



## RILEM UPDATE

The International Union of Laboratories and Experts in Construction Materials, Systems and Structures

### RILEM NEWS

Application for the Ph.D. Grant scheme for the 74<sup>th</sup> Annual RILEM Week in Sheffield (30 August - 4 September 2020) is now open!

Applicants should be Ph.D. students or recently graduated (after 1<sup>st</sup> January 2019) Ph.D.s who are:

- Under the age of 35;
- Residing in any of the countries where a special discount RILEM membership fee is applicable. INDIA IS ONE OF THESE COUNTRIES.
- Presenting an accepted abstract at the conference.

Winners will receive:

- A lump sum of up to €1500, to cover travel costs to the

location of the 74<sup>th</sup> RILEM Annual Week, Sheffield – UK, and subsistence costs to participate in the event;

- Registration at the conference, including the gala dinner and all social events;
- 3-year RILEM membership;
- The opportunity to have a highlighted presentation during a conference session;
- The opportunity to have a formal meeting and photographs with the RILEM presidency at the conference.

For more information, email to Daniela Ciancio (RILEM Implementation Manager) at [rim@\[ext.rilem.org\]](mailto:rim@[ext.rilem.org]) or visit: <https://www.sheffield.ac.uk/materials/rilem2020/grants>

### RILEM PUBLICATIONS in 2019

#### RILEM Proceedings:

- PRO 128: SMSS2019 - International Conference on Sustainable Materials, Systems and Structures (2019) 6 volumes.
- PRO 130: 5<sup>th</sup> Historic Mortars Conference (2019); Eds. José Ignacio Álvarez, José María Fernández, Íñigo Navarro, Adrián Durán, Rafael Sirera.
- PRO 131: 3<sup>rd</sup> International Conference on Bio-Based Building Materials (ICBBM2019); Eds. Mohammed Sonebi, Sofiane Amziane, Jonathan Page.
- PRO 132: IRWRMC'18 - International RILEM Workshop on Rheological Measurements of Cement-based Materials (2018); Eds. Chafika Djelal, Yannick Vanhove.
- PRO 133: CO2STO2019 - International Workshop CO2 Storage in Concrete (2019); Eds. Assia Djerbi, Othman Omikrine-Metalsi, Teddy Fen-Chong.

#### RILEM Recommendations:

- Valek, J., et al., Recommendation of RILEM TC 243-SGM: Functional Requirements for Surface Repair Mortars for Historic Buildings, Mater Struct (2019) 52: 28.

- Tebaldi et al., Recommendation of RILEM TC237-SIB on Fragmentation Test for Recycled Asphalt. Mater Struct (2019) 52: 82.
- Mechtcherine et al., Recommendations of RILEM TC 260-RSC for using superabsorbent polymers (SAP) for improving freeze–thaw resistance of cement-based materials. Mater Struct (2019) 52: 75.
- Poulidakos et al., Recommendations of RILEM TC 252-CMB: relationship between laboratory short-term aging and performance of asphalt binder. Mater Struct (2019) 52: 69.
- Breyse et al., Recommendation of RILEM TC249-ISC on non-destructive in situ strength assessment of concrete. Mater Struct (2019) 52: 71.

#### RILEM State-of-the-Art Reports (STARs):

- Modelling of Concrete Behaviour at High Temperature, State-of-the-Art Report of the RILEM Technical Committee 227-HPB, Vol. 30.
- Physical Properties and Behaviour of High-Performance Concrete at High Temperature, State-of-the-Art Report of the RILEM Technical Committee 227-HPB, Vol. 29.
- Thermal Cracking of Massive Concrete Structures, State of the Art Report of the RILEM Technical Committee 254-CMS, Vol. 27.

## SHORT COURSE ON STRUCTURAL FIRE ENGINEERING

Civil engineering infrastructure is constantly growing in pursuit of meeting environmental, economic, and construction efficiency. It is the role of the fire safety engineer to understand, anticipate, and react to these innovations. Fire safety engineer is needed to be conversant with fundamental knowledge of fire phenomenon, behaviour of people, structure and fire protection systems in case of occurrence of fire, and hence to develop safe infrastructure for people while meeting the needs of client, architect, and fire authorities.



A two-day workshop on "Fire Safety of Civil Engineering Infrastructure" was held at the Department of Civil Engineering, Indian Institute of Technology (IIT), Delhi on 5<sup>th</sup> and 6<sup>th</sup> December 2019 as part of an ongoing "Scheme for Promotion of Academic and Research Collaboration (SPARC)" project in collaboration with eminent personalities in structural fire engineering. Dr. David Lange and Dr. Cristian Maluk from the University of Queensland, Australia with Prof. Dipti Ranjan Sahoo and Prof. Vasant Matsagar at IIT Delhi. Aimed at practising

engineers as well as researchers and postgraduate students, workshop covered details of concepts such as: (a) structural behaviour under elevated temperatures, (b) modelling of structure under fire loading, and (c) structural analysis in fire scenarios including Indian and global code-based structural design for fire loading. Sequel workshop as part of the same SPARC project, "Fire Safety in Underground Tunnels", is planned in December 2020.

Contributed by Prof. Vasant Matsagar

## 7<sup>th</sup> INTERNATIONAL CONGRESS ON COMPUTATIONAL MECHANICS AND SIMULATION (ICCMS 2019)



Indian Institute of Technology (IIT), Mandi organized 7<sup>th</sup> International Congress on Computational Mechanics and Simulations (ICCMS 2019) during December 11 – 13, 2019. Under the auspices of the Indian Association for Computational Mechanics (IndACM), International Congress on Computational Mechanics and Simulation (ICCMS) is organized biennially.

The 7<sup>th</sup> edition of ICCMS at IIT Mandi, hosted 15 plenary speakers, 9 keynote speakers, and 11 invited speakers from

Australia, Japan, India, UK and USA. With 270 participants from Australia, Canada, Germany and India, this conference had over 186 oral presentations in 36 parallel technical sessions and 215 technical papers in the congress proceedings.

The technical presentations were in various domains of computational mechanics including solids and fluids, material modeling, multi-scale-multi-physics problems, structural behaviour under extreme loading like earthquake, blast

and fire, reliability analysis. Presentations on biomechanics, numerical techniques and geomechanics were also conducted. Considering the broadness of the topics covered, this congress is one of its kind in India. The next congress, i.e. 8<sup>th</sup> ICCMS, is scheduled at the Indian Institute of Technology (IIT), Indore in 2021.

Contributed by Dr. Sandip Kumar Saha  
(Convenor, ICCMS 2019)