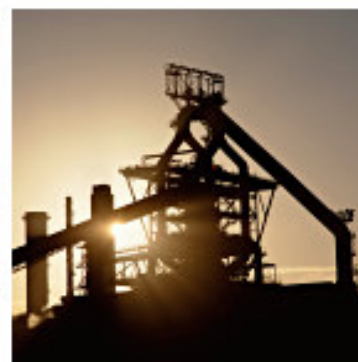


University Master Program

Master Program in Industrial Plant



This Master is devoted to prepare on Industrial Plants Technical Issues, with special attention to Engineering, The goal it is to organize a Master Program based on strong cooperation between Academic and Technical Expert coming from Leading Universities and Companies operating in this area with special attention to Construction and Engineering, Power & Energy and Steel

University Master Program in Industrial Plants

SPONSORS AND SUPPORTERS



Programma Operativo Ob.2
"Competitività regionale e occupazione" Fondo Sociale Europeo
Regione Liguria 2007-2013

SPONSOR COMPANIES





University Master Program in Industrial Plants



WHAT IS

The Master in Industrial Plants is a one-year degree program organized in Genoa University focusing on preparing new generations of top quality technical experts for process engineering and power equipment supplier as well as construction contractor

Its main aim it is to satisfy the expectation from Leading Industries in term of high technical skills and excellence capabilities in Industrial Plants and Engineering. The Master Program is directed by Faculty of Engineering in strong cooperation with leader industries and major companies operating in these industrial sectors, this aspect guarantees the relevance and effectiveness of the initiative.

In fact this project it is part of a large initiative devoted to develop excellence in Industrial Plants and Engineering through the synergy between the expertise of Genoa University Engineering Faculty and Top Level Companies with long traditions that are leading this Area Nationally and Internationally in term of turnovers, size, processes and products complexity as well as know how and technical skills.

University Master Program in Industrial Plants

MASTER OUTCOME

This Master is devoted to create System and Process Engineers, Technical Coordinators operating effectively in Project Teams in Global Engineering and Construction. This Master provides deep technical skills in Industrial Plants as well as the capability to get the whole overview on the project and its technical aspects along the whole project phases: Offering, Engineering, Purchasing, Construction and Erection and Commissioning.

At the completion of the Master Program students develop transversal capabilities in all the critical areas (mechanics, high power, electronics , automation, computation, management, security and safety, materials, processes and components) combined with their specialization expertise in specific Plant Sectors (i.e. Power Equipment, Iron & Steel) as well as with the Company Internship Experiences



University Master Program in Industrial Plants

WHO SHOULD ATTEND

This Master is a Post Graduate University Program devoted to people with Engineering degree, addressing:

- Young Engineers with strong technical background (5 years degree)
- Engineers interested in attending specific thematic educational modules of the Master Program that are already working in Companies involved in Construction and Engineering of Industrial Plant and related sectors



University Master Program in Industrial Plants

GENERAL PROGRAM

The Master in Industrial Plants includes:

- **Fundamentals in Industrial Plants, Construction and Engineering**
- **Thematic Modules on Specific Plant Sectors (i.e. Power or Steel)**
- **Special Advanced Modules, integrated within the Master Program, but available even for being attended autonomously; these are dedicated to Project Works to be developed by individuals and/or in teams within a competitive/cooperative framework interacting dynamically with Experts**
- **Company Internships devoted to acquired direct experience on the field with real projects**
- **Tours in Industrial Plants and Engineering Centers and Labs.**
- **Testing for Certifying Skills and Capabilities acquired by the attendees on each topic**



University Master Program in Industrial Plants

Educational Program



A - Iron & Steel Industry

B – Power Systems
and Desalination

Company
Internship

Plant Project

Industrial
Technologies

Teaching 450 hours

Project Works 650 hours

Internship 400 hours



During teaching hours common basics are provided in term of methodologies and techniques for plant engineering and industrial technologies. The master student is entitled to choose between the alternative thematic modules. The Master in Industrial Plants have special focuses on Energy and Iron & Steel industries as well as on Global Engineering, Construction



