RILEM SPRING CONVENTION
and CONFERENCE

SUSTAINABLE MATERIALS, SYSTEMS AND STRUCTURES

SMSS 2019

Lone Hotel, Rovinj, Croatia
18 – 22 March 2019

WELCOME

SMSS2019 conference is organised as a supporting event of RILEM Spring Convention. The scope of the conference is to gather scientists, practitioners, members of technical committees and users of technical recommendations, to jointly at the same place discuss and envision the future sustainable development of materials, systems and structures in a holistic, global way.

CONFERENCE ORGANISERS

The conference is organized by University of Zagreb Faculty of Civil Engineering, which is celebrating its 100th Anniversary in 2019! By part icipating in RILEM Spring Convention and International Conference on Sustainable Materials, Systems and Structures 2019 you will contribute to the jubilee of our Faculty.

HONORARY PRESIDENT OF SCIENTIFIC COMMITTEE

Dubravka Bjegović
Faculty of Civil Engineering,
University of Zagreb, Croatia
RILEM Fellow Member

CONFERENCE CHAIRS

Marijana Serdar
Faculty of Civil Engineering,
University of Zagreb, Croatia

Ivana Banjad Pečur
Faculty of Civil Engineering,
University of Zagreb, Croatia

CONTACT

University of Zagreb
Faculty of Civil Engineering
Department of Materials

Fra A. Kacica Miosica 26
10000 Zagreb, Croatia

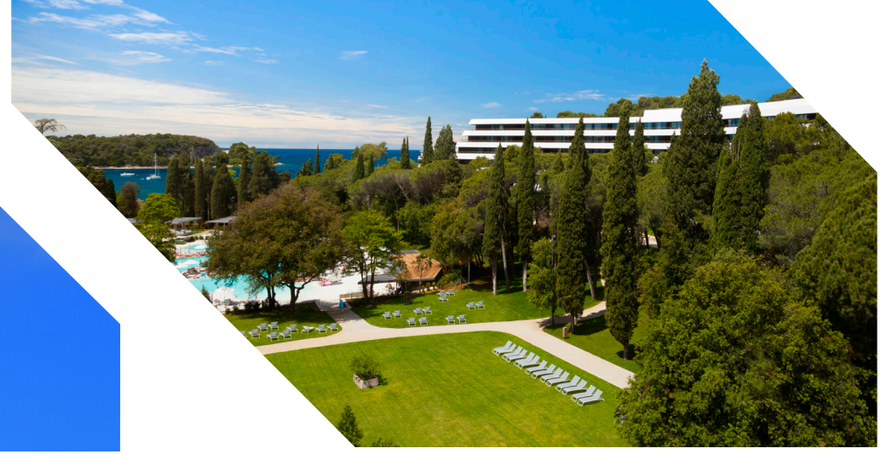
E-MAIL: rilem.smss@grad.hr

FAX: +385(0)1 4828 051

PHONE: +385(0)1 4639 118

WEB: www.grad.hr/rilem.smss

SVEUČILIŠTE U ZAGREBU
GRAĐEVINSKI FAKULTET
UNIVERSITY OF ZAGREB
FACULTY OF CIVIL ENGINEERING



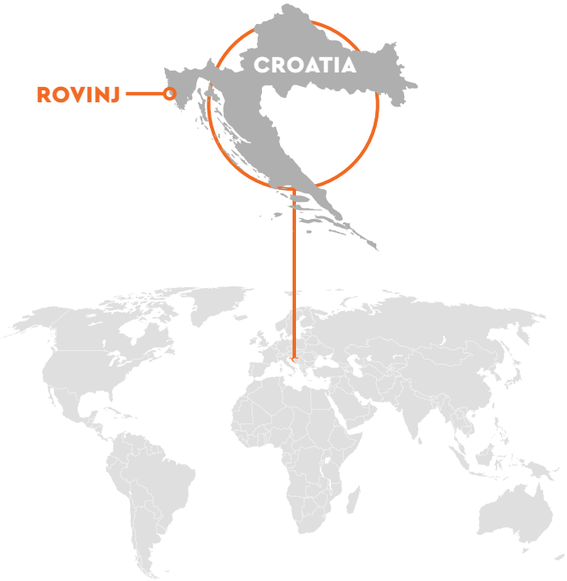
HOTEL LONE

Hotel Lone is a unique design hotel in Croatia which represents a design-focused synergy of functionality, harmony and elegance. Featuring an impeccable blend of luxury, beauty, style and cultural heritage, the 5 star boutique hotel is a year-round leisure and business destination.

VENUE

ROVINJ, ISTRIA

Rovinj is a small city situated on the beautiful west coast of Istria, just underneath the Lim canal, today considered as the most romantic place in the Mediterranean! Due to the lack of space, houses are closely built, streets are narrow and squares are small, still untouched by modern urbanism. One of the most 'photogenic' towns in the Mediterranean, once a fishing town, today is a tourist resort. Owing to the sea and what it has to offer, ranging from sailing to discovering the underwater world, its therapeutic properties, today Rovinj is the destination for tourists from all over the world. Not to mention, that there are 134 sunny days in a year, which makes Rovinj the third sunniest spot in the Adriatic.



