

REGISTRATION FORM

PERSONAL DATA

Family name: _____
Full name: _____
Birth date: _____
Birth place: _____
Study title: _____
Company: _____
Company address (street, number, ZIP code, town, province): _____
E-mail: _____
Phone: _____
Mobilephone: _____
Skype: _____

INVOICING DATA (invoices will be VAT exempted)

Company name: _____
or
Name and surname: _____
Address: _____
VAT: _____
Fiscal Code: _____

I authorize my personal data to be processed according to D.Lgs. 196/03.

I agree my personal data being processed to receive information about upcoming courses and for statistical purposes.

Pursuant to D. Lgs. 196/03 I will be able to access my data, request their modification or cancellation at any time.

Signature _____

Signature: _____

Summer School Directors

Proff. Marco di Prisco & Matteo Colombo

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5 CFU will be recognized to students of the Ph.D. programme in Structural, Seismic and Geotechnical Engineering (Politecnico di Milano).

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

CFP will be recognized to post-graduated Engineers if a multiple choice test will be passed.

For additional information, please visit: <http://www.cte-it.org/>

Ph.D. Programme in Structural, Seismic and Geotechnical Engineering



In collaboration with



Collegio dei Tecnici della Industrializzazione Edilizia



International Federation National for Structural Concrete

SUMMER SCHOOL 2025

***Performance, Protection & Strengthening* of Structures under Extreme Loading**

Lecco Campus, July 11th – 16th 2025
room B0.3 – Edificio 10 I piano

Post – graduated engineers can attend on line on Cisco Webex or in presence



PROGRAMME

FRIDAY, 11th JULY 2025

- 09.00 - 10.30 HPFRC Material behaviour at high strain rates and high temperature (M. di Prisco)
- 10.30 - 11.00 *coffee break*
- 11.00 - 12.30 Meso-scale testing of FRC elements under blast and fire loads (M. Colombo)
- 12.30 - 14.30 *Lunch*
- 14.30-16:00 Impact resistance of Ultra High Performance Fibre Reinforced Concrete. (M. Soutsos)
- 16:00-16:30 *Coffee break*
- 16:30-18:00 Fire resistance of AAB binders for fire protection of tunnel segments (M.Soutsos)

SATURDAY, 12th JULY 2025

- 9:00-10:30 Optimising Ultra-High-Performance Fiber-Reinforced Concrete for Impact Resistance (D. Nicolaides)
- 10:30-11:00 *Coffee break*
- 11:00-12:30 Development and Validation of an Innovative Hybrid Laminate Material for Blast and Fire Protection of Structures (D. Nicolaides)

SOCIAL PROGRAMME

SATURDAY, 12 JULY 2025 – 14:00-23:00

Trip on Lake Como

SUNDAY, 13 JULY 2025 – 9:00-16:00

Mountain walking

MONDAY, 14th JULY 2025

- 9:00-10:30 Experimental field investigation of impact and blast load resistance of UHPFRC (D. Nicolaides)
- 10:30-11:00 *Coffee break*
- 11:00-12:30 High temperature performance of geopolymers based on construction and demolition waste (D. Nicolaides)
- 12.30-14.30 *Lunch*
- 14:30-16:00 Response of materials exposed to high temperatures. (E. Nigro)
- 16:00-16:30 *Coffee break*
- 16:30-18:00 Structural behaviour under fire conditions (E. Nigro)

TUESDAY, 15th JULY 2025

- 9:00-10:30 Full-scale tests under fire loads (E. Nigro)
- 10:30-11:00 *Coffee break*
- 11:00-12:30 Examples of fire design of concrete structures including the case of external FRP strengthening (E. Nigro)
- 12:30-14:30 *Lunch*
- 14:30-16:00 Punching shear and flexural performance of ultra-high performance fibre reinforced concrete UHPFRC slabs (M. Soutsos)
- 16:00-16:30 *Coffee break*
- 16:30-18:00 Design of resilient concrete structures (M. Soutsos)

