RILEM SPRING CONVENTION
and CONFERENCE

SUSTAINABLE MATERIALS, SYSTEMS AND STRUCTURES

SMSS 2019

Lone Hotel, Rovinj, Croatia
18 – 22 March 2019

PROGRAMME AND PRACTICAL INFORMATION

SYMPOSIUM SEGMENTS

NEW GENERATION OF CONSTRUCTION MATERIALS

Organising committee: **Marijana Serdar, Nina Štirmer, John Provis**

ENERGY EFFICIENT BUILDING DESIGN AND LEGISLATION

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

DURABILITY, MAINTENANCE AND REPAIR OF STRUCTURES

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

CHALLENGES IN DESIGN AND MANAGEMENT OF STRUCTURES

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

NOVEL METHODS FOR CHARACTERIZATION OF MATERIALS AND STRUCTURES

Organising committee: **Ivan Gabrijel, Marijan Skazlić, Christian Grosse**

PhD SYMPOSIUM

Organising committee: **Ivana Carević, Dirk Schlicke, Stjepan Lakušić**

WELCOME

It is our honour and pleasure to welcome you to the SMSS 2019 conference in beautiful town Rovinj on Istria peninsula with 539 km of majestic coastline, gentle Mediterranean climate and above all friendly people.

SMSS 2019 Conference is organised as a supporting event to RILEM Spring Convention. Both are organised in the year Faculty of Civil Engineering in Zagreb is celebrating 100 years from its establishment, making 2019 a perfect year for hosting such important international event. SMSS 2019 conference has gathered participants from 50 countries, from Argentina to United States of America, who will exhibit 290 papers. The conference was sponsored by 10 international industrial partners, supported by 6 international organisations of scientists and practitioners and organised under the patronage of 4 governmental bodies. A total of 450 contributions which arrived was reviewed by more than 150 prominent reviewers from different fields. And all was organised by 16 members of the local organising committee and 6 invited international members of organising committee.

For next three days our scientific committee has developed an exciting programme of plenary keynotes, session presenters and discussion facilitators in order to offer all attendees something to “take home with them”. We truly hope that the conference will make the perfect platform for global networking as it brings together scientists, practitioners, members of technical committees and users of technical recommendations, to jointly at the same place discuss and envision the sustainable development of materials, systems and structures in a holistic, global way. But we also hope you will take with you many memories on this beautiful city and region, on colleagues and new friendships formed during your stay in our country.

In the name of organising and scientific committees and in the name of Faculty of Civil Engineering University of Zagreb, we wish you a successful, fruitful and enjoyable RILEM SMSS 2019 Conference!

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

Marijana Serdar
University of Zagreb
Faculty of Civil Engineering

Ivana Banjad Pečur
University of Zagreb
Faculty of Civil Engineering

GENERAL PRACTICAL INFORMATION

REGISTRATION

The registration desk is located in the lobby of Lone hotel (Level 2). Registration desk will be open every day from Tuesday 19th till Friday 22nd from 8 a.m. till 18 p.m.

For quick registration, please have with you your bar code received by A.T.I. agency.

WI-FI ACCESS

Wi-fi access is free throughout the entire conference venue.

SUBMISSION OF PRESENTATION

You are asked to upload your presentation in the Presentation drop off office (Level1, next to plenary session / rooms 1, 2 and 3) one day before your presentation. You can use computers in this office for last check of your presentation, before uploading. Technical personal will be there to assist you.

Due to the tight schedule each speaker is kindly asked to present his work within 12 minutes, leaving 3 minutes for questions and discussion.

LUNCHES

Lunch is served in two hotel restaurants (Level 1 and 0). Access to the lunch is given to all conference delegates, provided that the conference badge is brought. Once first restaurant is full, you will be directed to the other restaurant for your convenience.

GROUP PHOTO

We are taking a group photo on Wednesday 20th at 11 a.m. (during coffee break). The photo will be taken at the coffee break location or as instructed by the organisers.

ASSISTANCE

In case you need assistance, want to schedule touristic visit to Rovinj and Istrian region or you have a question concerning your stay, please contact A.T.I. agency directly. You can find their agents on the registration desk or you can contact Mrs Celija Ružić directly.

Mrs Dinka Celija Ružić
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CONFERENCE SCHEDULE

DAY 1 – 20th March, Wednesday

08:30 - 09:30	**RILEM SMSS CONFERENCE OPENING** LEVEL 1						
09:30 - 10:30	**Colonnetti Award**						
10:30 - 11:30	COFFEE BREAK and GROUP PHOTO						
11:30 - 12:30	**RILEM SMSS PLENARY SESSION** LEVEL 1						
12:30 - 14:00	LUNCH						
14:00 - 15:30	**RILEM SMSS CONFERENCE - Special RILEM TC sessions**						
	DMR: Carbonation of concrete with SCMs ROOM 1	NGCM: Reactivity of SCMs ROOM 2	DMR: Avoiding alkali aggregate reactions ROOM 3	DMR: Reinforcement corrosion ROOM 4	Challenges in design and management of structures ROOM 5	Novel methods for characterization of materials and structures ROOM 6	NGCM: Cold bitumen emulsion materials ROOM 7
15:30 - 16:00	COFFEE BREAK						
16:00 - 17:30	**RILEM SMSS CONFERENCE - Special RILEM TC sessions**						
	DMR: Carbonation of concrete with SCMs ROOM 1	NGCM: AAM Durability ROOM 2	DMR: Avoiding alkali aggregate reactions ROOM 3	DMR: Lime-based historic repair ROOM 4	Challenges in design and management of structures ROOM 5	NGCM: Waste ashes as SCMs ROOM 6	NGCM: Cold bitumen emulsion materials ROOM 7
17:30 - 20:00		TC CCL			Project FLOW (members only)		

DAY 2 – **21st March**, Thursday

08:30 - 09:30	**RILEM SMSS PLENARY SESSION** LEVEL 1						
09:30 - 11:30	**PhD Symposium** LEVEL 1						
11:30 - 12:00	COFFEE BREAK						
12:00 - 13:30	**RILEM SMSS CONFERENCE SESSIONS**						
	NGCM: Novelties in UHPC ROOM 1	NGCM: Trends in aggregate ROOM 2	Durability, monitoring and repair of structures ROOM 3	DMR: Durability monitoring ROOM 4	Energy efficient building design and legislation ROOM 5	Challenges in design and management of structures ROOM 6	Novel methods for characterization of materials and structures ROOM 7
13:30 - 14:30	LUNCH						
14:30 - 16:00	**RILEM SMSS CONFERENCE SESSIONS**						
	NGCM: Innovative nano ROOM 1	NGCM: Candidates for AAM ROOM 2	DMR: Carbonation of concrete with SCMs ROOM 3	DMR: High-performance repair ROOM 4	Energy efficient building design and legislation ROOM 5	Challenges in design and management of structures ROOM 6	Novel methods for characterization of materials and structures ROOM 7
16:00 - 16:30	COFFEE BREAK						
16:30 - 18:00	**RILEM SMSS CONFERENCE SESSIONS**						
	NGCM: Alternative binders ROOM LADONJA (EDEN)	NGCM: SCM ROOM EDEN (EDEN)	Durability, monitoring and repair of structures ROOM V	Durability, monitoring and repair of structures ROOM 4	Energy efficient building design and legislation ROOM 5	Challenges in design and management of structures ROOM 6	Novel methods for characterization of materials and structures ROOM 7
20:00-23:00	**RILEM SMSS GALA DINNER** HOTEL LONE | LEVEL 1						

DAY 3 – **22nd March**, Friday

08:30 - 10:30	**RILEM SMSS PLENARY SESSION** LEVEL 1						
10:30 - 11:00	COFFEE BREAK						
11:00 - 12:30	NGCM: Calcined clay ROOM 1	NGCM: Bio-based alternative materials ROOM 2	Durability, monitoring and repair of structures ROOM 3	DMR: Durability monitoring ROOM 4	NGCM: 3D printing ROOM 5	Energy efficient building design and legislation ROOM 6	Novel methods for characterization of materials and structures ROOM 7
12:30 - 14:00	LUNCH						
14:00 - 15:30	**RILEM SMSS CONFERENCE SESSIONS**						
	NGCM: AAM application ROOM 1	NGCM: Self-healing ROOM 2	Durability, monitoring and repair of structures ROOM 3	Durability, monitoring and repair of structures ROOM 4	Energy efficient building design and legislation ROOM 5	Energy efficient building design and legislation ROOM 6	Novel methods for characterization of materials and structures ROOM 7
15:30-16:00	**RILEM SMSS CLOSING CEREMONY** LEVEL 1						

Wednesday, **20th March**

08:30 - 09:30 **RILEM SMSS CONFERENCE OPENING** LEVEL 1
Welcome speech (RILEM President, Croatian representatives)

09:30 - 10:30 **Colonnetti Award**

Mechanics and durability of textile reinforced composites
Bahman Giassi, University of Nottingham, UK

Uncovering and Optimizing the Chemical Mechanisms in Alkali-activated Materials and Related Engineering Systems
Claire White, University of Princeton, USA

10:30 - 11:30 COFFEE BREAK and GROUP PHOTO

11:30 - 12:30 **RILEM SMSS PLENARY SESSION** LEVEL 1
CHAIRPERSONS: Nina Štirmer & John Provis

Nanotechnology and Sustainability of Cement Based Materials
Surendra P Shah, Northwestern McCormick School of Engineering / University of Texas at Arlington, USA

Roadmap of development and application of sustainable materials
Karen Scrivener, EPFL, Switzerland

12:30 - 14:00 LUNCH

RILEM SMSS CONFERENCE - Special RILEM TC sessions

14:00 - 15:30

DMR: Carbonation of concrete with SCMs
CHAIRPERSON:
Nele De Belie
ROOM 1

14:00 - 14:15 **X-ray diffraction study of carbonation rate of C-S-H(i) with different Ca/Si ratio**
Bei Wu, Guang Ye

14:15 - 14:30 **Difference in carbonation behavior at 0.04%, 1% and 10% CO2 for High-Volume Fly Ash (HVFA) mortar: effect on internal humidity and resistivity**
Philip Van den Heede, Nele De Belie

14:30 - 14:45 **Thermodynamic modelling of the carbonation process of alkali-activated slag cements**
Xinyuan Ke, Susan Bernal, John Provis

14:45 - 15:00 **Traditional coatings as protection of portland cement concrete against carbonation**
Rui Reis, Aires Camões, Manuel Ribeiro

