**DISTRIBUTED CONTROL SYSTEMS**

**Contact details**

<table>
<thead>
<tr>
<th>Name</th>
<th>Distributed Control Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acronym</td>
<td>DCS</td>
</tr>
<tr>
<td>Logo</td>
<td><img src="image" alt="Logo" /></td>
</tr>
<tr>
<td>Address</td>
<td>2, Observatorului St, room 310; 24, 26, Baritiu St., room G1, Cluj-Napoca, Romania</td>
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<td>Faculty Department</td>
<td>Faculty of Automation and Computer Science Automation Department</td>
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<tr>
<td>Fax</td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td>Prof. Dr. Eng. Tiberiu Letia</td>
</tr>
<tr>
<td>e-mail</td>
<td><a href="mailto:Tiberiu.Letia@aut.utcluj.ro">Tiberiu.Letia@aut.utcluj.ro</a></td>
</tr>
</tbody>
</table>

**Areas of expertise**

- Distributed control systems, embedded systems, real-time application, intelligent control etc.

**Team**


**Representative projects**

- **“Intelligent control system of road traffic”**, research topic in the Postdoctoral project: Development and support of multidisciplinary postdoctoral programs in major technical areas of national strategy of Research - Development - Innovation” 4D-POSTDOC, contract no. POSDRU/89/1.5/S/52603, project co-funded by the European Social Fund through Sectorial Operational Program Human Resources Development 2007-2013, (2010-2013).

**Significant results**

The most representative publications of the past 5 years:

1. Kilyen, Attila O.; Letia, Tiberiu S., Interactive development of cyber physical systems using UETPN model, Federated Conference on Computer Science and Information Systems (FedCSIS) Location: Poznan, POLAND Date: SEP 09-12, 2018, Book Series: Federated Conference on Computer Science and Information Systems Pages: 1035-1042 Published: 2018
2. Enache, Mihai F.; Al-Janabi, Dahlia; Letia, Tiberiu S., Railway Modeling with Object Enhanced Time Petri Nets Conference: 21st IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR THETA) Location: Cluj Napoca, ROMANIA Date: MAY 24-26, 2018
4. Radu, Dan; Cretu, Adrian; Parrein, Benoit; Avram Camelia, Aștilean Adina et al., Flying Ad Hoc Network for
Emergency Applications Connected to a Fog System

Advances in Internet, Data & Web Technologies

Book Series: Lecture Notes on Data Engineering and Communications Technologies
Volume: 17
Pages: 675-686
Published: 2018

5. Avram, Camelia; Miron, Radu; Radu, Dan; et al., Two-phase authentication and encryption algorithm for mobile users 2018 IEEE INTERNATIONAL CONFERENCE ON AUTOMATION, QUALITY AND TESTING, ROBOTICS (AQTR) Book Series: IEEE International Conference on Automation Quality and Testing Robotics Published: 2018

6. Radu, Dan; Cretu, Adrian; Avram, Camelia; et al., Video Content Transmission in a Public Safety System Model based on Flying Ad-Hoc Networks 2018 IEEE INTERNATIONAL CONFERENCE ON AUTOMATION, QUALITY AND TESTING, ROBOTICS (AQTR) Book Series: IEEE International Conference on Automation Quality and Testing Robotics Published: 2018

7. Avram, Camelia; Astilean, Adina; Valente, Eduardo, Timed Cellular Automata-Based Tool for the Analysis of Urban Road Traffic Models MECHATRONICS FOR CULTURAL HERITAGE AND CIVIL ENGINEERING Book Series: Intelligent Systems Control and Automation Science and Engineering Volume: 92 Pages: 35-61 Published: 2018


9. Avram, Camelia; Astilean, Adina; Valente, Eduardo, Timed Cellular Automata-Based Tool for the Analysis of Urban Road Traffic Models MECHATRONICS FOR CULTURAL HERITAGE AND CIVIL ENGINEERING Book Series: Intelligent Systems Control and Automation Science and Engineering Volume: 92 Pages: 35-61 Published: 2018

Significant solutions:
Control and monitoring system for urban vehicle traffic
Control and monitoring system for railway traffic
Control systems for Flexible Manufacturing Systems
Distributed control for hybrid processes.
Design, verification and implementation real-time (embedded) applications.
Person identification based on digital fingerprint.

The offer addressed to the economic environment

<table>
<thead>
<tr>
<th>Research &amp; development</th>
<th>Automatic synthesis of control and monitoring systems for discrete event or hybrid, concentrated or distributed processes. Verification of real-time applications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consulting</td>
<td>Embedded systems, real-time application design, implementation and verification. Distributed control systems for urban vehicle traffic or railway traffic.</td>
</tr>
<tr>
<td>Training</td>
<td>Design and implementation of real-time application, Design and implementation of distribute control application Distributed control of Transportation systems.</td>
</tr>
</tbody>
</table>