L'Industria incontra Giovani Ingegneri: Sfide ed Opportunità per Giovani Ingegneri e Aziende



Industrial Plant Business Sector meets with Young Engineers: Challenges and Opportunities for Young Engineers & Companies

People interested in ALL Companies attending to current **Campus Interviews are** edition : ENGINEERING invited to Send CV to Infineum 1year1day@simulationteam.com DANIELI tenova **STUDENTS** DANIELI AUTOMATION Join Invite extended to all Computer Science MIPET 🚩 PAUL WURTH **ARE INVITED** d Informatics IFen KPMG www.itim.unige.it/mipet/job accenture **Meeting Promam** igh performance. Delivered Schindler APM TERMINALS November 22, 2017 9:30 am - 18:00 pl WÄRTSILÄ Piano Nobile, Villa Cambraso - via Montallegro verallia **DUTOGRU** 9:30 Welcome Prot. Agostino G. Bruzzone International Opportunities Taday Managers from International Major Companies Student/Company Opportunities & Challenges Meeting with Companies & Campus Intervi 10:0 SOFT what's 10:30 BearingPoint. Ansaldo STS 12:00 A Hitachi Group Company 12:3 Break Meeting with Companies & Campus Intervi 13:00 18:00 Closure EURES íМ، Â IPET ORDINE CONFINDUSTRIA

Industries meet Young Engineers

1 Year of

Interviews

in 1 Single

THE ORIGINAL

ar1day

Free Access, No Registration Fee, for further information please contact 1year1day@simulationteam.com www.itim.unige.it/cs/plants/1v1d/nov2017

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Industrial Plant Business Sector meets with Young Engineers: Challenges and Opportunities for Young Engineers & Companies



L'Industria incontra Giovani Ingegneri: Sfide ed Opportunità per Giovani Ingegneri e Aziende



Industry & Business meets Young Talents: Challenges and Opportunities for Comp and Young Engineers Aziende presenti nella corrente edizione: Infineum DANIELI tenova **DANIELI** AUTOMATION Join MIPET 🚩 PAUL WURTH iren ^{KPMG} Prof.Agostino G. Bruzzone accenture Schindle APM TERMINALS WÄRTSILÄ verallia Welcome METINVEST SOFT Swhat's BearingPoint. Ansaldo STS A Hitachi Group Company aster IPET per ulteriori informazioni, prego contattare 1year1day@simulationteam.com

www.itim.unige.it/cs/plants/1y1d/nov2017

Genoa University, Polytechnic School & Engineering Faculty

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 involve around 7,500 students distributed among Genoa Locations and two External Sites: Savona Campus and La Spezia Area

Recently the Polytechnic School was established combining Engineering Faculty and Architecture in order to reinforce the vocation of Genoa University to be an International Leader in Innovative Technologies in a wide spectrum of applications

For further Information about the Engineering & University of Genoa:



www.itim.unige.it www.ingegneria.unige.it www.unige.it



Ordine degli Ingegneri della Provincia di Genova







Felice Lombardo, Consigliere dell'Ordine degli Ingegneri della Provincia di Genova



Master IPET industrial plant engineering and technologies

CONFINDUSTRIA Genova supports International Master MIPET since its begin and promotes these initiatives among Industrial Community

Crocco, Confindustria

CONFINDUSTRIA Genova



Intellectual Capital for Future of Engineering

Jack Welch (GE CEO 1981-2001 from \$14 billions market value to over \$410 billions): Globalization has changed us into a company that searches the world, not just to sell or to source, but to find Intellectual Capital: the World's Best Talents and Greatest Ideas



Scientists investigate that which already is; Engineers create that which has never been Albert Einstein, Physics Nobel Price 1921

Changes around the World

How it is Changing the Industry & World?
How Simulation enables to face Risks & Dangers?
Way Ahead, Challenges and Opportunities



Changes around the World

How it is Changing the Industry & World? • How Simulation enables to face Risks & Dangers? Way Ahead, Challenges and Opportunities To Perish is just a Game Option... or is it Real?



Opportunities

Some Open Questions?



