

# Annual Report of the McLeod Institute of Simulation Sciences / M&S Net

## Genoa Center, Italy

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List of Research Activities & Projects - Subject - Type [Topic/Project] - Description - Year	<p><b>Logistics Networks &amp; Supply Chain Management</b> RIO: New Operation Management Supervision for Supermarkets (COOP Liguria) 2008-2009-2010</p> <p><b>Service for the Society</b> Green Logistics: Environmental Impact of Logistics (Assologica) 2008-2009-2010 SIBILLA (Joint Venture, LAMCE-DIPTM-NASA), 2008-2009-2010</p> <p><b>Military Applications</b> CAPRICORN: CIMIC and PSYOPS development (Italian MoD, LSIS, DGA France) 2009-2010 PNRM CGF C4 IT: CGF for C4 in NCW 2009-2010 Haiti-Like: IA-CGF NCF for Country Reconstruction 2009-2010 joint project MISS-DIPTM/US-JFCOM</p>
List of Educational - Title - Type [University Course/Professional Course] - Year	<p><b>Master Courses, Italy, 2009-2010:</b> Industrial Plants: University of Genoa Supply Network: University Federico II Napoli Military: Stelmilit LSCM EU Initiative with UAB, Genoa Univ., RIGA TU, Magdeburg Univ., Leoben Univ., Linkoping Univ. Including application for Erasmus Mundus</p> <p><b>Professional Courses, Italy 2009-2010:</b> Logistics: Italian Ministry for Infrastructures and Transportation</p> <p><b>PhD Courses, University of Genoa, Italy, 2009-2010</b> "Modeling &amp; Simulation" and "Project Management &amp; Concurrent Engineering in R&amp;D Projects", "M&amp;S for Biomedical Systems"</p>
Center publications	<ol style="list-style-type: none"> <li>Bruzzone A.G., Bocca E., Pierfederici L. (2009) "Multilevel Forecasting Models in Manufacturing Systems", Proceedings of SpringSim2009, San Diego, March</li> <li>Bruzzone A.G., Cianci R., Tremori A., Massei M., Tarone F. (2009) "Modeling Green Logistics", Proceedings of ASM2009,</li> </ol>

	<p>Bandung and Kuta, May 2009</p> <ol style="list-style-type: none"> <li>3. Bruzzone A.G., Bocca E., Poggi S. (2009) "Renovating Intelligent Operations in Supermarket Chains", Proceedings of ASM2009, Bandung and Kuta, May 2009</li> <li>4. Bruzzone A.G., Tremori A., Massei M., Caneparo M. (2009) "Modelling Layout For Integrating Simulation, Optimization And Virtual Reality", Proceedings of ECMS, Madrid, June 9-12</li> <li>5. Bruzzone A.G., Bocca E., Pierfederici L., Massei M. (2009) "Multilevel Forecasting Models in Manufacturing Systems", Proceedings of SumemrSim2009, Istanbul, Turkey, July 13-16</li> <li>6. Bruzzone A.G., Cunha G., Elfrey P., Tremori A. (2009) "Simulation for Education in Resource Management in Homeland Security, Proceedings of SumemrSim2009, Istanbul, Turkey, July 13-16</li> <li>7. Bruzzone A.G., Curcio D., Mirabelli G., Papoff E. (2009) "Warehouse Management: Inventory Control Policies Comparison", Proceedings of MAS2009, Tenerife, September 23-25</li> <li>8. Bruzzone A.G., Fadda P., Fancello G., D'Errico G., Bocca E., Massei M. (2009) "A Vibration Effect As Fatigue Source In A Port Crane Simulator For Training And Research: Spectra Validation Process", Proceedings of HMS2009, Tenerife, September</li> <li>9. Bossomaier T., Bruzzone A.G., Massei M., Newth D., Rosen J. (2009) "Pandemic Dynamic Objects &amp; Reactive Agents", Proceedings of MAS2009, Tenerife, September</li> <li>10. Mosca R., Bruzzone A., Cassettari L., Mosca M. (2009) "Risk Analysis For Industrial Plants Projects: An Innovative Approach Based On Simulation Techniques With Experimental Error Control", Proceedings of EMSS2009, Tenerife, September</li> <li>11. Bruzzone A.G., Massei M., Tarone F., Longo F. (2009) "Sustainable Car Industry Based On Green Logistics Simulation Models", Proceedings of HMS2009, Tenerife, September</li> <li>12. Bruzzone A.G. (2009) "Serious Games for Training and Education on Defense Against Terrorism", Invited Paper al NATO M&amp;S Group MSG-069 a Bruxelles sul tema "Serious Games for Training and Education on Defense Against Terrorism", Invited Speech at NATO M&amp;S Group - MSG-069, Bruxelles, Belgium October 15, 16</li> <li>13. Bruzzone A.G., Reverberi A., Cianci R., Bocca E., Fumagalli M.S, Ambra R. (2009) "Modeling Human Modifier Diffusion in Social Networks", Proceedings of I/ITSEC2009, Orlando, November 30-December 4</li> <li>14. Bruzzone A.G., Cantice G., Morabito G., Mursia A., Sebastiani M., Tremori A. (2009) "CGF for NATO NEC C2 Maturity Model (N2C2M2) Evaluation", Proceedings of I/ITSEC2009, Orlando, November 30-December 4</li> <li>15. Bruzzone A.G., Frydman C., Cantice G., Massei M., Poggi S., Turi M. (2009) "Development of Advanced Models for CIMIC for Supporting Operational Planners", Proceedings of I/ITSEC2009, Orlando, November 30-December 4</li> </ol>
Center simulation tools	<p>Simulation software  C/C++, Java, Visual Basic Arena, Horus, WinOp, Modsim III, Taylor II, Proservice, Simulink, Pasion, GPSS/H NeuralWare Pro, JTLSetc.  Simulation Hardware  Logistics Laboratory (16 PC), Cocodrillo Labs (4 PC),</p>