University Master Program in Industrial Plants

Educational Program

1 – Plant Project

1.1- Introduction to
Industrial Plants

1.2- Financial Analysis for
Plant Projects

1.3- Project Management
Methodologies

1.4- Management Issues
within HSQE

1.5- National, European and
Int. Standards & Regulations

1.6- Construction
Management Methodologies

2 – Industrial Technologies

2.1- Plant Processes and
Components

2.2- Plant Service Design
and Engineering

2.3- Material Technology and
Plant Design

2.4- Plant Automation and
Digital Control Systems

2.5- Software Solution for
Design and Simulation

2.6- Thematic Modules



University Master Program in Industrial Plants

Faculty

The Master Teachers are an effective mix of Academic and Industrial Experts

- Genoa University Professors
- Italian Top-Quality University Faculty
- International Teachers and Experts
- Company Experts
- Professional Experts from Institutes and Organizations



All the Sponsor Companies of this Master Program have the possibility to being actively involved in Lecturing, driving Project Works, providing Case Studies and developing Class Exercises.

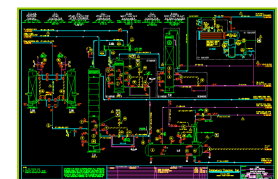


University Master Program in Industrial Plants

Master Organization

This Master is managed by a Technical Scientific Committee :

- **Agostino Bruzzone** (Full Professor in Industrial Plant, DIPTeM)
- **Pietro Giribone** (Full Professor in Industrial Plant, DIPTeM)
- **Giancarlo Parodi** (Full Professor in Electronics, DIBE)
- **Flavio Tonelli** (Researcher in Industrial Plants, DIPTeM)
- **Giorgio Migliorini** (FISIA)
- **Carlo Raggio** (TENOVA)
- **Piergiorgio Fontana** (Paul Wurth Italia)
- **Raffaele Traverso** (ANSALDO Energia)
- **Ing. Luca Tagliafico** (Full Professor in Industrial Thermoenergetics, *DIPTeM*)



The Master Secretary Service is supported by:

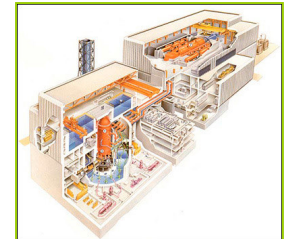
- PERFORM - Center for Continuous and Professional Education, Genoa University
- Mechanical Engineering Program, Genoa University



University Master Program in Industrial Plants

Reasons to Become a Sponsor Company

- Active role in selection processes of Master Students
- Opportunity for deep evaluation and selection of Candidates among the Master Student during the Program and the Internship
- Opportunity to involve in the Special Advanced Modules promising engineers already employed in the Company for improving their capabilities
- Cultural Interacting with other Companies operating in this area
- Sharing High Quality Education Costs
- Promotion of Joint Initiative on Industrial Plants with University Active Subject both in term of Education and R&D
- Development of a Fertile Background in Industrial Plant, Global Engineering and Construction devoted to support competitiveness



University Master Program in Industrial Plants

References



Prof. Agostino G. Bruzzone
DIPTeM, University of Genoa
via Opera Pia 15, 16145 Genova
Email agostino@itim.unige.it
URL www.itim.unige.it



Dr. Monica Sbrana
PERFORM, University of Genoa
Palazzo Belimbau, 16124 Genova, Italy
Email sbrana@perform.unige.it
URL www.perform.unige.it



Dr. Ilaria Burlando
PERFORM, University of Genoa
Piazza dell'Annunziata 2, 16124 Genova, Italy
Tel +39 010 209 9466 - Fax +39 010 2099469
Email burlando@perform.unige.it
URL www.master.impianti.unige.it

