

SIREN

Simulation REporting & Networking

***Simulazione, Modellizzazione e
Interoperativita` in Italia
Opportunita` per il 2007***



www.liophant.org/siren/i2007



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WELCOME

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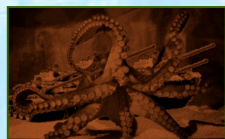
Simulation REporting & Networking

**Simulazione, Modellizzazione e
Interoperativita` in Italia
Opportunita` per il 2007**



Welcome

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Simulation REporting & Networking

**Simulazione, Modellizzazione e
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Welcome

www.liophant.org/siren/i2007



Simulazione, Modellizzazione e Interoperativita` in Italia Opportunita` per il 2007



10:00

Benvenuto e Presentazione sulle Iniziative di Simulazione e l'Italia

11:30

L'Italia ed i Progetti Innovativi di Simulazione: Spunti ed Iniziative

14:30

Discussione su Sviluppi, iniziative ed Opportunita` nel M&S per i Soggetti Italiani



Simulation REport & Networking Meetings



Since 2000, the McLeod Institute of Simulation Science activated in Italy a set of industrial meetings defined SIREN (Simulation REport & Networking) initiative in order to collect ideas, initiative and needs from simulation community.

The result of this activity is matching the experience of MISS people in Networking by Conferences, Workshops, Exhibitions and Projects, reporting back to the Academic, Company and Service User Community.



Simulation Technology Transfer

Since 2000 MISS-DIP organises Simulation Technology Transfer for companies in Europe on the M&S topics with special attention to HLA/DIS/VV&A.

The attendance to the technology transfer session during first years of operation was significant (PM ~60, M&S 25, HLA 40, DIS10, VV&A 10) and involved major Companies (i.e. Piaggio Aero Industries, Alenia Aeronautica, Alenia Marconi Systems, SIA, Fincantieri, COOP, Meteor, Honeywell, Ford Motor etc.), high qualified Academia (Pol.Turin, Pol.Milan, TU Delft, Univ.Marseille, Univ.Florence, Univ.Bari, Clermont Ferrand Univ. etc.) and Services (i.e.Korean Navy, Italian Army)



Course Location



Lecturing



Team Working & Exercises

Project: SIREN

Professional Courses



The professional courses have been organized since 2000 for WorldWide professionals, in English, Italian and French, focusing on the following subjects:

- PM: Project Management in M&S Projects
- M&S: Modeling & Simulation
- DIS: Distributed Interactive Simulation
- HLA: High Level Architecture
- VV&A: Verification, Validation and Accreditation

The courses include lecturing and exercising; teachers are world-wide experts from major excellence centers (i.e. Boston College, Genoa University, NASA, DMSO, National Center for Simulation, SAIC, Aegis Technologies, California State University, Riga TU, UCF, McLeod Institute of Simulation Science, DIP).





McLeod Institute of Simulation Science

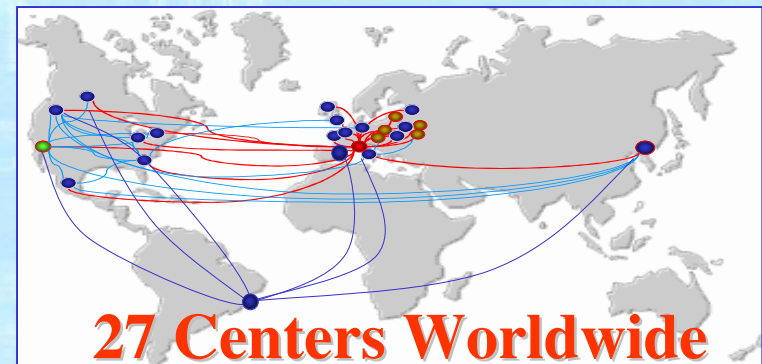


The Institute of Simulation Science is an International Network named after John McLeod, the founder of the Society for Computer Simulation International and the first editor of its journal, "Simulation"

The MISS consists of co-operating Centers active in professionalism, research, education and knowledge dissemination in the modeling and simulation domain.

