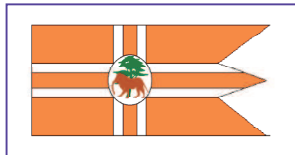


Modelling & Simulation Projects



Consortium for the
Development of Innovative Projects



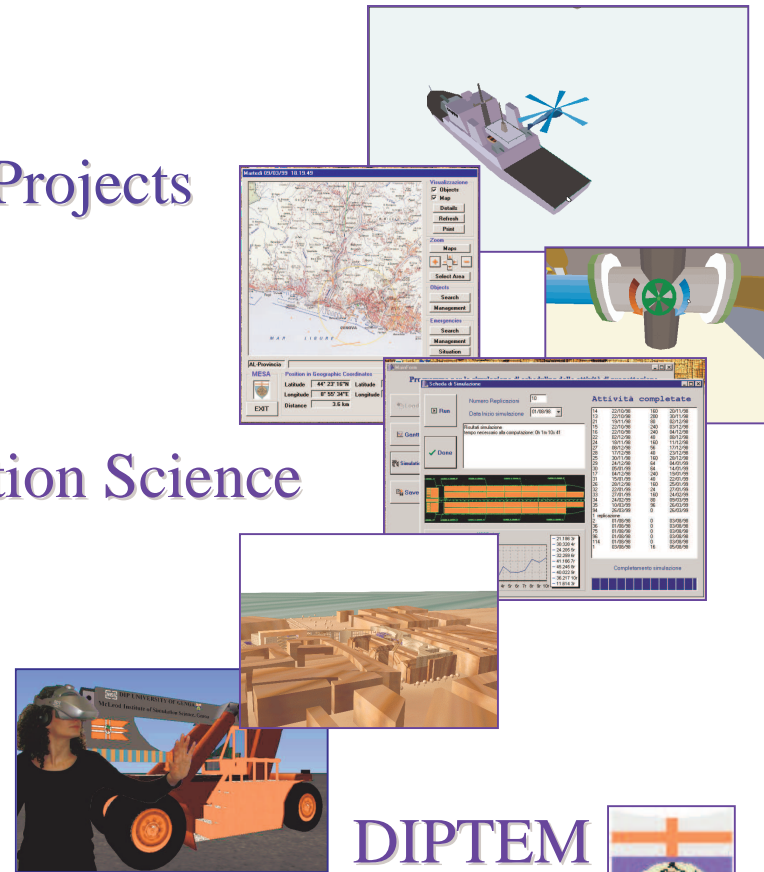
Liophant Simulation



McLeod Institute of Simulation Science
Genoa Center

Marina Massei
marina.massei@dipconsortium.org
www.simulationscience.org

ITALY



DIPTeM
University of Genoa



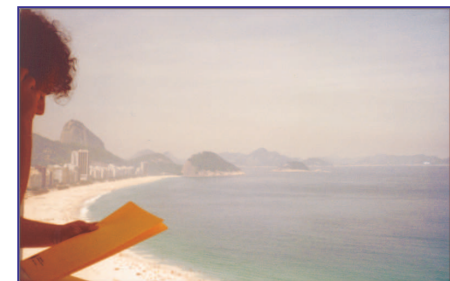
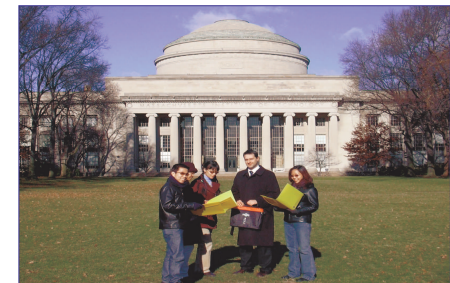
DIPTTEM - University of Genoa

DIPTTEM evolved from the Institute of Technology and Industrial Management (ITIM) that was operative since '60.

DIPTTEM is composed by about 60 faculty members, 30 technicians and administrative, plus several PhD Students, external Researchers and Consultants (i.e. DIP Consortium).

DIPTTEM teachers are involved in Undergraduate, Postgraduate and Professional activities in Engineering, Management; DIPTTEM active in R&D Projects for major Institutions, Companies and Governmental Organisations.

DIPTTEM co-operates actively with major Excellence Centers World-Wide.



University of Genoa: an Overview

The University of Genoa is one of the oldest in Italy and in the World (founded in 1471 AD), it is located in middle of Italian Riviera.