15:00 - 15:15 **Investigations of corrosion due to calcium leaching**
Stefanie von Greve-Dierfeld, Yves Schiegg, Fritz Hunkeler

15:15 - 15:30 **Reaction products formed in early age cement pastes with granulated blast furnace slag exposed to accelerated CO2 ingress**
Hanne Vanoutrive, Ã–zlem Cizer, Peter Minne, Ilse Van de Voorde, Elke Gruyaert

NGCM: Reactivity of SCMs
CHAIRPERSONS:
Karen Scrivener & Ruben Snelling
ROOM 2

14:00 - 14:15 ★ **Particle size optimization in multi-component cement**
Samuel Adu-Amankwah, Susan A. Bernal and Leon Black

14:15 - 14:30 **The limiting factors of SCMs reaction at later age**
Yosra Briki, Karen Scrivener and Mohsen Ben Haha

14:30 - 14:45 **Assessing reactivity of supplementary cementitious materials in ternary blended cements**
Ruben Snellings

14:45 - 15:00 **Characterization and pozzolanic activity of UK alum water treatment sludge**
M. Shamaki, L. Black

15:00 - 15:15 **Investigating the origins of metakaolin surface reactivity in the context of alkali-activated binders**
V. Benavent, Q. H. Nguyen, J.-B. d'Espinose de Lacaillerie, M. Marinova-Atanassova, A.-M. Blanchenet and C. A. Davy

15:15 - 15:30 **The interpretation of EXAFS data with chemical reactivity in activated slag**
Yeonung Jeong, Sung-Hoon Kang and Juhyuk Moon

DMR: Avoiding alkali aggregate reactions
CHAIRPERSON:
Jan Lindgård
ROOM 3

14:00 - 14:15 **RILEM Technical Committee: TC 258-AAA (Avoiding Alkali Aggregate Reactions in Concrete - Performance Based Concept: Current Activities and Achievement.**
Børge Wigum, Jan Lindgård

14:15 - 14:30 **Optimization of concrete prism test for ASR expansion by alkali-wrapping and a new approach assessing the alkali reactivity of concrete for neclear facilities**
Kazuo Yamada, Yuichiro Kawabata, S. Ogawa, K. Shibuya, J. Etoh, A. Teramoto, G. Igarashi

14:30 - 14:45 **Strategies for quantification of alkali metal release from aggregates in concrete**
Klaartje De Weerdt, Mette Geiker, Gilles Plusquellec, Jan Lindgård, Jose Duschene, Benoit Fournier

14:45 - 15:00 **Influence of the mineral composition of cement binder on the ACR reaction in concrete**
Petra Štukovnik, Violeta Bokan Bosiljkov, Marjan Marinšek

15:00 - 15:15 **Alkali-silica reaction in alkali-activated concretes: the tempering effect of fly ash in slag/fly ash systems**
Alexandre Rodrigue, Josée Duchesne, Benoit Fournier, Benoit Bissonnette

DMR: Reinforcement corrosion
CHAIRPERSONS:
Ueli Angst & Dubravka Bjegović
ROOM 4

14:00 - 14:15 **Study on non-uniform corrosion of steel bars in concrete**
Yuxi Zhao, Xiaowen Zhang, Wang Kun, Chen Ju, Hailong Wang

14:15 - 14:30 **Evolving performance based environmental classifications for chloride exposure**
B S Dhanya, Manu Santhanam, Santosh Cheriyan

14:30 - 14:45 **Influence of the bars position in the reinforced concrete for the prediction of the chloride concentration in the layer steel-concrete**
Fabiano Tavares, Carmen Andrade

14:45 - 15:00 **Damage parameters of rebars in marine environment and fatigue life**
Charis Apostolopoulos, Konstantinos Koulouris, Maria Basdeki

15:00 - 15:15 **The reliabiltiy of corrosion detection with regard to chosen grid size**
Sylvia Keßler

15:15 - 15:30 **Chloride ingress in concrete exposed to a Swedish road environment for over 20 years**
Luping Tang, Dimitrios Boubitsas, Peter Utgenannt

Challenges in design and management of structures
CHAIRPERSONS:
Davor Grandić & Thomas Cornelius Buch-Hansen
ROOM 5

14:00 - 14:15 **Simplification of calculation of wind action on piers with rounded corners cross section**
Ivana Štimac Grandić and Davor Grandić

14:15 - 14:30 **Optimized design of flat slabs with different novel type of punching reinforcement**
Jakub Mečár, Petra Bujňáková and Vladimír Sobek

14:30 - 14:45 **Light formwork for earthen monolithic shells**
Elizabeta Šamec, Akash Srivastava and Stephanie Chaltiel

14:45 - 15:00 **Design method for shrinkage in large-scale composite concrete floor structures**
Thomas Cornelius Buch-Hansen

15:00 - 15:15 **Reinforcement design for the combined effect of restrained shrinkage and applied loads in slabs: a design**
M. Azenha, C. Sousa, J. Granja, R. Faria and B. Zahabizadeh

15:15 - 15:30 **Flexural behaviour of hybrid steel fibre reinforced concrete (HSFRC)**
Tomislav Kišiček, Martina Carić, Marina Frančić Smrkić, Tvrtko Renić and Domagoj Damjanović

Novel methods for characterization of materials and structures
CHAIRPERSONS:
Markus Krüger & Ivan Gabrijel
ROOM 6

14:00 - 14:15 **Characterization of curing of concrete based on combination of NDT techniques**
Evin Dzaye, Eleni Tsangouri, Geert De Schutter and Dimitrios G. Aggelis

14:15 - 14:30 **Microwave monitoring method for detecting the hydration process of concrete**
A. Dollase, U. Möller and L. Nietner

14:30 - 14:45 **Air-coupled ferroelectret ultrasonic transducers for nondestructive testing of wood in through transmission and reflection mode**
Konrad J. Vössing, Mate Gaal and Ernst Niederleithinger

14:45 - 15:00 **Defect detection in concrete using principle component thermography**
Bojan Milovanović

15:00 - 15:15 **Experimental location of material inclusions in building partition models through active thermography and inverse contrast**
P. Noszczyk and H. Nowak

15:15 - 15:30 **Influence of the mixture composition of cementitious matrices on ultrasound investigations at early age**
Markus Krüger, Rok Bregar, Gheorghe Alexandru David and Joachim Juhart

NGCM: Cold bitumen emulsion materials
CHAIRPERSONS:
Andrea Graziani & Tatjana Rukavina
ROOM 7

14:00 - 14:15 **Evaluation of local aggregate with chemical additives for microsurfacing mix**
Teiborlang Lyngdoh Ryntathiang, Alan Carter, Anjan kumar Siddagangiah

14:15 - 14:30 **Thermal impact of adding recycled glass in microsurfacing**
Apparao Gandi, Abdelghafour Zabayou, Saeed Badeli, Alan Carter and Michel Vaillancourt

14:30 - 14:45 **Characterisation and treatment of tunnel boring muds for their valorisation in road construction**
A. Cabrerizo, D. Bulteel, J. Waligora, D. Bonneau and F. Olard

14:45 - 15:00 **Influence of coarse recycled concrete aggregate on the durability of asphalt mixtures**
A. Radević, G. Mladenović, D. Jevtić, D. Zakić, M. Aškrabić

15:00 - 15:15 **Stone mastic asphalt reinforced by vegetable yarns**
Peter Gallo, Jan Valentin