Modeling and simulation (M&S) is an enabling technology for:

- Decision making in system design, development, optimization, control, and acquisition, as well as for sensitivity analysis, planning, and prototyping
- Understanding
- Education and training to enhance decision making and/or motor skills
- Entertainment
- Supporting real system operations
- Enriching real system operations



The MISS aims to provide an organizational structure that will serve to integrate and enrich, within its Centers, the activities of modeling and simulation expertise throughout the world.

www.simulationscience.org



McLeod Institute of Simulation Science



CENTERS & SATELLITES

MISS is active in many sites:

www.simulationscience.org

- *Ghent Univ, Belgium*
- *Rio de Janeiro, Brazil*
- *Calgary Univ., Canada*
- *Ottawa Univ.&Carleton Univ., Canada*
- *Beijing Univ. of Aerospace and Astronautics, China*
- *LSIS Marseille, France*
- *INSA Rouen, France*
- *TU Hamburg, Germany*
- *TU Wien, Austria*
- *Budapest Univ. Of Economics, Hungary*
- *Szechenyi Istvan University Győr, Hungary*
- *DIPTM Univ of Genoa, Italy*
- *Perugia, Italy*
- *Riga TU, Latvia*
- *UNAM Center, Mexico*
- *Bialystok Center, Poland*
- *Polish Academy of Science, Poland*
- *Radom TU, Poland*
- *TU Gdansk, Poland*
- *Barcelona, Spain*
- *University of Edinburgh, UK*
- *DeMontfort University, UK*
- *California State University, USA*
- *Old Dominion University, USA*
- *CNR Napoli, Italy*



MISS - Genoa Center

DIPTTEM University of Genoa

Email: agostino@itim.unige.it

URL: <http://st.itim.unige.it>



The research group of MISS-DIP of *Genoa University* is active from '60 in Simulation applied to Industrial Engineering.

The activities involve modeling, simulation, VV&A and analysis of Industrial Applications and Services (design, re-engineering, management, training etc.) as:

Chemical Facilities

Power Plants

Military Sector

Harbor Terminals

Public Services

Environment

Manufacturing

Assembling

Logistics

Public Transportation

The Department staff is in touch world-wide with the simulation community & is present actively to conferences, exhibitions and working meetings with the major Associations, Agencies & Companies.



MISS Certification

MISS is currently involved in Certification of M&S skills with attention to two different aspects:

- Certification of Academic Education in M&S
- Certification of Professional Course Attendees in M&S





Liophant Simulation



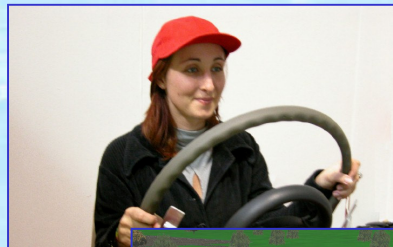
Liophant Simulation involves World-Wide over 120 Scientists and Technicians working in Companies and Academia.

The *Liophant* develops Advanced Projects for Real Applications as:

- ❖ **COCODRIS: HLA Driving Simulator for Interaction among Vehicles**
- ❖ **Safety First : Virtual Ship Handling Simulation in Harbour Environment**
- ❖ **PIOVRA: Computer Generated Forces**
- ❖ **Health Care Models**

Liophant Simulation promotes international Cooperations and exchanges with Excellence Centers World-Wide (i.e. NCS)

www.liophant.org
Email info@liophant.org



McLeod Institute of Simulation Science



Liophant Simulation





**Simulation Interoperability
Standards Organization**

www.sisostds.org



The Simulation Interoperability Standards Organization (SISO) originated in 1989. SISO is today an international organization dedicated to the promotion of M&S interoperability and reuse. SISO's Conference Committee organizes Simulation Interoperability Workshops (SIWs) in the US and Europe. SISO's Standards Activity Committee develops and supports simulation interoperability standards, both independently and in conjunction with other organizations. SISO is recognized as a Standards Development Organization (SDO) by NATO and as a Standards Sponsor by IEEE.



