ADAPTIVE SYSTEMS LABORATORY

Contact details

<table>
<thead>
<tr>
<th>Name</th>
<th>Adaptive Systems Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acronym</td>
<td>ASL</td>
</tr>
<tr>
<td>Logo</td>
<td></td>
</tr>
</tbody>
</table>

Site
http://asl.utcluj.ro/asl

Address
2, Observatorului street, room 2
Casa Radio, lab 406, Cluj-Napoca

Faculty
Department of Communications

Telephone
+40 264 401913
mobile: +40 742 676404

Fax
+40 264 401917

Director
Assoc. Prof. Dr. Eng. Marcel Cremene
e-mail cremene@com.utcluj.ro

Areas of expertise
Mobile Computing, Cognitive communications, Optimization methods and techniques for Telecommunications, Computational Game Theory applied to Telecommunications, Context-aware mobile computing, Web service composition and adaptation, Adaptive (smart) antennas, Microwave antennas and circuits, Affective computing

Team
Assoc. Prof. Dr. Eng. Marcel Cremene, Assoc. Prof. Dr. Nicolae Crișan, Assoc. Prof. Dr. Ligia Cremene, Assist. Prof. Dr. Iulian Bența.

Representative projects

ISM, "Advanced Special Interest Group", COST Action IC0905 TERRA, (2013-2014)

"Energy efficient cognitive wireless networks", TUCN internal project, (2013-2014)


"Towards a conceptual integration of Artificial Intelligence, Game Theory, and Decision Theory", John Templeton Foundation Grant, (2011-2012)

Significant results
The most representative publications of the past 5 years: (http://asl.utcluj.ro/refbase/index.php)


**Patents:**


**The offer addressed to the economic environment**

<table>
<thead>
<tr>
<th>Research &amp; development</th>
<th>Cognitive communications - resource sharing models, energy efficiency, Optimization models and algorithms for telecommunications, Experimental game theoretical models, Context-aware mobile computing, Smart antenna algorithms (including MIMO) Design and implementation of optimization algorithms for telecommunications, Resource access/sharing models (e.g. unlicensed spectrum, energy efficiency), Decision making support analysis, Context-aware mobile computing, Smart antenna algorithms (including MIMO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consulting</td>
<td>Mobile computing, Artificial/Computational Intelligence applications, Decision making support, Game Theoretical analysis, Technical writing (technical specifications, project proposals, patents), Antenna design (including MIMO), Radio network planning (optimization methods), IEEE 802.22 cognitive radio wireless standard and other wireless standards, Software Defined Radio</td>
</tr>
<tr>
<td>Applied engineering services</td>
<td>Software engineering, Design patterns, Decision making support analysis, Antenna design, Radio measurements</td>
</tr>
</tbody>
</table>