

EJC 2018 Conference Program

Monday, June 4

15:00 - 15:15 Transfer from Astor Riga Hotel to Transport and Telecommunication Institute (TTI)

15:30 - 15:45 Welcome coffee at TTI

15:45 - 16:15 **Welcome speech and presentation about TTI**

Vice-Rector for Science and Development Affairs, Professor, Dr.Sc.Ing. Irina Yatskiv

16:15 - 16:45 **Keynote:** Simulation as a decision support tool

Dean of Computer Science and Telecommunication Faculty, Mihails Savrasovs

16:45 - 17:15 **Excursion at Transport and Telecommunication Institute**

- Telecommunications, electronics and robotics center
- Robotic technologies class
- Image Processing, Biometry & Automated Border Control Systems laboratory

17:15 - 17:45 Coffee, cooperation discussion and photo

17:45 - 18:00 Transfer from TTI to Astor Riga Hotel

18:00 - 20:00 **Welcome Reception and Registration at Astor Riga Hotel**

Tuesday, June 5

08:30 - 09:30 **Registration**

09:30 - 10:30 Opening and keynote speech

10:30 - 10:50 **Coffee break**

10:50 - 12:30 Appetizer Session

12:30 - 14:00 **Lunch**

14:00 - 15:40 **Session: Mathematics and Data Mining**

Paper 822 (30min), "Goal-Oriented Adaptive and Extensible Study-Process Creation with Optimal Cyclic-Learning in Graph-Structured Knowledge"

Ryosuke Konishi, Yasushi Kiyoki

Paper 818 (20min), "A Process Calculus for Design and Modeling of Retro-synthesis"

Gabriel Broholm, Maliina Hammeken, Marcus Skov Hansen, Alexander Juhl, Marc Storm Larsen, Jørgen Fischer Nilsson, Thomas Pethick, Magnus Gether Sørensen

Paper 808 (15min), "The Discreet Event Approach to Simulate Stochastic Multi-Product (Q, r) Inventory Control Systems"

Ilya Jackson, Jurijs Tolujevs

Paper 829 (30min), "A Semantic Orthogonal Mapping Method through Deep-learning for Semantic Computing"
Xing Chen, Yasushi Kiyoki

15:40 - 16:00 **Coffee break**

16:00 - 18:20 **Session: Culture and Data Support**

Paper 803 (30min), "Modelling Cultures"
Hannu Jaakkola, Bernhard Thalheim

Paper 836 (30min), "Clutter Reduction in Parallel Coordinates Using Aesthetic Criteria"
Anastasija Hismutova, Irina Yatskiv

Paper 847 (20min), "Toward Manageable Data Sources"
Pekka Sillberg

Paper 839 (20min), "Flexible Data Management in Evolving Research Projects"
Yannic Ole Kropp, Bernhard Thalheim

Paper 852 (20min), "Shopping mall environmental impact evaluation based on microscopic traffic flow simulation"
Mihails Savrasovs, Ioannis Karakikes, Irina Pticina

Paper 849 (20min), "S-BPM-Modelling for Underwater Cooperation and Coordination of Manned and Unmanned Platforms"
Ivor Nissen, Frank Kramer, Bernhard Thalheim

Wednesday, June 6

09:00 - 10:40 **Session: Environment Science and Knowledge System**

Paper 835 (30min), "A Semantic-Associative Computing System with Multi-Dimensional World Map for Ocean-Environment Analysis"
Yasushi Kiyoki, Xing Chen, Chalisa Veessommai, Jinmika Wijitdechakul, Shiori Sasaki, Chawan Koopipat, Petchporn Chawakitchareon

Paper 834 (30min), "Best Energy Mixture Model and Electricity Generation Simulation Approach Case Study Latvia"
Tatiana Endrjukaite, Alexander Dudko, Kunihiko Okano, Hiromi Yamamoto

Paper 828 (20min), "Automatic Feature Extraction and Classification Model for Detecting Thai Clickbait Headlines using Convolutional Neural Network"
Sarawoot Kongyoung, Anocha Rugchatjaroen, Natsuda Kaothanthong

Paper 832 (20min), "A Multi-Parameterized Water Quality Prediction Method with Differential Computing Among Sampling Sites"
Khoumksam Ladsavong, Petchporn Chawakitchareon, Kiyoki Yasushi

10:40 - 11:00 **Coffee break (20min)**

11:00 - 12:40 **Session: Concepts and Logics**

Paper 833 (20min), "Identification Of Mobile Patterns For Efficient And Successful Work With The Mobile User Interface"

Maja Pušnik, Dimitar Ivanovski, Tatjana Welzer Družovec, Boštjan Šumak

Paper 825 (30min), "Type checking algorithm for the TIL-Script language"

Marie Duží, Michal Fait

Paper 826 (30min), "Natural Deduction System in the TIL-Script Language"

Marie Duží, Marek Menšík, Miroslav Pajr, Vojtěch Patschka

Paper 820 (15min), "Giving a Frame to the Concept Space"

Elvira Immacolata Locuratolo

Paper 802 (20min), "Constraint Programming Based on Matrix-like Representation of Qualitative Constraints"