- How it is Changing the Industry & World?
- What offers Industrial Engineering?
- Way Ahead, Challenges and Opportunities
- To Perish is just a Game Option... or is it Real?

2017!

Vs.





Tianijin Explosion, August 2015, 800 tons Ammonium Nitrate, 173 casualties, 2km range, 9bUSD Ins.Damage

Threats

12

Today: Living in a Paradox



In 2016: Uber, the world's Largest Taxi Company,...



Facebook, the most popular media owner,...





creates no content



Alibaba, the most valuable retailer,...

Airbnb, the largest accomodation provider,...





has no inventory





owns no real estate





Some new way to... Perish!

- 1995 Mercedes from Munich to Denmark, 1600 km
- 1996 Parma University follow lane marks, 1900 km
- 1997 NAHSC, 20 vehicles in I7 San Diego
- 2004 DARPA, failure on running in the Desert
- 2005 Parkshuffle near Rotterdam •
 - 2007 DARPA, urban challenge won by Chevy CMU
 - 2014 Vislab 20' in Rush Time \rightarrow 30M\$ by Ambarella 2016 Daimler AG smart parking in Stuttgard HQs **2016 Tesla first Casualty**
 - 2016 Nutonomy in Singapore, Self Taxi Service
 - 2016 Uber testing in Pittsburgh
 - 2017 Uber banned in London after Vancouver & Austin

DARPA

NAHS

18 millions of Taxi **Drivers Worldwide** 900'000 **Truck Drivers** In Italy







•

National Automated Highway System Consortium

Defense Advanced research Projects Agency

Carnegie Mellon University

Challenges **Face Risks**

15 Statistics

New Locations...



Freetown, Sierra Leone



Asunction, Paraguay



Ashgabat, Turkmenistan



Macau, China

...within a Challenging World



Kiev





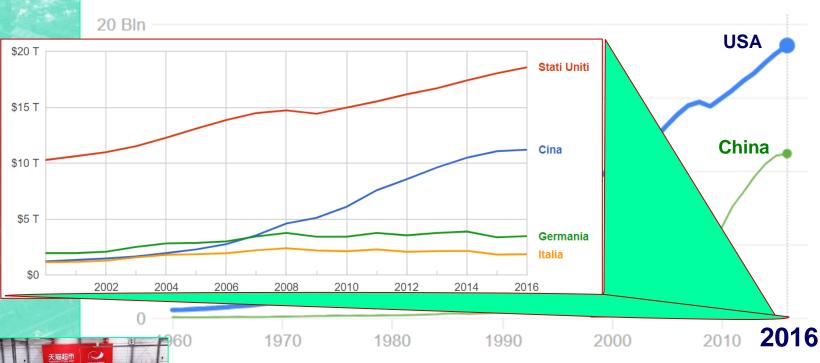
Kobane



Crisis... Ops... sorry it was Capsized!

2016 USA GDP 18'570 GUSD

China GDP 11'200 GUSD





Looking Really for You?

Yes!



... but you should be... smart... flexible... well prepared... motivated... hard worker... professional... reliable... etc.

They Came from the

Outer World

Top Companies are used to accept CEO from Foreign Countries based on their capabilities, with an evident Globalization (2013)