The students are about 40,000 (about 8,000 new entries), and the engineering departments has about 7,500 students (12% in Savona Branch Departments); in effect the Savona Campus Savona holds about 1,000 Engineering Students.

That campus is located about 2 km from Savona Downtown, in an old complex of barracks recently converted into new University Buildings (over an area of 200,000 m²).

For further Information about the University of Genoa:

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

<http://www.unige.it>



Savona Campus & Facilities

The University of Genoa includes a new campus in Savona about 2 km outside Downtown; bus services and large parking areas guarantee easy access.

That structure has been obtained transforming Army barracks; today the campus includes a big park with facilities such as tennis courts and sport grounds.

The campus holds Dept. on Engineering and also Economical courses; new laboratories have been realised in Simulation, Logistics & Industrial Eng. (SAMS Project), Ecology and Chemical. Facilities for Professional Congress Centres are available in the surroundings



Savona Campus



Congress Centre

Liophant Simulation



MISS - University of Genoa - DIP





McLeod Institute Simulation Science

Email: agostino@itim.unige.it

URL: www.simulationscience.org
st.itim.unige.it/mcleod

The MISS is distributed over 27 Centers located worldwide and operates as a Network of Excellence for Simulation Community.

MISS activities involve modeling, simulation, VV&A and analysis in Industry, Military Sector, Government and Services (design, re-engineering, management, training etc.) as:

Chemical Facilities

Harbor Terminals

Manufacturing

Public Transportation

Power Plants

Public Services

Assembling

PM

Environment

Logistics

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



**22 MISS Centers World-Wide
& 5 Satellite Centers**



MISS - University of Genoa - DIP



Liophant Simulation



McLeod Institute of Simulation Science, Genoa

The MISS at *Genoa* carries out many industrial simulation projects in cooperation with the large corporations and small and medium sized Enterprises; some example of recent industrial simulation project are following:

					
ADtranz	On-Line Simulation for Distributed Production Management of Locomotives		ADtranz		
	ABB Daimler-Benz				
	Ansaldo	Distributed Synthetic Environment for Power Plant Design			
	Cetena	Simulation & Virtual Project Management of Car Deck Construction for Fast Ferry			
	Fincantieri	Simulation for Re-Engineering Supply Chain in a National Chain of Grocery Stores			
	COOP				

Members of MISS are appointed in several positions in simulation community such as:

- Italian Point of Contact of ISAG (International Simulation Advisory Group)
- Associate Vice President of SCS and Chairman of Industrial Relations for Europe
- Member of NATO Industrial Advisory Group for Simulation & VV&A for Design

Project: SIREN

Professional Courses

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

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

The courses include lecturing and exercises; 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).



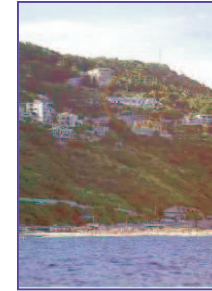
Simulation Technology Transfer

Since 2000 MISS-DIP organises Simulation Professional Courses:

- Project Management
- Modelling & Simulation
- High Level Architecture
- Verification, Validation & Accreditation

The Lecturers included experts from major excellence centres (i.e. Boston College, University of Genoa, NASA, DMSO, National Center for Simulation, SAIC, Aegis , California State University., Riga TU, UCF , McLeod Institute of Simulation Science).

The course attendance (PM ~60, M&S 15, HLA 20, VV&A 10) included Companies (i.e. Piaggio Aero Industries, Alenia Aeronautica, Alenia Marconi, SIA, Fincantieri, COOP) and Academia (Pol.Torino, TU Delft, Univ.Marseille, Pol.Milano, Univ.Firenze, Univ.Bari, Univ.L'Aquila, etc.).



