



# Program of The 36th Conference of Open Innovations Association FRUCT

**Helsinki, Finland (online)**

**30 October - 1 November 2024**



**GAUDEAMUS IGITUR,  
JUVENES DUM SUMUS!  
POST JUCUNDAM JUVENTUTEM,  
POST MOLESTAM SENECTUTEM  
NOS HABEBIT HUMUS.**

**UBI SUNT, QUI ANTE NOS  
IN MUNDO FUERE?  
VADITE AD SUPEROS,  
TRANSITE AD INFEROS,  
UBI JAM FUERE.**

**VITA NOSTRA BREVIS EST,  
BREVI FINIETUR,  
VENIT MORS VELOCITER,  
RAPIT NOS ATROCITER,  
NEMINI PARCETUR.**

**VIVAT ACADEMIA,  
VIVANT PROFESSORES!  
VIVAT MEMBRUM QUODLIBET,  
VIVANT MEMBRA QUÆLIBET!  
SEMPER SINT IN FLORE!**

**VIVANT OMNES VIRGINES  
FACILES, FORMOSÆ!  
VIVANT ET MULIERES,  
TENERÆ, AMABILES,  
BONÆ, LABORIOSÆ!**

**VIVAT ET RESPUBLICA,  
ET QUI ILLAM REGIT!  
VIVAT NOSTRA CIVITAS,  
MÆCENATUM CARITAS,  
QUÆ NOS HIC PROTEGIT**

**PEREAT TRISTITIA,  
PEREANT DOLORES,  
PEREAT DIABOLUS,  
QUIVIS ANTIBURSCHIUS,  
ATQUE IRRISORES**

## Practical Information

The FRUCT36 conference is held in online mode. All presentations are pre-recorded by the authors and uploaded to Youtube. The conference program contains links to individual presentations and playlists of all talks for each session. All conference sessions consist of two modules:

- 1) **Self-watching of the presentations on Youtube.** You are welcome to use the advantages of online participation and freely manage your time. You can ask questions in the comments of the videos. Please subscribe to the FRUCT youtube channel as it will help us to organize video streaming in the future.
- 2) **Please join the Questions and Answers (Q&A) in MS Teams.** You can use MS Teams either locally installed or web version. Please use the corresponding Teams links. Please use your real name at the registration and we will immediately approve the request to connect. Please, make sure to mute your microphone. If you have any questions, please click on a button with the hand (Raise hand button), so the chairman can easily manage the session. We recommend joining a Teams session in audio mode (without video). Please prepare your questions/comments to the authors and use this time to discuss the presented works.

**The conference time is Finnish winter time UTC+2**, which corresponding to Finnish time zones. The MS Teams links are published in the conference program. You are welcome to watch video presentations in advance. Please note that all online presentations will be available online starting from Monday, October 28, 2024. If you have any further questions don't hesitate to email us at [info@fruct.org](mailto:info@fruct.org).

Authors of the selected conference papers get an invitation to publish an extended version of the paper in our partner journals. If you are interested in this opportunity, please express it clearly to the chair of your session. The list of partner journals is as follows:

An official publication of  
the Information Resources  
Management Association



IGI PUBLISHING  
WWW.IGI-GLOBAL.COM

### **INTERNATIONAL JOURNAL OF Embedded and Real-Time Communication Systems**

Authors of the best papers of FRUCT conference can get invitation to publish extended version of the paper in the International Journal of Embedded and Real-Time Communication Systems (IJERTCS) (ISSN 1947-3176, **Scopus** indexing, etc.)