CROATIA

Croatia is a land of rich cultural heritage, numerous museums, galleries and churches, many of which today, as zero category monuments, are included in a part of the UNESCO World Heritage List. In that magical place on the Mediterranean, even the shortest stroll becomes a journey down a staircase thousands of years old which take one through a history that is at the same time turbulent, exciting and glorious. With 8 national parks and 11 Parks of nature, Croatia is one of the ecologically best preserved parts of Europe. The mainland covers an area of 56 594 km2 and coastal waters cover a surface area of 31 479 km2 where Croatia's shoreline and its 1 244 islands enjoy the majority of the Adriatic coastline.

INVITED SPEAKERS

Professor
Karen Scrivener

Construction Materials Laboratory LMC,
Ecole polytechnique fédérale de Lausanne EPFL
Switzerland

Topic:
Roadmap of development and application of sustainable materials

Jannie S.J. van Deventer,
PhD

Zeobond Pty Ltd – Geopolymer &
Alkali-activated Technology
Australia

Topic:
Alkali-activated technology – from laboratory to structural application

Professor
Geert De Schutter

Magnel Laboratory for Concrete Research,
Department of Structural Engineering
Faculty of Engineering and Architecture, Ghent
University, Belgium

Topic:
Concrete Industry 4.0 – Construction paradigm shift also impacting current durability concepts

Professor
Kei-ichi Imamoto

Tokyo University of Science
Japan

Topic:
Field survey on re-bar corrosion of carbonated existing concrete buildings in Japan

André Orcesi,
PhD

Testing and modelling for civil and urban engineering (EMGCU), Materials and Structures Department, IFSTTAR, France

Topic:
Designing and managing structures in a life-cycle perspective

Professor
John Dalsgaard Sørensen

Department of Civil Engineering, Aalborg University,
Denmark

Topic:
Probabilistic design of wind turbine concrete components subject to fatigue

PD Dr. rer. nat.
Ernst Niederleithinger

Bundesanstalt für Materialforschung und -prüfung (BAM)
Germany

Topic:
Ultrasonic monitoring of structural concrete elements

Jens Laustsen
MArch

Coordinator of the Concerted Action on the Energy Performance in Buildings Directive, Danish Energy Agency, Denmark

Topic:
Shaping the future of buildings through energy efficiency legal framework - CA EPBD experience

MINI SYMPOSIUMS

To ensure that sustainability in civil engineering is tackled in a holistic way, conference is divided into several mini symposiums / segments, with each symposium targeting a specific field within SMSS. Having segmented efforts, with their specific chairs, topics, scientific committee and allocated time during the event, will enable a platform for a detailed and focussed discussion among interested parties on a specific segment of SMSS. Having all these segments discussed during the same week at the same (beautiful) location, will ensure their interconnection, knowledge exchange and will hopefully strengthen existing and create new networks for future collaboration.

SEGMENTS (MINI SYMPOSIUMS)

NEW GENERATION OF CONSTRUCTION MATERIALS

ENERGY EFFICIENT BUILDING DESIGN AND LEGISLATION

DURABILITY, MAINTENANCE AND REPAIR OF STRUCTURES

CHALLENGES IN DESIGN AND MANAGEMENT OF STRUCTURES

NOVEL METHODS FOR CHARACTERIZATION OF MATERIALS AND STRUCTURES

PHD SYMPOSIUM

ORGANISING COMMITTEE / SEGMENT CHAIRS

Marijana Serdar,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Nina Štirmer,
Faculty of Civil Engineering,
University of Zagreb, Croatia

John Provis,
The University of Sheffield, UK

Marina Bagarić,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Ivana Banjad Pečur,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Hartwig M. Künzel,
Fraunhofer Institute for Building Physics,
Germany

Ana Baričević,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Marija Jelčić Rukavina,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Domagoj Damjanović,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Maurizio Guadagnini,
The University of Sheffield, UK

Ana Mandić Ivanković,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Marija Kušter Marić,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Alfred Strauss,
University of Natural Resources and
Life Sciences, Austria

Tomislav Kišiček,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Ivan Gabrijel,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Marijan Skazlić,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Christian Grosse,
Technische Universität München, Germany

Martina Pezer,
Faculty of Civil Engineering,
University of Zagreb, Croatia

Dirk Schlicke,
Technische Universität Graz, Austria

Stjepan Lakušić,
Faculty of Civil Engineering,
University of Zagreb, Croatia

NEW GENERATION OF CONSTRUCTION MATERIALS

Organising committee:
Marijana Serdar, Nina Štirmer, John Provis

Conference segment covers innovation, advances and improvement of construction materials, towards sustainable, intelligent and tailored made solutions.