Course Location



Lecturing

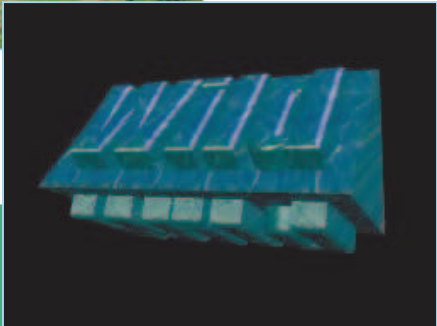


Team Working & Exercises

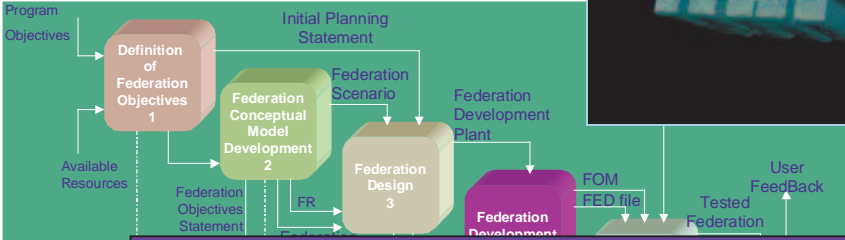


Project: WILD

Web Integrated Logistics Designer



The WILD project involves the development of a Federation composed by Simulators, Scheduling Systems and ERP.



WILD Federation reproduces the supply chain and supports on-line distributed management and control among customers, main contractors, suppliers



Project: IEPAL



Intensive Educational Program in Advanced Logistics



IEPAL is a Co-funded project sponsored by European Community and US Department of Education, to live an academic & industrial training, to compare European and US way of living and working. A goal of this project will be the integration & exchange of different culture, the application of Web instrument and mobility to learn to cooperate. It is a Great Opportunity for engineering students and their curriculum to experiment in the new millennium Transatlantic Experiences in Enterprises and Universities working on Projects in **World-Wide Distributed Teams** focusing on the **Advances in Modeling & Simulation for Logistics and Supply Chain Management.**



Sponsored by:



FIPSE, US Department of Education

European Community, DGEAC



University of Central Florida



Boston College



Stevens Institute



Dip-UNIGE



LSIS - Marseille University



Magdeburg University

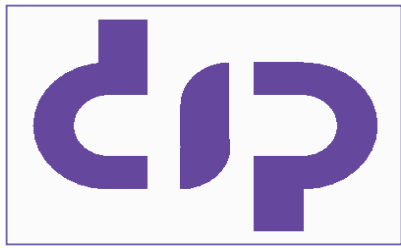


Consorzio di Formazione Logistica Intermodale



National Center for Simulation

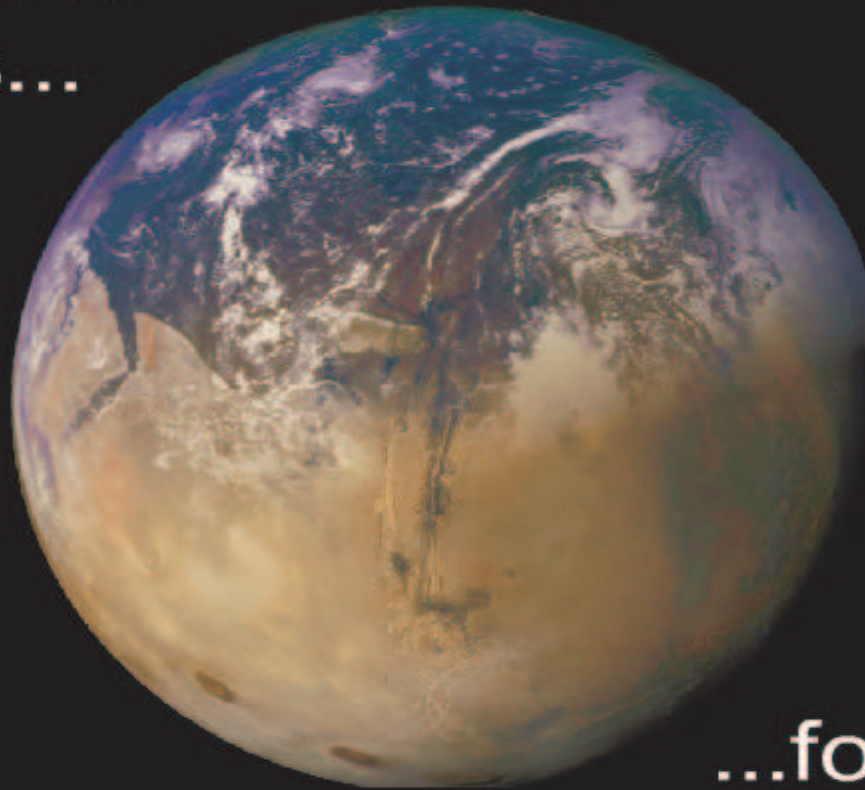




Development of Innovative Projects Consortium

The DIP is a Consortium involving Professional Experts and Companies active in Modelling & Simulation

An Ocean of Solutions...