★ Manuscript chosen for publication in RILEM Technical Letters

15:30 - 16:00 COFFEE BREAK

RILEM SMSS CONFERENCE - Special RILEM TC sessions

	DMR: Carbonation of concrete with SCMs	NGCM: AAM Durability	DMR: Avoiding alkali aggregate reactions	DMR: Lime-based historic repair	Challenges in design and management of structures	NGCM: Waste ashes as SCMs	NGCM: Cold bitumen emulsion materials
16:00 - 17:30	CHAIRPERSONS: Stefanie von Greve-Dierfeld & Philip Van den Heede	CHAIRPERSONS: Marijana Serdar & Arnaud Castel	CHAIRPERSON: Børge Johannes Wigum	CHAIRPERSONS: Ioanna Papayianni & Jan Valek	CHAIRPERSONS: Tomislav Kišiček & Miguel Azenha	CHAIRPERSONS: Nina Štirmer & Juhyuk Moon	CHAIRPERSONS: Alan. Carter & Josipa Domitrović
	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7
16:00 - 16:15	**Natural and accelerated carbonation rates of alkali-activated slag/fly ash blended concretes** Susan Bernal, Jannie van Deventer, John Provis	**Testing the durability of alkali-activated concretes** John Provis	**AAR in concrete: Russian experience** Vyacheslav Falikman, Nikolai Rozental, Alexandr Rozental	★ **Testing properties governing the durability of lime-based repair mortars** I. Papayianni, J. Válek, J. Alvarez, V. Bokan Bosiljkov, P. Faria, L. Ferrara, C. Groot	**Research for restorative infrastructure** Ivana Milić and Jelena Bleiziffer	**Properties of cementitious materials with sewage sludge ashes** M. Saillio, L. Andrade, M. Mehdi, T. Chaussadent and Arezki Tagnit-Hamou	**Strength mechanism and improvement methods of cement bitumen emulsion mixture** Jian Ouyang, Wen Xu, and Lijun Hu
16:15 - 16:30	**Accelerated carbonation of recycled aggregate concrete** Andreas Leemann, Roman Loser	**Behaviour of reinforced alkali-activated fly ash mortars under leaching conditions** Petr Hlaváček, Steffi Reinemann, Gregor J.G. Gluth, Gino Ebell and Jürgen Mietz	**The effects of different cementitious binders on expansion induced by alkali silica reaction** Taehwan Kim, Dinesh Arachchige, Quang Dieu Nguyen, Mohammad Khan, Arnaud Castel	**Durability of lime based renders: a review of some degradation mechanisms and assessment test methods** Rosario Veiga, Ana Velosa, Kristin Balksten, José I. Alvarez, Cristiana Nunes, Magdalini Theodoridou, Paulina Faria, Ioanna Papayianni, Rob van Hees	**Benefit of damping in structural concrete for railway structures and track components** Sakdirat Kaewunruen, Ruilin You and Keiichi Koto	**Early-age structural development of cement blended with flash calcined dredging sediments** Céline Van Bunderen, Ruben Snellings, Lucie Vandewalle and Özlem Cizer	**Evaluation of the stiffness modulus and phase angle of cold in-place recycled mixtures for long curing periods** Bohdan Dolzycki, Mariusz Jaczewski and Cezary Szydlowski
16:30 - 16:45	**On the determination of carbonation in cementitious materials** Charlotte Thiel, Christoph Gehlen	**Thermal properties and steel corrosion in light-weight alkali activated mortars** L. Carabba, G. Masi, S. Pirskawetz, S. Krüger, G. J. G. Gluth, M. C. Bignozzi	**An ambt study on the effect of limestone on ASR mitigation: ground limestone vs. interground limestone in cements** Marie Joshua Tapas, Kirk Vessalas, Paul Thomas, Vute Sirivivatnanon	**Microstructure aspects related to durable lime mortars** Maria Stefanidou	**Comparison the behaviour of RC beams with GFRP, CFRP and steel reinforced bars** Naser Kabashi, Cene Krasniqi, Arber Kepuska and Besart Avdyli	**Durability of High Carbon Biomass Ash-Based Binder** Piyush Chaunsali, Hugo Uvegi, Brian Traynor and Elsa Olivetti	**Evaluating the cracking resistance of cement-bitumen treated materials using the semi-circular bending test** Chiara Mignini, Fabrizio Cardone and Andrea Graziani
16:45 - 17:00	**Construction and demolition waste as an addition in new cements. effect on carbonation** Caesar Medina Martinez, Isabel Fuencisla Sáez del Bosque, Eloy Asensio de Lucas, Moisés Frías Rojas, María Isabel Sánchez de Rojas Gómez	**Durability of fly ash-based alkali-activated mortars reinforced with short hemp fibres** Bojan Poletanović, Ivan Janotka, Michal Bačuvčik and Ildiko Merta	**Synthesis and characterization of alkali-silica reaction products** Z. Shi, B. Lothenbach, A. Leemann	**Durability aspects related to repointing of historic mortars with lime based mortar** Caspar Groot, Rob van Hees, Ioanna Papayianni	**Materials for infrastructure projects based on durability and sustainability issues** I. Papayianni, E. Anastasiou, M. Papachristoforou and A. Liapis	**The Effect of MSWI Fly Ash on Mortar Workability** Benjamin A. R. Ebert, Britt-Marie Steenari, Mette R. Geiker and Gunvor M. Kirkelund	**Field behaviour of cold-recycled asphalt mixtures for binder courses** Andrea Grilli, Chiara Mignini and Andrea Graziani
17:00 - 17:15	**Influence of exposure environments on the carbonation resistance of concrete structures** A. S. AL-Ameeri, M. I. Rafiq, O. Tsioulou	**Durability of alkali-activated concrete mixtures - a requirement for success in the market** Katja Dombrowski-Daube, Jan Sachl	**Microstructural analysis of ASR in concrete - accelerated testing versus natural exposure** Andreas Leemann, Ingmar Borchers, Mahdieh Shakoorioskooie, Michele Giffa, Christoph Müller, Pietro Lura	**Self-healing lime mortars: an asset for restoration of heritage buildings** Cristina De Nardi, Claudia Brito de Carvalho Bello, Liberato Ferrara, Antonella Cecchi	**Adhesion parameter kb of RC beams with GFRP and CFRP bars under the flexural loads** Naser Kabashi, Cene Krasniqi, Besart Avdyli, Arbër Këpuska and Drilona Disha	**Pre-treatments of MSWI bottom ash for the application as supplementary cememtitious matreial in blended cement paste** Boyu Chen, Yubo Sun, Loic Jacquemin, Shizhe Zhang, Kees Blom, Mladena Luković and Guang Ye	**Experimental application of synthetic lightweight aggregates for the production of special asphalt concretes** P. Tataranni and C. Sangiorgi
17:15 - 17:30	**The influence of cracks and carbonation level on the salt scaling resistance of natural and recycled aggregate concrete** Ivan Ignjatović, Vedran Carević	**Non-classical pathways to phase separation in alkali-activated systems** Luca Valentini	**Numerical simulation of the expansion behavior of field-exposed concrete blocks based on a modified concrete prism test** Y. Kawabata, K. Yamada, S. Ogawa, Y. Sagawa	**Evaluation of lime-based mortars used for repairing the Galerius Palace (4th century AD) during Restoration project (1994-2006)** Ioanna Papayianni, Maria Stefanidou, Vasiliki Pachta, Stavroula Konopisi, Fani Athanasiou, Maria Sarantidou	**Experimental study on flexural damage of RC piers having cut-off rebars** Hisako Kobayashi and Kaoru Kobayashi	**Comparative evaluation of use silica fume, blast furnace slag, limestone, metakaolin and red mud as supplementary cementitious materials for concrete** Roberto Cesar de Oliveira Romano, José Augusto Ferreira Sales de Mesquita, Gabriel Carpinelli Perozzi Brasileiro, Maria Alba Cincotto and Rafael Giuliano Pileggi	
17:30 - 20:00		**TC CCL** (F. Martinera)		**Seismic retrofitting of masonry walls with textile reinforced mortar composites** Gianmarco de Felice, Stefano De Santis	**Project FLOW (members only)**		

★ Manuscript chosen for publication in RILEM Technical Letters

Thursday, **21st March**

08:30 - 09:30 **RILEM SMSS PLENARY SESSION** LEVEL 1
CHAIRPERSONS: **Ana Mandić Ivanković & Maurizio Guadagnini**

Probabilistic design of wind turbine concrete components subject to fatigue
John Dalsgaard Sørensen, Aalborg University, Denmark

Designing and managing structures in a life-cycle perspective
André Orcesi, IFSTTAR, France

09:30 - 11:30 **PhD Symposium**
CHAIRPERSONS: **Dirk Schlicke, Nina Štirmer, Ivan S. Ignjatović**

11:30 - 12:00 COFFEE BREAK

RILEM SMSS CONFERENCE SESSIONS

	NGCM: Novelties in UHPC	NGCM: Trends in aggregate	Durability, monitoring and repair of structures	DMR: Durability monitoring	Energy efficient building design and legislation	Challenges in design and management of structures	Novel methods for characterization of materials and structures
12:00 - 13:30	CHAIRPERSON: Violeta Bokan Bosiljkov & Wolfram Schmidt ROOM 1	CHAIRPERSON: Jean-Michel Torrenti ROOM 2	CHAIRPERSONS: Carmen Andrade & Sylvia Keßler ROOM 3	CHAIRPERSONS: Luping Tang & Roberto Torrent ROOM 4	CHAIRPERSONS: Marina Bagarić & Silvio Novak ROOM 5	CHAIRPERSONS: Joško Ožbolt & Emilio Bastidas-Artega ROOM 6	CHAIRPERSONS: Aljoša Šajna & Marijan Skazlić ROOM 7
12:00 - 12:15	**Effects of different chemical pretreatments of natural fibers on the mechanical properties of cement mortar** S. Juradin, I. Boko, I. Netinger Grubeša and S. Mrakovčić	**Early-age evolution of recycled concrete strength: Insights from micromechanics modeling and experimental testing** Markus Königsberger, Brice Delsaute and Stéphanie Staquet	**Chemo-poro-mechanical modeling of cementitious materials (diffusion-precipitation-cracking)** Adrien Socié, Frédéric Perales, Frédéric Dubois, Yann Monerie	**Advances in Durability Monitoring of Concrete Structures** Ueli Angst	**From log houses to near zero energy buildings (Session keynote lecture)** David W. Yarbrough, Mark Bomberg, Anna Romanska-Zapala	**Corrosion initiation assessment of concrete components of wind turbines: overview and challenges** Emilio Bastidas-Arteaga, Syed Y. Alam, Xiao-Hui Wang and Yue Li	**A new approach to quantification of residual flexural stiffness of reinforced concrete** Viktor Gribniak, Aleksandr Sokolov and Arvydas Rimkus
12:15 - 12:30	**The influence of nano SiO2 and curing regimes on mechanical properties of UHPFRC** Ksenija Janković, Marko Stojanović, Dragan Bojović	**The study on fundamental properties and self-healing performance of concrete using belite-gehlenite clinker as fine aggregate** Fumihiro Watanabe, Hiromi Fujiwara, Masatoshi Maruoka, Shunnosuke Ito and Kensuke Hayashi	**Magnesium silicate hydrate formation at the surface of hydrated cements** Barbara Lothenbach, E. Bernard, W. Kunther, K. de Weerdt	**Development of a multifunctional concrete with carbon sensor** Paulo Cachim, Emanuel Pereira		**Benchmarking chloride ingress models on real-life case studies: Krk bridge and Maslenica bridge** Marija Kušter Marić, Joško Ožbolt and Gojko Balabanić	**Measuring rate effects on internal damage and fracture of ultra high-performance concrete** Yi Peng, Dmitry Loshkov and Eric N. Landis
12:30 - 12:45	**Strain-hardening ettringite-based composite with polypropylene fiber reinforced ladle slag: durability under combined chloride and sulfate attack** Hoang Nguyen, Paivo Kinnunen, Valter Carvelli, and Mirja Illikainen	**The producing technology and improved methods of the recycled concrete aggregate** Ting Du	**Formation and stability of U-phase in cementitious materials under sulphate attack** Yogarajah Elakneswaran, Li Chuang, Tomohiro Kajio, Eiji Owaki, Yuka Morinaga, Toyoharu Nawa	**Design for Durability of Reinforced Concrete Structures under the Hot Dessert Climate of the Arabian Peninsula** Sotiris Demis, Vagelis Papadakis	**Experience of implementation of energy performance requirements for buildings in Lithuania** R. Bliudzius, Karolis Banionis, A. Levinskyte, V. Geleziunas	**Modeling corrosion of steel reinforcement in concrete** Joško Ožbolt, Gojko Balabanić and Filip Oršanić	**Parameter estimation in fiber reinforced concrete** Ivica Kožar, Neira Torić Malić, Silvija Mrakovčić and Danijel Simonetti
12:45 - 13:00	**Mechanical and insulation properties of ultra-high performance concrete with expanded polystyrene** Anjaneya Dixit, Sze Dai Pang and Juhyuk Moon	**Experimental study on properties of concrete containing molten slag from integrated coal gasification combined cycle as fine aggregate** Ryotaro Kobayashi, Hiromi Fujiwara, Masanori Maruoka and Yuto Yamanaka	**New mechanism of stress corrosion cracking: fracto-surface mobility mechanism** Javier Sanchez, E. Torres, Nuria Rebolledo, Alvaro Ridruejo	**Evaluation of service life of reinforced concrete in the middle east eight years of testing** Mohamad Nagi, Jessi Meyer, Nizar Marjaba	★ **Achieving nZEB targets through energy retrofit of educational buildings** Ligia M. Moga, Ioan Moga	**Comparison of the behavior of crack width-governing parameters with existing models** Chavin N. Naotunna, S.M Samindi, M.K Samarakoon and Kjell T. Fosså	**Modal identification of a double-curvature concrete arch dam under natural excitation: analysis of the accuracy achieved with different types of accelerometers** Sergio Pereira, Filipe Magalhães, Carlos Moutinho, Álvaro Cunha
13:00 - 13:15	**Effect of pre-impregnation process on the tensile behavior of glass yarn/ettringitic matrix composite** Omayma Homoro, Marie Michel and Thouraya. N. Baranger	**Recycled aggregates produced from two different feedstock materials – applied in ready-mixed concrete** Hernan Mujica, Egil Velde, Christian J. Engelsen, Monica S. Nodland	**Diffusion coefficient of H in Fe: first principles calculation** P. de Andres, J. Sanchez, A. Ridruejo	**8-year performance of cathodic protection systems in reinforced concrete slabs and life-cycle cost benefits** Deepak Kamde, Naveen Krishnan, Radhakrishna Pillai, George Sergi, Dhruvesh Shah, Rajendran Velayudham	★ **Breathe, breathe in the healthy air: influence of building design and recent biomedical research directions on indoor air quality** Matea Podgornjak, Dorotea Markasović, Zlata Dolaček-Alduk, Terezija Berlančić, Ivan Miškulin, Maja Miškulin	**Crack analysis of concrete bending members based on reinforcement strain profile between primary cracks** Gintaris Kaklauskas and Aleksandr Sokolov	**Characterization and modeling of the thermal and mechanical properties of self-compacting concrete at early ages** María D. Crespo, Climent Molins and Antonio R. Marí
13:15 - 13:30	**Rubberised Concrete Refinement by Cement Substitution and Surface Treatment Techniques Rubberised concrete refinement by cement substitution and rubber particle pretreatment** Thomaida Polydorou, Kyriacos Neocleous, Loukas Koutsokeras, Georgios Constantinides, Nicholas Kyriakides, Kypros Pilakoutas and Diofantos Hadjimitsis	**Variation in physical and environmental properties of recycled concrete aggregates from C&D waste in Delhi** Christian J. Engelsen, Harsha Meenawat, Arun Kumar Sharma, Gaurav Bhatiani, Kshemendra Nath P, Monica S. Nodland	**Crack propagation rate by hydrogen embrittlement in high strength steels: trap-controlled difusion** A. Ridruejo, J. Sanchez, E. Torres, N. Rebolledo	**Organic corrosion inhibitors - bio based technology to extend durability of concrete for new build and existing structures performance** Ivana Lipošćak, Jessi Meyer, Boris Mikšić	★ **Living in multi-family nZEB buildings – End-users' perspective on challenges and doubts** Marjana Šijanec Zavrl, Marko Jaćimović	**Restraint-induced crack formation and crack widths in thick walls** D. Schlicke, K. Hofer and N. V. Tue	**Identification of drying, creep and shrinkage constitutive laws for concrete at 20°C and 40°C, application to VeRCoRs mock-up** Laurent Charpi, Jessica Haelewyn, Jean-Philippe Mathieu

