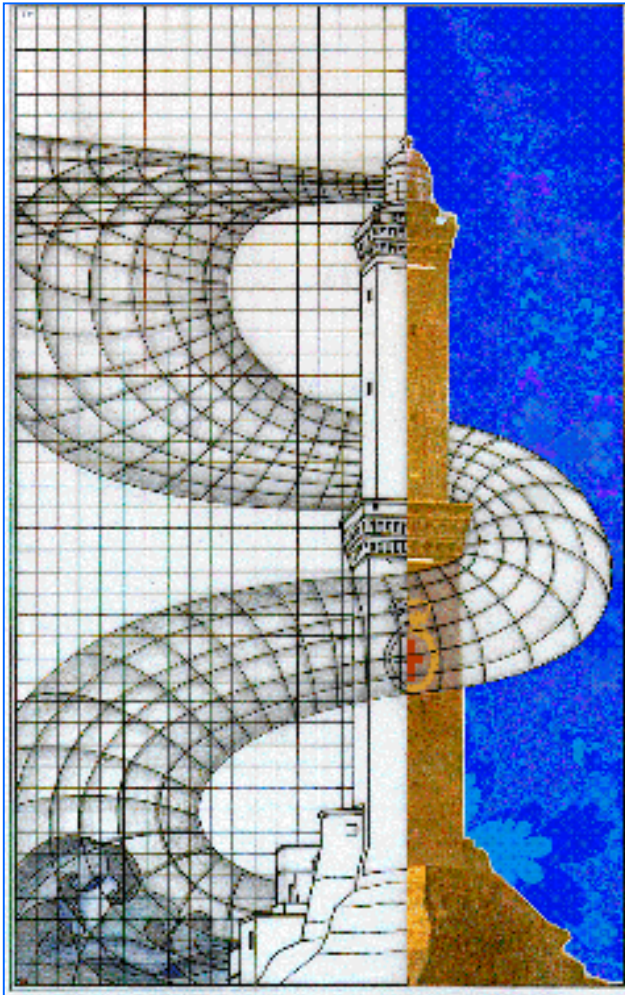


McLeod Institute of Simulation Science Genoa Center - Report 2004



MISS Genoa Center

Savona Campus & Savona Labs

via Cadorna 2

17100 Savona, Italy

Tel +39 019 264 555

Fax +39 019 264 558

URL www.simulationscience.org

EMAIL agostino@itim.unige.it





MISS - Genoa

DIP 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

PM

Harbor Terminals

Public Services

Environment

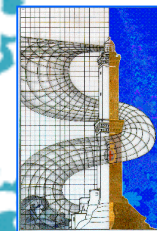
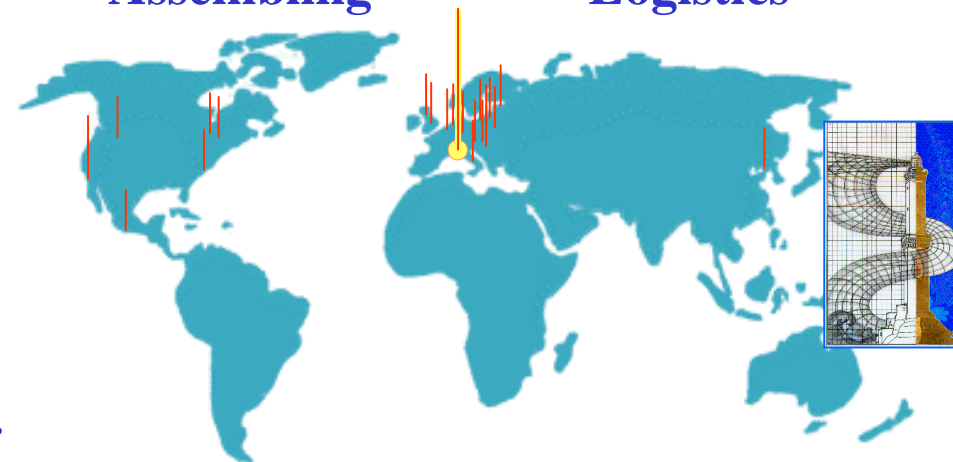
Manufacturing

Assembling

Logistics

Public Transportation

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.