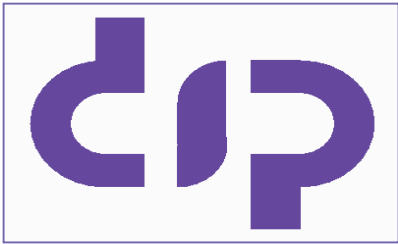


3B - STICEL



...for a new World of Applications





Development of Innovative Projects Consortium

The DIP is active in developing Solutions based on Innovative technologies for different application areas



		Industry	Business	Retail	Marine	Services	Military
VR	Virtual Reality	●		●	●	●	●
SE	Synthetic Environment	●			●		●
M&S	Modelling & Simulation	●	●	●	●	●	●
VV&A	Verification, Validation & Accreditation	●	●	●	●	●	●
HLA	High Level Architecture	●	●		●		●
AI	Artificial Intelligence	●	●	●	●	●	●
FL	Fuzzy Logic	●	●	●	●	●	●
ANN	Artificial Neural Networks	●	●	●		●	●
GAs	Genetic Algorithms	●	●		●	●	●
KBS	Knowledge Based System	●					●
DF	Data Fusion	●	●	●	●		●
BI	Business Intelligence	●	●	●		●	
DM	Data Mining		●	●		●	
DW	Data Warehousing			●		●	
ERP	Enterprise Resource Planning	●	●	●		●	
CRM	Customer Relationship Management	●	●	●		●	
E-Tech	Web Technologies	●	●	●	●	●	●
ICE	Intrusion Countermeasure Electronics	●	●	●		●	●
CBT	Computer Based Training	●	●		●		●
PM	Project Management	●		●	●	●	
TQM	Total Quality Management	●	●	●	●	●	
RCM	Reliability Centred Maintenance	●			●	●	●
EM	Environmental Management	●			●	●	
CE	Concurrent Engineering	●			●		

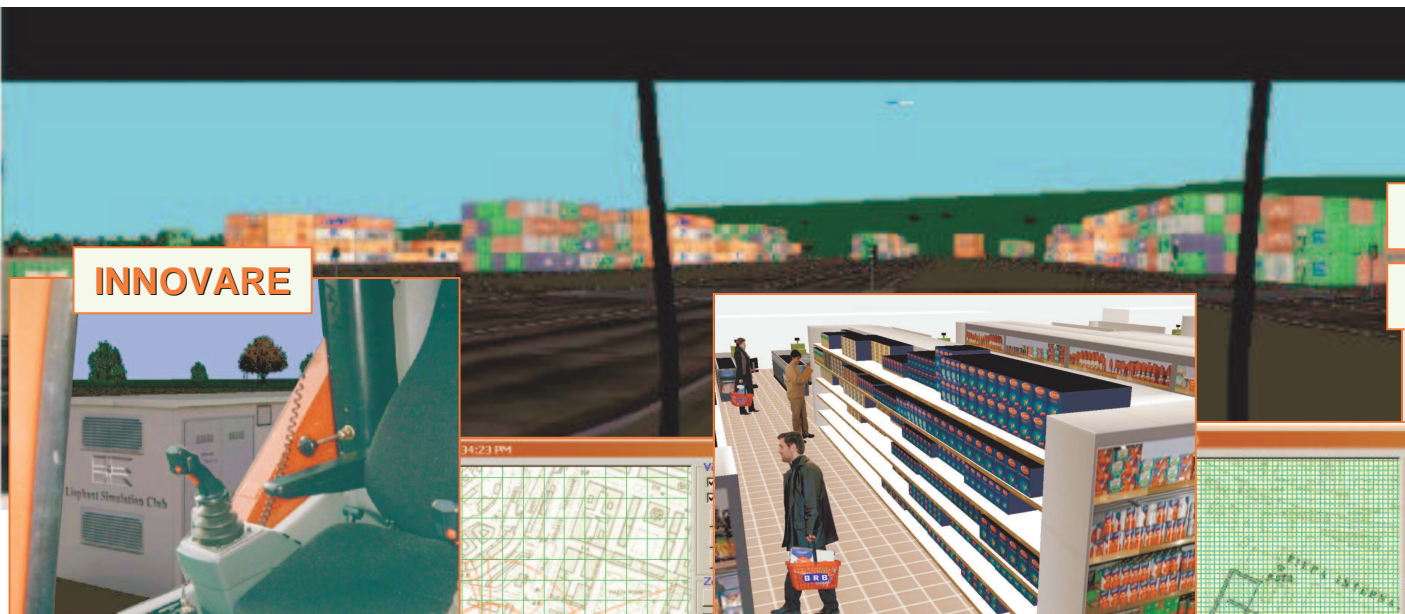
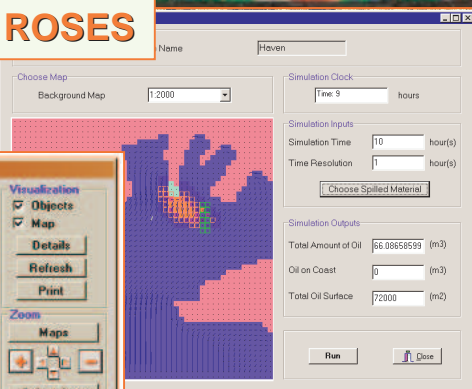