Contributions to the conference segment may be within the following topics:

- Chemical and microstructural characterisation
- Nano/micro/macro-characterisation
- Reactivity of waste products and natural resources
- Mechanisms of deterioration of novel materials
- Durability of novel materials
- Performance based requirements
- Modelling behaviour of novel materials

SCIENTIFIC COMMITTEE

Susan Bernal
University of Sheffiled, United Kingdom

Alexandra Bertron
LMDC, France

Oral Buyukozturk
MIT, USA

Valter Carvelli
Politecnico di Milano, Italy

Shi Caijun
College of Civil Engineering,
Hunan University, Changsha China

Christopher Cheeseman
Imperial College London, United Kingdom

Zhen Chen
University of Missouri, USA

Ozlem Cizer
KU Leuven, Belgium

Luc Courard
Université de Liège, France

Martin Cyr
University of Toulouse, France

Nele De Belie
University of Ghent, Belgium

Vilma Ducman
ZAG, Slovenia

Mizi Fan
Brunel University, United Kingdom

Robert Flatt
ETH Zürich, Switzerland

Fred Glasser
University of Aberdeen UK

Jacek Golaszewski
Silesian University of Technology, Poland

Guillaume Habert
ETH Zürich, Switzerland

Ningxu Han
Shenzhen University, China

Chao-Lung Hwang
Can Tho University, Taiwan

Ksenija Jankovic
IMS, Serbia

Dragica Lj. Jevtić
University of Belgrad, Serbia

Maria Juenger
University of Texas at Austin, USA

Said Kenai
University of Blida, Algeria

Jamal Khatib
University of Wolverhampton UK

Miroslav Komljenović
University of Beograd, Serbia

Konstantin Kovler
Israel Institute of Technology, Israel

Zongjin Li
The Hong Kong University of Science and Technology, China

Barbara Lothenbach
EMPA, Switzerland

Pietro Lura
EMPA Switzerland

Alenka Mauko
ZAG Slovenia

Viktor Mechtcherine
TU Dresden, Germany

Ildiko Merta
TU Vienna, Austria

Ana Mladenovič
ZAG, Slovenia

Paulo Monteiro
University of California, Berkeley USA

Giacomo Moriconi
Università Politecnica delle Marche Italy

Sree Nanukuttan
Queens University Belfast, United Kingdom

Narayanan Neithalath
Arizona State University, USA

Moray Newlands
University of Dundee, United Kingdom

Benoit Parmentier
BBRI, Belgium

Gaifei Peng
Beijing Jiaotong University, China

Stephane Poyet
CEA Saclay, France

Maria Sophia Sousa Ribeiro
National Laboratory for Civil Engineering, Department for Materials (LNEC), Portugal

Nicolas Roussel
IFSTTAR, France

Tatjana Rukavina
University of Zagreb, Croatia

Manu Santhanam
Madras, India

Karen Scrivener
EPFL, Switzerland

Vit Smilauer
Czech Technical University in Prague, Czech

Ruben Snellings
VITO, Belgium

Tayfun Altuğ Soylev
Gebze Technical University, Turkey

Stephanie Staquet
ULB, Belgium

Souzana Tastani
Democritus University of Thrace, Greece

Gabriele Tebaldi
University of Parma, Italy

Antonio Telesca
Università della Basilicata, Italy

Jannie Van Deventer
Zeobond, Australia

Frank Winnefeld
EMPA, Switzerland

Jianzhuang Xiao
Tongji University, Shanghai, China

Guang Ye
University of Delft, Netherland

Xiangming Zhou
Brunel University, United Kindgdom

ENERGY EFFICIENT BUILDING DESIGN AND LEGISLATION

Organising committee:
Marina Bagarić, Ivana Banjad Pečur, Hartwig M. Künzel

Contributions to the conference segment may be within – but are not limited to – the following topics:

- Heat, air and moisture transfer – Assessment of the hygrothermal performance of materials, systems and whole buildings
- Thermal energy storage capacity inclusion for building energy optimisation
- The next generation of high efficiency materials and components
- Advanced building envelope systems and construction technologies
- Low energy-, Nearly zero-, Plus-, and Clean-energy buildings
- Smart buildings: Interactive and adaptive built environment (intelligent monitoring and management systems)
- High energy performing renovation and conservation of buildings
- Indoor climate – Thermal comfort, Indoor air quality, Lightening concepts, Acoustics, Visual comfort, Mould growth risk, Human health
- Ventilation strategies, air movement, air-tightness of buildings
- Occupants behaviour and impact on building performance
- Calculated vs. real energy consumption - Causes of discrepancies, Bridging the gap
- Renewable energy sources and management of innovative energy and power generation
- Building Information Modelling (BIM) for enhancing energy performance of buildings
- Building Resilience: Adapting to urban climate and climate change
- Legal framework and policy instruments for implementation of energy directives

