

Preliminary Program

Steelmaster2018

XXII Edition

TRAINING IN THE STEEL INDUSTRY AS A RESOURCE
FOR THE NEW MILLENNIUM

1st Week

Genova

1-5 October 2018

2nd Week

Padova

5-9 November 2018

Organized by

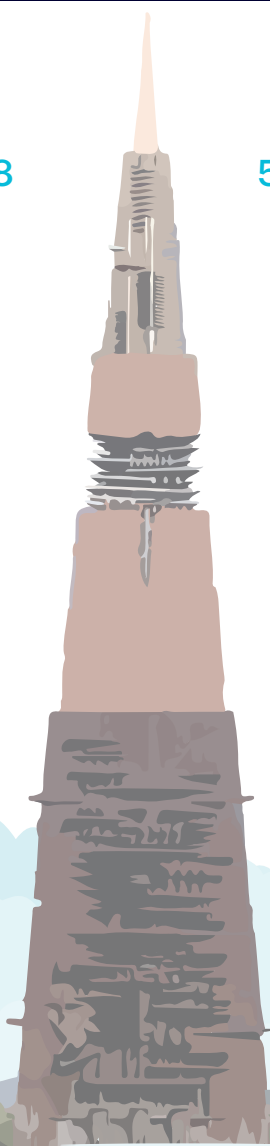


UNIVERSITÀ
DEGLI STUDI
DI PADOVA

Steelmaster is an
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TRAINING IN THE STEEL INDUSTRY AS A RESOURCE FOR THE NEW MILLENNIUM

The Steelmaster, the advanced course for “middle management” in the steel industry, has reached its twenty-second edition this year. The aim of the course is to provide participants with the tools and methodologies to outline a complete picture of the steel industry at national, European and global level.

The Steelmaster is a success story.

Thanks to the commitment of Rina, the Italian and European steel companies and their national and European associations, the Steelmaster guarantees high-level training in the steel industry, helping for orientation in a complex environment in constant evolution.

An official document of the European Commission refers to the Steelmaster as “the only” example in the European panorama of training for high professionals in the steel industry. Many steel and related companies have included the Steelmaster in their training plan for continuing training for their employees.

The Steelmaster 2018 edition provides an in-depth examination of the following topics: History of the steel industry, production cycles and technologies, structure of the steel industry at national, European and international level, steel market, research and innovation, products application, safety at work, environmental aspects, budget analysis, logistics, organizational aspects, managerial aspects, recruitment and evaluation of human resources.

The themes developed during the course will be the subject of the thesis to be developed by participants supported the tutors.

The topic of the thesis will be defined during the two weeks of the course and discussed in the spring of 2019; in that same day a ceremony will be held for the distribution of certificates to participants. The topics of the thesis should lead to a broadening of horizons in respect of the activities of the participants in their companies.

To facilitate wider participation, this edition of the course includes two specific modules dedicated respectively to the issues of **Industry 4.0** and **Circular Economy**, both of which will take place in the second week and to which it is possible to register also separately from the main course.

The digital transformation of companies, which in manufacturing takes the name of Industry 4.0, represents the challenge that the steel ecosystem begins to face. The **Module 4.0 Industry** has the scope to present to the participants both a possible vision of the future and specific thematic insights, such as the new organizational and business models, block chain and predictive maintenance managed by artificial intelligence.

The current industrial economy is based on a linear model of resource consumption that follows the flow “take-produce-dispose”. Circular economy is an important alternative to the still predominant linear model. Steel has always been at the center of a circular economic model and is still a vital material both in terms of durability and recyclability. The **Circular Economy Module** analyzes business models and industrial initiatives with examples of real applications, particularly in the steel industry.

In each week there is also a workshop, for free, aimed at disseminating the results of research projects funded by the European Commission’s Coal and Steel Research Program (RFCS).

The workshop of the first week, in Genova, is dedicated to the presentation of the European **Jabaco** project, which promotes the development of prefabricated steel jackets for offshore wind farm platforms. The objective to be achieved is the optimization of the manufacture of jacket sub-assemblies, considering that a large part of the investment for offshore wind energy is absorbed by the substructures.

The workshop of the second week, on Innovation and Smart Manufacturing in Padova, is promoted by the Integrated Intelligent Manufacturing (I2M) working group of the European technology platform for ESTEP steel. The aim is the presentation of the **DissI2M** project to disseminate the results of over 40 projects funded by the RFCS Program, in the field of industrial digitalisation, in particular in the steel industry.

REGISTRATION

Registration can be made online on the Rina.org website or through the registration form which can be downloaded from the website and sent to: steelmaster@rina.org

COSTS

FULL PROGRAM

1.990,00 Euro (+VAT) including lunch and coffee break, teaching material, transfer to plant visit and social events

BASIC PROGRAM - modules Industry 4.0 and Circular Economy not included

Euro 1.550,00 (Iva esclusa), comprendente pranzi e coffee break, materiale didattico, trasferimenti per visite aziendali e cena sociale.