The proceedings of 36<sup>th</sup> FRUCT conference are available online:

Issue 1: <https://fruct.org/publications/fruct36/>

Issue 2: <https://fruct.org/publications/acm36/>

### **General Facts and Statistics for the 36<sup>th</sup> FRUCT Conference:**

Total submissions: **91**

Total authors: **157**

Accepted Full Papers: **39**

representing **21** countries

Acceptance rate: **43%**



# Organization Committee of the 36<sup>th</sup> FRUCT conference

**Conference Chair:** Sergey Balandin

**Publishing team leader:** Tatiana Shatalova

## Program Committee

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Dmitry Korzun	Ilya Paramonov	Mark Zaslavskiy
Andrei Kotenko	Elisabeth Pereira	John Zhang
Govardhan Reddy Kothinti	Edison Pigmaton de Freitas	

# Program of the 36<sup>th</sup> FRUCT conference

## October 30 – November 1, 2024, Helsinki, Finland (online)

**NOTE: Conference time is Finnish winter time (UTC+2)**

DATE	TIME	PROGRAM
30.10.24	12:15-12:25	<b>Opening of the 36<sup>th</sup> FRUCT conference</b>
	12:25-13:45	<b>Keynote talk:</b> Importance of Environmental Data Analysis - Bringing it not only to the University Environment, by Michal Kvet and Alenka Baggia
	13:45-14:30	<b>Lunch break</b>
	14:30-16:00	Online session: Workshop: The 9th DataWorld
	16:00-17:00	Online session: Security and Privacy
	17:00-18:00	Online session: Emerging Wireless Technologies, 5G and beyond
31.10.24	10:00-11:30	Online session: Computer Vision, Image, Audio and Video Processing I
	11:30-12:30	Online session: Innovative Solutions
	12:30-13:45	Online session: Artificial Intelligence in Text Analysis and Generation
	13:45-14:30	<b>Lunch break</b>
	14:30-16:00	Online session: Artificial Intelligence Applications
	16:00-17:30	Online session: Artificial Intelligence, Robotics and Automation
01.11.24	17:30-18:30	Online session: Algorithms and Modeling
	10:00-11:30	Online session: Computer Vision, Image, Audio and Video Processing II
	11:30-13:00	Online session: Natural Language Processing
	13:00-14:30	Online session: e-Health and Wellbeing
	14:30-14:45	<b>Official closing of the 36<sup>th</sup> FRUCT conference</b>

### **MS Teams links:**

**October 30, 2024 (Wednesday):** [https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_NzAzZjE4OGItN2MwMi00NDZmLWFkZTkYtYEMDA4ZGUyNjAw%40thread.v2/0?context=%7b%22Tid%22%3a%228324ff4b-14c8-4bf5-b07e-a0713179f37e%22%2c%22Oid%22%3a%224d479202-a42c-46e9-b2f3-e8b1c1583ae9%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_NzAzZjE4OGItN2MwMi00NDZmLWFkZTkYtYEMDA4ZGUyNjAw%40thread.v2/0?context=%7b%22Tid%22%3a%228324ff4b-14c8-4bf5-b07e-a0713179f37e%22%2c%22Oid%22%3a%224d479202-a42c-46e9-b2f3-e8b1c1583ae9%22%7d)

**October 31, 2024 (Thursday):** [https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_NWQyOGEzY2MtMTBmNy00MGY1LWFjNWItMzY0MDhkOGNkMzZh%40thread.v2/0?context=%7b%22Tid%22%3a%228324ff4b-14c8-4bf5-b07e-a0713179f37e%22%2c%22Oid%22%3a%224d479202-a42c-46e9-b2f3-e8b1c1583ae9%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_NWQyOGEzY2MtMTBmNy00MGY1LWFjNWItMzY0MDhkOGNkMzZh%40thread.v2/0?context=%7b%22Tid%22%3a%228324ff4b-14c8-4bf5-b07e-a0713179f37e%22%2c%22Oid%22%3a%224d479202-a42c-46e9-b2f3-e8b1c1583ae9%22%7d)