SCIENTIFIC COMMITTEE

Sofiane Amziane
Université Blaise Pascal – Clermont-Ferrand II, France

Igor Balen
Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia

Mohannad Maher Bayoumi
Department of Architecture, Faculty of Environmental Designs, King Abdulaziz University, Saudi Arabia

Mateo Biluš
University of Zagreb, Faculty of Architecture, Croatia

Borka Bobovec
Ministry of Construction and Physical Planning, Croatia

Mark Bomberg
International Journal of Building Physics, Canada

Dariusz Gawin
Łódź University of Technology, Poland

Lars-Erik Harderup
Lund University, Division of Building Physics, Sweden

Wolfgang Hasper
Passivhaus Institute, Germany

Andreas Holm
Institute FIW München & University of Applied Sciences Munich, Germany

Hans Janssen
University of Leuven, Department of Civil Engineering, Unit of Building Physics, Belgium

Arnold Janssens
Ghent University, Faculty of Engineering and Architecture, Belgium

Achilles Karagiozis
Building Science Corporation, USA

Manfred Kehrer
Wiss, Janney, Elstner Associates, Inc., USA

Eddie Koenders
Technische Universität Darmstadt, Institute of Construction and Building Materials, Germany

Marcin Koniorczyk
Łódź University of Technology, Poland

Iva Kovačić
Technische Universität Wien, Department for Industrial Building and Interdisciplinary Planning, Austria

Nada Marđetko Škoro
Ministry of Construction and Physical Planning, Croatia

Sašo Medved
University of Ljubljana, Faculty of Mechanical Engineering, Slovenia

Bojan Milovanović
Faculty of Civil Engineering, University of Zagreb, Croatia

Ljubomir Miščević
University of Zagreb, Faculty of Architecture, Croatia

Silvio Novak
Knauf Insulation, Croatia

Henryk Nowak
Wroclaw University of Technology, Poland

Daisuke Ogura
Kyoto University, Department of Architecture and Architectural Engineering, Japan

Doris Österreicher
University of Natural Resources and Life Sciences, Vienna, Austria

Staf Roels
University of Leuven, Department of Civil Engineering, Unit of Building Physics, Belgium

Angela Sasic Kalagasidis
Chalmers University of Technology, Architecture and Civil Engineering, Building Technology, Sweden

Marjana Šijanec Zavrl
Building and Civil Engineering Institute ZRMK, Slovenia

Tomislav Tomiša
University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia

Zoran Veršić
Faculty of Architecture, University of Zagreb, Croatia

David W. Yarbrough
R&D Services Inc., USA

Margareta Zidar
Energetski institut Hrvoje Požar, Croatia

Daniel Zirkelbach
Fraunhofer Institut for Building Physics, Germany

Tea Žakula
Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia

DURABILITY, MAINTENANCE AND REPAIR OF STRUCTURES

Organising committee:
Ana Baričević, Marija Jelčić Rukavina, Domagoj Damjanović, Maurizio Guadagnini

Conference segment covers durability aspects of maintenance and management of civil infrastructure and sustainable repair, rehabilitation and retrofitting.

Contributions may be within – but are not limited to – the following topics:

- Durability issues in a variety of environments
- Prediction and modelling of long-term durability
- Service life assessment and Life cycle cost
- Sustainable construction
- Novel smart sensors and systems
- System identification and damage detection
- Practical applications and case studies
- Repair methods, materials and systems