WEDNESDAY, 16th JULY 2025

- 9:00-10:30 Reduced scale tests under blast and fire loads: a design proposal (M. di Prisco)
- 10:30-11:00 *Coffee break*
- 11:00-12:30 Design of tunnel segments subjected to exceptional loads. (M. Colombo)

REGISTRATION

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

The registration fee is 400,00 Euros per person (VAT exempted, following the Italian Law DPR 633/1972, art.10 and subsequent amendments), covering course attendance and social events

PhD STUDENT

To register, please send to phdissg-dica@polimi.it

- registration form
- copy of bank transfer

Politecnico di Milano - Dipartimento di Ingegneria Civile e Ambientale IBAN: IT29G0569601620000001740X15 - SWIFT code: POSOIT22
Banca Popolare di Sondrio, Agenzia 21, Via Bonardi, Milano.

POST GRADUATED ENGINEERING

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

- registration form
- copy of bank transfer

Intesa Sanpaolo
IBAN IT59C0306909606100000113883
BIC SWIFT: BC IT IT MM



Matteo Colombo - Associate Professor of Structural Analysis and Design at Politecnico di Milano. Main research interests: constitutive modelling of fibre reinforced concrete and advanced cementitious composites; lightweight structures made of advanced cementitious composites; behaviour of advanced cementitious composites in extreme condition like freezing and thawing, fire and blast; theoretical, design and experimental analysis on structural elements in normal and extreme conditions. He is member of different National and International committees related to Textile Reinforced Concrete (fib/RILEM), design of structures in case of blast and Impact (fib/RILEM) and Fibre Reinforced Concrete (fib).



Marco di Prisco - Full Professor of Structural Analysis and Design at Politecnico di Milano. Main research interests: constitutive modeling of plain and fibre reinforced concrete, fracture mechanics, composite materials, theoretical and experimental analysis on reinforcement-concrete interaction basic mechanisms, r/c and p/c structural elements, prefabricated structures, structural response at exceptional loads, tunnel safety, bridge assessment. Serial Editor of Springer Tracts in Civil Engineering, Coordinator of fib WP2.12.1 on design of structures subjected to impact and explosion. He is fib fellow and member of the Presidium, coordinator of the MC2020 chapters on FRC. He is Technical Director of DSC-ERBA design company.



Demetris Nicolaides - Associate Professor of Civil Engineering at Frederick University in Cyprus. Dr. Nicolaides' research spans within concrete technology, building materials and structural engineering. He explores the effective reuse of Construction and Demolition Wastes (CDW) and other industrial by-products in concrete mixtures, aiming to enhance sustainability, development of Geopolymer Concretes, where waste materials are repurposed to create innovative building materials, UHPFRCs, focusing on their mechanical properties, durability and applications in protecting structures against blast and impact loading and finally the realm of 3D Printing of Cementitious Materials, striving to optimize the rheological characteristics and interlayer properties for advanced construction techniques.



Emidio Nigro - Full Professor and Head of Department of Structures for Engineering and Architecture at the University of Naples Federico II. Author of three books and about 400 scientific papers on fire behaviour and analysis of steel, steel-concrete composite and RC members and structure, tunnels included; safety check of existing bridges; seismic vulnerability and strengthening of masonry and RC structures; high temperature behaviour of concrete structures reinforced or strengthened with FRP materials. Chairman of the Italian Working Group UNI/CT 021/GL01 on Structural Design in case of fire and member of the WG2 of EN1993-1-2 and EN1994-1-2 (Structural Fire Design) of CEN/TC 250/SC3 and SC4.



Marios Soutsos - Professor of Structures/Materials in Queen's University Belfast (QUB). He has had industrial experience in Cyprus, Libya, Saudi Arabia and Bahrain prior to returning to Academia. Principal research experience is in construction materials and current interests include: high strength concrete, cement replacement materials, chemical admixtures, concrete rheology, the use of recycled demolition aggregate in concrete products, repair materials, heat of hydration effects in concrete structures, as well as alkali activated binders. He is an author or co-author of nearly 200 technical publications and editor for the book entitled Concrete Durability: A Practical Guide to the Design of Durable Concrete Structures, and co-editor for the book entitled "Construction Materials: Their Nature and Behaviour, Fifth Edition.