### **REGISTRATION FORM**

#### PERSONAL DATA

Full surname:

Full name:

Birth date:

Birth place:

Study title:

Company:

Company address

(street, number, ZIP code, town, province):

E-mail:

Phone\_

Mobile phone:

Skype:

### **INVOICING DATA**

(invoices will be VAT exempted)

Company name:

OI

Name and surname:

Address:

VAT:

Fiscal Code:

I authorize the processing of my personal information under DGPR n.679/2016.

I agree with the processing of my data for receiving information about the upcoming courses and for statistical purpose.

At any time, pursuant to DGPR n.679/2016, I will be able to access my data, request their modification or cancellation.

**Signature** 

## GENERAL INFORMATION

Summer School Directors Prof. Marco di Prisco

marco.diprisco@polimi.it Arch. Ugo Carughi ugo.carughi@gmail.com

Executive Coordinator
Mrs. Elisabetta Margiotta Nervi

Pier Luigi Nervi Project Association e.margiottanervi@gmail.com Mobile: +32 494 379096

#### Organisational Secretariat Mrs Anna Magri

CTE - Collegio dei Tecnici della Industrializzazione Edilizia

via G. Zanella, 36\_20133 Milano Phone: +39 02 36558834 Mobile: +39 347 2235773

E-mail: info@cte-it.org

For Ph.D. students the recognition of 5 CFU is committed to the Academic Board of the Ph.D. course they belong to.

32 CFP will be recognized to post-graduate engineers and architects by the Ordine degli Ingegneri di Lecco.

For more information please visit:

www.pierluiginervi.org/Laboratorio\_Nervi\_Summer\_School\_2018

## REGISTRATION

Only the first 30 Ph.D. students and post-graduated engineers will be accepted.

The registration fee is 500,00 Euros per person (VAT exempted, following the Italian Law DPR 633/1972, art. 10 and subsequent amendments), covering exclusively course attendance and social events.

To register, please send to info@cte-it.org

- registration form
- copy of bank transfer

It is possible to participate only in the single days of the Saturday July 21st (excluding dinner) and Wednesday 25th paying the amount of 50,00 Euros per day.

In this case, For Ph.D. students the recognition of 1 CFU per day is committed to the Academic Board of the Ph.D. course they belong to, while 5 CFP per day will be recognized to post-graduate engineers and architects by the Ordine degli Ingegneri di Lecco.

Bank transfer to:

Collegio dei Tecnici della Industrializzazione Edilizia IBAN IT06G0335901600100000113883 – SWIFT code BCITITMX Banca Prossima (Intesa San Paolo), Piazza Paolo Ferrari, Milano Please always write: LABORATORIO NERVI SUMMER SCHOOL 2018 + YOUR NAME AND SURNAME

# LABORATORIO NERVI Summer School 2018

Knowledge, restoration and valorisation of twentieth century architecture Critical, structural, technological aspects

Lecco Campus, 20th – 25th of July, 2018 room B0.2, building 09 ground floor

The Lecco Campus of the Politecnico di Milano welcomes this year the first Summer School of the Laboratorio Nervi. Inspired by the work of the great Italian designer and builder Pier Luigi Nervi (Sondrio, June 21st 1891 - Rome, January 9th 1979), the Laboratorio Nervi is being developed as a centre for study and analysis on the great issues of knowledge and conservation as well as restoration and valorisation of the twentieth century architecture. As for 2018, the Laboratorio Nervi Summer School will explore all these themes focusing on the critical, structural and technological aspects, within the framework of the European year of cultural heritage.

Promoted and organised by:

Politecnico Milano 1863 – Polo territoriale di Lecco Department of Civil and Environmental Engineering Implemented by:

P.L. Nervi Project Association

Do.Co.Mo.Mo. Italy

in cooperation with:

CTE - Collegio dei Tecnici della Industrializzazione Edilizia

Ordine degli Ingegneri di Lecco

FIB - International Federation for Structural Concrete





do.co,mo,mo\_\_\_









## **PROGRAMME**

# Friday, July 20th

9:00-10:30 am Welcome and Introduction (M. di Prisco-E. Margiotta Nervi-C. Chiorino-U. Carughi)

11:00-12:30 am The architectural heritage of the twentieth century within the policies of preservation:
The time factor – Protection legislation – Economic aspects – The international dimension. (Ugo Carughi)

2:30-4:00 pm Structures as architectural heritage of the twentieth century: The Nervi case study: knowledge, documentation and conservation (Cristiana Chiarino)

4:30 -6:00 pm Countering the deficiencies of protection legislation: A proposal in reference to the work of P. L. Nervi (Ugo Carughi)