Nissan, Japan Revenues 22.7 bUSD Profits 1.1 bUSD Carlos Ghosn, Brazil





Dior, FranceRevenues40.9 bUSDProfits1.9 bUSDSidney Toledano, Marocco





PepsiCo, USA Revenues 65.5 bUSD Profits 6.2 bUSD Indra Nooyi, India





Coca-Cola, USA Revenues 48.1 bUSD Profits 9.0 bUSD Muhtar Kent, Turkey





Deutsche Bank, Germany Revenues 68.5 bUSD Profits 0.3 bUSD Anshu Jain, India





Tata Motors, IndiaRevenues34.5 bUSDProfits1.8 bUSDKarl Slim, UK



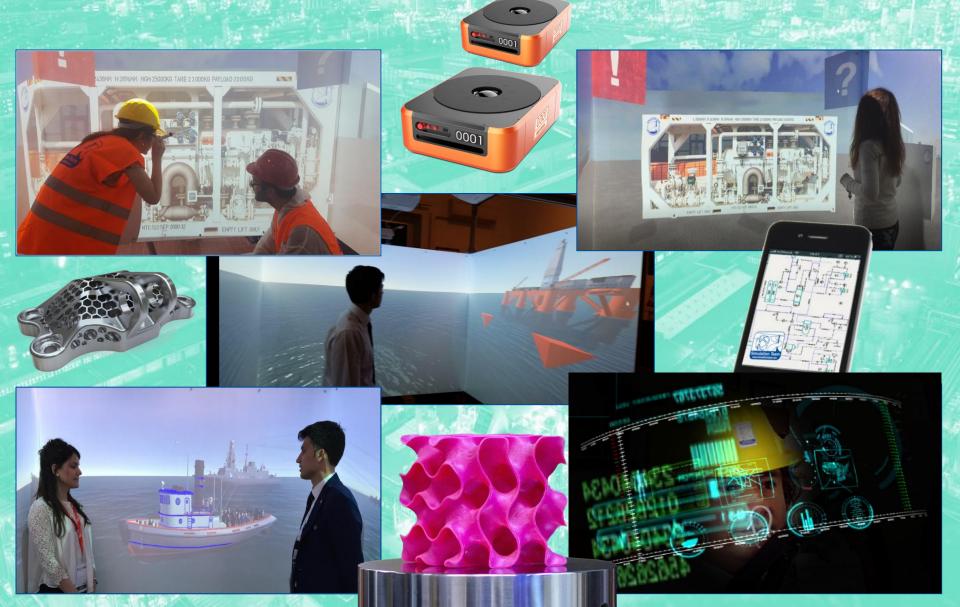
Human Capital is becoming Even more Important

Engineering is providing an unique opportunity to improve the Capabilities and Understanding of high qualified people: Scientists, Researchers, Technicians and Engineers





Enabling Technologies



Modeling, Simulation, AR & VR... in Industrial Plants





Impiantistica e Ingegneria a Genova

industrial plant engineering and technologies



In Genoa University several groups are active in Industrial Plant Engineering; for instance the Simulation Team MITIM DIME resulted as evolution of the Institute of **Technology and Industrial Plant Engineering** & Management (ITIM) that was focused on these issues since '60; DIST, DICHEP, **DINAEL and other Engineering Departments** are also active on these subjects. The Genoa University is involved in several R&D activities on Plant and Process Engineering and also in Undergraduate, Postgraduate and Continuous Education on this area. Simulation Team MITIM DIME for instance co-operates actively with major Excellence **Centers World-Wide.**









Simulation Team DIME

The Simulation Team - MITIM DIME of Genoa University carries out many industrial projects in cooperation with the large corporations and Small and Medium sized Enterprises; some example of recent industrial simulation project are following: QUPOND BR



Mars

CAMPARI



 General Director M&S Net (34 M&S Centers Worldwide)
 President Simulation Team (20 Centers Worldwide
 Associate Vice President of SCS and Chairman of Technical Chapter Member of NATO SAS, MSG, and NIAG



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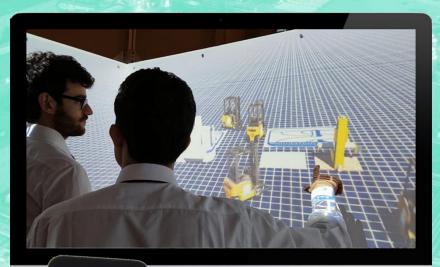




Industry 4.0...