INDUSTRY 4.0 MODULE

350.00 Euro (+VAT) including lunch and coffee break, teaching material.

CIRCULAR ECONOMY MODULE

1.550,00 Euro (+VAT) including lunch and coffee break, teaching material, transfer to plant visit and social

EARLY REGISTRATION BEFORE 7 SEPTEMBER 2018

FULL PROGRAM

1.550,00 Euro (+VAT) including lunch and coffee break, teaching material, transfer to plant visit and social events

STUDENT FEE

FULL PROGRAM

500,00 Euro (+VAT) including lunch and coffee break, teaching material, transfer to plant visit and social events

WORKSHOP Jabaco and WORKSHOP DissI2M

Participation in the workshops is free, upon registration, and until all available seats are available



Registration of the Order of Engineers of the Province of Genova

The Steelmaster and the Jabaco seminar are organized in collaboration with the Order of Engineers of the Province of Genoa.

Participation requires the issue of CFPs as follows:

- 6 CFP for participation in the Jabaco seminar on October 1, 2018
- 6 CFP for participation in each day both for hours of classroom training and for technical visits in the period from 2 to 4 October 2018
- 3 CFP for participation in the training day of 5 October 2018

CONTACTS

For any information you can contact steelmaster@rina.org

LOCATION 1st WEEK

GENOVA

At RINA

Via Corsica 12, 16128 Genova

LOCATION 2nd WEEK

PADOVA

At Acciaierie Venete

Riviera Francia 9/11, 35127 Padova

ORGANIZATION

Responsible:

Pietro Gimondo

Course Director:

Enrico Gibellieri

Technical and logistic coordination:

Andrea Tropeoli, Beatrice Cappa, Elisabetta Amici

1st Week Program - Genova 1-5 October

Monday 1st October

08.00 - 09.00

Registration of participants

Seminar JABACO

Development of Modular Steel Jacket for Offshore Windfarms

RFCS Project: RFSR-CT-2015-00024

09.00 - 09.30

Welcome and Introduction

Guido Chiappa, *Senior Director RINA*

Maurizio Michelini, *President of Ordine degli Ingegneri della provincia di Genova*

09.30 - 10.00

Introduction to offshore wind and project overview: modular Jacket concept

Giuliana Zilli, *RINA, Italy*

10.00 - 10.30

Wind offshore design: state of the art and perspectives of prefabrication

Ramboll IMS Ingenieurgesellschaft (Ramboll), *Germany, tbc*

10.30 - 11.00

Met-Ocean Data: relevance to windfarm design (and/or) Aero-fluid dynamic analysis of offshore wind turbine

National Technical University of Athens (NTUA), *Greece*

11.00 - 11.30

Coffee Break

11.30 - 12.00

Structural behavior of tubular joints and piled foundation vs suction buckets

Spyros Karamanos, *University of Thessaly (UTH), Greece and University of Edinburgh (UTH)*

12.00 - 12.30

Testing of offshore prefabricated joints and development of design recommendations

OCAS NV (OCAS), Belgium

12.30 - 13.30

Fabrication of offshore jacket structures. Automation of welding processes and Cost/Benefits impact

Ingeniería y Diseño Europeo S.A. (IDESA), Spain, *tbc*

Mauro Monti, RINA, Italy

13.30 - 14.30

Lunch

15.00 - 15.30

OPENING STEELMASTER 2018

Guido Chiappa, Senior Director RINA

Enrico Gibellieri, Course Director

Luca Luigi Manuelli, Ansaldo Energia

15.30 - 17.30

Growth and development of the Italian and European steel industry from the ECSC to the single market

Ruggero Ranieri, Economic Historian

20.00

Welcome Dinner



Tuesday 2 October

Italian and European steel industry, integral cycle and electric cycle

09.00 - 10.45

The Italian steel industry

Flavio Bregant, *Federacciai*

10.45 - 11.15

Coffee Break

11.15 - 13.00

The European steel industry

Jeroen Vermeij, *EUROFER*

13.00 - 14.30

Lunch

14.30 - 16.00

The Integral Cycle

Fabio Muscolino, *Paul Wurth Italia*

16.00 - 16.30

Coffee Break

16.30 - 18.00

The electric cycle

Eros Faraci, *RINA*



Wednesday 3rd October

Product and process innovation, continuous casting and rolling

09.00 - 10.00

How to Design a new steel: metallurgical design depending on the final application

Giorgio Porcu, *RINA*

10.00 - 11.00

Introduction to direct reduction and its perspectives

TBD, *Primetals*

11.00 - 11.30

Coffee Break

11.30 - 13.00

Process innovations: the case of ARVEDI Steelworks

Federico Mazzolari, *Arvedi*

13.00 - 14.30

Lunch

14.30 - 16.00

Innovation in steel casting processes

Riccardo Tonelli, *RINA*

16.00 - 16.30

Coffee Break

16.30 - 18.00

Rolling processes

Luigi Langellotto, *RINA*

Thursday 4 October

Cold treatments and management systems

09.00 - 10.45

The importance of the environmental factor in the evolution of the strip process lines