# Saturday, July 21st

9:00-10:30 am The restoration of 20th century architecture: Materials and Technologies (Rosalia Vittorini and Luciano Cardellicchio)

11:00-12:30 am The problem of sustainability when designing the restoration of modern architecture (Alessandro Colombo and Paola Garbuglio)

Afternoon Guided tour of the Pirelli skyscraper in Milan (Alessandro Colombo and Paola Garbuglio)

# Saturday night and Sunday social events

Saturday evening:

Visit and Dinner at Villa Calchi in Calco

Sunday

excursion to the Morterone Open air Contemporary
Art Museum

# Monday, July 23rd

9:00-10:30 am The "structural architecture" of Pier Luigi Nervi: Static operation and technological aspects of the restoration (Francesco Romeo)

11:00-12:30 am The restoration of the ferrocement of P. L. Nervi: The "B" and "C" pavillions at the Parco del Valentino in Turin (Rosario Ceravolo)

2:30-4:00 pm The new cement-based material FRC, FRCM (Marco di Prisco)

4:30-6:00 pm Retrofitting design: opportunities and challenges using FRC and FRCM (Marco di Prisco)

# Tuesday, July 24th

9:00-10:30 am The renovation of the Flaminio Stadium: The structural aspects (Francesco Romeo)

11:00-12:30 am The renovation of the Flaminio Stadium: Restoration and Materials (Rosalia Vittorini and Luciano Cardellicchio)

2:30-4:00 pm The relationship architectural objectcontext in the work of P.L. Nervi: The city-planning dimension (Alessandra Marin)

4:30-6:00 pm The role of historiography. Sources and theories: The construction of an historical perspective. Case study of the Flaminio Stadium (Massimo Visone)

# Wednesday, July 25th

Protection and restoration of twentieth century architecture

9:00-10:30 am International case of protection and restoration: Conservation of the Sydney Opera House (Gianluca Ranzi)

11:00-12:30 am National example of protection and restoration. Conservatism and Innovation in Research Programs on Modern Heritage. The Study Case of the Conservation Plan on the Colleges by G. De Carlo. (Andrea Canziani)

2:00 – 3:30 pm National example of protection and restoration. The Pirelli skyscraper in Milan. (Alessandro Colombo and Paola Garbuglio)

#### SUMMER SCHOOL LECTURERS

Andrea Canziani Architect, Ph.D, Pg.D. in restoration of monuments, he is currently architect of the MIBACT, at the Superintendency Archeology Fine Arts and Landscape of Liguria, where he is responsible for the architecture and landscape sector in the Education and University Office. He teaches Architectural Preservation at the AUIC School of Politecnico di Milano. Co-chairman of the DOCOMOMO International Specialist Committee on Education + Theory (ISC/E+T) and former Secretary General of DOCOMOMO Italy, he wrote numerous essays on the XX century heritage and its relationship with contemporary architetture.

Luciano Cardellicthio is a building engineer and architectural designer. He was awarded his PhD in Architecture and Construction at the University of Rome Tor Vergata. He is currently Lecturer in Technology at the Kent School of Architecture. His research focuses on the histori-cal development of building techniques, the impact of the circular economy on the built envi-ronment and conservation issues of contemporary architecture. Luciano is currently working on the project, funded by the Leverhulme Trust, 'Our Future Heritage. Conservation issues of contemporary architecture in Rome'. Luciano is an international assessor for the Russian Confederation (EURASIA) and for the Italian Agency for Research Evaluation (ANVUR)

**Ugo Carughi**, Architect, Director at the Soprintendenza of Naples until 2013. Member of the Technical Committee for the archives and the architecture of the Ministry H.C.A. since 2001. Representative of the Ministry H.C.A. in the Board of Directors of the Foundation of Architecture and Town until 2014. President of Do.Co.Mo.Mo. Italy. He supervised and projected numerous testing of restoration sites, art shows and restoration and project of monumental buildings.

Rosario Ceravolo, graduated in Civil Engineering and PhD in Structural Engineering both from Politecnico di Torino. Associate Professor of Earthquake Engineering at the Politecnico di Torino since 2003. Invited researcher at the Ecole des Ponts (2001), professor of Structural Health Monitoring at Université Paris-Est (2009), invited professor at Columbia University, NY (2017-18). Member of the PhD board in Architectural Heritage. Author of over 180 research papers, including 60 contributions on international journals, on Analysis and Restoration of Structures of Architectural Heritage, Structural Health Monitoring and Evaluation and Reduction of Seismic Risk, and Structural Analysis and Conservation of Shell and Spatial Structures.