Development of Innovative Projects Consortium



RESET

ROSES



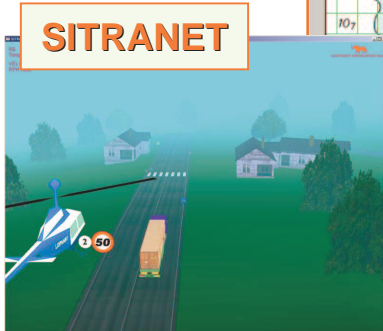
INNOVARE



Virtual Shop



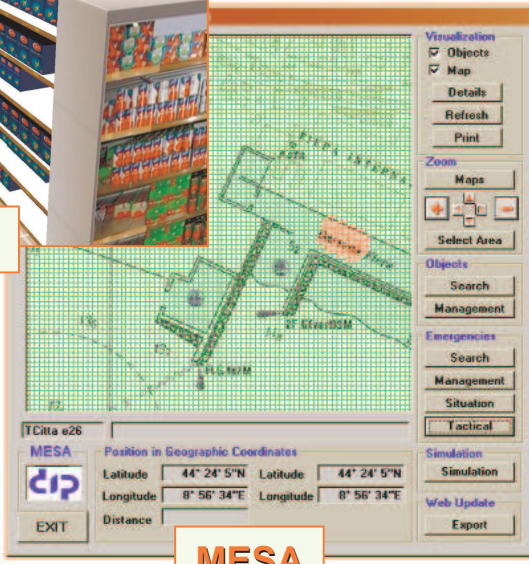
MAGIS



SITRANET



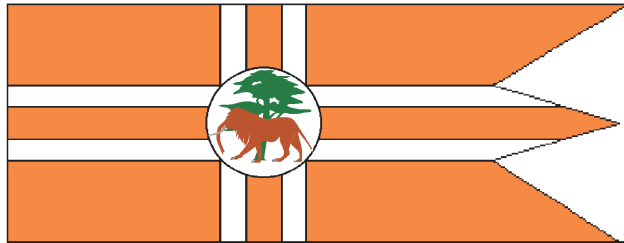
FITA/CNA



MESA



Cocodris



Liophant Simulation

Email info@liophant.org

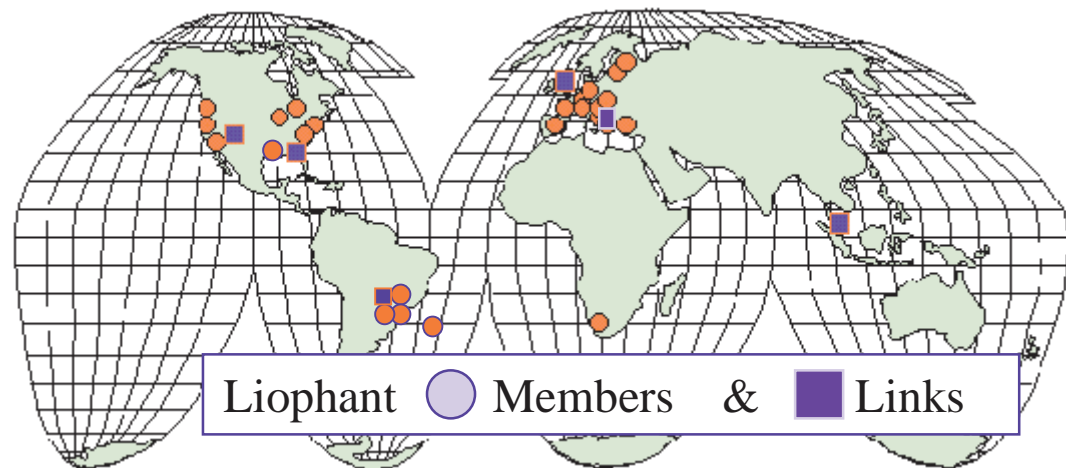
The *Liophant Simulation* is a *Non-Profit Scientific Association* involving World-Wide over 140 Scientists and Technicians working in Companies and Academia.