**November 1, 2024 (Friday):** [https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_ZDNjZmNlMTQyZjFiMi00OWFiLWlyNTUtOTExM2FiYTkxOGRk%40thread.v2/0?context=%7b%22Tid%22%3a%228324ff4b-14c8-4bf5-b07e-a0713179f37e%22%2c%22Oid%22%3a%224d479202-a42c-46e9-b2f3-e8b1c1583ae9%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZDNjZmNlMTQyZjFiMi00OWFiLWlyNTUtOTExM2FiYTkxOGRk%40thread.v2/0?context=%7b%22Tid%22%3a%228324ff4b-14c8-4bf5-b07e-a0713179f37e%22%2c%22Oid%22%3a%224d479202-a42c-46e9-b2f3-e8b1c1583ae9%22%7d)

***Thank you and looking forward to see you at the 37<sup>th</sup> FRUCT in Narvik, Norway on May 14-16, 2025! (Note that the 37<sup>th</sup> FRUCT conference allows online participation)***

# Program of the 36<sup>th</sup> FRUCT conference

October 30 (Wednesday), Online participation

**NOTE: Conference time is Finnish winter time (UTC+2)**

<b>Online Session:</b> <a href="#">Opening and Plenary session of the 36<sup>th</sup> FRUCT conference</a>		Chairman: Sergey Balandin
12:15	10m	Welcome words of behalf of FRUCT Association and practical information, by Sergey Balandin
12:25	1:20h	<a href="#">Keynote talk: Importance of Environmental Data Analysis - Bringing it not only to the University Environment</a> , by Michal Kvet and Alenka Baggia
13:45	45m	<b>Lunch break</b>
<b>Online Session:</b> <a href="#">Workshop: The 9th DataWorld</a>		Chairman: Michal Kvet
Playlist:		
14:30	55m	<a href="#">Effective Restriction of the Data Manipulation Operations in Oracle Database</a> , by Michal Kvet <a href="#">Verification of IDL Architecture Performance for Larger Datasets</a> , by Filip Majerík, Monika Borkovcova Performance Verification of IDL Architecture for Partitioned Database, by Monika Borkovcova, Filip Majerík <a href="#">Analysis of Traffic Accident Rates in the Czech Republic</a> , by Michal Kvet, Marek Kvet, Michal Kvet, Lucia Konštiaková <a href="#">Productization for Consistent Data &amp; Product Understanding in Mergers and Acquisitions</a> , by Joni Koskinen, Erno Mustonen, Janne Harkonen, Harri Haapasalo
15:25	30m	<b>Q&amp;A for the Workshop: The 9th DataWorld session</b>
15:55	5m	<b>Break</b>
<b>Online Session:</b> <a href="#">Security and Privacy</a>		Chairman: Valtteri Niemi
Playlist:		
16:00	35m	<a href="#">Pattern- and Similarity-Based Realtime Risk Monitoring of SSH Brute Force Attacks with Bloom Filters</a> , by Günter Fahrnberger <a href="#">The Role of Social Media Platforms in Spreading Misinformation Targeting Specific Racial and Ethnic Groups: A Brief Review</a> , by Farzaneh Saadati, Isun Chehreh, Ebrahim Ansari eGMT-Fuzz: Format-Aware Deep Fuzzing of Cryptographic Protocols, by Angel Lomeli, Arto Niemi
16:35	20m	<b>Q&amp;A for the Security and Privacy session</b>
16:55	5m	<b>Break</b>
<b>Online Session:</b> <a href="#">Emerging Wireless Technologies, 5G and beyond</a>		Chairman: Alexey Kashevnik
Playlist: <a href="https://www.youtube.com/watch?v=rrPjxLjzWa0&amp;list=PLKIZJpq1JqdPljm2iQXJKfTb6rzf4AJtz">https://www.youtube.com/watch?v=rrPjxLjzWa0&amp;list=PLKIZJpq1JqdPljm2iQXJKfTb6rzf4AJtz</a>		
17:00	40m	<a href="#">On the Impact of the Number of the Constellation Shells on Standalone LEO-PNT Positioning Metrics</a> , by Elena Simona Lohan, Kaan Celikbilek <a href="#">Demonstration of a USRP-based Communication Network for Internet-of-Things (IoT) Application</a> , by Sohaib Yaqoob Chaudhry, Jamal Haider <a href="#">Orthogonal Time Frequency Space Modulation (OTFS) for Positioning Using LEO Satellites</a> , by Guillem Foreman-Campins, Jose A. Lopez-Salcedo, Elena Simona Lohan
17:40	20m	<b>Q&amp;A for the Emerging Wireless Technologies, 5G and beyond session</b>
18:00		<b>Closing of the day</b>