Few definitions clarify how Innovative Technologies enable the Industry 4.0 Paradigm:

Industry 4.0: is the current Paradigm of Automation and Data Exchange in manufacturing leading to Smart Manufacturing; the idea is to combine concepts such as Cyber-Physical Systems, the Internet of Things, Cloud Computing, Modeling and Simulation, Augment & Virtual Reality, Artificial Intelligence and Intelligent Agents to create a common intuitive framework to control the Industrial Processes



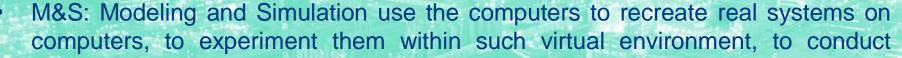


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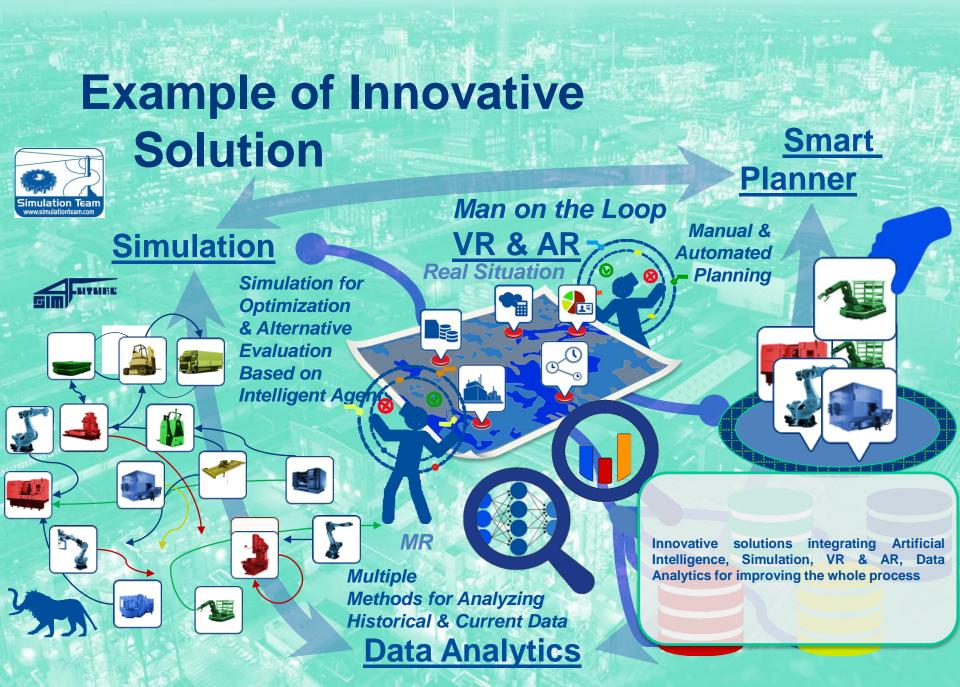
Industry 4.0& Enabling Technologies



- experiments and tests even before the new industrial system is realized, to
- Virtual Reality: is the combined use of Computer Solutions to Immerse the user into a Virtual Framework; currently VR is flexible, working with multiple platforms & I/O (e.g.Smartphohes,CAVE, Laptops, CAVE, HDM, Hololens, data gloves, motion, force feedback, etc.)



Augmented Reality: is a live direct or indirect view of a physical real-world whose elements are augmented by additional information provided by computer programs; in this way it is possible to add data from Dbase, Sensors, Sound, Video, 3D, GPS



Examples of Projects

Industrial Indoor and Outdoor Use of Robotic Systems for Inspection and Safety

Chemical and Nuclear Plants. Iron & Steel Facilities with UAV and UGV collaborating



IDRASS

Critical Industrial Infrastructure Control and Monitoring With cooperationg UAV, UGV, UAS and UAV





UAV Unmanned Aerial Vehicle UGV Unmanned Ground Vehicle UAS Unmanned Surface Vehicle AUV Autonomous Underwater Vehicle



28

UxV & Plants

TALTER

THE

Inspection

Inspection

Outside

Stabilization active Hover mode active Pause

Inside



PAP

UxV Unmanned any domain Vehicle

DIME

Industrial

Objects

29

Safety First

Plant &

Environment

Run Time Infrastructure

UAV

DIME

Other Simulator



MIPET www.itim.unige.it/mipet 9th Edition in 2018







CONFINDUSTRIA

Ordine degli Ingegner

Mastering Industrial Plant Engineering and Technologies is an initiative promoted by a joint Team of Academic Institutions, Industries and Associations, MIPET includes an International Master focused on Industrial Plants Technical Issues, with special attention to Engineering. MIPET Master Program Excellence is based on the strong cooperation between Academic and Technical Experts coming from Leading Universities and Companies operating in this area with special attention to Engineering and Construction in **Power Generation, Iron & Steel and Environment.**









9th Edition is just starting...

