

3rd ANNUAL CONFERENCE OF IT4INNOVATIONS

IT4Innovations
national
supercomputing
center

Time

October 21, 2014

Venue

VŠB – Technical University of Ostrava
New Hall, Room No NA2
17. listopadu 15, 708 00 Ostrava – Poruba

PROGRAMME

8:30 9:00 Registration / Breakfast

| | | | |
|-------|-------|--|-----------------|
| 9:00 | 9:10 | Opening | Martin Palkovič |
| 9:10 | 9:20 | Overview of the Research Programme 1 IT for Disaster and Traffic Management | Vít Vondrák |
| 9:20 | 9:30 | Overview of the Research Programme 2 Numerical Modelling for Engineering | Radim Blaheta |
| 9:30 | 9:40 | Overview of the Research Programme 3 HPC Libraries and Supercomputing for Industry | Tomáš Karásek |
| 9:40 | 9:50 | Overview of the Research Programme 4 Modelling for Nanotechnologies | Jaromír Pištora |
| 9:50 | 10:00 | Overview of the Research Programme 5 IT for Knowledge Management | Václav Snášel |
| 10:00 | 10:10 | Overview of the Research Programme 6 Soft Computing Methods with Supercomputer Applications | Vilém Novák |
| 10:10 | 10:20 | Overview of the Research Programme 7 Multimedia Information Recognition and Presentation | Michal Španěl |
| 10:20 | 10:30 | Overview of the Research Programme 8 Secure and Safe Architectures, Networks and Protocols | Lukáš Sekanina |

10:30 11:00 Coffee Break / Poster Section

IT for Disaster and Traffic Management

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|-------|-------|---|---------------|
| 11:00 | 11:20 | Automatic Calibration and Uncertainty Modelling of Rainfall-Runoff Models | Štěpán Kuchař |
| 11:20 | 11:40 | Parallel Mesh Adaptation in Hydrodynamics Using KAIRA Tool | Aleš Ronovský |

Numerical Modelling for Engineering

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|-------|-------|--|---------------|
| 11:40 | 12:00 | Defectoscopy of Thin-Walled Structures | Dalibor Lukáš |
| 12:00 | 12:20 | Modelling Coupled Hydro-Mechanical Processes | Martin Hasal |

HPC Libraries and Supercomputing for Industry

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|-------|-------|--|--------------|
| 12:20 | 12:40 | BEM4I - A Library of Parallel Solvers Based on the Boundary Element Method | Michal Merta |
| 12:40 | 13:00 | Massively Parallel Total-FETI and Hybrid-Total-FETI Solvers | David Horák |

13:00 14:00 Lunch / Photo / Poster Section

Modelling for Nanotechnologies

14:00 14:20 [Modeling of Photonic Materials and Nanostructures](#) Kamil Postava

14:20 14:40 [New Materials for Optics and Magneto-Optics](#) Jaroslav Hamrle

IT for Knowledge Management

14:40 15:00 [Metaheuristic Techniques for Training Recurrent Neural Networks](#) Sebastián Basterrech

15:00 15:20 [Speech Emotion Recognition](#) Miroslav Vozňák

Soft Computing Methods with Supercomputer Applications

15:20 15:40 [On Fuzzy Rule-Based Ensemble](#) Martin Štěpnička

15:40 16:00 [Image Reconstruction with Usage of the F-Transform](#) Pavel Vlašánek

16:00 16:10 [Multiagent Simulation of Bacterial Colony:
Towards Multi-Cellular Computation](#) David Beneš

16:10 16:40 Coffee Break / Poster Section

Multimedia Information Recognition and Presentation

16:40 17:00 [Computational Completeness Resulting from Scattered Context
Grammars Working Under Various Derivation Modes](#) Ondřej Soukup

17:00 17:20 [Sensor Fusion and Calibration of Velodyne LiDAR and RGB Camera](#) Michal Velás

Secure and Safe Architectures, Networks, and Protocols

17:20 17:40 [Enabling Dynamic Reconfigurability of Distributed Control Systems
Using Reference Nets](#) Vladimír Janoušek

17:40 18:00 [Fast RTP Detection and Codecs Classification in Internet Traffic](#) Ondřej Ryšavý

18:30 Social Evening (with buffet diner)