Spring SIW 2007
March Norfolk



Euro SIW 2007
June Santa Margherita



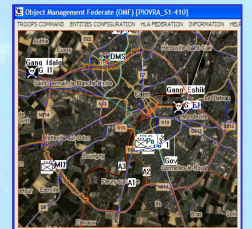
Fall SIW 2007
Sept. Orlando

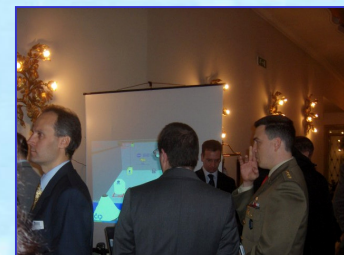
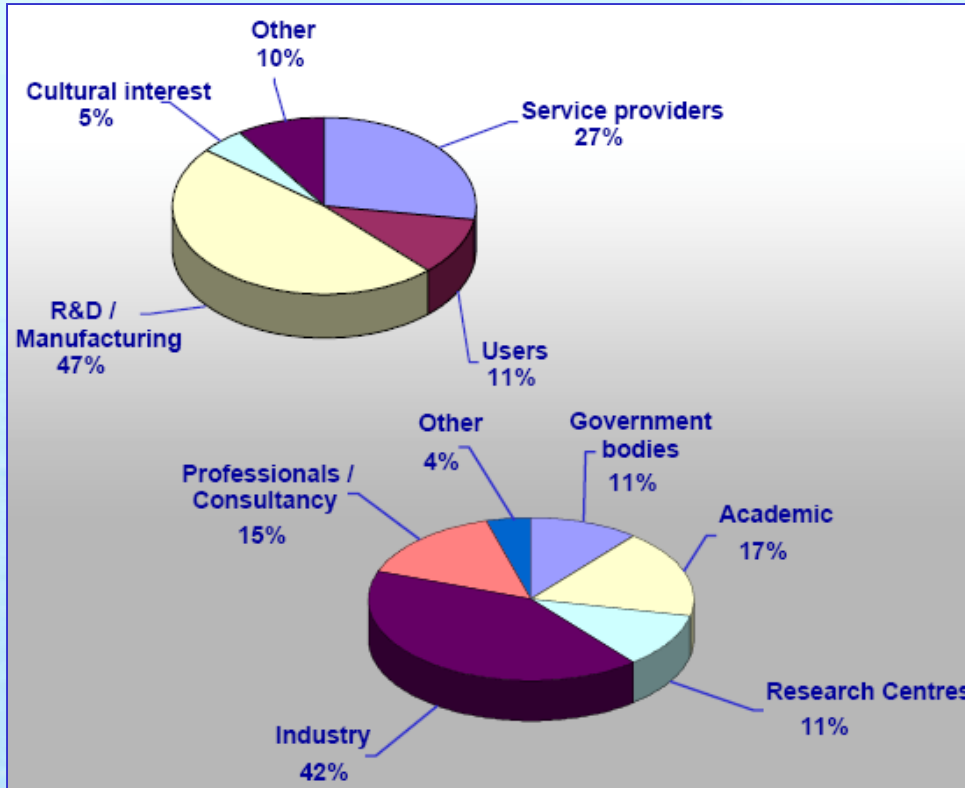
Polyfunctional Intelligent Operational Virtual Reality Agents