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



MISS - DIP University of Genoa

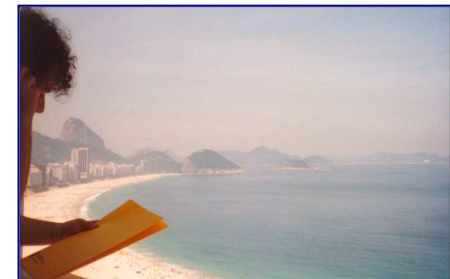


Liophant Simulation Club



DIP - University of Genoa

DIP was founded in 1997 as evolution of the Institute of Technology and Industrial Management (ITIM) that was operative from '60. DIP is composed by about 40 faculty members, 15 technicians and administrative, plus several PhD Students, external Researchers and Consultants. DIP teachers are involved in Undergraduate, Postgraduate and Professional activities in Engineering, Management. DIP active in R&D Projects for major Institutions, Companies and Governmental Organisations. DIP co-operates actively with major Excellence Centers World-Wide. Currently DIP is changing name to DIPTEM.



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.

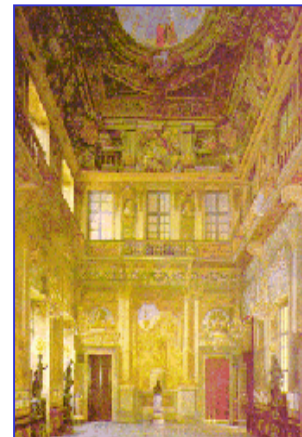
The students are about 40,000 (about 8,000 new entries), and the engineering departments has about 7,500 students (12% in Savona Branch Departments); in effect the Savona Campus Savona holds about 1,000 Engineering Students.

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



MISS - DIP University of Genoa

The MISS-DIP of *Genoa University* 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			
					
	COOP	Simulation for Re-Engineering Supply Chain in a National Chain of Grocery Stores			

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



MISS - Genoa Projects in 2004



Production & Assembling

FUSE: Power Plant Service (Ansaldo) Expert Planning (NICIM)

Logistics Networks & Supply Chain Management

ORTOFRUTTA: New Logistics Platform for Vegetable Distribution to Supermarkets (COOP Liguria)

NOL: New Logistics Organization over a Geographic Region (COOP Liguria)

SITRANET: Training Simulator for Crane, Truck and Contstacker (CFLI, Regione Piemonte)

Business & Services

POA NG: Automated Reordering System for Store (COOP) DICOSAP: ERP Supervision (COOP Liguria)

CARNI: Meat Distribution Processes (COOP Liguria)

MASC: Modelling & Analysis for Satisfaction of Customers (COOP Liguria) PROMIT: Project Management in IT Initiatives (COOP Liguria)

MASC New Generation: New DSS including Simulation & Forecasts (COOP Liguria)

Service for the Society

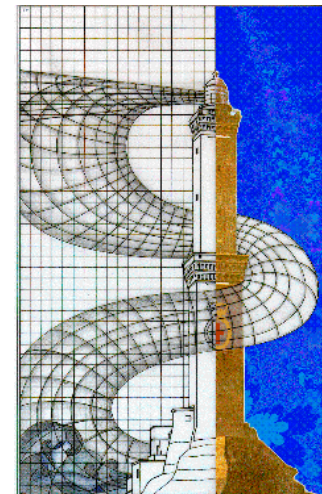
6EFFE: Parental Support for Work Scheduling (COOP Liguria)

Military Applications

SIREN Initiatives (AMS, Alenia Aerospace, Fincantieri, SIA, etc.)

VISION: Ship Federation (Fincantieri, Cetena, IDS, SOGIS)

PIOVRA: Intelligent Agent for CGF (Italian MoD, LSIS, DGA France)





MISS - Genoa

International Cooperations in 2004



LESMEX

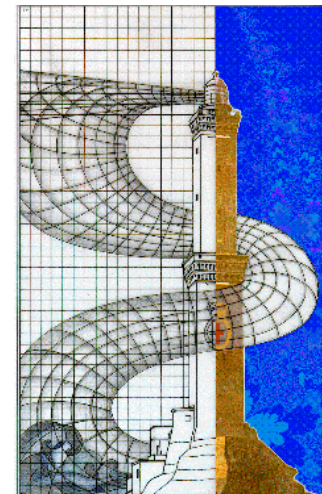
- **Universidad Panamericana**

I_M_CS Common Activities

- **Arcavacata University**
- **LSIS, Marseille, France**
- **Liophant Simulation**

