



# 9th Scientific Conference

## Computing in Science and Technology

Honorary patronage:



Ministerstwo Nauki  
i Szkolnictwa Wyższego



MARZAŁEK  
WOJEWÓDZTWA PODKARPACKIEGO

Media patronage:



Partners:



Muczne, Poland, June 11-14, 2018



### **Organizatorzy:**

#### **Department of Computer Engineering**

Faculty of Mathematics and Natural Sciences

University of Rzeszow

#### **Department of Applied Informatics**

Faculty of Applied Informatics and Mathematics

Warsaw University of Life Sciences – SGGW

#### **Polskie Towarzystwo Informatyczne Oddział Podkarpacki**

#### **Stowarzyszenie Elektryków Polskich Oddział Rzeszów**

### **Information**

The conference Computing in Science and Technology (Symioza Techniki i Informatyki) 2018 is a continuation of a series of conferences organized jointly by the Department of Computer Engineering UR and the Department of Applied Informatics at SGGW in Warsaw since 2010. The meeting strategy is focused on the interdisciplinary integration of various scientific environments. The discussed topic also allows the inclusion of representatives of various teams of industrial companies in the research processes. The topics of the meetings are: computer science, electrotechnics, magnetic field, data mining, computer graphics, artificial intelligence, digital image processing.

### **Scope:**

- mathematical modeling of dynamic systems;
- simulation and verification of theoretical models;
- discrete production processes;
- processing of digital and analog signals;
- prototype device development;
- electromagnetic field theory;
- automation of industrial processes;
- artificial intelligence;
- software engineering;
- human-computer interaction;
- Applied Computer Science;



## STI 2018, Program at a glance

### Program at a glance

#### 9th Scientific Conference Computing in Science and Technology

##### Monday 11.06.2018r.

16:00 – 19:00	Registration of participants
19:00 – 23:00	Welcome party

##### Tuesday, 12.06.2018r.

07:30 – 09:30	Breakfast
10:00 – 10:30	Opening Ceremony, Chair: T. Kwater, A. Orłowski, Room: M1
10:30 – 11:30	Speeches of invited guests, Chair: T. Kwater, Room: M1
11:30 – 12:00	Coffee break: Cafe room
12:00 – 13:30	Workshop: Scientific and Industrial Symbiosis, Chair: T. Kwater, Room: M1
13:30 – 15:00	Lunch
15:00 – 17:30	Session 1, Chair: A. Orłowski, Room: M1 Session 2, Room: M2
17:30 – 18:30	Visiting the CPL museum
19:00 - ...	Social event (Banquet)

##### Wednesday, 13.06.2018r.

07:30 – 09:00	Breakfast
10:00 – 11:30	Session 3, Chair: Z. J. Zawistowski, Room: M2
11:30 – 12:00	Coffee break, Cafe room
12:00 – 13:30	Session 4, Chair: I. El Fray, Room: M2
13:30 – 15:00	Lunch
16:00 - ...	Social event: The trail of smugglers.

##### Thursday, 14.06.2018

07:30 – 10:00	Breakfast
10:00 – 11:00	Special session and closing of the conference
11:00 - ...	Personalized mountain trips



## STI 2018, Detailed Program

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### Detailed Program

**Monday 11.06.2018r.**

16:00 – 19:00 Registration of participants

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## STI 2018, Detailed Program

### Detailed Program

#### Tuesday, 12.06.2018r.

07:30 – 10:00	Breakfast
10:00 – 10:30	Opening Ceremony, Chair: T. Kwater, A. Orłowski, Room: M1
10:30 – 11:30	Invited Talks, Chair: T. Kwater, Room: M1 Speeches of invited guests.
11:30 – 12:00	Coffee break, Cafe room
12:00 – 13:30	Chair: T. Kwater, Room: M1 Workshop: Scientific and Industrial Symbiosis: <ul style="list-style-type: none"><li>• Biskup pomocniczy przemyski – Stanisław Jamrozek</li><li>• Członek Zarządu Województwa Podkarpackiego – Stanisław Kruczek</li><li>• Fanum – Szymon Skorupski, Wojciech Wójcik</li><li>• Elektromontaż – Sławomir Ciuł</li><li>• Asseco – Maciej Koryl</li></ul>
13:30 – 15:00	Lunch
15:00 – 17:30	Session 1, Chair: A. Orłowski, Room: M1
15:00 – 15:45	Invited speaker: Ewa Dudek-Dyduch - Intelligent ALMM System - implementation assumptions for its Knowledge Base.
15:45 – 16:00	Jarosław Kurek - Automatic identification of drill condition during drilling process in standard laminated chipboard with the use of long short-term memory (LSTM).
16:00 – 16:15	Przemysław Hawro - Adaptacyjny dobór współczynnika wzmocnienia w estymacji stanu z polepszającymi się własnościami dynamicznymi filtru.
16:15 – 16:30	Oğuz Akpolat - Investigation of biological oxygen demands for determination of waste water characteristics by decision tree method.
16:30 – 16:45	Grzegorz Drałus - A one day ahead forecasting of energy generating in photovoltaic systems.
16:45 – 17:00	Imede El Fray - The Role of Risk Management in Data Protection according to Polish regulation – RODO.
17:00 – 17:15	Dariusz Strzęciwilk - Modeling and Analysis of Priority Queuing Systems.
17:15 – 17:30	Grzegorz Wiczorek - Challenges of automatic boost region segmentation in