PIOVRA

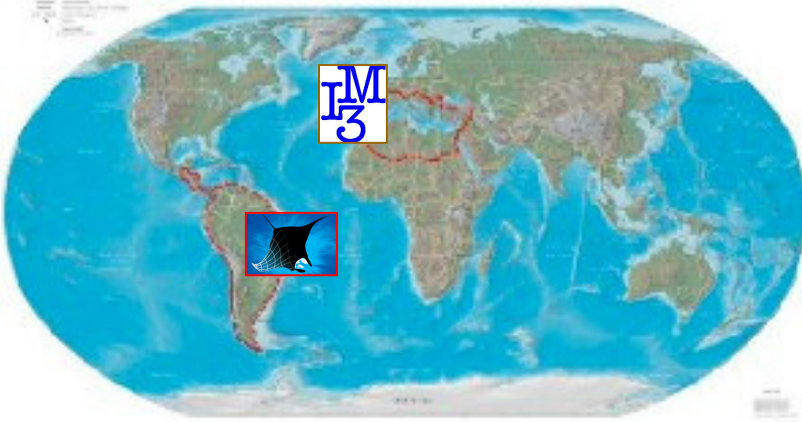


- **PIOVRA** (*Polyfunctional Intelligent Operational Virtual Reality Agents*) Project is sponsored by EDA and focuses on innovation on CGF (*Computer Generated Forces*), Human Factors and Psychological Modifier.
- PIOVRA goal is to create a new generation of Computer Generated Forces (CGF) PIOVRA, to be used both for exercise scope, both for defence planning and support operations in an HLA Federation.
- PIOVRA CGF are in some extent “Intelligent”, meaning that they should demonstrate co-operative and competitive behaviours (co-ordinating units both during operative actions and situation evaluation) based on the current boundary conditions and situation.

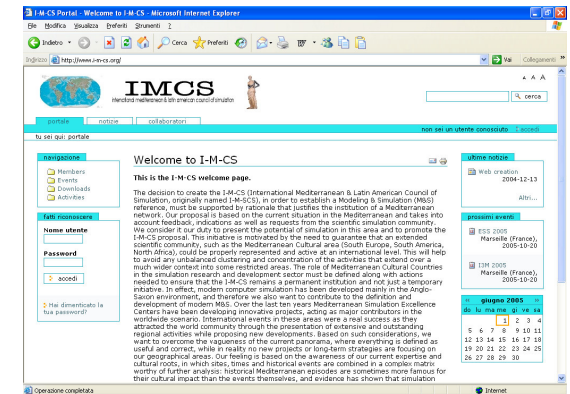




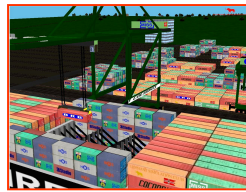
Movimento Italiano Modellazione e Simulazione
Italian Movement for Modelling & Simulation



IMCS



International Mediterranean & Latin American Council of Simulation



Goal of IMCS is to guarantee that an extended scientific community, such as the Mediterranean Cultural area (South Europe, Latin America, North Africa), could be properly represented and active at an international level.

www.i-m-cs.org

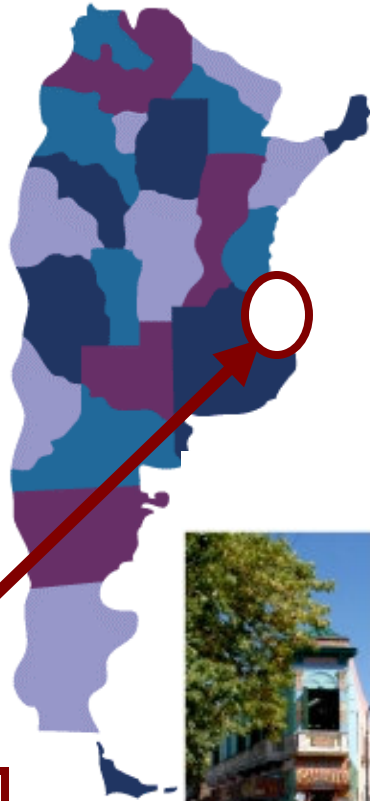


Past Conferences Experiences in

**HMS2004, SCSC2005, SCSC2006,
MAS2005, ESS2005, HMS2005,
I3M2005, AMS2006, I3M2006,
HMS2006 & EMSS2006**

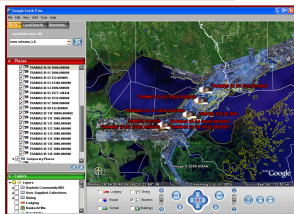


*International Modeling &
Simulation
Multiconference
2007 IMSM07
Buenos Aires, Argentina
12-14 February, 2007*