SCIENTIFIC COMMITTEE

Mark Alexander
University of Cape Town, South Africa

Miguel Azenha
University of Minho, Portugal

Yunus Ballim
University of the Witwatersrand, S. Africa

Farid Benboudjema
ENS Cachan, France

Hans Beushausen
University of Cape Town, South Africa

Lars Bostrom
RISE, Sweden

Jorge Branco
University of Minho, Portugal

Matthieu Briffaut
Laboratoire 3SR, France

Alvaro Cunha
University of Porto, Portugal

Christian Christodoulou
AECOM, United Kingdom

Meri Cvetkovska
Ss. Cyril and Methodius University, Macedonia

Gianmarco De Felice
Roma Tre University, Italy

Geert De Schutter
Ghent University, Gelgium

Emmanuel Denarie
EPFL, Switzerland

Guido De Roeck
KU Leuven, Belgium

Josée Duchesne
University Laval, Canada

Berhard Elsener
ETH Zürich, Switzerland

Eduardo M.R. Fairbairn
COPPE-UFRJ, Brazil

Miguel Ferreira
Technical Research Centre of Finland, Finland

Raoul Francois
Toulouse University, France

Christoph Gehlen
Technical University of Munich, Germany

Branko Glisic
Princeton University, USA

Arlindo Gonçalves
LNEC, Portugal

Kei-ichi Imamoto
Tokyo University of Science, Japan

Jin Wei-Liang
Zhejiang University, China

Harald Justnes
Sintef, Norway

Agnieszka Klemm
Glasgow Caledonian University, UK

Joško Krolo
University of Zagreb, Croatia

Arkadiusz Kwiecien
Cracow University of Technology, Poland

Mirjana Laban
University of Novi Sad, Serbia

Damir Lazarević
University of Zagreb, Croatia

Maria Giuseppina
Limongelli Politecnico di Milano, Italy

Barbara Lubell
Delft University, The Netherlands

Kyriacos Neocleous
Cyprus University of Technology, Cyprus

Ivanka Netinger Grbeša
University of Osijek, Croatia

Takafumi Noguchi
University of Tokyo, Japan

Jan Olek, Purdue University
West Lafayette, USA

Vagelis Papadakis
University of Patras, Greece

Ioanna Papayianni
Aristotle University of Thessaloniki, Greece

Alejandro Perez
Caldentey Fhecor, Spain

Kypros Pilakoutas
University of Sheffield, United Kingdom

Giovanni Plizzari
University of Brescia, Italy

Juraj Pojatina
Studio Arhing Ltd, Croata

Inge Rörig-Dalgaard
Technical University of Denmark, Denmark

Aljoša Šajna
Slovenian National Building and Civil Engineering Institute, Slovenia

Jay Sanjayan
Swinburne University of Technology, Australia

Mohammed Sonebi
Queen's University Belfast, UK

Merima Šahinagić-Isović
Univerzitet "Džemal Bijedić" Mostar, BiH

Ivana Štimac Grandić
University of Rijeka, Croatia

Luping Tang
Chalmers University, Sweden

Michael Thomas
University of New Brunswick, Canada

Jean-Michel Torrenti
IFSTTAR, France

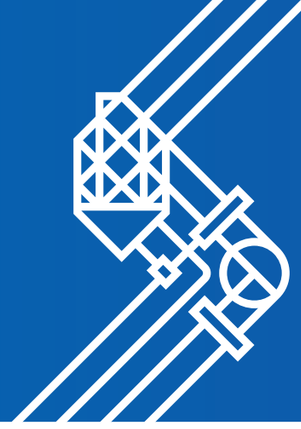
François Toutlemonde
IFSTTAR, France

Thanasis Triantafillou
University Patras, Greece

Tamon Ueda
Hokkaido University, Japan

Johan Vyncke
BBRI, Belgium

Dunja Vla
Wiss, Janney, Elstner Associates, Inc., USA



CHALLENGES IN DESIGN AND MANAGEMENT OF STRUCTURES

Organising committee:
Ana Mandić Ivanković, Marija Kušter Marić, Alfred Strauss, Tomislav Kišiček

Conference segment provides a forum for discussion on problems related to structural performance for the whole life cycle of the civil engineering structures.

Contributions to segment may be within – but are not limited to – the following topics:

- Application of monitoring data in structural modelling
- Performance indicators through component, system and network levels
- Advanced linear and nonlinear analysis, probabilistic based methods
- Numerical modelling and simulation of environmental and accidental actions
- Treatment of uncertainties in resistance and load modelling
- Optimization of life cycle management decisions
- Forensic structural engineering
- Service life modelling
- Design adaptation to climate change