13:30 - 14:30 **LUNCH**

★ Manuscript chosen for publication in RILEM Technical Letters

★ Manuscript chosen for publication in Journal of Advances in Building Energy Research

RILEM SMSS CONFERENCE SESSIONS

	NGCM: Innovative nano	NGCM: Candidates for AAM	DMR: Carbonation of concrete with SCMs	DMR: High-performance repair	Energy efficient building design and legislation	Challenges in design and management of structures	Novel methods for characterization of materials and structures
14:30 - 16:00	CHAIRPERSON: Eddie Koenders ROOM 1	CHAIRPERSONS: Vilma Ducman & Frank Winnefeld ROOM 2	CHAIRPERSON: Susan Bernal & Elakneswaran (Laknesh) Yogarajah ROOM 3	CHAIRPERSON: Ana Baričević ROOM 4	CHAIRPERSONS: Francesco Pittau & Neven Ukrainczyk ROOM 5	CHAIRPERSONS: Ana Mandić Ivanković & Maja Kreslin ROOM 6	CHAIRPERSON: Violeta Bokan Bosiljkov ROOM 7
14:30 - 14:45	★ **Effects and potentials of plant based chemical admixtures on the performance of cementitious construction materials** Wolfram Schmidt, Ines L. Tchetgnia Ngassam, Kolawole A. Olonade, Rose Mbugua and Hans-Carsten Kühne	★ **Instantaneous activation energy of alkali activated materials** Shiju Joseph, Siva Uppalapati and Özlem Cizer	**Accelerated carbonation of recycled concrete aggregates: the FastCarb project** Jean Michel Torrenti	**Rehabilitation of an old steal railway bridge using UHPFRC – material characteristics and casting technology** Aljoša Šajna, Irina Stipanović Oslaković, Henar Martín-Sanz, Domagoj Damjanović **Experimental investigation of a steel railway bridge strengthened with UHPFRC deck slab** Domagoj Damjanović, Sandra Škarić Palić, Irina Stipanović Oslaković, Henar Martín-Sanz, Janko Košćak, Ivan Duvnjak, Uroš Bohinc	**Parameter estimation for heat conduction in crumb-rubber modified mortar: comparison of different optimisation methods** S. Yang, Neven Ukrainczyk, R. Falcone, E. Martinelli, E. A. B. Koenders	**Quantifying dynamic properties of bridges for bridge-vehicle interaction modelling** Maja Kreslin, Peter Češarek, Jan Kalin, Andrej Anžlin and Aleš Žnidarič	**Roughness measurement of coarse natural aggregates by interferometry and its variability** Paulo H. F. Loz, Sérgio C. Angulo and Vanderley M. John
14:45 - 15:00	**Mechanical behavior and Neutron shielding performances of TiO2-incorporated cement composites** Jaeyeon Park, Sungwun Her, Heongwon Suh, Seung Min Woo, Keunhong Jeong and Sungchul Bae	**Mechanical parameters of metakaolin-based geopolymer with CRT glass waste fine aggregate** Natalia Paszek, Marcin Górski	**Development of durable and structural lightweight concrete** Maria Stratoura, Theofilos-Marios Zavras, Efstratios Badogiannis, Kosmas Sideris, Vagelis Papadakis	**Experimental investigations of UHPC, steel fibres and embedded steel fibres under cyclic tensile loading** Martin Empelmann, Vincent Oettel, Jan-Paul Lanwer	★ **Selection of suitable materials for the development of an innovative thermochromic Trombe wall** Gloria Perez, Virginia R. Allegro, Maria J. Gavira, Carmen Alonso, Fernando Martín-Consuegra, Ignacio Oteiza, Borja Frutos, Ana Guerrero	**Establishing the effect ot the tail length on extrapolation when fitted to wim data** P.F. van der Spuy and R. Lenner	**Probabilistic strength distribution of natural coarse aggregates by point load test** Natalia V. Silva, Sérgio C. Angulo and Amanda A. Bastos
15:00 - 15:15	**Effect of Titanate Nanotubes on the properties of cement-based composites** Hyeonseok Jee, Jaeyeon Park, Sungwun Her, Erfan Zalnezhad, Keunhong Jeong and Sungchul Bae	**Development of alkali-activated magnesium aluminosilicate binders from soapstone** Z. Abdollahnejad, T. Luukkonen, M. Mastali, J. Yliniemi J, P. Kinnunen, M. Illikainen	**C/S ratio influence on the carbonation of cementitious material using designed model systems** Ekoé Kangni-Foli, Stéphane Poyet, Patrick Le Bescop, Emilie L'Hôpital, Alexandre Dauzères, Thibault Charpentier, Jean-Baptiste d'Espinose de Lacaillerie	**Upgrading the concept of UHPFRC for high durability in the cracked state: the concept of Ultra High Durability Concrete in the approach of the H2020 project ReSHEALience** Pedro Serna, Francesco Lo Monte, Eduard Mezquida-Alcaraz, Estefania Cuenca, Viktor Mechtcherine, Michaela Reichardt, Alva Peled	★ **Design and optimisation of a thermochromic Trombe wall** Fernando Martín-Consuegra, Carmen Alonso, Gloria Pérez, Ana Guerrero, María Jesús Gavira, Borja Frutos, Ignacio Oteiza	**Consecutive multi-level bridge assessment** Ana Mandić Ivanković, Dominik Skokandić and Mladen Srbić	**A modified pycnometer method to determine the water absorption of combined crushed concrete aggregate fractions** Madumita Sadagopan, Katarina Malaga and Agnes Nagy
15:15 - 15:30	**Influence of PRAH crystalline admixtures on the durability of concretes** Kosmas K. Sideris, Christos Tassos, Alexandros Chatzopoulos, Panagiota Manita	**Production of alkali-activated binders from iron silicate fines** John L. Provis, Angel L. Munoz Gomez, Oday H. Hussein, Gaone Koma, Emanuela Manolova, Vladislav Petrov	**Influence of biomass fly ash on hydration and carbonation of cementitious materials** Elisabete Teixeira, Aires Camões, Fernando Branco	**High-performance and durable fiber concrete made of recycled carbon fibers** Magdalena Kimm, Thomas Gries	**Infrared thermography for dynamic thermal transmittance determination** Mergim Gaši, Bojan Milovanović, Sanjin Gumbarević	**Life cycle assessment of retrofit strategies applied to concrete infrastructure at railway stations exposed to future extreme events** Kundai L Sibanda and Sakdirat Kaewunruen	**Standardised experimental techniques and novel micro-destructive methods for the assessment of lime mortar** Loucas Kyriakou, Magdalini Theodoridou and Ioannis Ioannou
15:30 - 15:45	**A comparison of graphene oxide, reduced graphene oxide and pure graphene: early age properties of cement composites** Tanvir S. Qureshi and Daman K. Panesar	**Mixture proportioning for alkali-activated slag-based concrete** Ning Li, Caijun Shi, Zuhua Zhang, Deju Zhu	**Coupling effect and durability in cement pastes and concretes with supplementary cementitious materials** Mickael Saillio, Matthieu Bertin, Veronique Baroghel-Bouny	**Shear behavior of fiber reinforced concrete beams** Marta Kosior-Kazberuk, Julita Krassowska, Piotr Berkowski	**Optimizing the heat transfer of anchoring components, here: brickwork support brackets** Matthias Roik, C. Piesker, M. Stegemann	**Durability design for concrete bridge structures in the german federal highway network: status quo** M. Teresa Alonso Junghanns and Peter Haardt	**Caracterization of the adhesion of fresh to early-age concrete** T. Craipeau, A. Perrot, F. Toussaint and T. Lecompte
15:45 - 16:00	**A new admixture for concrete with clay contaminated sand** Oliver Mazanec, F. Morati, A. Große-Sommer	**Alkali Activation of High MgO content BFS with Sodium Carbonate Added as Dry VS. Wet** Abeer Mohammed Humad, John L. Provis, Andrzej Cwirzen	**A correlation between vapour diffusion coefficient and oxygen permeability coefficient of concrete** Rakesh Gopinath, Mark Alexander	**Analysis of Steel Fibers Distribution and Orientation in Hybrid-Fibers Reinforced High-Performance Concrete Column Using Micro-Computed Tomography** Taehoon Park, Heongwon Suh, Jaeyeon Park, Bumyean Cho, Seyoon Yoon, Sungchul Bae	**Window placement as a thermal bridge in a sustainable hemp-lime construction** Magdalena Grudzińska, Przemysław Brzyski	**Risk based inspection planning methodology for concrete bridges** S.M. Samindi, M.K. Samarakoon and R.M. Chandima Ratnayake	**Sulfate resistance of concrete based on CEM III with recycled and natural aggregates** Vesna Bulatović, Miroslava Radeka, Mirjana Melešev, Vlastimir Radonjanin, Mirjana Laban and Ivan Lukić
16:00 - 16:30	**COFFEE BREAK**						