IMSM07 is a new conference organized in Latin America and involving IMAACA (M&S in Automation) and CSM (Conceptual Modelling) in the wonderful framework of Argentina

Buenos Aires



www.i-m-cs.org



Simulazione, Modellizzazione e Interoperativita` in Italia Opportunita` per il 2007



10:00

Benvenuto e Presentazione sulle Iniziative di Simulazione e l'Italia

- ***Presentazione Euro SIW 2007, Santa Margherita, giugno***
- ***Il Dizionario Internazionale di Simulazione***
- ***Il Movimento Italiano di Modelling & Simulation***
- ***I3M & European Simulation Symposium
Conference in Italia***

11:30

L'Italia ed i Progetti Innovativi di Simulazione: Spunti ed Iniziative

14:30

Discussione su Sviluppi, iniziative ed Opportunita` nel M&S per i Soggetti Italiani



Santa Margherita



MISS-DIPTM University of Genoa



Simulation Interoperability
Standards Organization
www.sisostds.org

<http://www.sisostds.org/>



EuroSIW 2007 The European Simulation Interoperability Workshop

***Hotel Center Miramare
Santa Margherita, Italy
18-21 June 2007***

You are invited to participate in the 2007 SISO European Simulation Interoperability Workshop (Euro-SIW). Please redistribute this message to other relevant email lists, as appropriate. A PDF version of this announcement will be posted on the SISO web site.

This workshop will cover a wide range of modeling and simulation (M&S) issues, applications, and communities. The Workshop will include multiple tracks and special sessions addressing simulation interoperability issues and proposed solutions; tutorials on state-of-the-art methodologies, tools, and techniques; and exhibits presenting the latest technological advances.



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L'Italia infatti è stata scelta come sede della prossima tappa europea del **Convegno Simulation Interoperability Workshop (SIW)**, uno degli eventi principali in Europa per la Simulazione applicata al settore **Militare, Aerospaziale e Navale** che si terrà a **Santa Margherita Ligure in Giugno**.

L'evento che ormai giunto alla sua **7a edizione** annualmente coinvolge centinaia di esperti, utenti e program manager provenienti da tutto il mondo.

L'evento è Rivolto a **Esperti e Ricercatori nel M&S, Program Managers e Utenti** della Simulazione provenienti dal settore **Aerospazio e Difesa, Agenzie Governative ed Enti Militari**, nonché **Universita`**.



<http://www.sisostds.org/>



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Risulta possibile essere attivamente coinvolti presentando memorie e iniziative in essere; per i partecipanti Italiani la scadenza e' estesa ed e' possibile:

- Inviare entro il **21 Febbraio** un Abstract a **moffetta@itim.unige.it** o direttamente sul sito web

E' Inoltre possibile esporre nella Exhibition e/o organizzare Speciali Sessioni per Progetti

Risulta inoltre possibile **sponsorizzare** l'evento in diversi modi (i.e. Platinum, Gold, Regular, Gala Dinner, Lunch, Coffee Break, Gadget, Tutorial Sponsorship etc.)