October 31 (Thursday), Online participation

**NOTE: Conference time is Finnish winter time (UTC+2)**

<b>Online Session:</b> <a href="#">Computer Vision, Image, Audio and Video Processing I</a>		Chairman: Dmitry Korzun
Playlist: <a href="https://www.youtube.com/watch?v=fGdMUgedY8c&amp;list=PLKIZJpq1JqdPIRgMSclap3H3BMhRtqlKy">https://www.youtube.com/watch?v=fGdMUgedY8c&amp;list=PLKIZJpq1JqdPIRgMSclap3H3BMhRtqlKy</a>		
10:00	55m	<a href="#">Federated Learning for Accurate Labeling of Chest X-Ray Scans</a> , by Yajat Nagaraj Kiran, Shanker Ram, Arnav Bhute, Tashvi Khare <a href="#">A Novel Approach for Privacy Preserving Object Re-Identification on Edge Devices</a> , by Robert Kathrein, Oliver Zeilerbauer, Johannes Georg Larcher, Mario Döller <a href="#">Real-Time Industrial Automated Video Analytics System for Welding Defect Detection</a> , by Maksim

		Pavlov, Egor Rybin, Kirill Ivashnev, Aleksey Marakhtanov, Dmitry Korzun <a href="#">Co-Design of Hardware and Software for Facial Expression Recognition Using Xilinx Zynq SoC</a> , by Ahmed C Ammari <a href="#">Classifying with Noise: A First Step into Identifying Occluded Digits</a> , by Brayden Carlson, John Zhang
<b>10:55</b>	30m	<b><a href="#">Q&amp;A for the Computer Vision, Image, Audio and Video Processing I session</a></b>
<b>11:25</b>	5m	<b>Break</b>
<b>Online Session: <a href="#">Innovative Solutions</a></b>		Chairman: Marek Kvet Playlist: <a href="https://www.youtube.com/watch?v=h4TQOzYi6_Y&amp;list=PLKIZJpq1JqdN5KdQgNQe-OHd4c25KURGi">https://www.youtube.com/watch?v=h4TQOzYi6_Y&amp;list=PLKIZJpq1JqdN5KdQgNQe-OHd4c25KURGi</a>
<b>11:30</b>	35m	<a href="#">Accelerometer and Gyroscope Synthetic Data Calculation based on GPS Sensor</a> , by Varvara Shushkova, Alexey Kashevnik, Larisa Bakeeva <a href="#">A Custom Framework for Innovative Approach of Teaching Web Development Courses</a> , by Patrik Hrkut, Matej Meško, Michal Ďuračik <a href="#">Mobility as a Service (MaaS) implementation in Latvia</a> , by Riad Ashrafov, Nadezda Kunicina
<b>12:05</b>	20m	<b><a href="#">Q&amp;A for the Innovative Solutions session</a></b>
<b>12:25</b>	5m	<b>Break</b>
<b>Online Session: <a href="#">Artificial Intelligence in Text Analysis and Generation</a></b>		Chairman: Lidia Pivovarova Playlist: <a href="https://www.youtube.com/watch?v=rF2_A3Wk90I&amp;list=PLKIZJpq1JqdNrDYLOtbqk01OBubf1qks7">https://www.youtube.com/watch?v=rF2_A3Wk90I&amp;list=PLKIZJpq1JqdNrDYLOtbqk01OBubf1qks7</a>