Sponsored by Industries as always along ~10 years!

Pre-registration open on **www.itim.unige.it/mipet/join** Selection Process is planned for December, March & April by Live or Web interviews

Full Free Registration for Best Selected StudentMany Grants from Industries covering most of Tuition fees

We usually receive many pre-applications from Worldwide: Europe, Asia, Americas & Africa... but we want to select best students!













The Master in Industrial Plant Engineering and Technologies of the Genoa University

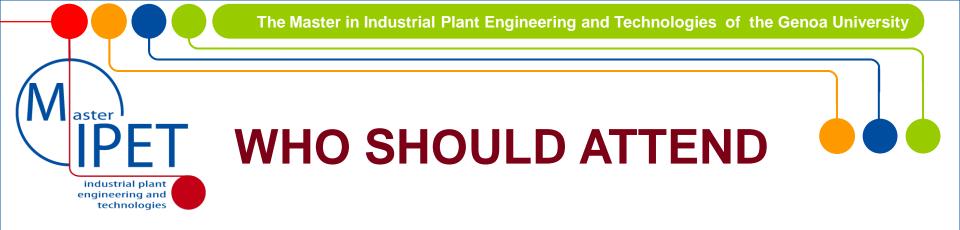


aster

Academia, Institutions & Industries

MIPET ORGANIZERS & SUPPORTING INSTITUTIONS





- Young Engineers with strong potential and technical background
- International Excellent Students of Engineering Departments from all around the world
- Engineers with experience in Plant Engineering from world-wide
- Engineers already employed in Engineering and Construction Companies who are interested in attending specific Operative Modules of the Master Program such as Project Management, Constructions, Standards and Regulations, Safety, Security & Risks



















BENEFITS FOR YOUNG ENGINEERS

- High Profile Professional Education devoted to provide High Value Skills in Industrial Plant Engineering and Technologies
- Continuous Interaction with Top Quality Experts from Academia, Institutions and leading Engineering & Construction Companies.
- Very Qualified Selection and Evaluation Processes that guarantee the Master Attendees as highly qualified resources for top companies.
- Opportunities to complete experiences On Field on complex Industrial Plant projects
- Contacts and visibility to major E&C* Companies and EPC** Contractors (EPC) operating at International and National level.
- Developing Human Potential of the attendees by training and improving their Individual and Team Working capabilities.
 * E&C Engineering & Contracting