Logistics & Erasmus

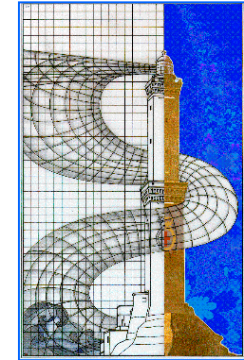
- **Riga TU, Latvia**
- **IFMA, Clermont Ferrand, France**





MISS - Genoa

Scientific Activities in 2004



The MISS organized the following events during 2004:

Special Issue of the International Journal Simulation with best papers from Summer Computer Simulation Conference 2003 (printed in 2004)

**WORKSHOP HMS2004, Rio de Janeiro, in Co-operation with LAMCE UFRJ
MISS Riga TU and Liophant**

WORKSHOP MAS2004, Bergeggi, Italy in Co-operation with Liophant

WORKSHOP "SIMSERV/SIREN/MIMOS", Bergeggi, Italy in Co-operation with Liophant, Sim-Serv, MIMOS, I_M_CS, July 7 2004

Publications 22: Journal Papers (1), Conference Papers (22), Technical Reports (8), Tutorial & Invited Speechs (3), Books (3)

ACTIVE PARTICIPATION AT CONFERENCES IN 2004: 15 Conferences

ICAMES2004, Istanbul - ITEC2004, London - ASTC2004 Arlington - SIW20034

Spring - ESM2004, Magdeburg - SCSC2004, SanJose - SCI2004 Orlando -

Eurosim2004 Paris - ANIMP2004 - HMS2004 Rio de Janeiro- I3M2004 Genoa -

MAS2004, Bergeggi - ESS2004, Budapest - Virtuality2004, Turin - Wintersim2004

Washington



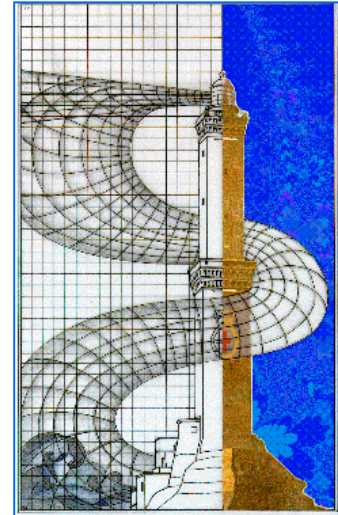
MISS - Genoa Exchanges in 2004

MISS Genoa Guests

Eugene Kindler, Visiting Professor from Charles University/Ostrava University (October 2004)
C.Frydman, N.Giambiasi, Visiting Professor from LSIS France (October 2004)
Magdalena, Inguna Viluma Student From TU Riga (March-May 2004)
Francesco Londo PhD Student from Arcavacata University (February-May 2004)
Taamallah Djamel Students from LSIS(May-July 2004)
Christophe Bussi, Remi Gallan, Jueliene Zumagli Students from EPUM (May-July 2004)
Sergui Saavedra Student from Balam/Universidad Panamericana (June-July 2004)

MISS Genoa Visitors

Roberto Revetria, Guest in VMASC (April 2004) A.Bruzzone, Visiting NCS Orlando (July 2004)
A.Bruzzone, Guest in Bogazici University Istanbul (May 2004)
Alessia Ganapini, Danila Carini, Simonluca Poggi, Mauro Meister, Guests in ENSO Istanbul (May 2004)
Federico Figini, Guest in EPO Munchen (March 2004)
Raffaelle Moccia Visiting Boston College (July/August 2004)
Simone Viazzo Visiting UFRJ Rio de Janeiro (September 2004)



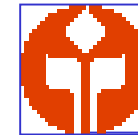
Project: SIREN

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



Meeting
Sim-Serv
Siren
MIMOS

Meeting Sim-Serv/SIREN/MIMOS

July 7, 2004
Bergeggi, Italy



42 People including major
Italian Company
Representatives



in Cooperation with:



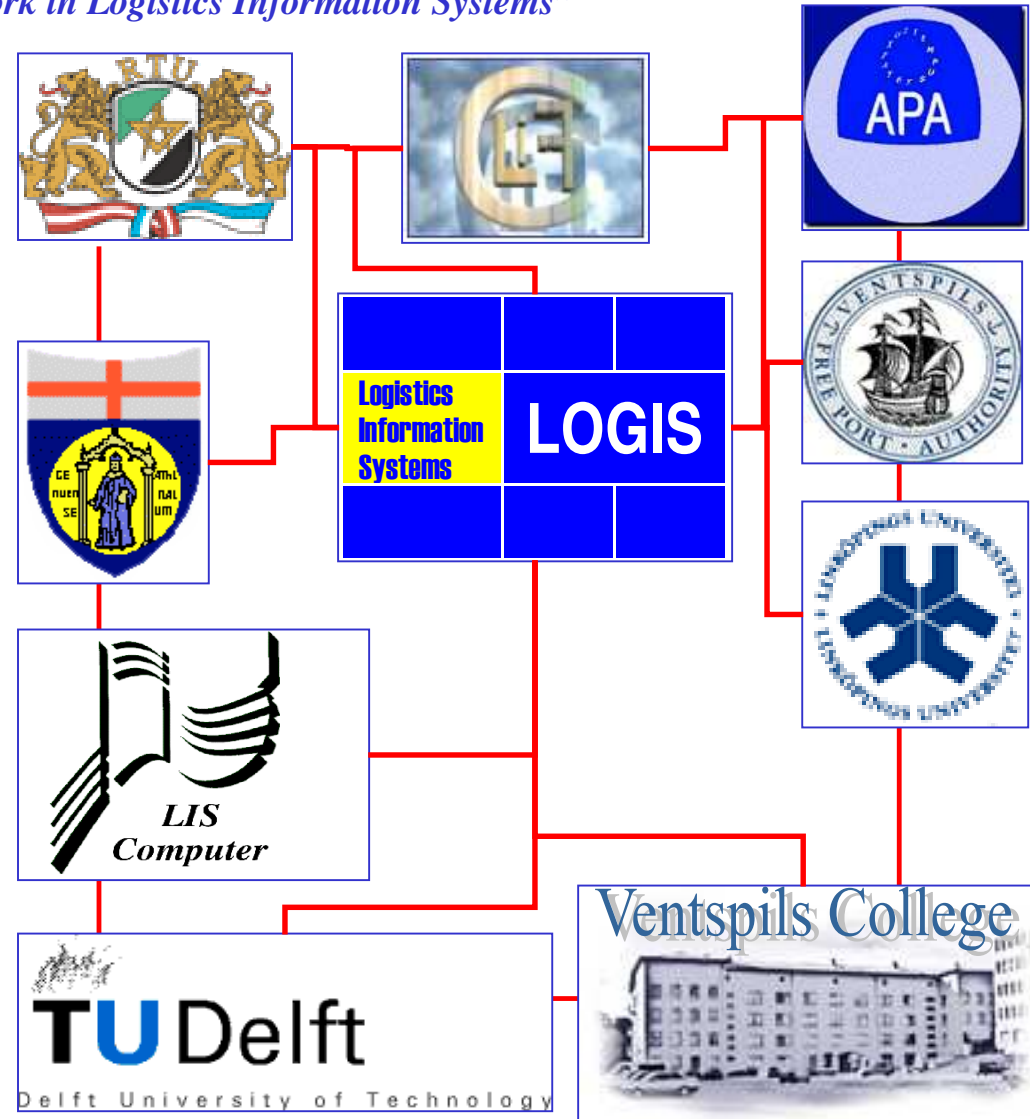


Sponsored by
European Community

Project: LOGIS

“Long-distance tutorial network in Logistics Information Systems”

LOGIS is a *Leonardo* project sponsored by European Community in order to develop Long Distance Tutorial Network in "Logistics Information System", Based on WEB Technologies. Besides the training, an interesting exploitation of the results of the research is related to the transfer of these techniques to Small - Medium size Enterprises.



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



MISS - DIP University of Genoa



Liophant Simulation Club



Conclusions

San José

SCSC 2004



The MISS DIP is acting, with major partners, as a 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 promotes Conferences and International Workshops focusing on application of Modelling & Simulation; for instance, this 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.