Per dettagli ed informazioni contattare:

alberto.tremori@dipconsortium.org

EuroSIW 2007 The European Simulation Interoperability Workshop



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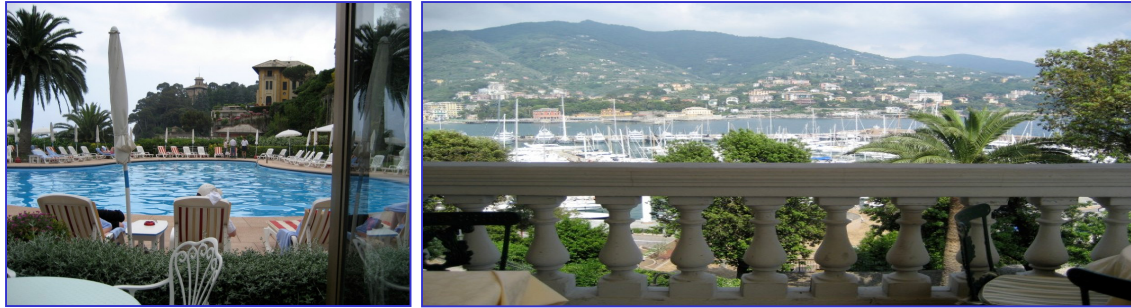


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EuroSIW 2007 The European Simulation Interoperability Workshop

The **EURO SIW** is designed to present advances in Modelling and Simulation to Experts and Program Managers answering to key questions about how this framework is evolving in term of technologies, standards and applications.

The program includes **technical presentations, project and case studies overview, commercial exhibition, as well as tutorials** in order to provide attendees with practical information about how to develop distributed and/or interoperable simulation, synthetic environments, HLA Federations and DIS Exercises.

*Hotel Center Miramare
Santa Margherita, Italy
18-21 June 2007*



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Euro SIW is the European Workshop of SIW Series: since its first edition in UK, 2001 Euro SIW runs annually.

Last edition was in Sweden sponsored by **major international companies** (Aegis, BAE Systems, BBN Technologies, CAE, Cybernet, Dynamic Animation Systems, DMSO DoD, General Dynamics, Gestalt, Institute for Simulation and Training, Lockheed Martin, Mak Technologies, NAVAIR Training Systems, Simphonics, SimVentions, SAIC, Ternion Co., Virtual Technology Corp., C4I Virtual Management, Thales) and **local players** (i.e. SAAB, DELL, Ericsson, FMV, HiQ, Pitch).



EuroSIW 2007 The European Simulation Interoperability Workshop

***Hotel Center Miramare
Santa Margherita, Italy
18-21 June 2007***



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EuroSIW 2007 The European Simulation Interoperability Workshop

The event is organized by SISO the **Society in charge of setting up International Standards in Modelling & Simulation** (i.e. IEEE1278 DIS, IEEE1516 HLA)

Currently Euro SIW is probably the **major Conference in Modelling & Simulation for Aerospace and Defense in Europe.**

Usually the attendance is about 150-200 specialist from major countries (with strong USA Representatives over 30%), mostly related to Aerospace and Defense.

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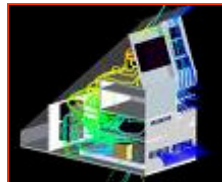


Simulation Experts will provide a vision of techniques and technologies that makes clear the opportunities and challenges being faced in this area. **The EURO SIW Exhibition and Sponsor Partners** will provide examples of successful applications, new initiatives and commercial packages.

Conference attendees will leave with a greater understanding of the tools and processes being used to manage, control and optimize their M&S Systems.

EuroSIW 2007 The European Simulation Interoperability Workshop

***Hotel Center Miramare
Santa Margherita, Italy
18-21 June 2007***



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<http://www.sisostds.org/>

The focus of this Euro-SIW will have special attention on New Challenges for Interoperable Simulation/
The program includes:

EuroSIW 2007 ***The European*** ***Simulation*** ***Interoperability*** ***Workshop***

- **User Community Forums**, which examine and promote topics of interest related to the use and adequacy of available simulation capabilities and new capabilities needed by M&S users
- **Specialty Area Forums**, which examine and promote current and emerging simulation processes and technology
- **Special Sessions**, which deal with topics that merit timely solicitation of feedback from the SISO community
 - **Transportation**
 - **Virtual Prototyping**
 - **Homeland/Societal Security**
 - **Space Forum**