www.itim.unige.it/mipet

EPC Engineering, Procurement & Construction



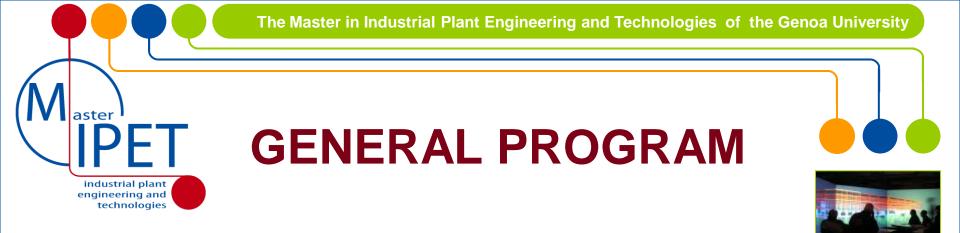








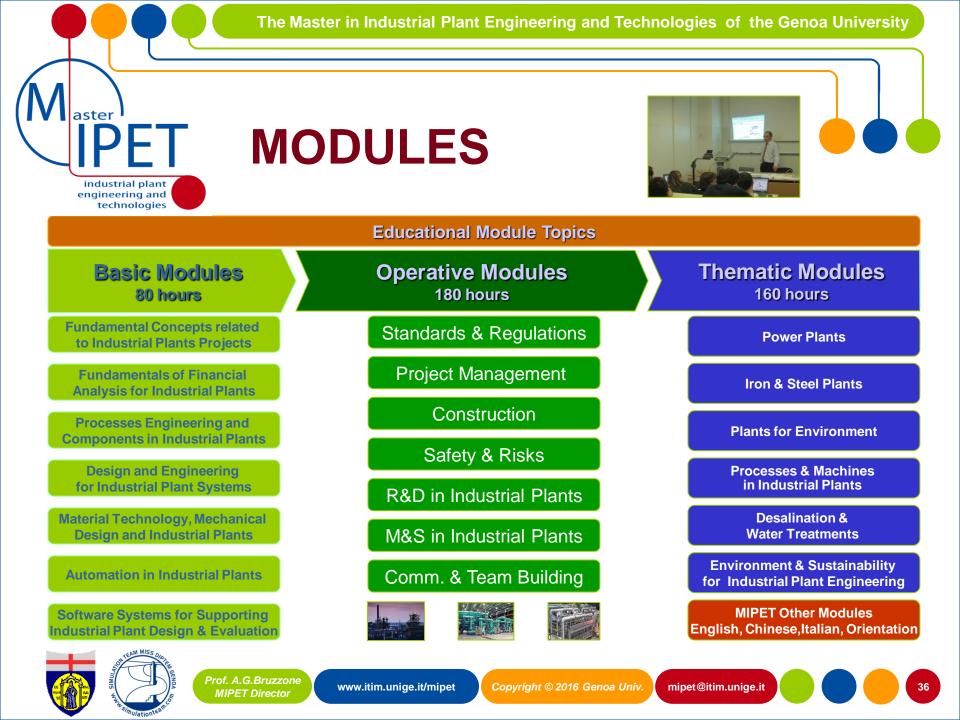




The Master in Industrial Plants includes:

- Basic Modules for Industrial Plant Engineering and Construction, including Process Engineering, Plant Automation, Materials & Technologies, etc.
- Operative Modules on Critical Issues for Industrial Plants (e.g. Engineering Standards and Regulations, Project Management, Quality Assurance etc.)
- Thematic Modules on Specific Plant Sectors (e.g. Power, Iron and Steel, Environment)
- Company Internships devoted to acquire on-field experience, including the development of the Project Work related to a Real Case
- Visits to Industrial Plants and Engineering, Research & Development Centers and Labs.
- Tests for certifying individual skills and capabilities acquired by the attendees on specific topics at the end of each single module.
- Professional Modules, integrated in the Master Program, but open for external attendees as stand alone courses. These modules include individual and team Projects Works to be carried out in competition/cooperation interacting with experts.







BENEFITS FOR SPONSORS

- Active role in selection processes of Master Candidates
- Opportunity for deep evaluation and selection of Master Attendees Selection, Educational Modules, Internship and Project Work
- Opportunities to improve the skills of Engineers & Technicians already employed
- Free Seats and Discounted Rates for registering into the Operative Modules
- Sharing High Quality Education Costs within a Specific Qualified Community
- Cultural Interaction among the different Actors of this initiative: Industrial Companies, University and Institutions
- Active Role free of cost into Student Meetings, Campus Interview and other Initiatives organized by MIPET
- Joint University-Industry stimulation of interest and research projects on subjects related to plant engineering.
- Development of a Fertile Background in Industrial Plant, Global Engineering and Construction devoted to enhance the competitiveness of the whole system.
- Visibility on Media and Promotional Initiatives



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HOW A COMPANY BECOMES SPONSOR OF MIPET

- Subscribing an Agreement that includes an annual fee and the commitment to provide resources (i.e. 15 hours of experts for specific contributions to educational modules to be developed under Technical Scientific Committee Coordination).
- Providing information about its requirements and preferences with respect to the characteristics of Master Attendees to be selected.
- Getting Benefits of Free Seats and discounts on MIPET Operative Modules for its Employers and/or Customers

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- Offering Internships to Master Program Students
- Providing Expertise as well as Real Case Studies

www.itim.unige.it/mipet



Prof. A.G.Bruzzone

MIPET Director



mipet@itim.unige.it



The ongoing cooperation among partners and sponsors aims at continuous improvement by guarantee MIPET top quality level:

- All Lectures and Material are in English
- Language Course for Attendees (English plus other optional Courses, i.e. Chinese)
- Agreements with Offices of Leading Companies for Cooperation and Enhancement of their top level engineers by involving them in MIPET Program
- Agreements with International Schools active in Plant Engineering and Technologies for Exchanging Trainers and Students
- Development of a Plant Engineering Reference Book for MIPET
- High Involvement of Foreign Students (e.g. India, Brazil, Iran)
- Special Benefits for Sponsors (i.e. Operative & Thematic Modules)







UGH

Companies interested in Human Capital & Complex System Engineering

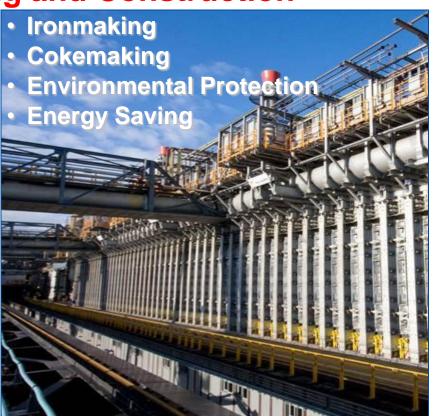


Simona Pollino & Maria Savioli, HR Manager, & Giovanni dei Marchi, Technology Senior Consultant, Paul Wuth Italia

 Paul Wurth
 SMS Group

Leading Player in Engineering and Construction





PAUL WURTH

Technology and Innovation is our life insurance in a global market: portfolio of 224 patented inventions protected by 1584 active patents. 40 licensees. Recent orders in Brazil, Mexico, Germany,India, Japan, Korea, Russia, Taiwan.

PW: 26 entities in 18 countries, totalling about 1600 people, mostly holding a university degree. PW Italia, employing 208 people based in Genoa (99 hired in the last 5 years), is one of the Main group company with long tradition.

Paul Wurth © 2013

L'Industria Impiantistica Incontra i Giovani Ingegneri



Carolina VVigesi, HR<u>, Tenova</u>

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Irene Mennillo, HR Manager, Danieli Automation







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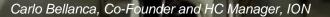
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Waste. Oil & Fresh Water

Waste, Oil & Fresh Water

Management to help meet current and future legislation »

Management







Agnese Pongiglione, Senior HR, WARTSILA



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Inert Gas

High quality, inerting gas solutions preventing the risk of explosion »



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accenture High performance. Delivered.





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Alessandro D'Andrea, Technical Manager



Fabrizio Zeba, Manager, Iren

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Come 🗾

Matteo Zamorani & Daniela Mastrilli, Managers

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MIPET: ABB Power System Division

Power and productivity for a better world"



Valentina Locatelli, HR Manager, ABB





Flavio Sciaccaluga, Technical Manager, Daniela Frisenda, Leonetta Patrassi, HR Managers, Metinvest







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Paolo G. Meazza, Engineering Responsible, AysysEng



Schindler



Ansaldo STS A Hita

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Maersk Group

Copenhagen, Denmark

•2014 Revenue: \$47.5b USD (Shipping, Energy, Ports)

•89,000 employees in 130 countries.

APM Terminals

The Hague, Netherlands

•2014 Revenue: \$4.45b USD

•2014 container volume: 38.3m TEUs (Container Volumes weighted by equity share)

20,600 employees, 58 countries















Alberto Tremori, Scientist, NATO STO CMRE

Daniela Stracuzzi, HR Manager & Arianna Cicero, Cecilia Boero, Claudia Palmisani, HR Recruiters, Kelly Services

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Daniela Norelli, HR Manager, Giulia Cardi, HR Assistant, SoftJam

Genova, 22 novembre 2017 Facoltà di ingegneria

Softjam meets with young engineers



SOFT what's next.



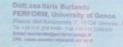
KPMG Advisory: per vincere la sfida della complessità

Viviana Vigoroso, HR Manager, KPMG

Questions & Free Discussion...



















The Master in Industrial Plant Engineering and Technologies of the Genoa University

industrial plant engineering and technologies

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References

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