<b>12:30</b>	45m	<a href="#">Reducing the Long Tail Effect in E-Commerce through Self-Attention</a> , by Fedor Krasnov, Fedor Kurushin <a href="#">Exploring Transformer Models and Domain Adaptation for Detecting Opinion Spam in Reviews</a> , by Christopher Harris <a href="#">Automated Speech Act Annotation in a Russian Spoken Corpus Using Large Language Models: A Comparative Study</a> , by Tatiana Sherstinova, Viktoria Firsanova, Alena Novoseltseva, Mariya Megre, Egor Savchenko <a href="#">Applying Retrieval-Augmented Generation for Academic Discipline Development: Insights from Zero-Shot to Tree-of-Thought Prompting</a> , by Polina Shnaider, Anastasiia Chernysheva, Anton Govorov, Maksim Khlopotov, Anna Nikiforova
<b>13:15</b>	30m	<b><a href="#">Q&amp;A for the Artificial Intelligence in Text Analysis and Generation session</a></b>
<b>13:45</b>	45m	<b>Lunch break</b>
<b>Online Session: <a href="#">Artificial Intelligence Applications</a></b>		Chairman: Alexander Smirnov Playlist: <a href="https://www.youtube.com/watch?v=GG-jCkbfWFM&amp;list=PLKIZJpq1JqdOiJfiN3XCU7qpHFeUWx5ZZ">https://www.youtube.com/watch?v=GG-jCkbfWFM&amp;list=PLKIZJpq1JqdOiJfiN3XCU7qpHFeUWx5ZZ</a>
<b>14:30</b>	55m	<a href="#">Algorithm for Dynamic Fatigue Detection of PC Operator Based on Gaze Characteristics</a> , by Alexander Bulygin, Alexey Kashevnik <a href="#">Swapped Face Detection: AI-Based Method and Evaluation for Different Face Swap Algorithms</a> , by Mikhail Haleev, Alexey Kashevnik <a href="#">Eye Movement Assessment Methodology Based on Wearable EEG Headband Data Analysis</a> , by Vladimir Romaniuk, Alexey Kashevnik <a href="#">Imba: Configuration-free Imbalanced Learning</a> , by Maksim Aliev, Sergey Muravyov <a href="#">XNOROP: a New Metric for Binary Neural Networks Performance Measurement</a> , by Ali Shakkouf
<b>15:25</b>	30m	<b><a href="#">Q&amp;A for the Artificial Intelligence Applications session</a></b>
<b>15:55</b>	5m	<b>Break</b>
<b>Online Session: <a href="#">Artificial Intelligence, Robotics and Automation</a></b>		Chairman: Nikolay Teslya Playlist: <a href="https://www.youtube.com/watch?v=FfwteISGLok&amp;list=PLKIZJpq1JqdOvbjqVYLw4blQjan9m3nf4">https://www.youtube.com/watch?v=FfwteISGLok&amp;list=PLKIZJpq1JqdOvbjqVYLw4blQjan9m3nf4</a>
<b>16:00</b>	55m	<a href="#">Selection of Equipment for the Force Sensitive Resistor 0.5 Sensor</a> , by Nastya Taricyna, Liudmila Shchegoleva <a href="#">Architecture of Reflective Artificial Intelligent Agents</a> , by Sergey Listopad <a href="#">Impact of CoM Placement on Quadcopter's Performance and Controller Development</a> , by Anand Ronald Kumutham, Dilip Kumar Pratihar, Alok Kanti <a href="#">Comparing time. A New Approach to the Problem of Time Synchronization in a Multi-agent System</a> , by Ivan Akinfiev, Vlada Smetanina, Oleg Granichin, Ivan Arkhipov <a href="#">XR5.0: Human-Centric AI-Enabled Extended Reality Applications for Industry 5.0</a> , by Athanasios Kiourtis, Argyro Mavrogiorgou, Georgios Makridis, Dimosthenis Kyriazis, John Soldatos, George Fatouros, Dimitrios Ntalaperas, Xanthi Papageorgiou, Bruno Almeida, Joana Guedes, Pedro Malo,

