:00	Miroslav Skoda, Andryi Helyi, Nataliia Kunanets, Antonii Rzheuskyi	Information Technology Support for the "Family Doctor"
16:00 – 16:15	Patrik Rusnak, Peter Sedlacek, Andrej Forgac	Application of Human Reliability Analysis Methods in Healthcare System Evaluation
16:15 – 16:30	Maksym Zaliskyi, Roman Odarchenko, Sergiy Gnatyuk, Yuliia Petrova, Anastasiia Chaplits	Method of Traffic Monitoring for DDoS Attacks Detection in e- Health systems and networks
17.30 – 22.00	Welcome dinner	Robert Doms Humble House (Kleparivska st., 18)

Section 1. Artificial intelligence

Chairman: Prof. Roman Tkachenko

10:00 – 10:15	Ivan Sokolovskyy, Maryana Levkovich, Olha Mokrytska Yurii Kryvenchuk, Nataliya Shakhovska, Iryna Shvorob,	Numerical Modeling and Analysis of Physical Properties in Biomaterials with Fractal Structure
10:15 – 10:30	Sergio Montenegro, Maksym Nechepurenko Yaroslav Vyklyuk, Nataliia	The Smart House Based System for the Collection and Analysis of Medical Data
10:30 – 10:45	Kunanets, Tetyana Kalahurka, Mykhailo Voronovsky	Information Technology Platform "Dental laboratory"
10:45 – 11:00	Pavel Klachek, Irina Liberman	The use of Hybrid Computational Methods for Creating Intelligent Decision-Making Systems in Medicine
11.00 – 11.30	Coffee break	
11:30 – 11:45	Iryna Perova, Yevgeniy Bodyanskiy, Anatoliy Sachenko, Mikolaj Karpinski, Pawel Rudyk	Fuzzy Clustering of Biomedical Datasets Using BSB-Neuro-Fuzzy-Model
11:45 – 12:00	Jaime Campos, Linda Askenäs	Important Aspects to Consider When Developing ICTs for Purposes of Fall Prevention in the eHealth Domain
12:00 – 12:15	Valeriia Savchuk, Olga Lozynska, Volodymyr Pasichnyk	Medical Tourism Information Support System
12.30 – 13.00	Solomiia Fedushko, Natalia Shakhovska, Yuriy Syerov	Verifying the Medical Specialty from User Profile of Online Community for Health-Related Advices
12.15 – 14.00	Lunch	

November 29

Section 2. Information systems in medicine

Chairman: Assist. Prof. Dr. Ivan Izonin

16:30 – 16:45	Oleh Berezsky, Oleh Pitsun, Natalia Batryn, Tamara Datsko, Kateryna Berezska, Lesia Dubchak	Modern Automated Microscopy Systems in Oncology
16:45 – 17:00	Mykola Dyvak, Volodymyr Tymets, Viktor Shidlovsky	The Main Principles of Monitoring of Recurrent Laryngeal Nerve Monitoring During Surgery on Neck Organs
17:00 – 17:15	Myroslav Stupnytskyi, Viktor Zhukov, Oleksii Biletskii, Michal Gregus	Application of Cluster Analysis for Determination of the Oxidative Stress Decompensation Criteria
17:15 – 17:30	Olha Ryabukha, Ivanna Dronyuk	The Portraits Creating Method by Correlation Analysis of Hormone- Producing Cells Data
17:30 – 17:45	Edgars Vasilevskis, Iryna Dubyak, Taras Basyuk, Volodymyr Pasichnyk, Antonii Rzheuskyi	Mobile Application for Preliminary Diagnosis of Diseases
17:45 – 18:00	Nataliia Melnykova, Volodymyr Melnykov, Edgars Vasilevskis	The Personalized Approach to the Processing and Analysis of Patients' Medical Data
18:00 – 18:15	Roman Tkachenko, Ivan Izonin, Natalia Kryvinska, Valentyna Chopyak, Nataliia Lotoshynska, Dmytro Danylyuk	Piecewise-linear Approach for Medical Insurance Costs Prediction using SGTM Neural-Like Structure
18:15 – 18:30	Nataliya Shakhovska, Roman Holoshchuk, Solomia Fedushko, Oleh Kosar, Roman Danel, Michal Řepka	The Sequential Associative Rules Analysis of Patient's Physical Characteristics

November 30

Final ceremony

Chairman: Prof. N. Shakhovska, Assist. Prof. I. Izonin

Closing ceremony of IDDM 2018 workshop.

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