Hotel Center Miramare
Santa Margherita, Italy
18-21 June 2007



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Modeling and Simulation Dictionary Project



Modeling & Simulation Community is working on Standards Initiatives: in this sense the **Modeling & Simulation Dictionary Project** represents a basic, but major step forward; this initiative aims to have:

-  **A comprehensive and systematic inventory of all the M&S terms** in English
-  The Other Languages equivalents supporting integration with Countries active in M&S (i.e. French, **Italian**, Spanish, Turkish)
-  An **Electronic Release** of the Dictionary for Diffusion on the Community

An **Dictionary Hardcopy** of the Dictionary for Promoting Active Partners **NATO MSG** expressed officially its interest in adopting the Dictionary; currently the Dictionary over passed 4'000 terms and represent an important reference for M&S Community and Standardization Initiatives.



Sponsored & Promoted by:
M&S Net
McLeod Institute of Simulation Science
SCS International
SimSummit

M&S Dictionary & Italy



DIPTeM University of Genoa is currently promoting and coordinating the development of the **Italian Integration** in the M&S Dictionary Project and **during the 2007** it is expected to create the working team involving all the organization, institutions and companies interested in this subject as volunteers.

A team of approximately **10-20 volunteers** is requested for coordinating the experts, scientists, researchers and technicians involved in reviewing and correlating terms nationally; in addition the initiative requires **Sponsors** in order to cover the central coordination activities, deliverable production and promotion; each new language is enrolled in this project based on a four phases:

- Team Creation & Sponsor Identification
- Electronic Remote Review
- Workshops Scheduling & Final Review
- New Edition of Dictionary Publishing

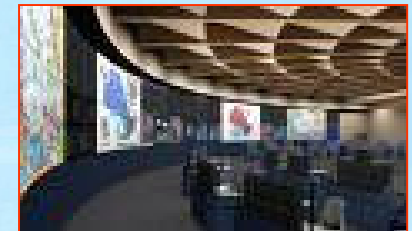


M&S Dictionary Planning



The Project **started in 2004** a project about creation of a Modeling & Simulation Dictionary; first edition was involving 3'000 terms in English; after this first edition the Project was presented internationally and each country interested expressed interest in becoming part of this initiative, currently the dictionary **overpass 4'000 words**; the **approved schedule** of the languages to be included and Country to be involved is the following:

- | | | |
|-------------------------|--------------------|-----------------------------|
| • English/Turkish | 2004 | Completed |
| • French | 2005 | Completed |
| • Spanish | 2006 | Completed |
| • <u>Italian</u> | <u>2007</u> | <u>On-Going</u> |
| • German | 2008 | Scheduled |
| • Chinese | TBD | To be Defined and Scheduled |



Each Country organized a working team coordinated by a Center in order to review it and involved central organization of M&S Net for final review.

Italian Point of Contact: **marina.massei@liophant.org**

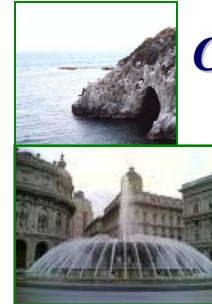
The International Mediterranean and Latin American Modelling Multiconference

Claudio Hotel Congress Center
Bergeggi, Italy

October 13 - 15, 2007



New Simulation Project Workshop



*McLeod Institute of Simulation
Science Workshop*



*International Workshop on
Modeling & Applied Simulation*



*EMSS2007
European Modeling and
Simulation Symposium*



*HMS2007
Harbour, Maritime & Multimodal
Logistics M&S*



*Nanotechnologies Eng.&Modeling
Outreach Workshop*

Bergeggi



I3M2007, October 13-15,
will be back in Italy and
will involve several
different events devoted
to cover different areas
in M&S and to provide
opportunities for Setting
up proposal and new
initiatives