		Jorge Oliveira, Sebastian Scholze, Antonio Rosinha, Joaquim Reis, Matteo Falsetta
<b>16:55</b>	30m	<b><u>Q&amp;A for the Artificial Intelligence, Robotics and Automation session</u></b>
<b>17:25</b>	5m	<b>Break</b>
<b>Online Session: <u>Algorithms and Modeling</u></b>		Chairman: Michal Kvet
Playlist: <a href="https://www.youtube.com/watch?v=1U9kZAp_F_Q&amp;list=PLKIZJpq1JqdMmodS7M8wLnD5PQM2Z9Awd">https://www.youtube.com/watch?v=1U9kZAp_F_Q&amp;list=PLKIZJpq1JqdMmodS7M8wLnD5PQM2Z9Awd</a>		
<b>17:30</b>	35m	<a href="#">Alternation Models of Information use for Activity</a> , by Alexander Geyda <a href="#">Forming the Frequency Response Assessment of the Audio Transmission Channel Based on the Real Signal</a> , by Oleg Popov, Tatiana Chernysheva, Valentin Abramov, Andrey Borisov, Kirill Orlov <a href="#">Lightning Fast Matching Dependency Discovery with Desbordante</a> , by Alexey Shlyonskikh, Michael Sinenikov, Daniil Nikolaev, Yurii Litvinov, George Chernishev
<b>18:05</b>	25m	<b><u>Q&amp;A for the Algorithms and Modeling session</u></b>
<b>18:30</b>		<b>Closing of the day</b>