SCIENTIFIC COMMITTEE

György L. Balázs
Budapest University of Technology and Economics, Hungary

Agnieszka Bigaj-van Vliet
TNO, Netherlands

Jelena Bleiziffer
University of Zagreb, Croatia

Joan Casas
UPC-BarcelonaTech, Spain

Laurent Charpin
EDF, France

Eleni Chatzi
ETH Zürich, Switzerland

Frank Dehn
Leipzig University, Germany

Salvatore di Bernardo
Ciorba Group, Inc., USA

Murat Dicleli
Middle East Technical University, Turkey

Darko Dujmović
University of Zagreb, Croatia

Cyrille Dunant
EPFL, Switzerland

Ivica Džeba
University of Zagreb, Croatia

Jan Falbr
FDN, Netherlands

Emmanuel Ferrier
University Lyon, France

Hitoshi Furuta
Kansai University, Japan

Erez Gal
Department of Structural Engineering, Israel

Matija Gams
ZAG Ljubljana, Slovenija

Arndt Goldack
Technische Universität Berlin, Germany

Niels Peter Høj
Consulting GmbH, Switzerland

Dorian Janjic
TDV Consulting Group, Austria

Agnieszka Jędrzejewska
Silesian University of Technology, Gliwice, Poland

Terje Kanstad
NTNU, Norway

Sylvia Kessler
Technische Universität München, Germany

Miloš Knežević
University of Montenegro, Montenegro

Renata Kotynia
Lodz University of Technology, Poland

Ivica Kožar
University of Rijeka, Croatia

Minoru Kunieda
Gifu University, Japan

Jochen Köhler
Norweigain Univ of Sciense and Technology, Norway

Laurie Lacarriere
Université de Toulouse, France

Oskar Larsson
Lund University, Sweden

Ippei Maruyama
Nagoya University, Japan

Jose Matos
UMinho, Portugal

Stuart Matthews
BRE, UK

Stijn Matthys
University of Ghent, Belgium

Ivana Miličević
University of Osijek, Croatia

Roger Ohayon
Conservatoire National des Arts et Métiers, France

André Orcesi
Ifsttar, France

Joško Ožbolt
University of Stuttgart, Germany

Matthias Pahn
TU Kaiserslautern, Germany

Vlastimir Radonjanjin
Faculty of Technical Sciences, Serbia

Vlatka Rajčić
University of Zagreb, Croatia

Robert Ratay
USA

Michael Raupach
RWTH Aachen University, Germany

Theodoros Rousakis
Democritus University of Thrace, Greece

Pavel Ryjaček
CTU Prague, Czech Republic

Abdullah Shahrum
University Kebangsaan Malaysia, Malaysia

Davor Skejić
University of Zagreb, Croatia

Miroslav Sykora
Klokner Institute, Czech Republic

Anton Syrkov
Transmost Pic, Russia

Vivian Tam
Western Sydney University, Australia

Dil Tirimanna
FDN, Netherlands

Jan Vitek
Technical University in Prague, Czech Republic

Anđelko Vlašić
University of Zagreb, Croatia

Slowik Volker
HTWK Leipzig, Germany

Jianzhuang Xiao
Tongji University Shanghai, China

Jian Yang
Shanghai Jiao Tong University, China

Stefan Zmigrodzki
CIMA+, Consulting Engineers, Canada

Daia Zwicky
Institut für Bau- und Umwelttechnologien iTEC, Switzerland

NOVEL METHODS FOR CHARACTERIZATION OF MATERIALS AND STRUCTURES

Organising committee:
Ivan Gabrijel, Marijan Skazlić, Christian Grosse

Conference segment covers innovation and improvement in methods for characterization at material and structural scale. It includes laboratory testing methods and methods for on-site assessment of concrete and masonry civil engineering structures (buildings, bridges, dams, roads, tunnels, reservoirs and other). The segment is dedicated to the following construction materials: concrete, mortar, grouts, cement paste, stone, brick and aggregates.

Contributions to the conference segment may be within – but are not limited to – the following topics:

- Quantitative characterisation at microstructural level
- Experimental and numerical methods for characterisation of fresh concrete/mortar/paste/grout
- Monitoring techniques for quality control during production
- Monitoring techniques for existing structures
- Monitoring of age-dependant processes in cement based materials
- Innovations in experimental techniques for macroscopic characterisation of material properties and performance
- On-site estimation of material properties in concrete and masonry structures
- Volumetric visualization techniques for on-site inspection
- Automated NDT systems
- Verification of existing laboratory and on-site standard test methods
- Examples of modern application of NDT methods

SCIENTIFIC COMMITTEE

Dimitrios Aggelis
Vrije Universiteit Brussel, Belgium

Marko Bartolac
University of Zagreb, Croatia

Violeta Bokan Bosiljkov
University of Ljubljana, Slovenia

David Corbett
Proceq, Switzerland

Sinan Turhan Erdoğan
Middle East Technical University, Turkey

Jacek Golaszevski
Silesian University, Poland

Christian Grosse
Technische Universität München, Germany

Nenad Gucunski
Rutgers University, USA

Neil Hoult
Queens University, Canada

Ioannou Ioannis
University of Cyprus, Cyprus

Wim Stenfert Kroese
Consensor, Netherlands

Markus Kruger
Graz University, Austria

Eric Landis
Maine University, USA

Ernst Niederleithinger
BAM, Germany

Mato Pavlović
BAM, Germany

Thomas Schumacher
Portland, USA

Tomoki Shiotani
Kyoto University, Japan

Gregor Trtnik
IGMAT, Slovenia

Luca Valentin
Padova University, Italy

Herbert Wiggenhauser
BAM, Germany

PhD SYMPOSIUM

Organising committee:
Martina Pezer, Dirk Schlicke, Stjepan Lakušić

The PhD symposium of SMSS 2019 creates a professional platform for excellent PhD students to discuss their scientific developments with established experts and to found a network of young scientists of various countries in order to exchange knowledge and promote scientific goals.

This PhD symposium will be organized in a specifically dedicated conference segment whereby the scope of this segment is deliberately wide to enable a comprehensive debate. Contributions from any field of Sustainable Materials, Systems and Structures in this segment are exclusively offered to PhD students whereby the inherent high standards of the scientific contributions were ensured by a review of international experts.

