Deadlines & submission

- Deadline for abstracts: 1st October 2017
- Deadline for full papers: 15th January 2018
- Deadline for revised papers: 1st April 2018
- Abstract layout and submission process available soon at: <u>http://rilem-mci2018.sciencesconf.org/</u>
- In case of any question about the conference, please contact: <u>rilem-mci@insa-toulouse.fr</u>

Proceedings

 Proceedings will be issued in paper and electronic format. Publication of papers in proceedings will be conditional on registration of at least one co-author to the conference.

Registration & fees

 Registration fees include participation in the conference, proceedings (hard and electronic copies), and participation in coffee breaks, lunches and gala dinner.

		Date	€ /pers.
Conference 25- 26 June 2018	RILEM	Before 15 April	320
	Member	After 15 April	360
	RILEM non-	Before 15 April	350
	member	After 15 April	390
	253-MCI members		270
	Students		180
Accompanying person		Gala dinner	70

• For registration, please see the details on the conference website

Secretariat

For registration only: **Miss Patricia Jarry** INSA SAIC 135 Avenue de Rangueil 31077 Toulouse Cedex 4 France Phone: +33 (0)5 6155 9531, fax +33 (0)5 6155 9538 patricia.jarry@insa-toulouse.fr

Organized by

Laboratoire Matériaux et Durabilité des Constructions – LMDC (Laboratory of Materials and Structures Durability) INSA-UPS Génie Civil 135 Avenue de Rangueil 31077 Toulouse Cedex 4 France http://www-Imdc.insa-toulouse.fr/





Ideally situated in the heart of Southern France, between the Mediterranean and the Atlantic Ocean, the cosmopolitan and enthusiastic "Ville Rose" joyously mixes heritage, lifestyle and regional gastronomy.



Final Conference of RILEM TC 253-MCI



Microorganisms-Cementitious Materials Interactions

Including Young Researcher Competition

25-26 June 2018, Toulouse, France

http://rilem-mci2018.sciencesconf.org/

Welcome & scope

Infrastructures and buildings are exposed to the action of microorganisms in a variety of contexts (sewer networks, agriculture, water treatment, industrial plants, external walls, inside humid buildings, etc.) with either positive or negative (detrimental) effects. Deleterious effects of microorganisms such as bacteria, fungi and micro-algae can be of a chemical and/or physical nature. Their action can lead to the deterioration of cementitious materials because of the production of aggressive chemical agents, but also, through some specific effects of the microorganisms themselves, in the form of biofilms on the surface of materials. There can also be aesthetical effects through the proliferation of stains on external walls. Health problems can also arise from microbial proliferation indoors. Microorganisms can influence the biogeochemical conditions of nuclear waste storage. Major economic, safety, and societal issues arise from microorganisms-building materials interactions.

Meanwhile, microorganisms can be used to protect and/or repair concrete in bacteria-based engineering systems. New formulations of cementitious materials, incorporating selected bacteria, are developed with the aim to fill micro-cracks in concrete and thus improve the durability properties. Growing research efforts are devoted to all these topics.

RILEM Technical Committee 253-MCI -**Microorganisms-Cementitious Materials Interactions (2013-2018)**, aims to achieve concerted approaches and comparisons of research outcomes in order to move toward a better understanding of the phenomena and furthermore, to standardization (for example, of test methods due to the real shortfall in this domain) and/or certification.

The TC warmly invites you to participate in its Final Conference, which will be held in Toulouse, on 25-26 June 2018.

For more information about RILEM TC 253-MCI: http://www.rilem.net/gene/main.php?base=8750&gp_id=305

Chair: Prof. Alexandra Bertron (LMDC INSA Toulouse) Secretary: Dr. Henk Jonkers (TU Delft)

In case of any question about the conference, please contact: rilem-mci@insa-toulouse.fr

Conference topics

This two-day conference (25-26 June 2018) will focus on the main following topics, in 4 sessions:

- Topic 1: Microorganisms-cement-based materials interactions in different contexts: sewers, water treatment, agricultural environments, nuclear waste storage, etc. and the impact on the materials' properties (biodeterioration) and/or the structures' performances (durability, safety, etc.)
- Topic 2: Microbial stains on building materials and protection of materials; building materials with improved bio-receptivity (vegetal walls, reefs, etc.)
- Topic 3: Proliferation of microorganisms (bacteria, fungi) on building materials in indoor conditions and health issues.
- Topic 4: Bacteria-based engineering protective systems for cementitious materials (biodeposition, bacteria-based self-healing systems, etc.)

