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AComIn: Advanced Computing for Innovation

**FP7 Capacity Programme
Research Potential of Convergence Regions**

EVENT ORGANISATION REPORT

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Summary: Report about the organisation of the International Workshop

“Control in Transportation Systems”

10-11 October 2014, Sofia, Bulgaria

Status: Intermediate report

Distribution: Public

Issue Date: October 2014

Start date of the project: 01/10/2012

Duration: 42 months



**Report about Control in Transportation Systems - 2014,
an AComIn Supported Event**

Name and type of the event:

International Workshop

Control in Transportation Systems

10-11 September 2014, Sofia, Bulgaria

Place, dates:

Sofia, Best Western EXPO Sofia hotel

10-11 September 2014

Programming and Organising Committees:

The International Workshop “Control in Transportation Systems ” was organized as a co-event of the COST TU1102 Training School, provided at the same hotel during the period 9-12 September 2014. The submitted extended abstracts for the workshop presentations were reviewed and approved by two independent reviewers.

The team behind the Workshop consists of the following experts who serve as Organising Committee:

Todor Stoilov, IICT-BAS, Bulgaria (Chair of the Organising Committee)

Krasimira Stoilova, IICT-BAS, Bulgaria

Participants /number, types/:

From IICT: 13 researchers (T. Stoilov, K. Stoilova, B. Vachova, E. Paunova, St. Dimitrov, E. Trichkova, V. Ivanov, K.Pavlova, A.Kiurkcheva , P.Stoyanov, J.

Boneva, N. Ivanov, V.Terzieva)

Bulgarian participants outside IICT: 7 researchers

Foreign participants: 2 invited speakers from France

Invited participants: 2 invited speakers supported via AComIn

Short description:

“Control in Transportation Systems” has been held in two days: 10 and 11 September as co-event of the COST TU1102 Training School. The event contained 2 invited talks and 12 talks of Bulgarian participants, not only from IICT but from 3 outside universities and institutes. Selected papers will be published in a post-Workshop edition.

The invited lecturers **Prof. H. Haj Salem** and **Prof. H. Abouaïssa**, supported by AComIn, gave the following presentations:

Professor H. Haj Salem (IFSTTAR, France) - Motorway traffic control: how to optimise traffic and safety indices? Application for coordinated ramp metering strategy: developement Preliminary results on **10 September 2014, 9:15-10:00**

H. Abouaïssa (Université Lille Nord France): Macroscopic traffic flow control via state estimation , **10 September 2014, 10:00-10:30**

Both talks were related to different aspects like mathematical modeling and simulations, accuracy, measurements of Automatic Control in Transportation Systems.

The papers and presentations of the all experienced researchers, were presented with slides acknowledging the project ACOMIN within the Workshop sessions.

Project leaflets were given to all Workshop participants as event materials. The AComIn logo is shown at the Control I Transportation System's'14 Programme, and all conference materials.

Scientific Programme:

The Scientific Programme of the Workshop is available like additional document

From the presented 14 researches the best ones will be selected for publishing in the Journal Cybernetics and Information Technologies (CIT).

Assessment of the added-value of the event to the AComIn scientific, networking and dissemination objectives:

The support provided by AComIn to Control in Transportation Systems'14 enabled to cover the travel expenses and accommodation of the both renowned keynote speakers (both of them were grateful of the support of ACOMIN) who presented innovative aspects of their researches in Computer and Transportation Systems.

The participation of the above-mentioned both keynote speakers at the workshop was very important for the IICT seniors because in this way it became possible to listen to the state-of-the-art presentations, to discuss some aspects of their works and to establish contacts for next collaborations. Several ideas of future common work were discussed.

All workshop'14 participants were informed about AComIn, its objectives and results, and the possibility to apply for postdoctoral positions in the project. This improves the image of IICT as a regional Centre of Excellence in Autonomic Computing and Automatic Control in Computer Systems.

Changes in the financial planning of the AComIn support spending (if any):

There were no changes in the budget plan, approved by the AComIn Executive Board.

Reason for the changes during the actual event implementation: N/A

Event organiser:

8 October 2014

Todor Stoilov

Programme

ACOMIN Workshop

Control in Transportation Systems

10-11 September 2014

Sofia

9.00 – 9.15 Opening the Workshop – T. Stoilov

9.15 – 12.30 Plenary session

1) Professor Habib Haj Salem

Motorway traffic control: how to optimise traffic and safety indices?

Application for coordinated ramp metering strategy:

developement Préliminary results

2) Hassane Abouaissa

Macroscopic traffic flow control via state estimation

3) Emil K. Nikolov, Nina G. Nikolova

Traffic Flow Control in the Class of Distributed Parameters Systems

4) Emil K. Nikolov, Nina G. Nikolova

Application of Generalized Fractional Calculus in the Gain Scheduled

Control Systems

5) Nikolinka Christova

Implementation of generalized nets to transport processes modeling

13.00 – 14.00 Lunch

14.00 – 15.30 Scientific session

6) B. Lazarov, G. Kirov, V. Stoyanov, ISER-BAS

Technological implementation of Network-centric operations

7) B. Lazarov, G. Kirov, V. Stoyanov, ISER-BAS

Network-centric operations for crisis management: Case study

8) Vladimir Ivanov

Using picoBlaze processors to control Traffic lights

9) Boriana Vachova

Data Mining and Knowledge Discovery for Complex Processes

15.30 – 16.00 coffee break

16.30 – 17.30 Scientific session

10) Eisaveta Trichkova

Approach for Quality Assessment and Effectiveness of Web-Based Systems

11) Paunova E., V.Terzieva, P.Kademova-Katsarova

ICT in Bulgarian School – reality and good will

9.30 – 11.30 Scientific session

12) Stanislav Dimitrov, Jordanka Boneva

Analysis of sales of spare parts for vehicles

13) Jivko Angelov, Kristina Pavlova

Analyzing and testing of Application of Program Solutions

14) K.Stoilova, T. Stoilov

Traffic management system with some autonomic properties