SCIENTIFIC COMMITTEE

Ueli Angst
ETH Zürich, Switzerland

Andrej Anžlin
ZAG, Slovenia

Mario Bačić
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Dan Bompa
Imperial College London, UK

Christian Christodoulo
AECOM, UK

Isabella G. Colombo
Politecnico di Milano, Italy

Iurie Curosu
TU Dresden, Germany

Gianluca Cusatis
Northwestern University, USA

Ivan Duvnjak
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Gordan Gilja
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Gregor Gluth
BAM, Germany

Ivo Haladin
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Craig Hargis
University of North Florida, USA

Ivan Ignjatović
University of Beograd, Serbia

Ole Mejlhede Jensen
Technische Universität Darmstadt, Denmark

Robert Jockwer
ETH Zürich, Switzerland

Anja Klausen
SINTEF, Norway

Sukmin Kwon
Land and Housing Institute, South Korea

Lovorka Librić
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Lana Lovrenčić Butković
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Ivan Lukačević
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Mladena Luković
Delft University of Technology, Netherlands

Benjy Marks
The University of Sydney, Australia

Hadi Mazaheripour
University of Minho, Portugal

Marta Miletić
Auburn University, USA

Bojan Milovanović
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Behzad Nematollahi
Swinburne University of Technology, Australia

Mijo Nikolić
University of Split, Croatia

Kristina Potočki
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Marijana Serdar
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Wolfram Schmidt
BAM, Germany

Didier Snoeck
Gent University, Belgium

Mislav Stepinac
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Branko Šavija
TNO, Delft, Netherlands

Kristina Ana Škeb
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Efi Tzoura
University of Leeds, UK

Mario Uroš
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Nikolina Vezilić Strmo
Univesity of Zagreb Faculty of Civil Engineering, Croatia

Natalie Williams Portal
Research Institutes of Sweden, Sweden

Dimitrije M. Zakić
University of Belgrad, Serbia

TRAVELLING TO ROVINJ

BY PLANE

Pula Airport is located only 40 kilometres from Rovinj. It is connected via Zagreb with almost all major European capitals. The airport is connected to the city of Pula with regular bus lines and taxies. For more information about Pula airport, please visit www.airport-pula.hr.

Zagreb Airport is located 262 km from Rovinj. For more information, please visit www.zagreb-airport.hr

Ljubljana Airport is located 205 km from Rovinj. For more information, please visit www.lju-airport.si

Trieste Airport is located 147 km from Rovinj. For more information, please visit www.aeroporto.fvg.it

Trevisio Airport is located 253 km from Rovinj. For more information, please visit www.trevisoairport.it/en/

Bus transfer from all major airports (Pula, Zagreb, Trieste, Ljubljana, Venezia) will be organised by our supporting agency A.T.I. For more information, please indicate your interest in this option during registration and you will be contacted directly by the agency.

BY BUS

Rovinj is connected with a direct bus lines to all major centres in Croatia. For more information, please visit www.autotrans.hr, www.brioni.hr, and the site of Zagreb Bus Station www.akz.hr.

Organized international bus transport:

from Ljubljana and Kopar
for more information, please visit www.ap-ljubljana.si

from Trieste
for more information, please visit: www.autostazionetrieste.it

from Belgrade
for more information, please visit: www.fils.hr

Useful websites for planning trips by bus: www.getbybus.com, www.vollo.net/hr/

FlixBus offers bus routes to/in Croatia and provides low-cost bus lines also to Rovinj.
For further information please see https://www.flixbus.com/bus/rovinj

BY CAR

Road connections between central Europe and destinations on the Croatian coast are improving. To enter and drive in Croatia, you will require a green insurance card and a valid driving license. In Croatia, the toll is charged on motorways, semi-motorways and some bridges and tunnels.

BY BOAT

During summer months the port of Rovinj is connected by boat (for passenger only) with:

Venice
more information see here: www.venezialines.it

Ravenna

Pesaro and Cesenatico
more information see here: www.gomoviaggi.com

Rijeka Ferry Port, located 91 km from Rovinj, is connected to the islands of Kvarner and Dalmatia by ferries. For more information, please visit www.jadrolinija.hr.

ARRIVAL IN ROVINJ

from Slovenia and Italy:
border-crossing Kaštel–Dragonja, highway: toll gate Umag–Kanfanar interchange (motorway exit) – Putini – Rovinj

from Zagreb:
highway Zagreb – Rijeka – Učka Tunnel – Kanfanar interchange (motorway exit) – Putini – Rovinj

from Dalmatia:
highway Split – Bosiljevo – Rijeka –Učka Tunnel – Kanfanar interchange (motorway exit) – Putini – Rovinj.

To plan a trip, visit www.viamichelin.com.

ROAD ASSISTANCE

The phone number for Road Assistance is 1987. For more detailed information, foreign tourists can contact the Information Center of the Croatian Automobile Club at ++385/1/464-0800, available 24 hours a day. Information concerning road conditions can be obtained in several languages on the second channel of the Croatian Radio or on the Radio Data System.

www.hak.hr

CALL FOR PAPERS

The Organizing Committee invites prospective authors to submit abstracts to be considered for presentation at the conference. Abstracts should have a length between 200 – 300 words and must relate to the scope of one of the mini symposium / segment of the conference.