★ Manuscript chosen for publication in RILEM Technical Letters

★ Manuscript chosen for publication in Journal of Advances in Building Energy Research

RILEM SMSS CONFERENCE SESSIONS

16:30 - 18:00	**NGCM: Alternative binders** CHAIRPERSONS: Jean Baptiste d'Espinose de Lacaillerie & Fabrizio Moro **ROOM LADONJA (EDEN)**	**NGCM: SCM** CHAIRPERSONS: Barbara Lothenbach & Miroslav Komljenović **ROOM EDEN (EDEN)**	**Durability, monitoring and repair of structures** CHAIRPERSON: Gregor Gluth & Marija Jelčić Rukavina **ROOM V**	**Durability, monitoring and repair of structures** CHAIRPERSON: Liberato Ferrara **ROOM 4**	**Energy efficient building design and legislation** CHAIRPERSONS: Marjana Šijanec Zavrl & Jens Laustsen** **ROOM 5**	**Challenges in design and management of structures** CHAIRPERSONS: Marija Kušter Marić & André Orcesi **ROOM 6**	**Novel methods for characterization of materials and structures** CHAIRPERSON: Neven Ukrainczyk **ROOM 7**
16:30 - 16:45	**Hydration of MgO in the presence of hydromagnesite** Frank Winnefeld, Eugenia Epifania, Fabio Montagnaro and Ellis M. Gartner	**Ternary binder made from coal combustion products: mechanical properties and microstructure evolution** Vít Šmilauer, Rostislav Šulc, Pavel Reiterman, Petr Hlaváček, Martina Šídlová, František Škvára, Adéla Peterová, Roman Snop	★ **Long-Term Mechanical and Shrinkage Properties of Cementitious Grouts for Structural Repair** Md Shamsuddoha, Götz Hüsken, Wolfram Schmidt, Hans-Carsten Kühne, Matthias Baeßler	**Material properties of heritage masonry buildings from 19th century** Davor Grandić, Paulo Šćulac, Natalija Bede	**Potentials and limitations of local fiscal policies as instruments for sustainable development in Slovenia** Miha Tomšič, Henrik Gjerkeš, Marjana Šijanec Zavrl, Irena Bačlija Brajnik, Vladimir Prebilič	**SUSTIMS – sustainable infrastructure management system** Álvaro A. Soares	**Methods of evaluating workability for concretes reinforced by different fiber types** Veronica Guerini, Antonio Conforti, Giovanni Plizzari and Shiho Kawashima
16:45 - 17:00	**Radioactive waste conditioning using alumina-silicate binary blends** Bastien Planel, David Lambertin and Catherine A. Davy	**Use of Carbonated Waste Hardened Cement Powder as a Supplementary Cementitious Material** Bao Lu, Caijun Shi	**Tensile behaviour of natural fibre textile-reinforced mortar** Niki Trochoutsou, Matteo Di Benedetti, Kypros Pilakoutas, Maurizio Guadagnini	**Structural and material diagnostics of historical industrial buildings** Piotr Berkowski, Grzegorz Dmochowski	★ **EU policy goals and implementation in the building sector: the role of social sciences and humanities** Dragomir H. Tzanev	**Application of non-destructive testing in assessment and service life prediction of concrete bridges** Marija Kušter Marić, Ana Mandić Ivanković, Anđelko Vlašić, Jelena Bleiziffer, Mladen Srbić and Dominik Skokandić	**Realtime readjustment of the rheological properties of SCC by an expert system** Ivan Parić and Wolfgang Kusterle
17:00 - 17:15	**Chemical and microstructural characterisation of lime and lime-metakaolin pastes with linseed oil** C. Nunes, P. Mácová, D. Frankeová, R. Ševčík and A. Viani	**Early strength improvement of sustainable shotcrete** Lukas G. Briendl, Joachim Juhart, Markus Krüger, Florian Mittermayr, Isabel Galan	**Mechanical characterization of lime cement mortars: E-modulus and fracture energy** Meera Ramesh, Miguel Azenha, Paulo Lourenço	**Optimising in-situ testing for historic masonry structures: a case study** Miroslav Sykora, Dimitris Diamantidis, Jana Markova, Maria Masciotta	**Innovative training schemes for retrofitting to nZEB-levels** Bojan Milovanović, Marina Bagarić, Dragomir H. Tzanev, Horia Petran	**Mapping of runway pavement layers thickness by GPR** Josipa Domitrović, Tatjana Rukavina, Šime Bezina and Ivica Stančerić	**Thixotropic structural build-up of cement pastes at low shear rates** Mareike Thiedeitz, Thomas Kränkel, Bianca Bauer and Christoph Gehlen
17:15 - 17:30	**Use of biomass fly ash for the production of low energy blended calcium sulfoaluminate cements** M. Marroccoli, M. De Biasi and A. Telesca	**Utilization of rice husk ash as reactive filler for enhancing material properties of ultra-high performance concrete** Sung-Hoon Kang, Yang-Hee Kwon and Juhyuk Moon	**Experimental study on durability and sustainability of concrete with limestone and dolomite fillers** Moetaz El-Hawary, K. E. Nouh	**Multiaxial behaviour of fibre reinforced mortar for masonry strengthening subjected to high temperatures** João Almeida, Eduardo Pereira, Hernán Xargay, Paula Folino, Joaquim Barros	**BIM-based workflows for building energy modelling – A variant study** Julia Reisinger, Leonard Donkor, Stephan Loncsek, Iva Kovacic	**Methodology and case studies for the assessment of concerete sustainability** Teplý Břetislav and Tomáš Vymazal	**Testing of new accelerated method for determination of chloride threshold values for corrosion initiation in reinforced concrete** Søren Lundsted Poulsen and Henrik Erndahl Sørensen
17:30 - 17:45	**A preliminary study of thermodynamic modelling of calcium sulfoaluminate cement-based material** Yoon, H.N., Park, S.M., Kil, T.G. and Lee, H.K.	**Potential USE of ash from the paper industry as SCM** Sabina Kramar, Vilma Ducman	**Influence of recycled fibre reinforcement on plastic shrinkage cracking of cement-based composites** Ida Bertelsen, L. M. Ottosen, G. Fischer	**Towards the development of damage tolerant engineered cementitious composites with super-elastic reinforcement** Dario Mirza, Eduardo Pereira, João Almeida, Vitor Cunha	**Possibilities of using BIM for deep energy renovation analyses** Sanjin Gumbarević, Bojan Milovanović, Marina Bagarić, Mergim Gaši	**Hybridbeam – composition in slab is more than the sum of steel and concrete** Matthias Kintscher, Jerzy Derysz and C. Kryzstof Janczura	**ASR performance testing of air entrained concrete exposed to external alkalis** Karolina Gibas, Michał A. Glinicki, Mariusz Dąbrowski, Daria Jóźwiak-Niedźwiedzka, Aneta Antolik and Kinga Dziedzic
17:45 - 18:00	**Properties of Ordinary Portland Cement Clinker with municipal solid waste incineration bottom ash as raw meal additive** Aneeta M. Joseph, Stijn Matthys and Nele De Belie	**A study on feasibility of cement clinker manufacture using oyster shell as limestone substitute** Sungwun Her, Hyeonseok Jee, Taehoon Park, Dongcheon Park and Sungchul Bae	**New generation of lime-based renders with the addition of ultrafine waste material from dolerite quarries** Ioannis Rigopoulos, Loucas Kyriakou, Ákos Török, Theodora Kyratsi, Ioannis Ioannou		**Energy plus seismic retrofitting of existing EU buildings** Mihaela Zamolo	**CIRIA guide C766: an overview of the updated CIRIA C660 guidance on control of cracking in reinforced concrete structures** Fragkoulis Kanavaris and Sarah Kaethner	**A comparative study between hardened cement pastes and concrete oxygen diffusion coefficient** M. Boumaaza, B. Huet, Ph. Turcry, C. Gehlen and A. Aït-Mokhtar
20:00-23:00	**RILEM SMSS GALA DINNER** HOTEL LONE	LEVEL 1					

★ Manuscript chosen for publication in RILEM Technical Letters

★ Manuscript chosen for publication in Journal of Advances in Building Energy Research

Friday, **22nd March**

08:30 - 10:30

RILEM SMSS PLENARY SESSION LEVEL 1

CHAIRPERSONS: **Domagoj Damjanović & Christian Grosse**

CA EPBD supporting transition towards NZEB buildings
Jens Laustsen, Coordinator of the CA EPBD

Ultrasonic monitoring of structural concrete elements
Ernst Niederleithinger, BAM, Germany