**November 1 (Friday), Online participation**
**NOTE: Conference time is Finnish winter time (UTC+2)**

<b>Online Session: <u>Computer Vision, Image, Audio and Video Processing II</u></b>		Chairman: Dmitry Korzun
Playlist: <a href="https://www.youtube.com/watch?v=sIVf2vg2dnE&amp;list=PLKIZJpq1JqdOLwyyw9cMEKDHW4TYW3oZe">https://www.youtube.com/watch?v=sIVf2vg2dnE&amp;list=PLKIZJpq1JqdOLwyyw9cMEKDHW4TYW3oZe</a>		
<b>10:00</b>	55m	<a href="#">Universal Filter-Based Lightweight Image Enhancement Model with Unpaired Learning Mode</a> , by Aleksei Samarin, Artem Nazarenko, Aleksei Toropov, Egor Kotenko, Alina Dzestelova, Elena Mikhailova, Valentin Malykh, Alexander Savelev, Alexandr Motyko <a href="#">Wind Turbines Surface Damage Automatic Detection Using YOLOv8 with Specialized Backbone Modification</a> , by Aleksei Samarin, Anastasiia Mamaeva, Aleksei Toropov, Alina Dzestelova, Artem Nazarenko, Egor Kotenko, Elena Mikhailova, Valentin Malykh, Aleksandr Savelev, Alexandr Motyko <a href="#">AutoML Applications for Bacilli Recognition by Taxonomic Characteristics Determination over Microscopic Images</a> , by Aleksei Samarin, Aleksei Toropov, Alina Dzestelova, Artem Nazarenko, Egor Kotenko, Elena Mikhailova, Valentin Malykh, Aleksandr Savelev, Alexandr Motyko, Aleksandra Dozortseva <a href="#">Research of the Dependence of the Sensitivity of the Visual System on the Geometric Dimensions of the Stimuli in the Perception of a Typical Multimedia Content</a> , by Aleksei Potashnikov, Anastasia Mozhaeva, Igor Vlasuyk, Vladimir Mazin, Dmitrii Egorov <a href="#">Automatic Detection and Tracking of Objects in Video Data with Global Motion</a> , by Nataliia Obukhova, Alexandr Motyko, Alexandr Pozdeev, Konstantin Smirnov
<b>10:55</b>	30m	<b><u>Q&amp;A for the Computer Vision, Image, Audio and Video Processing II session</u></b>
<b>11:25</b>	5m	<b>Break</b>
<b>Online Session: <u>Natural Language Processing</u></b>		Chairman: Ksenia Lagutina
Playlist:		
<b>11:30</b>	55m	<a href="#">Automatic Detection of Sentiment Towards Explicit Aspect in Russian Publicism Sentences Using Syntactic Structure</a> , by Anatoliiy Poletaev, Ilya Paramonov <a href="#">A Comprehensive Study of Bengali Embedding Models: Insights and Evaluations</a> , by Aminul Islam Bulbul, Saurav Das, Sheak Rashed Haider Noori <a href="#">Quot Homines, Tot Sententiae? Estimating Number of Different Opinions in Product Reviews</a> , by Nadezhda Chechneva <a href="#">Enhanced Multi-Label Question Tagging on Stack Overflow: A Two-Stage Clustering and DeBERTa-Based Approach</a> , by Isun Chehreh, Farzaneh Saadati, Ebrahim Ansari, Bahram Sadeghi Bigham Rapid Unsupervised Keyphrase Extraction from Single Document, by Svetlana Popova, Vera Danilova, John Cardiff
<b>12:25</b>	30m	<b><u>Q&amp;A for the Natural Language Processing session</u></b>
<b>12:55</b>	5m	<b>Break</b>
<b>Online Session: <u>e-Health and Wellbeing</u></b>		Chairman: Alexey Kashevnik
Playlist: <a href="https://www.youtube.com/watch?v=GpKst1bZDNc&amp;list=PLKIZJpq1JqdNpqbp9LeOJ7GG_5QSMwwwu">https://www.youtube.com/watch?v=GpKst1bZDNc&amp;list=PLKIZJpq1JqdNpqbp9LeOJ7GG_5QSMwwwu</a>		
<b>13:00</b>	55m	<a href="#">In-vivo Dopamine Sensing PEDOT:CNF Neural Probe Design and Simulation</a> , by Stefanus Wirdatmadja,



		Harshita Ganesan, Lauri Sydänheimo, Merja Voutilainen, Leena Ukkonen <a href="#">Mathematics for Parkinson's Disease – Can It Help?</a> , by Manfred Sneps-Sneppe <a href="#">Against Cancer by Vitamin C: 50-years Lasting Dispute after Linus Pauling – a Twice-honored Nobel Laureate</a> , by Manfred Sneps-Sneppe <a href="#">Evaluating Vision-Language Models for Hematology Image Classification: Performance Analysis of CLIP and its Biomedical AI Variants</a> , by Tanviben S Patel, Hoda El-Sayed, Kamruzzaman Sarker <a href="#">Smartphone-Enabled mHealth Sensorics for Digital Assistance of Human Autonomic Resilience to Stress</a> , by Alexander Meigal, Liudmila Gerasimova-Meigal, Dmitry Korzun
<b>13:55</b>	35m	<b><a href="#">Q&amp;A for the e-Health and Wellbeing session</a></b>
<b>14:30</b>	15m	<b><a href="#">Official closing of the 36<sup>th</sup> FRUCT conference</a></b>



FOR NOTES



# The 36<sup>th</sup> Conference of Open Innovations Association FRUCT

## Program

Helsinki, Finland (online)  
30 October - 1 November 2024

A special word of thanks goes to the  
*IEEE Finland for sponsoring the conference,  
and to certifyme.online as an e-Badge partner of the conference.*

# CALL FOR PARTICIPATION

## The 37<sup>th</sup> Conference of Open Innovations Association FRUCT

### Narvik, Norway, 14-16 May 2025



#### Overview

FRUCT conference is a high-quality scientific event for meeting academia and business people and setting projects. The average conference is attended by 150+ participants from academia and industry. The average **acceptance rate is below 40%**. Traditionally the conference attracts most active and talented students to present their R&D projects, meet interesting colleagues, create new teams, and find employers and investors. The conference invites the world-class academic and industrial experts to lecture on the hottest topics. We welcome submitting papers and take part in the conference, present your research results. The FRUCT conference **allows both onsite and online participation**.