Alexander Zuenko, Yirii Oleynik

13:00 - 13:30 **Transfer to Jurmala**

13:30 - 15:00 **Lunch in Jurmala City**

15:00 - 17:00 **Jurmala Sightseeing Tour**

17:00 - 17:30 **Transfer to Riga**

17:30 - 19:30 **Sightseeing Tour of Old Riga**

Thursday, June 7

09:00 - 10:20 **Session: Environment Science and Knowledge System**

Paper 844 (30min), "Application of 5D World Map System to Large News-Article Database for Realizing Context-Diversity-Responsive Semantic Associative Search"

Shiori Sasaki, Yasushi Kiyoki, Hanako Fujioka, Toshihiro Watabane, Kyohei Otsuka, Masayuki Ishii

Paper 837 (30min), "An environmental-semantic computing system of multispectral imagery for coral health monitoring and analysis"

Jinmika Wijitdechakul, Yasushi Kiyoki, Chawan Koopipat

Paper 845 (20min), "Relationship between Vegetation Indices and SPAD Values of Waxy Corn using an Unmanned Aerial Vehicle"

Panath Jermthaisong, Sununtha Kingpaiboon, Petchporn Chawakitchareon, Yasushi Kiyoki

10:20 - 10:40 **Coffee break**

10:40 - 12:00 **Session: Environment Science and Knowledge System**

Paper 824 (20min), "Christian Elements in the News: Analyzing the News Coverage of the Great Tohoku Earthquake in Japan, Germany and the USA"

Yukiko Sato, Stefan Brückner

Paper 846 (20min), "An Information Retrieval Approach for Text Mining of Medical Records based on Graph Descriptor"

Alexander Dudko, Tatiana Endrjukaite, Yasushi Kiyoki

Paper 843 (30min), "A New Approach of Semantic Computing with Interval Matrix Decomposition for Interpreting Deforestation Phenomenon"

Irene Erlyn Wina Rachmawan, Yasushi Kiyoki

Paper 831 (20min), "Emotion-Expression Robot With Global Evaluation Reflecting Multiple and Heterogeneous Sensing Elements"

Yoshiko Itabashi, Yasushi Kiyoki

12:00 - 13:30 **Lunch**

13:30 - 15:00 **Session: Environment Science and Knowledge System**

Paper 842 (30min), "An Information Providing Method To Express Train Service Situation By Combining Multiple Sign-logo Images"

Yasuhiro Hayashi, Daisuke Oyokawa, Yasushi Kiyoki, Tetsuya Mita

Paper 819 (30min), "A Sensor Selection and Learning Method for Credibility Assessment Using Sensor Data"

Ken Honda, Naofumi Yoshida

Paper 811 (30min), "Semantic-Dependent Access Log Analysis for Predicting the Demographic Data"

Kyohei Matsumoto, Takafumi Nakanishi, Takashi Kitagawa

Paper 827 (30min), "A Correlation Computing Method for Integrating Passengers and Services in Semantic Anticipation"

Motoki Yokoyama, Yasushi Kiyoki, Tetsuya Mita

15:00 - 15:20 **Coffee break**

15:20 - 17:20 **Session: Environment Science and Knowledge System**

Paper 813 (15min), "Prediction model of accumulated weight in truck during sugarcane harvesting"

Khwantri Saengprachatanarug, Seree Wongphichet, Janpen Tosoongneun

Paper 838 (15min), "In vitro coral bleach observation using RGB-IR camera"

Pracharat Sa-ngadsup, Yasushi Kiyoki, Chawan Koopipat

Paper 850 (15min), "Consideration of the likeness preference for printed images based on Object Dependence of Edge Enhancement Effect"

Aran Hansuebsai, Krairop Chareonsopa

Paper 840 (30min), "An Environmental Semantic Search-Space Creation Method for News-Article Search Systems with Context-Oriented Interpretations"

Hanako Fujioka, Shiori Sasaki, Toshihiro Watanabe, Kyohei Otsuka, Masayuki Ishii, Yasushi Kiyoki

19:00 - 21:30 **Gala Dinner at Restaurant "Biblioteka No1"**

Friday, June 8

09:00 - 10:00 **Panel Session: AI & Environment Engineering**

“Future Directions of AI, Knowledge Base and Environmental Engineering towards 2025”

10:00 - 10:20 **Coffee break**

10:20 - 12:20 **Session: Citizen Science**

Paper 810 (30min), “Making Explainable Recommendations within an Intelligent Information System”

Terrance Goan

Paper 805 (30min), “Event Based Social Networks for Coping Loneliness in Smart Cities”

Nikita Kovalevskiy, Ajantha Dahanayake, Tatiana Zudilova

Paper 806 (20min), “Design of Citizen Database for forest incident reporting system in Finland”

Nikita Tiufiakov, Andrei Gorbulin, Shekhar Aryal, Oleg Vasiltsov, Ajantha Dahanayake, Tatiana Zudilova

Paper 848 (20min), “Optimizing locations of social and health care service centers using location-allocation tools”

Timo Widbom, Tarmo Lipping

Paper 807 (15min), “Feasibility and system architecture for Vision Field Measurement using Virtual Reality Technology”

Eemeli Manninen, Henrik Valve, Sankha Amarakoon, Ajantha Dahanayake

12:20 - 12:30 **Closing**

12:30 - 13:30 **Lunch**