Field survey on re-bar corrosion of carbonated existing concrete buildings in Japan
Kei-ichi Imamoto, Tokyo University of Science, Japan

Practical Applications of Non-Destructive Testing in Assessment and Repairs of Structures
Predrag L. Popovic
Wiss, Janney, Elstner Associates, Inc., USA

10:30 - 11:00 COFFEE BREAK

RILEM SMSS CONFERENCE SESSIONS

11:00 - 12:30

	NGCM: Calcined clay	NGCM: Bio-based alternative materials	Durability, monitoring and repair of structures	DMR: Durability monitoring	NGCM: 3D printing	Energy efficient building design and legislation	Novel methods for characterization of materials and structures
	CHAIRPERSON: Manu Santhanam ROOM 1	CHAIRPERSON: Nina Štirmers ROOM 2	CHAIRPERSONS: Gai Fei Peng & Marija Jelčić Rukavina ROOM 3	CHAIRPERSONS: Maurizio Guadagnini & Domagoj Damjanović ROOM 4	CHAIRPERSONS: Johan Vyncke & Nicolas Roussel ROOM 5	CHAIRPERSONS: Ligia Moga & David W. Yarbrough ROOM 6	CHAIRPERSON: Christian Grosse ROOM 7
11:00 - 11:15	★ **Comparing the reactivity of different natural calcined clays under alkali activation** Ahmed Zohair Khalifa, Yiannis Pontikes, Jan Elsen, Özlem Cizer	★ **Influence of hydric solicitations on the morphological behavior of hemp concrete** F. Bennai, C. El Hachem, K. Abahri and R. Belarbi	★ **Numerical Investigations on post-fire bond performance of reinforcement in concrete** Arunita Das, Josipa Bošnjak, Sharma Akanshu	**Experimental investigation on RC beams strengthened with bottom or side NSM FRP bars** Thanongsak Imjai, Monthian Setkit, Navapadol Khumthong, Kornrit Keeratithanikkul, Reyes Garcia	★ **Surface modification as a technique to improve inter-layer bonding strength in 3D printed cementitious materials** J. Van Der Putten, G. De Schutter and K. Van Tittelboom	**A path to Near zero energy buildings in the future (Session keynote lecture)** Anna Romanska-Zapala, Mark Bomberg, David W. Yarbrough	**Developing better understanding of deterioration progression in concrete bridge decks through accelerated structural evaluation** Nenad Gucunski, Franklin Moon and Ali Maher
11:15 - 11:30	**Summary of 4-years of research at IIT Madras on concrete with limestone calcined clay cement (LC3)** Ravindra Gettu, Manu Santhanam, Radhakrishna G. Pillai, Yuvaraj Dhandapani, T. Sakthivel, Sripriya Rengaraju, Sundar Rathnarajan, Fathima Suma M., Anusha S. Basavaraja, Sanoop Prakasan and Nithya Nair V.G.	**Sustainable Hemp-Clay-Lime Concrete** Rotem Haik, Isaac A. Meir and Alva Peled	**Effects of Rehydration Conditions on the Mechanical Recovery and the Properties of Portland Cement Paste Subjected to High Temperature** Heongwon Suh, Taehoon Park, Hyeon-seok Jee, Bumyean Cho, Sungchul Bae	**Use of NSM FRP for the strengthening of a bridge deck - a case study** Alejandro Perez Caldentey	**Powder bed 3D printing with geopolymers** Vera Voney, Pietro Odaglia, Gnanli Landrou, Coralie Brumaud, Andrei Jipa, Isolda Agustí-Juan, Benjamin Dillenburger, Guillaume Habert		**Monitoring modal parameters and external loads of wind turbines for remaining useful life analysis** Max Botz, Georg Harhaus and Christian U. Grosse
11:30 - 11:45	**Limestone calcined clay cements (LC3): effect of raw material properties on hydration and strength** Franco Zunino, Karen Scrivener	**Self – compacting concrete with tailings and fly ash as ecological material** Iva M. Despotović, Ksenija S. Janković, Dragan M. Bojović, Marko S. Stojanović	**High-temperature behavior of heavy-weight concretes** Flora Faleschini, Raissa Njinwoua, Anne-Lise Beaucour, Prosper Pliya, Albert Noumowe, Carlo Pellegrino	**Effect of corner radius on the axial behavior of FRCM-confined concrete members** Jaime Gonzalez-Libreros, Flora Faleschini, Mariano Angelo Zanini, Carlo Pellegrino	**High-performance 3d printable concrete enhanced with nanomaterials** Jacques Kruger, Marchant van den Heever, Seung Cho, Stephan Zeranka and Gideon van Zijl	**Effect of adsorption/desorption material hysteresis on the hygrothermal performance of building structures** Rémi Goulet, Anton L. Cottrill, Ali Assy	**An embedded yield design approach within a non-linear analysis for structural modeling of progressive collapse** Mohammad El Hajj Diab, André Orcesi, Cédric Desprez and Jérémy Bleyer
11:45 - 12:00	**Investigation of calcined brick clays from central Germany for use as a sustainable pozzolan** Nsesheye S. Msinjili, Gregor J. G. Gluth, Nico Vogler, Sebastian Simon and Hans-Carsten Kühne	**Influence of aggregate type on basic properites of cement mortars blended with mixture of wheat and soya straw ash** Mirjana Malešev, Slobodan Šupić, Miroslava Radeka, Vlastimir Radonjanin, Tiana Milović, Olivera Bukvić	**Predicting the Fire Rating of Reinforced Concrete Columns: Effect of Load Induced Thermal Strains (LITS)** Hitesh Lakhani, Joško Ožbolt, Batsuuri Boldbaatar	**Influence of pounding on seismic performance of existing buildings in the city of Zagreb, Croatia** Jakov Oreb, Božen Mušterić, Marta Šavor Novak, Josip Atalić	**Methodology of numerically aided optimisation of consolidants for surface treatments of mortars** Janez Perko, Li Yu, Diederik Jacques, Eddie.A.B. Koenders, Neven Ukrainczyk, Anna Varzina, Pagona-Noni Maravelaki, Ioannis Arabatzis	**Multidimensional hygrothermal analysis of complex building constructions** Balázs Nagy	**Comparison of methods for in-situ concrete compressive strength** Marijan Skazlić and Ivan Gabrijel
12:00 - 12:15	**Pozzolanic potential of calcined clay in high-performance concrete** Nancy Beuntner, Andrea Kustermann and Karl-Christian Thienel	**Improving resilience of earth construction - current perspectives and future outlook** S. S. Lucas, F. Ahmed, H. Varum	**Explosive spalling potential of ultra-high performance concrete prepared by a novel approach** Xu-Jing Niu, G.F. Peng, Ya-Jie Shang, Xi-Wang Chen, Hong Ding	**Fundamental Study On Detecting Internal Defect Of Timber Due To Termite And Its Mechanical Improvement With Resin** Akiko Ohtsuka, Kei-ichi Imamoto, Chizuru Kiyohara		**Experimental study of thermal performance of house models built with conventional or hybrid wall panels** Thanakit Ratanawan, Thanongsak Imjai, Borvorn Israngkura Na Ayudhya, Reyes Garcia	**Post-earthquake damage evaluation of concrete structures using ultrasonic monitoring: a proof-of concept laboratory study** Ali Hafiz, Thomas Schumacher, Peter Dusicka and Ernst Niederleithinger
12:15 - 12:30	**Influence of temperature on the hydration of limestone calcined clay cements (LC3)** François Avet and Karen Scrivener	**Effect of tire powder and wood biomass ash on properties of self compacting concrete** Robert Bušić, Nina Štirmer and Ivana Miličević	**Numerical model of an experimentaly tested timber-concrete composite slab exposed to fire** Cvetanka Chifliganec, Meri Cvetkovska, Ljupco Lazarov, Ana Tormbeva Gavriloska	**Tests on strengthening fasteners in riveted steel structures - fit bolts and weld studs** Janusz Hołowaty, Bernard Wichtowski		**Thermal performance of a full-scale house model with innovative composite walls in tropical climates: A field investigation** Vichan Insuwan, Thanakit Ratanawan, Thanongsak Imjai, Reyes Garcia	