The conference offers low registration fee. FRUCT doesn't offer deadline extension, but **we offer the Early-bird submission** with the additional review cycle. For further details please refer to <http://www.fruct.org/cfp37>.

#### List of conference topics

- ✓ Artificial Intelligence in Text Analysis and Generation
- ✓ Artificial Intelligence, Robotics and Automation
- ✓ Big Data, Knowledge Management, Data Mining Systems
- ✓ Cloud, Fog and Edge Computing and Engineering, HPC
- ✓ Coding Theory, DevOps and DevSecOps Technologies
- ✓ Commercialization of Technologies and Digital Economy
- ✓ Emerging Wireless Technologies, 5G and beyond
- ✓ Gamification, E-learning and Smart Data in Education
- ✓ Internet of Things: Apps and Enabling Technologies
- ✓ Location Based Services: Navigation, Logistics, Tourism
- ✓ Natural Language Processing and Speech Technologies
- ✓ Predictive Analytics, Probability and Statistics
- ✓ Wearable Electronics: Novel Architectures and Solutions
- ✓ Workshop: Investigating and Mitigating Climate Changes
- ✓ Algorithms and Modeling
- ✓ Artificial Intelligence Applications
- ✓ Audio Pattern Recognition, Semantic Audio
- ✓ Blockchain Technology and Applications
- ✓ Computer Vision, Image & Video Processing
- ✓ Crowdsourcing and Collective Intelligence
- ✓ e-Health and Wellbeing
- ✓ Intelligence, Social Mining and Web
- ✓ Networks and Applications
- ✓ Security and Privacy
- ✓ Smart Systems and Embedded Networks
- ✓ Software Design, Innovative Applications
- ✓ Workshop: The DataWorld

#### Call for papers

Depending on the type and maturity level please submit your work into one of the following 3 categories:

1. **Full paper** (min 6 full pages, max 12 pages)    OR    2. **Short paper** (min 2 pages, max 6 pages)

**Submission deadline: 3 March 2025**      **Early-bird deadline: 3 February 2025**

Notification of acceptance: **7 April 2025**      Camera-ready deadline: **14 April 2025**

3. **Poster / Demo proposal**: submission deadline: **30 April 2025**

#### Publication

All submitted Full Papers will be peer reviewed by the technical committee. Accepted Full papers and extended abstracts are published in the proceeding of FRUCT conference (ISSN 2305-7254). The accepted Full Papers will be included to **IEEE Xplore (application is pending)** and **DOAJ**, indexed by **Scopus**, **ACM**, **Web of Science**, **RSCI (VAK list)**, **DBLP**, etc. The conference proceedings are included in **AMiner**, **CORE**, and **Scimago Journal Rank (SJR)** <http://scimagojr.com/journalsearch.php?q=21100305223&tip=sid>. The selected papers get invitations to publish extended versions of the papers in the partner journals, e.g., **IJERTCS**. FRUCT is **rated by many national systems**, e.g., **Finnish (JUFO=1, ID: 72707)**, **Norwegian (NSD=1)**, **Danish (BFI=1, ID: 8782540)**.

#### Contacts

Paper templates, conference news and other relevant details are available at <http://www.fruct.org/conference37>. If you get some questions that are not covered at the conference web page, feel free to send email to [info@fruct.org](mailto:info@fruct.org).