Stefano Martines, *Tenova*

10.45 - 11.15

Coffee Break

11.15 - 13.00

Management systems as tools for business operation

Maurizio Caccia, *IGQ*

13.00 - 14.30

Lunch

14.30 - 15.00

Transfer by bus

15.00 - 15.30

Presentation and visit Museimpresa of the Ansaldo Foundation

15.30 - 17.30

Visit Lighthouse Plant

Luciano Maria Gandini, *Ansaldo Energia*



Friday 5 October

Cost control and financial performance indicators

09.00 - 10.30

Cost control and value generation in the steel process

Diego Petruccelli

10.30 - 11.00

Coffee Break

11.00 - 12.30

Indicators of the financial performance of steel companies

Massimo Di Rienzo, *Financial consultant*

12.30 - 13.30

Light Lunch

2nd Week Program – Padova 5-9 November

Lunedì 5 novembre

Industry Module 4.0

09.00 - 10.00

Which scenario for the steel industry 4.0: business, organization and technology

Andrea Mazzarano, *RINA*

10.00 - 11.00

Business models and Industry 4.0

(Danieli), *tbc*

11.00 - 11.30

Coffee Break

11.30 - 12.30

Organizational models

Daniele Marini, *Università di Padova*

12.30 - 13.30

Lunch

13.30 - 14.30

Digital transformation in the steel industry

Andrea Bombardi, *Executive Vice President RINA*

14.30 - 15.30

The digital twin of product / process / plant in the steel plant

Giorgio Porcu, Luca Piedimonte, *RINA*

15.30 - 16.00

Coffee Break

16.00 - 17.00

Blockchain technology

Domenico Irilli, *Microsoft Italia*

17.00 - 18.00

Knowledge-based Next Level Service: systems for the management of the production process and maintenance of steel plants

Vito Paradiso, Mauro Bogliani, *Primetals*

Tuesday 6 November

Innovation and Smart Manufacturing Seminar

09.00 - 09.30

Integrated Intelligent Manufacturing: The Roadmap
Chairman Working Group I2M ESTEP

09.30 - 10.00

The DissI2M Project
Maria Maddalena Murri, RINA

10.00 - 10.30

Plant/Process performance improvement towards the highest productivity
Luca Piedimonte, RINA

10.30 - 11.00

Coffee Break

11.00 - 11.30

Environmental monitoring in steel plants
Roberto Piancaldini, RINA

11.30 - 12.00

Applications of muonic technology in metallurgy
Irene Calliari, Università di Padova

12.00 - 12.30

A new model in the process of open innovation
Fabrizio Dughiero, Università di Padova

12.30 - 13.30

Lunch



13.30 - 14.30

ESTEP Strategic Research Agenda and Big Scale Initiative
Klaus Peters, *ESTEP*

Research funding

14.30 - 16.00

The main European funding instruments for industrial research: Research Fund for Coal and Steel and Horizon 2020
Andrea Tropeoli, *RINA*

16.00 - 16.30

Coffee Break

16.30 - 17.30

Practice: Reading a call and drafting the proposal
Pietro Gimondo, *RINA*

17.30 - 18.00

Transfer by Bus

18.00 - 19.00

Guided tour of Palazzo Bò and Sala dei Giganti (Palazzo Liviano)

Wednesday 7 November

Module on circular economy and sustainability

09.00 - 10.00

Circular Economy and Industrial Symbiosis

Loredana Di Sante, *RINA*

10.00 - 11.00

The IED and the BREF making/review process, contributing to an enhanced sustainable European steel industry

Danny Croon, *EUROFER*

11.00 - 11.30

Coffee Break

11.30 - 12.30

Innovative technologies for environmental sustainability

Ilaria Pistelli, *RINA*

12.30 - 13.30

Lunch

13.30 - 14.30

Implementation of the most recent BAT at ILVA Taranto: the current status

Leonardo Ferrannina, *ILVA Taranto*

14.30 - 15.30

Examples of circular economy in steel industry

Filippo Cirilli, *RINA*

15.30 - 16.00

Coffee break

16.00 - 17.30

Business models and sustainability

Massimiliano Mazzanti, *Università di Ferrara*



Thursday 8 November

Maintenance, logistics and management of human resources

08.45 - 09.45

Maintenance scheduling

Maurizio Rondi, *Tenaris*

09.45 - 10.00

Coffee Break

10.00 - 13.30

Panel: HR management in the steel industry

Introduction by: **Antonius Schröder**, *ESTEP*

Industry 4.0 needs Work 4.0 – Combining technological innovation with human resources development

Participants: **Luca Villa**, *AST Terni*

Giulio Medaglia, *RINA*

Roberto Valente, *AFV Beltrame*

HR Manager, *Tenaris*

13.30 - 14.30

Lunch

14.30 - 18.30

Visit to Acciaierie Venete plant

Friday 9 November

Conclusion of the course

09.00 - 11.00

Definition of thesis topics and sharing on the course

Enrico Gibellieri, Pietro Gimondo, *RINA*

Flavio Bregant, *D.G. Federacciai*

11.00 - 11.30

Coffee Break

11.30 - 12.30

XIV Steelmaster Lecture

Alessandro Banzato, *CEO Acciaierie venete*

13.00

Closing session