<http://www.liophant.org/i3m/i3m2007>



Simulazione, Modellizzazione e Interoperativita` in Italia Opportunita` per il 2007

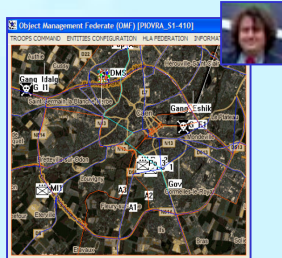


11:30

L'Italia ed i Progetti Innovativi di Simulazione: Spunti ed Iniziative

- **Poly-functional Intelligent Operational Agents**
Agostino Bruzzone, DIPTM Genoa University
- **Interoperable Simulation for Command & Control**
Roberta Colombari, Selex SI
- **Simulation and UAV**
Fulvia Quagliotti, Politecnico Torino
- **Modelling & Simulation in Aerospace**
Cristiano Montrucchio, Alenia Aerospace
- **Modelling & Simulation in Naval Framework**
Aldo Zini, CETENA/Fincantieri/Orizzonte SN
- **State of Art in Computer Generated Forces**
Jean Cassaunel, LSIS, France
- **Network of Excellence in VR and Virtual Environments**
Giuseppe Varalda, CRF Fiat Group

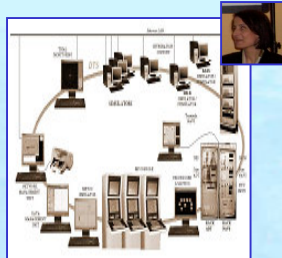
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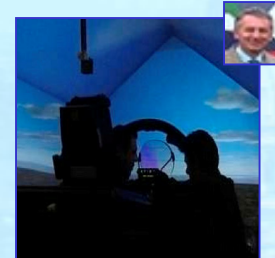
***Agostino Bruzzone
DIPTM Genoa University***



***Fulvia Quagliotti
Politecnico
Torino***



***Roberta Colombari
Selex SI***



***Pierluigi Duranti
Cristiano Montrucchio
Alenia Aerospace***



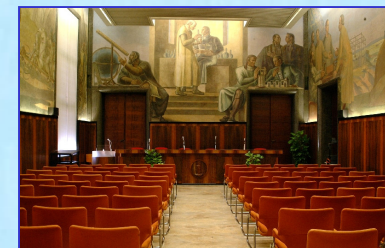
***Aldo Zini
CETENA/Fincantieri***



***Jean Cassaunel
LSIS, France***



***Giuseppe Varalda
CRF Fiat Group***



Simulazione, Modellizzazione e Interoperativita` in Italia Opportunita` per il 2007



Buffet



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Welcome Back

www.liophant.org/siren/i2007

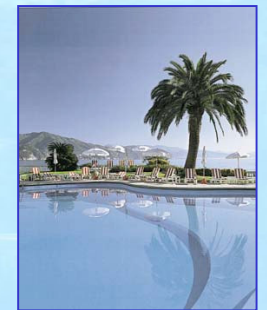
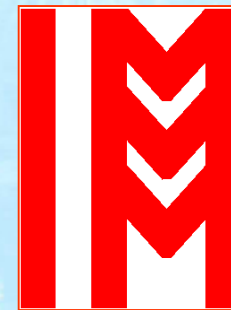


Simulazione, Modellizzazione e Interoperativita` in Italia Opportunita` per il 2007

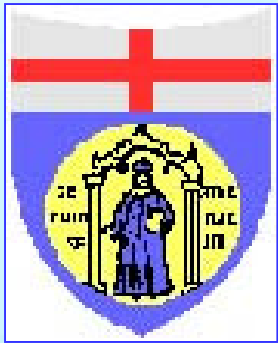


14:30

Discussione su Sviluppi, iniziative ed Opportunita` nel M&S per i Soggetti Italiani



References



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