**Cristiana Chiorino** is an Architect with a PhD in conservation of modern architectural heritage and in history of architecture. She is a Partner of ComunicArch Associates, specializing in communication on architecture. Chiorino is a scientific consultant for heritage conservation to the Pier Luigi Nervi Project Association (PLN Project). She is a member of the Historical Spatial Structures Working Group of the International Association for Shell and Spatial Structures and the Italian section of the Council Board of Docomomo.

Alessandro Colombo, graduated in architecture from the Politecnico di Milano, he has been associate of Gregotti & Associates International and founding member of Studio Cerri & Associati, Studio Cerri Associati Engineering and Terra. He is adjunct professor at School of Design of Politecnico di Milano, He is board member of IDEA, Italian Association Exhibition Designers and correspondent for il Giornale dell'architettura. He is curator and designer of exhibitions at the Italian pavilion at the post Expo 2010 in Shanghai. On behalf of Politecnico di Milano he has been responsible of the project of the Coffee Cluster at Expo 2015 in Milan. He has been nominated Ambassador for the Italian Design in Vancouver 2017 and Jakarta 2018.

Marco di Prisco, full Professor of Structural Design at the Department of Civil and Envi-ronmental Engineering, Politecnico di Milano. Editor of the European Journal of Environmental and Civil Engine-ering, Associate editor of the J. of Cement and Concrete Composites, member of ACI, DAC RILEM, fib Presidium, coauthor of the MC2010 chapters on FRC and convener of the Commission TC250/SC2/Wg1/Tq2 to introduce FRC in EC2.

Paola Garbuglio, painter and architect, graduated from the Milan Polytechnic. In 1999 she founded "Terra" with A. Colombo, a place for art and architecture. She lives and works in Milan. She has been co-curator with A. Colombo of the exhibition the "The Ages of the Skyscraper. The Pirelli Sixty years after the laying of the cornerstone", Milano 2016.

Alessandra Marin, architect (IUAV Venice University) and PhD in Spatial Planning and Local Development (Polytechnic of Turin), is Urban Planning Researcher and Assistant Professor at the University of Trieste, Department of Engineering and Architecture. She is professor of Territorial planning and Urban regeneration at the School of Architecture, and she also teaches Notions of management of natural risks in the Master of Diplomacy and International Cooperation Studiesof Trieste University. Head of School of Architecture and Coordina-tor of the Town Centre Management Master of Trieste University, she is also DOCOMOMO Italia Secretary and referent of AIPAI for Fruil Venezia Giulia.

Gianluca Ranzi is an ARC Future Fellow, Professor and Director of the Centre for Advanced Structural Engineering at the University of Sydney. His research interests range from the field of structural engineering to architectural science, heritage conservation and high-performance buildings.

Francesco Romeo since 2007 is associate professor of Solid and Structural Mehanics at the Department of Structural and Geotechnical Engineering (DISG) of Sapienza University of Rome; since 2015 he is qualified as full professor in the same scientific area. Graduated in Civil Engineering at Sapienza, he received a MS in Engineering from Johns Hopkins University and a Ph.D. in Structural Engineering from DISG. Author of more than 70 peer reviewed publi-actions, he gave invited seminars at MIT, Technion IIT, CISM, TU Wien, University of Aberde-en, University of Southern California. Recently funded projects as PI are: "The Flaminio Stadium by Pier Luigi and Antonio Nervi in Rome: an interdisciplinary conservation plan", Getty Foundation, 2017-2018; "Innovative integrated approaches for damage identification in buildings", Ateneo 2016-2017.

Massimo Visone is research fellow at the University of Naples Federico II. Visone taught at the Academy of Fine Arts of Naples and at the University of Naples Federico II. He wrote on Villa Reale (2003, 2012), Villa d'Elboeuf (2008, 2014), Castel Capuano (2011, 2013), Poggio Reale (2013, 2016) and Palazzo Donn'Anna (2017). Visone is a member of the Grupo de Investigación lacobus (University of Santiago de Compostela), and member of the Research Centre on the Iconography of the European City (University of Naples Federico II).

Rosalia Vittorini, architect, is associate professor of Technical Architecture at Rome Tor Vergata University. She is a member of the scientific committees of the PhD program " Architecture and Construction" in the Doctoral School of the same University. The research focuses on the evolution of modern building techniques. In this area further into the subject of Italian architecture of the twentieth century and deals with issues related to restoration of the modern. On these issues leads detailed studies on buildings and designers, participates in conferences and publishes books and essays. She was President of DOCOMOMO Italia, chapter of DOCOMOMO International.

graphic design Colombo Garbuglio