Authors of accepted abstracts will receive instructions on the preparation of full-length papers. All submitted papers will be peer-reviewed by the International Scientific Committee.

GUIDELINES FOR AUTHORS

We will be using Open Conference System for managing RILEM SMSS 2019 event. In case you have any troubles with signing in on the system or submitting your abstract, please contact at rilem.smss@grad.hr. Prior to submitting an abstract, you should sign in on the conference management system, following the link below. In the registration process, please make sure you check "Author" checkbox in order to be able to submit an abstract. After a successful login, you should proceed with the abstract submission.

IMPORTANT DATES

Abstract submission	15 April 2018
Acceptance of abstracts	15 May 2018
Full paper submission	31 August 2018
Notification of paper acceptance	31 October 2018
Final paper submission	30 November 2018
Early-bird registration	31 October 2018
Final registration	15 February 2019

REGISTRATION

Registration type	Early-bird (until 31 October 2018) EUR	Late (until 15 February 2019) EUR
General	600	650
General RILEM member	550	600
Student	300	350
Accompanying person	200	250

The conference registration fee includes (both general and student) conference proceedings, conference welcome reception and banquet, refreshments during coffee breaks and lunch during the conference. For accompanying person it includes the conference welcome reception and banquet, as well as lunches during the conference.

Registration to the conference will be managed by our partner agency A.T.I. They will be there for you for all questions and needs concerning registration, fees, invoices etc. They can also be a great help for planning your trip and stay in Croatia, from visa, flight, accommodation, to your free time for enjoying the beauty of our country.

For further information, please visit A.T.I. web page or contact them directly using contact details below

A.T.I. d.o.o.
Zadarska 15 / HR 52100 Pula

WEB: ati.hr
E-MAIL: natasa@ati-pula.com
mirna@ati-pula.com
FAX: +385 (0)52 217644
PHONE: +385 (0)52 223400
GSM: +385 91 4440046

Certified member UHPA; IATA; RDA; ID CODE HR – AB 52 – 040 155 102

SOCIAL PROGRAMME

ORGANISED EXCURSIONS

Brijuni Islands

The Brijuni island group that lies off the south-west coast of Istria in the vicinity of Pula, was once the meeting place of the European and world jet set. As the only national park in Istria, Brijuni with its 14 islands covering an area of 736 square hectares presents a unique play of nature that brings together remarkable animal species and rare and rich flora all at one place. It ranks as one of the loveliest archipelagos in the Mediterranean.

Pick up in front of the hotel at 7:30. Heading to Fažana, where from the ship takes you to National Park Brijuni. The sightseeing tour includes: a ride by tourist train, visit to the remains of the Roman villa rustica from the I century B.C. in the bay of Verige, and the safari park. The tour also includes visit to the Church of St. Germain with permanent exhibition of copies of frescoes and Glagolitic writings from Istria. Lunch at konoba Feral in Fažana. Return to the hotel around 18:30 h.

Price per person*: 54.00 € per person

*The prices are subject to change depending on the number of paricipants

Motovun – Svetvinčenat

A very valuable region with respect to natural science, economics (truffles), cultural history (St. Mark's Forest) and tourist. Motovun Forest stretches along the valley of the River Mirna and is the best-known site for finding truffles, subterranean fungi, which are claimed to have aphrodisiac qualities. It is the habitat of the largest and most prized of all truffles – the white truffle the Istrian white truffle is known for its unique taste and exquisite aroma owing to specific local climatic conditions.

Pick up in front of the hotel at 14:00. Departure to Motovun – probably the most beautiful medieval town in Istria. Your next stop is Svetvinčenat, a small village in the central Istria, famous for its magnificent medieval castle Morosini-Grimani. The popular Escape Castle game allows you discover the rich history of this place. Dinner at Konoba Klarići, about 10 minutes drive from Svetvinčenat, is scheduled for 20:00. Return to the hotel around 22:00.

Price per person*: 54.00 € per person

*The prices are subject to change depending on the number of paricipants

Taste Istria – Gastrotour

Pick up in front of the hotel at 08:00h. Visit to the famous Cattunar family's winery, where you get to taste 4 different types of wine + traditional snacks (smoked ham, cheese, olives). Visit to a dairy farm in Žminj. Cheese tasting. Visit to the oil mill of Chiavalon's family in Vodnjan. Tasting of the award winning Chiavalon olive oil + snacks. Return to the hotel around 18:00 h.

Price per person*: 60,00 € per person

*The prices are subject to change depending on the number of paricipants

CONTACT

University of Zagreb
Faculty of Civil Engineering
Department of Materials

Fra A. Kacica Miosica 26
10000 Zagreb, Croatia

E-MAIL: rilem.smss@grad.hr

FAX: +385(0)1 4828 051

PHONE: +385(0)1 4639 118

WEB: www.grad.hr/rilem.smss