12:30 - 14:00 **LUNCH**

★ Manuscript chosen for publication in RILEM Technical Letters

RILEM SMSS CONFERENCE SESSIONS

14:00 - 15:30

	NGCM: AAM application	NGCM: Self-healing	Durability, monitoring and repair of structures	Durability, monitoring and repair of structures	Energy efficient building design and legislation	Energy efficient building design and legislation	Novel methods for characterization of materials and structures
	CHAIRPERSON: John Provis ROOM 1	CHAIRPERSON: Elke Gruyaert ROOM 2	CHAIRPERSON: Dubravka Bjegović ROOM 3	CHAIRPERSONS: Aljoša Šajna & Ana Baričević ROOM 4	CHAIRPERSONS: Ivana Banjad Pečur & Gloria Pérez ROOM 5	CHAIRPERSONS: Mihaela Zamolo & Bojan Milovanović ROOM 6	CHAIRPERSON: Vit Smilauer ROOM 7
14:00 - 15:15	**LowCopReCon – Low Carbon Precast Concrete ProdUcts for an energy efficient built Environment** T.E. McGrath, J. Kwansy, T. Aiken, S. Cox, M. Soutsos, J.F. Chen, J. Mariotti, R. Correia and S. Toal	**Chloride Migration Coefficient of Cracked Mortar Incorporating Self-Healing Materials** Fahad R. Abro, Abdul S. Buller, Kwang Myong Lee and Seung Yup Jang	★ **Air permeability, water penetration and water absorption to specify durability of ECO-friendly concrete** Joachim Juhart, Rok Bregar, Gheorge David, Markus Krüger	**Factors affecting durability of concrete repairs** Dunja Vla, Predrag Popovic	★ **Bio-based insulation materials: An opportunity for the renovation of European building stock** Francesco Pittau, Gabriele Lumia, Giuliana Iannaccone, Guillaume Habert	**A path to Near zero energy buildings in the future (Session keynote lecture) - PART II** Anna Romanska-Zapala, Mark Bomberg, David W. Yarbrough	**What can drop imbibition into geomaterials tell us about their pore structure?** J.-B. d'Espinose de Lacaillerie, C. Davy, M. Marinova-Atanassova, A.-M. Blanchenet, F. Lequeux, Y. Du, Q. H. Nguyen
14:15 - 14:30	**Improving mechanical characteristics of lightweight geopolymers through mechanical activation of fly ash** Tijana G. Ivanović, Miroslav M. Komljenović, Nataša M. Džunuzović, Violeta M. Nikolić and Gordana G. Tanasijević	**Investigation on self-healing characteristic of cementitious materials incorporating supplementary cementitious material and crystalline admixture according to exposed environment** B. Park, S. W. Oh, Y. C. Choi, S. W. Yoo and S. W. Jung	**Suitability of impedance surface moisture meter to complement air-permeability tests** Roberto Torrent, Veronica Bueno, Fabrizio Moro, Albert Jornet	**Mistakes in design and building of concrete structures - practice examples** Jure Galić, Željko Lebo	★ **Reuse and recycling of CDW materials and structures in energy efficient prefabricated elements for building refurbishment and construction - RE4** Mark Whittaker, Konstantinos Grigoriadis, Marios Soutsos, Wei Sha, A. Klinge, S. Paganoni, M. Casado, L. Brander, M. Scullin, R. Correia, T. Zerbi, G. Staiano, I. Merli, I. Ingrosso, A. Attanasio, A. Largo		**Characterizing the 3D mesostructure of high performance concrete by computed tomography** Thorsten Leusmann, Gauravdatt Basutkar, Matteo Lunardelli and Dirk Lowke
14:30 - 14:45	**Preliminary studies on brown coal fly ash as a cement replacement for geopolymer brick applications** Muhamed Khodr, David Law, Chamila Gunasekara and Sujeeva Setunge	**Self-sealing of cracks in cementitious materials incorporating superabsorbent polymers under wet/dry cyclic conditions** S. Choi, G. Hong and C. Song	**The intrinsic coefficient of concrete permeability subjected to cyclic water freezing** Alicja Wieczorek, Dalia Bednarska, Marcin Koniorczyk	**Investigation works and structure condition of sewerage pipe under Heinzelova street in city of Zagreb** Jure Galić, Ivana Banjad Pečur	**Sustainable choices for the residential construction. The impact of sustainable cement** Fernando Martirena, Yudiesky Cancio, Sofía Sánchez		**Nanoindentation assisted small scale tensile properties of hydrated cement and AAFA pastes** Jiří Němeček, Jiří Němeček, Jitka Němečková and Jan Maňák
14:45 - 15:00	**Reactivity of alkali-activated binders for stabilization/solidification of tunnel boring muds** Thomas Wattez, Martin Cyr, Cédric Patapy, Julien Waligora, François Olard, Laurent Frouin and Nicolas Musikas	**Self-healing performance of engineered cementitious composites through the use of nano-silica** Oğuzhan Öztürk, Gürkan Yıldırım, Ülkü S. Keskin and Mustafa Şahmaran	**Non equilibrium molecular dynamics simulation of the hydrodynamics in crystalline calcium silicate hydrates nanopores** Tulio Honorio, Kamilia Abahri	**The renewal of multi-storey prefabricated residential buildings** Mirjana Laban, Radomir Folic, Vlastimir Radonjanin, Mirjana Malešev	**Assessment of the recycling potential and environmental impact of building materials using material passports – A case study** Meliha Honic, Iva Kovacic, Helmut Rechberger	★ **New lightweight textile reinforced concrete and sustainable diatomite-based insulation material for sandwich panels** Isabella G. Colombo, Matteo Colombo, Marco di Prisco, Barbara Galzerano, Letizia Verdolotti	**Cell design and characterisation of cement hydration by impedance spectroscopy** Aldo F. Sosa Gallardo and John L. Provis
15:00 - 15:15	**Irradiation resistance of MK-based geopolymers encapuslating oily wastes** Daniel A. Geddes, Susan A. Bernal, Martin Hayes and John L. Provis	**Effect of superabsorbent polymers on plastic shrinkage cracking and properties of fresh state mortars reinforced by polymeric fibres** Rohollah Rostami, Agnieszka J. Klemm	**Fundamental study on waterproof performance and evaluation of repair agent filling level of self-repairing system for cracked concrete** Hiroto Tanaka, Keiichi Imamoto, Chizuru Kiyohara	**Investigation and repair of stone building facades** Dunja Vla	**Ventilated sandwich wall panel from recycled aggregate concrete: hygro-thermal characterization** Marina Bagarić, Ivana Banjad Pečur, Bojan Milovanović	★ **Fiber reinforced alkali-activated slag foam concretes containing recycled aggregates produced using Petrit-T: An application of acoustic panels for indoor walls** Mohammad Mastali, Paivo Kinnunen, Marjaana Karhu, Zahra Abdollahnejad, Mirja Illikainen	**Mechanical and microstructural evaluation of bio-based building boards – preliminary study** L. Korat, V. Ducman and S. Medved
15:15 - 15:30	**Shrinkage and bond behaviour of one-part alkali-activated mortars** Patrick Sturm, Gregor Gluth, H. J. H. Brouwers, Hans-Carsten Kühn	**Design and testing of anionic superabsorbent polymers for use in durable concrete structures** Laurence De Meyst, Els Mannekens, Maria Araújo, Didier Snoeck, Kim Van Tittelboom, Sandra Van Vlierberghe, Geert Deroover, Nele De Belie	**Optimizing performances of recycled aggregates for improving concrete properties** L. Courard, E. Tabarelli, F. Michel, S. Delvoie, M. ElKarim Bouarroudj, Ch. Colman, Z. Zhao	**Reconstruction of a family villa in Zagreb city center** Angela Čuljak			**Evaluation of degree of hydration during ultrasonic tests from temperature measurements** Ivan Gabrijel and Marijan Skazlić

15:30-16:00 **RILEM SMSS CLOSING CEREMONY** LEVEL 1

★ Manuscript chosen for publication in RILEM Technical Letters

★ Manuscript chosen for publication in Journal of Advances in Building Energy Research

PhD SYMPOSIUM

Adjudicating panel:
Dirk Schlicke, Nina Štirmer, Ivan Ignjatović

No	Title	Authors	Presenter	Country	Affiliation
1	**Carbonation of cement paste with supplementary cementitious materials including the effect on chloride ingress and frost salt scaling**	Hanne Vanoutrive, Özlem Cizer, Peter Minne, Ilse Van de Voorde, Elke Gruyaert	Hanne Vanoutrive	Belgium	KU Leuven, Department of Civil Engineering, Construction TC, Structural Mechanics and Building Materials, Ghent, Belgium
2	**Performance of CLT wall systems and typical CLT connections under monotonic loading**	Claire Aine Hughes, Daniel McPolin, Patrick McGetrick, Daniel McCrum	Claire Aine Hughes	United Kingdom	School of Natural and Built Environment, Queen's University Belfast, UK
3	**Consequences on physical flows of meeting CSI clinker-to-cement ratio milestones and the role of alternative mineral additions**	Jean-Martin Lessard, Guillaume Habert, Arezki Tagnit-Hamou, Ben Amor	Jean-Martin Lessard	Canada	Interdisciplinary Research Laboratory on Sustainable Engineering and Ecodesign (LIRIDE); Dep. Civil and Building Engineering Department, Université de Sherbrooke, Canada; Cement and concrete group, Dep. of Civil and Building Engineering Department, Université de Sherbrooke, Canada
4	**Effect of binder on thermal conductivity of environmentally friendly straw-based thermal insulation boards**	Dániel Csanády, Olivér Fenyvesi, Balázs Nagy	Dániel Csanády	Hungary	Department of Construction Materials and Technologies, Faculty of Civil Engineering, Budapest University of Technology and Economics, Hungary
5	**Sensitivity of dynamic parameters for corrosion detection on RC elements: A literature review**	Ivan Klepo, Ivan Duvnjak	Ivan Klepo	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia
6	**Fundametnal research on the statical analysis for RC buildings with holistic 3D calculation model**	Thomas Markus Laggner, Dirk Schlicke, Nguyen Viet Tue	Thomas Markus Laggner	Austria	Institute of Structural Concrete, Graz University of Technology, Austria
7	**3D-FE model for holistic analysis of the long-term deflection of pre-stressed cantilever bridges**	Daniel Gheorghiu, Dirk Schlicke, Nguyen Viet Tue	Daniel Gheorghiu	Austria	Institute of Structural Concrete, Graz University of Technology, Austria
8	**Modelling of viscoelastic concrete behavior with respect to recent observations in macroscopis tests**	Eva Maria Dorfmann, Dirk Schlicke, Nguyen Viet Tue	Eva Maria Dorfmann	Austria	Institute of Structural Concrete, Graz University of Technology, Austria
9	**Characterisation of microstructure in Limestone Calcined Clay Cementitious systems**	Yuvaraj Dhandapani, Manu Santhanam	Yuvaraj Dhandapani	India	Department of Civil Engineering, Indian Institute of Technology-Madras, India
10	**Water Absorption of Crushed Concrete Aggregates by the modified pycnometer method**	Madumita Sadagopan, Katarina Malaga, Agnes Nagy	Madumita Sadagopan	Sweden	Department of Resource Recovery and Building Technology, University of Borås, Sweden
11	**Assessment of RC existing buildings: critical analysis of the models for the evaluation of the residual capacity evaluation of structural elements**	Elena Casprini, Chiara Passoni, Alessandra Marini, Gianni Bartoli, Paolo Riva	Elena Casprini	Italy	Department of Engineering and Applied Science, University of Bergamo, Italy
12	**Force density method - beyond simple iterations**	Elizabeta Šamec, Krešimir Fresl	Elizabeta Šamec	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia
13	**Wood biomass fly ash in the cement composites**	Ivana Carević, Nina Štrimer	Ivana Carević	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia
14	**An approach towards the multiscale modelling of hydrating cement matrix**	Aleena Alex, Pijush Ghosh	Aleena Alex	India	Nanomechanics and Nanomaterials Laboratory, Indian Institute of Technology Madras, India
15	**Geopolymers as an innovative solution for the disposal of problematic nuclear wastes**	Daniel Geddes	Daniel Geddes	United Kingdom	Department of Materials Science and Engineering, University of Sheffield, UK
16	**Characteristics of self-compacting concrete (SCC) with waste tire rubber and its possible application in structural elements**	Rober Bušić, Ivana Miličević	Rober Bušić	Croatia	Faculty of Civil Engineering and Architecture Osijek, University of Osijek
17	**MSWI Fly Ash for use in cement based materials**	Benjamin A. R. Ebert, Britt-Marie Steenari, Mette R. Geiker, Gunvor M. Kirkelund	Benjamin Alexander Regaard Ebert	Denmark	Department of Civil Engineering, Technical University of Denmark, Denmark