conservative breast cancer treatment.

- 15:00 – 18:00 Session 2, Room: M2
- 15:00 – 15:15 Zygmunt Jacek Zawistowski - Optimazation of RED function in TCP network.
- 15:15 – 15:30 Mirosław Mazurek - Consistency-driven Pairwise Comparisons Approach to System Security and Quality Measurement.
- 15:30 – 15:45 Paweł Dymora - Privacy enhancing in Open Data System.
- 15:45 – 16:00 Bogusław Twaróg - Synchronization of distributed robotics control system.
- 16:00 – 16:15 Zbigniew Gomółka - Backpropagation algorithm with fractional derivatives.
- 16:15 – 16:30 Bogdan Kwiatkowski - Optymalizacja G-codów poprawiająca dynamikę maszyn CNC.
- 16:30 – 16:45 Jacek Bartman - Problem mocy w obwodach elektrycznych z przebiegami odkształconymi.
- 16:45 – 17:00 Ewa Źesławska - The implementation of an intelligent algorithm hybrid biometric identification for the exemplary hardware platforms.
- 17:00 – 17:15 Paweł Krutys - Adaptacyjny algorytm estymacji wektora stanu.
- 17:15 – 17:30 Andrzej Paszkiewicz - Phase transitions in wireless MESH networks.
- 17:30 – 17:45 Marek Bolanowski - Load balancing in networks with link-state routing protocols.
- 17:45 – 18:00 Maciej Koryl, Paweł Dymora, Mirosław Mazurek -Discovering client-side processes using API log of the central system
- 18:00 – 19:00 Visiting the CPL museum
- 19:00 - ... Social event (Banquet)



## STI 2018, Detailed Program

### Detailed Program

#### Wednesday, 13.06.2018r.

07:30 – 10:00	Breakfast
10:00 – 11:30	Session 3, Chair: E. Dudek-Dyduch, Room: M2
10:00 – 10:15	Marian Rusek - Time Complexity of an Distributed Algorithm for Load Balancing of Microservice-oriented Applications in the Cloud.
10:15 – 10:30	Izabela Antoniuk - Procedural generation of 3D editable terrain.
10:30 – 10:45	Jakub Leszek Pach - Metodyka automatycznej ekstrakcji cech pisma rękopisów łacińskich.
10:45 – 11:00	Andrzej Imiełowski - Strategie migracji maszyn wirtualnych w systemach klastrowych.
11:00 – 11:15	Oğuz Akpolat - Clustering of some liquidambar orientalis samples according to essential oil compositions.
11:15 – 11:30	Paweł Hoser - Zastosowanie wybranych technik sztucznej inteligencji do układania planu zajęć.
11:30 – 12:00	Coffee break, Cafe room
12:00 – 13:30	Session 4, Chair: I. El Fray, Room: M2
12:00 – 12:15	Olga Zajkowska - Wpływ reform urlopów rodzicielskich na współczynniki dzietności w Polsce – wyzwania metodologiczne.
12:15 – 12:30	Joanna Landmesser - Wage gaps in occupations reconquering high skills.
12:30 – 12:45	Aleksander Marszałek - Postawy studentów wobec techniki elektronicznej.
12:45 – 13:00	Andrzej Jodłowski - Analiza wyników nauczania z wykorzystaniem gradacyjnej analizy danych.
13:00 – 13:15	Zbigniew Kulas - Teoretyczne rozważania dotyczące rachunkowości instrumentów finansowych.
13:30 – 15:00	Lunch
16:00 - ...	The trail of smugglers



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### Detailed Program

#### Thursday, 14.06.2018r.

07:30 – 10:00	Breakfast
10:00 – 11:00	Special session and closing of the conference, Chair: T. Kwater, A. Orłowski, Room: M2
11:00 - ...	Personalized mountain trips

#### Conference site



#### MConference CST