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

- ❖ VAED : Virtual Aided Engineering & Design (Gas Turbine Modeling)
- ❖ Safety First : Virtual Ship Handling Simulation in Harbor Environment
- ❖ Wolves: Warehouse Management & Logistics Simulation
- ❖ Health Care Survey

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

www.liophant.org

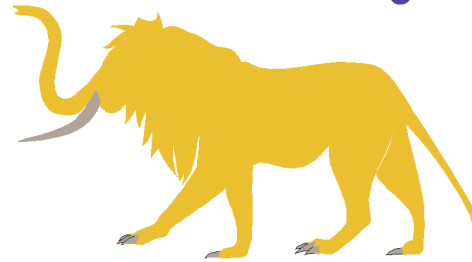


The International Activity of Liophant

ICAMES2004, Istanbul, May  

COMADREJA & SILLA2

F.Longo, D.Carini, A.Ganapini, M.Meistro,
S.Poggi -1st Runner Award



Exchange Activity **2004**
PhD, Master, BS



SimServ, Copenhagen
September, M.Massei

Workshop I3M2004/MAS2004
Bergeggi, Oct.



ST Genoa/Venice

S. Saavedra, R.Gallan,
J.Zumaglini, C.Bussi,
B.Jamel



Boston College



Boston , July-August
R.Moccia



VMASC, May



R.Revetria

University of
Maryland

November

G.Prioreschi



MBA, London
Business School, G.Oran



ITEC2004, London
May, F.Longo

Liophant Simulation



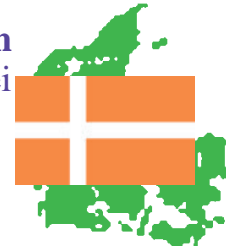
Istituto Nacional de Atrofisica Optica Y Electronica
Universidad Popular Autonoma de Estado de Puebla
Universidad Popular Autonoma de Mexico

Istituto de Investigaciones Eletricas

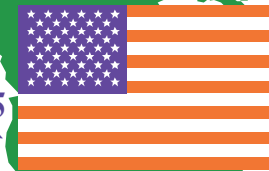
Universidad Panamericana

November-December

S.Simeoni



SCSC2005
San Jose`
July, S.Simeoni



MBA, Darden
Alessio Carbone



SimServ
Helsinki

June

M.Massei



HMS2004 LAMCE
Rio De Janeiro

September

A.Nogueira, S.Viazzi
M.Massei



UFRJ



MISS - University of Genoa - DIP

Conclusions

San José

SCSC 2004



The Liophant Simulation, MISS, DIPTM, DIP, LSIS are acting as reference point between users and providers in simulation area.

The integration of experts, technicians is providing very good results on real case studies and complex projects.

A new active area of development is related to distributed simulation and web-based modeling for extending the impact and exploitation of these proposed systems.

Every year MISS organizes Conferences and International Workshops focusing on application of Modelling & Simulation; for instance, last year: Summer Simulation in California HMS2004 in Rio de Janeiro and MAS/I3M on the Italian Riviera.

There is a constant interest in fostering joint cooperation and exchanges with international Excellence Centers working on simulation.



Dates of This Year

Summer Computer Simulation Conference
Philadelphia USA, July 2005
www.liophant.org/scsc

Modelling and Applied Simulation
Genoa, Italy, October 2005
www.liophant.org/mas2005

International Mediterranean Modelling Multiconference & Harbour Maritime and Multimodal Logistics & European Simulation Symposium & Marseille, France, October 2005
www.liophant.org/i_m_cs/i3m2005
www.liophant.org/hms2005
www.liophant.org/i_m_cs/ess2005

Philadelphia SCSC 2005

SCSC 2005

ESS
2005

I3M

Marseille

HMS

2005

MAS
2005

Italian Riviera



References



3B - STICEL



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