	<p>COCODRIS Mobile Lab (4 PC), HLA Laboratory (6 PC), DIPTTEM Labs (3 PC), WILD Mobile Lab (5 Laptops), VR Lab (1 SGI, 1 WS, 6 VRPC), CYBERSAR Lab(9 PC), RAS Lab (8 PC)</p>
<p>Center highlights</p>	<p><b>Scientific Activities</b>  The MISS organized the following events:</p> <ul style="list-style-type: none"> <li>▪ CAPRICORN Workshop, Roma, Italy</li> <li>▪ Simulationteam Workshop, Savona, Italy</li> <li>▪ The international Workshop on Applied Modelling and Simulation in cooperation with LAMCE-COPPE-UFRJ (BR)</li> <li>▪ The International Workshop on Harbour, Maritime &amp; Multimodal Logistics Modelling and Simulation, HMS, in cooperation with MSC-LES</li> <li>▪ The International Mediterranean Modeling Multiconference, I3M, in cooperation with MSC-LES</li> <li>▪ The European Simulation Symposium and Exhibition - Simulation in Industry, EMSS, in cooperation with MSC-LES</li> <li>▪ The International Workshop in Modeling &amp; Applied Simulation, MAS, in cooperation with MSC-LES</li> </ul> <p><b>Networking Activity</b>  Active Participation at Workshop:  Difesa 2010, MIMOS Workshop, Roma  Sim &amp; Sea 2010, MIMOS Workshop, La Spezia</p> <p>Active Participation At Conferences  Spring Sim, San Diego, CA, 2009  SCSC2009, Istanbul  MSG-069 Symposium on "Use of M&amp;S in: Support to Operations, Irregular Warfare, Defence Against Terrorism and Coalition Tactical Force Integration"  I/ITSEC2009, Orlando  ITEC2009, Brussels  EMSS, Tenerife, Spain, 2009  HMS, Tenerife, Spain, 2009  I3M, Tenerife, Spain, 2009  MAS, Tenerife, Spain, 2009  ITEC 2009, Bruxelles, 2009  Capstone Conference, Norfolk, 2010  SpringSim, Orlando, FL, 2010  ITEC 2010 London</p> <p>Active Participation at NATO Groups:  NATO Joint CAX Forum 2010, TBD  MSG-086 Simulation Interoperability 2010, TBD  NATO SAS-085, Washington, US, 2010</p>

SAS-085, Paris, 2010

Active Participation at NTSA Event  
Modeling and Simulation Stakeholder's Meeting  
Washington D.C. July 2010

**Exchange Programs in MISS Genoa Center**

*MISS Genoa Guests:*

John Sokolowski, Catherine Banks, VMASC, June 2009

John Carroll, David Cameron, Charles Sturt University,  
Australia, September 2009

Sam Kukich, US Coast Guard, October 2009

Claus Kaldeich, Polytechnic of Namibia, Namibian-  
German Centre for Logistics, Namibia, November 2009

Amy Grom, Andy Bowers (USJFCOM) april 2010

Prof. Murat M.Günel, Naval Academy, Turkey, July '10

Prof. Antonin Kavicka, University of Pardubice, The  
Czech Republic

*MISS Genoa Visitors*

Agostino Bruzzone, Guest in CSU Australia (May-June  
2009)

Agostino Bruzzone, Alberto Tremori, VMASC Norfolk  
(november 2009)

Agostino Bruzzone, Francesca Madeo, Federico Tarone  
VMASC Norfolk (april 2010)

Agostino Bruzzone, Marina Massei, ESISA, Fes,  
Morocco (june 2010)