

Perugia Simulation Center



Report Year 2012

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Simulation Center Courses



- Currently in University of Perugia the Simulation Team teach the following courses involving "simulation elements":
 - Modelling and Simulation for Industrial Plants,
 3rd Year Industrial Engineering
 - Facility and Industrial Plant Management







Simulation Center Projects



- DIIN Simulation Team projects are devoted to industrial engineering, among others we can outline:
 - Modelling and Simulation of biomass supply network
 - Interactions in between Demand Forecasting and Inventory Control Management
 - Model and Simulation for the Abatement of Volatile Organic Compounds
 - Models and Simulation: the case of "Filiera dei Piccoli" in collaboration with the University of

Goettingen.



Simulation Center Resources



 DIIN Simulation Team operates in Labs located in Perugia University and Terni Centers as simulation tools we use commercial packages

and languages:

- ARENa
- Automod
- Java
- Joomla

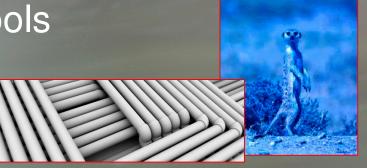




On-Going Initiatives



- DIIN Simulation Team innovative initiatives involve cooperation with other centers in:
 - Project of VOC emissions (LIFE project).
 Possible simulation tool for considering environmental issues in plant layout management
 - Development of online tools
 - Internationalisation





Publications



- BIANCONI F., FERNANDEZ A., GONZALEZ E., SAETTA S.A., 2013, Performance analysis of colour descriptors for parquet sorting EXPERT SYSTEMS WITH APPLICATIONS
- SAETTA S., TIACCI L., CAGNAZZO L., 2013, "The innovative model of the Virtual Development
 Office for collaborative networked enterprises: the GPT network case study", International Journal
 of Computer Integrated Manufacturing, Volume 26, Issue: 1, Special Issue: yes, 41-54.
- TIACCI L., SAETTA S., "Demand forecasting, lot sizing and scheduling on a rolling horizon basis", 2012, International Journal of Production Economics. Volume: 140, Issue: 2
- SAETTA S., TIACCI L., TAPOLA M., HIHNLA S., "Feasibility study of different cleaning techniques in the abatement of VOC emissions from aerobic and anaerobic waste water treatment in mechanical pulping", Workshop on Applied Modeling and Simulation, WAMS 2012, Rome Sept. 24th – 25th, 2012.
- SAETTA S., TIACCI L., TAPOLA M., HIHNLA S., "A model of a biofilter for mechanical pulping waste-water treatment", The 11th International Conference on Modeling and Applied Simulation, Vienna, September 19-21, 2012.
- BIANCONI, F., GONZALEZ, E., FERNANDEZ, A., SAETTA, S.A., 2012, "Automatic classification of granite tiles through colour and texture features", Expert Systems with Applications



Perugia Center Staff



- Perugia Simulation Center Staff supporting the application to Simulation Center is composed by:
 - Stefano Saetta (Industrial Engineering) Director



- Lorenzo Tiacci (Management Systems)
- Valentina Caldarelli (VOC abatement, Filiera dei Piccoli, Sustainability)
- Chiara Paltriccia (Modeling and Simulation in Healthcare systems)
- Marina Massei, Assistant Director









Several Proud Members of Liophant Simulation and Simulation Team