No	Title	Authors	Presenter	Country	Affiliation
18	**Application of post-consumer glass-SCM in concrete for high-rise building construction**	Marija Krstic, Julio F. Davalos	Marija Krstić	USA	Department of Civil Engineering, City University of New York, New York, USA
19	**Seismic shear behaviour of reinforced concrete walls**	Tvrtko Renić, Damir Lazarević, Tomislav Kišiček	Tvrtko Renić	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia
20	**Evaluation of wood biomass fly ashes pozzolanic reactivity**	Karmen Kostanić Jurić, Nina Štirmer, Ivana Carević, Marijana Serdar	Karmen Kostanić	Croatia	Tomting 2010 Ltd., Croatia; Faculty of Civil Engineering, University of Zagreb, Croatia
21	**Analysis of electrical potential and stray currents at DC transit system**	Katarina Vranešić, Marijana Serdar, Stjepan Lakušić	Katarina Vranešić	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia
22	**Identifying sources of variability in the water footprint of concrete production**	Yazmin Lisbeth Mack Vergara, Ana Spiroska, Vanderley M. John, Guillaume Habert	Yazmin Lisbeth Mack-Vergara	Brazil	Universidade de São Paulo, Escola Politécnica, Brazil; Universidad Tecnológica de Panamá, Panama; Swiss Federal Institute of Technology in Zurich, Switzerland
23	**Reconstruction of buildings - research topics from analysis of existing structures in Kosovo**	Alush Shala, Jelena Bleiziffer	Alush Shala	Kosovo	ALB-Architect, Pristina, Kosovo; Faculty of Civil Engineering, University of Zagreb, Croatia
24	**Numerical modelling and finite element analysis of friction in prefabricated wood-bearing glass composite system**	Nikola Perković, Vlatka Rajčić	Nikola Perković	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia
25	**Probabilistic assessment of existing road bridge Weigh-In-Motion measurements**	Dominik Skokandić, Ana Mandić Ivanković	Dominik Skokandić	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia
26	**The influence of cracks on the salt scaling resistance of recycled aggregate concrete**	Vedran N. Carević, Ivan S. Ignjatović	Vedran Carević	Serbia	Faculty of Civil Engineering, University of Belgrade, Serbia
27	**Shrinkage of self-compacting concrete – experimental and analytical analysis**	Donka Würth, Ivana Banjad Pečur	Donka Würth	Croatia	University of Applied Sciences Zagreb, Croatia; Faculty of Civil Engineering, University of Zagreb, Croatia
28	**Impact of wood biomass fly ash on the setting time of cement pastes**	Jelena Šantek Bajto, Nina Štirmer, Ivana Carević, Sonja Cerković	Jelena Šantek Bajto	Croatia	Faculty of Civil Engineering, University of Zagreb, Croatia

NOTES:

- Presentations are limited to 3 minutes maximum and competitors exceeding 3 minutes will be disqualified.
- A single static PowerPoint slide is recommended.
- Presentations are considered to have commenced when a presenter starts their presentation through speech.

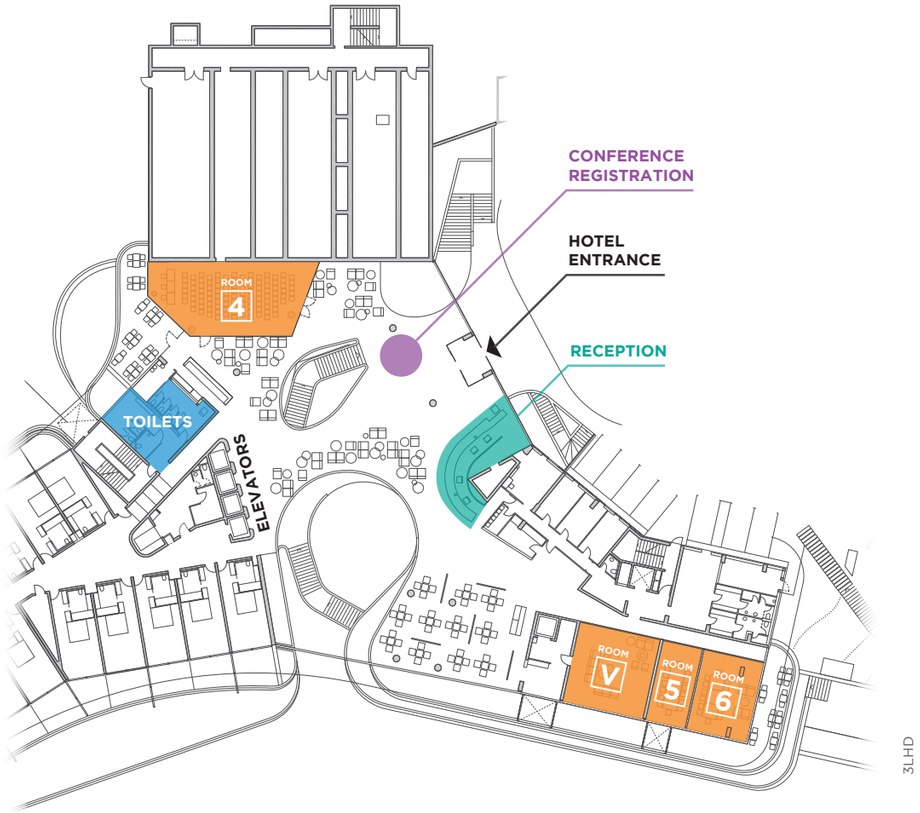
WORKSHOP "PUBLISHING SCIENTIFIC RESEARCH"

Publishing is an integral part of the research. Researchers (especially doctoral students) must publish research in the appropriate journals to reach the right audience and get visibility. For a publication to have impact in the field, beside high-quality results, it should also be communicated clearly. As a part of RILEM SMSS 2019 conference, workshop "Publishing Scientific Research" will be held by Mrs. Nathalie Jacobs, Executive Editor Engineering and Applied Sciences at the Springer Nature. Workshop is intended for all doctoral students and other interested participants.

Thursday, 21st March at 14:30, room V

CONFERENCE VENUE MAP

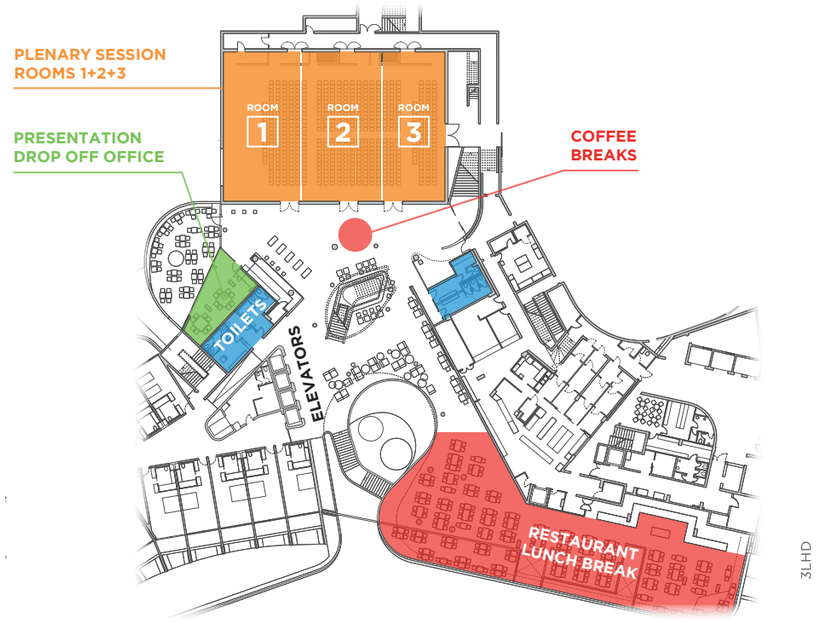
LEVEL 2



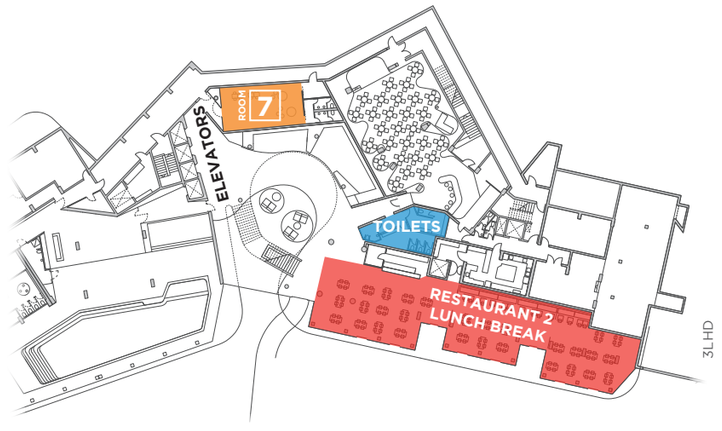
LEGEND

- CONFERENCE SESSION ROOM
- CONFERENCE REGISTRATION
- LUNCH BREAKS/ COFFE BREAKS
- PRESENTATION DROP OFF OFFICE
- TOILETS

LEVEL 1



LEVEL 0



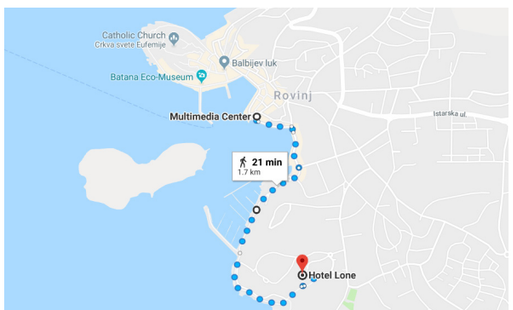
SOCIAL PROGRAMME

WELCOME RECEPTION
19 March 2019 at 19:30

Location:	Multimedia Centre, Trg brodogradilišta 5, 52210, Rovinj
Programme:	Degustation of Istrian products
Meeting place:	in front of hotel Lone at 18:30
Dress code:	Casual

GALA DINNER
21 March 2019 at 20:00

Location:	Hotel Lone
Programme:	Dinner with live music
Meeting place:	Plenary session room at 20:00
Dress code:	Formal



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UNDER THE AUSPICE OF

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Mrs Kolinda Grabar Kitarović

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