

Annual Report of the MISS of Rouen INSA Center: RIC-MISS (2003)

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Website: <http://miss.insa-rouen.fr/> (under development)

Center highlights

The RIC-MISS is located in the INSA (National Institute of Applied Sciences) of Rouen part of the national INSA network. It is a five-year engineering degree program. <http://www.insa-rouen.fr/>

Its activities are linked to:

- Some INSA Education Departments (mainly Information Technology Engineering: ASI; Mathematical and Software Engineering: GM; Mechanical Engineering: MECA)
- Some INSA Laboratories (Research), mainly (Mathematics: LMI, Mechanics: LMR; Process Engineering Laboratory: LRCP; Data Processing and Information Systems: PSI FRE CNRS 2645,
- And will work with the emergent structures (CERTI) for Technology Transfer from INSA to Industry.

The center has a multidisciplinary Management Committee:

- Pr Aziz BENSRAHAI: ASI and Director of the PSI
<http://asi.insa-rouen.fr/presentation/gb.php>
- Pr Dr Abdelkhalak ELHAMI: Director of the MECA Dpt. and, LMR
<http://meca.insa-rouen.fr/anglais/anglais.php>
- Pr Lionel ESTEL: CFI and Director of the LRCP
<http://cfi.insa-rouen.fr/anglais/anglais.php>
- Dr Mhamed Itmi: GM, PSI and responsible of CERTI-STI project
- Pr Jean-Pierre Pecuchet GM, PSI and Director of the SSI.
<http://gm.insa-rouen.fr/jmgm/index.do>

See also <http://recherche.insa-rouen.fr/> for research domain aspects.

Center activities

This year, different projects concerned by Discrete and continuous simulation in education, research and technology transfer in &-Learning, Logistics, Mechanics and Risk management, Transportation... has been developed.

The center helps the promotion of simulation in French speaking communities: MOSIM (MODELing and SIMulation) conference 2004 at Nantes, France.

<http://www.emn.fr/x-auto/mosim04/>

The center participates to the organization of the "1st Transportation Simulation Workshop" within SCSC'04, <http://www.scs.org/confernc/ssimc/ssimc04/cfp/scsc04.htm>

The center improves its Cooperation with MISS Chico Center: visit of Pr Ralph C. Huntsinger (ECST, CSU Chico, CA, USA), project of students exchanges (education and internships).

The center pursues its relation development with

- Parma University, Italy in the vision domain: invitation of Pr A. Broggi, PhD students exchanges...
- Monmouth University, NJ, USA in the telecommunications domain: invitation of Pr. M. Obaidat. Projects of different exchanges under discussions
- University of Central Florida (UCF): Center for Advanced Transportation System Simulation (CATSS). Contact: Pr Essam Radwan. Project of cooperation in transportation simulation research and students and faculty changes. (This year, common participation to organize the "1st Transportation Simulation Workshop" within SCSC'04
<http://catss.ucf.edu/> II
<http://www.cee.ucf.edu/>
- University of Rachidia, Morocco in the Reliability of structures: invitation of Pr. B. Radi.

Center facilities

Standards (PC computers, scanners, fax...), one car for sensors experiments and tests, vision material...

Center simulation tools

Numerous industrial tools and several prototypes locally developed (Petri nets, management of a harbor container terminal, optimization, a platform for multi-agent systems...),

Center thesis PhD, MSc

Different thesis and master reports are works in progress in the domains of &-learning, Multi-Agent Systems, Simulation, mechanical engineering, process engineering, safety transportation systems...

Other studies (masters or equivalent):

- Simulation of urban transportation
- OpenGL and visualization
- MAS approach for ITS
- Traffic security.
- User interaction with a simulator: the Agent aspect
- Simulation and stock markets
- ...

Center projects

Main projects on 2004 concern:

- A multi-agent simulation system for the education of firemen officers (under development).
- Finalization of the ARCOS Project safety transportation
- COMMANDBATCH project for the semi-batch reactor control (continuing)
- A prototype for the simulation of logistics with application to harbor container terminals (still under development).
- A meta-model based platform for ontology manipulation. <http://www.opencascade.org/dl-workbench/> (Finalized)
- An intelligent assistant to help with decision-making in simulation. (The first step should be finalized soon)
- MAS approach for ITS (is continuing)