For all these topics, presentations on mechanisms, durability of materials, test methods, modelling aspects, etc., overview of economic/technical issues, will be welcome.

Young researcher award

A **Young Researcher Competition** will be organized in a dedicated session. Young researchers will present their study through an oral presentation and a poster session. Three prizes will be awarded by a jury of industrial and academic members.



Organizing committee:

- Chair: Prof. Alexandra Bertron (LMDC, INSA Toulouse)
- Dr. Thomas Verdier (LMDC, IUT Toulouse)
- Dr. Cédric Patapy (LMDC, IUT Toulouse)
- Mr Amaury Buvignier (LISBP, INSA Toulouse)
- Mr Pierre Albina (LMDC-LGC, INP Toulouse)
- Ms Célestine Voegel (LMDC-LGC, INP Toulouse

Scientific committee:

The above, plus:

- Dr. Henk Jonkers (TU Delft, The Netherlands)
- Prof. Christine Lors (LGCE, ENM Douai, France)
- Dr. Florian Mittermayr (TU Graz, Austria)
- Dr. Sandra Manso (P.U. Catalonia, Spain)
- Dr. Virginie Wiktor (TU Delft, The Netherlands)
- Ms Eirini Tziviloglou (TU Delft, The Netherlands)
- Prof. Mark G. Alexander (U. Cape Town, South Africa)
- Prof. Nele De Belie (Magnel Laboratory, U. Gent, Belgium)
- Prof. Mohamed Boutouil (ESITC Caen, France)
- Dr. Thierry Chaussadent (IFSTTAR, France)
- Dr. Hector Cuadrado (ESITC Caen, France)
- Prof. Denis Damidot (ENM Douai, France)
- Dr. Benjamin Erable (LGC Toulouse, France)
- Dr. Alexandre Govin (ENM Saint-Etienne, France)
- Mr. Alaster Goyns (PIPES, South Africa)
- Ms Anaïs Grandclerc (IFSTTAR, France)
- Mr Cyril Grengg (TU Graz, Austria)
- Dr. Martin Grübe (I. of Plant Science of Graz, Austria)
- Dr. Marielle Gueguen (IFSTTAR, France)
- Dr. Per Hagelia (Norwegian Public Road Administration)
- Dr. Jean Herisson (Kerneos, France)
- Dr. Pernilla Johansson (SP TRI Sweden)
- Ms Sabina Karacic (TU Chalmers, Sweden)
- Dr. Moses Kiliswa (U. Cape Town, South Africa)
- Prof. Robert Lark (Cardiff U., UK)
- Ms Marion Medevielle (IFSTTAR, France)
- Prof. Etienne Paul (INSA Toulouse, France)
- Dr Matthieu Peyre Lavigne (INSA Toulouse, France)
- Dr. Kevin Paine (U. Bath, UK)
- Dr. Alan E. Richardson (Northumbria U., UK)
- Prof. Gilles Escadeillas (LMDC, U. Toulouse, France)
- Dr. Thierry Sedran (IFSTTAR, Nantes, France)
- Prof. Karen Scrivener (EPFL, Switzerland)
- Prof. Marjorie Valix (U. Sydney, Australia)
- Prof. Eric Van Hullebusch (UNESCO-IHE, The Netherlands)
- Dr. Clara Urzi (U. Messina, Italy)
- Dr. Jianyun Wang (Magnel Laboratory, U. Gent, Belgium)
- Dr. Thomas Warscheid (LBW Bioconsult, Germany)