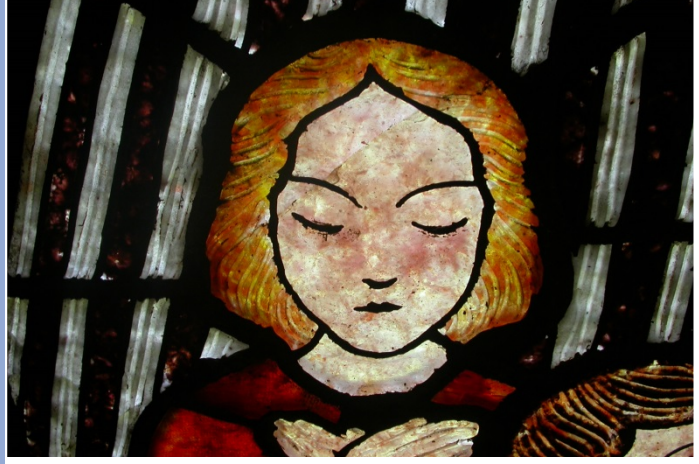
Laboratory of Research on Historical Monuments (LRMH) – Ministry of Culture

LRMH is a laboratory of the French ministry of Culture, dedicated to analysis and research on historical monuments, with 3 main targets: materials identification, pathologies diagnosis and restoration-conservation techniques and treatments. It is organized in 9 departments devoted to specific materials or cultural heritage (wood, metals, concrete, stone, wall-painting, decorated caves, stained glass windows, textile, microbioology). LRMH delivers worksite advices for architects, curators or restorers in charge of cultural heritage maintenance and conservation. LRMH is also involved in several national and international research projects (Perfdub, Redmonest, IPERION…). Finally LRMH organizes tailored training in Champs-sur-Marne, and contributes to training in several schools and universities (master/engineer/architect degrees…). LRMH's concrete department is specialized on identification of ancient concrete, diagnosis and specially corrosion and dampness diagnosis; and restoration treatments.



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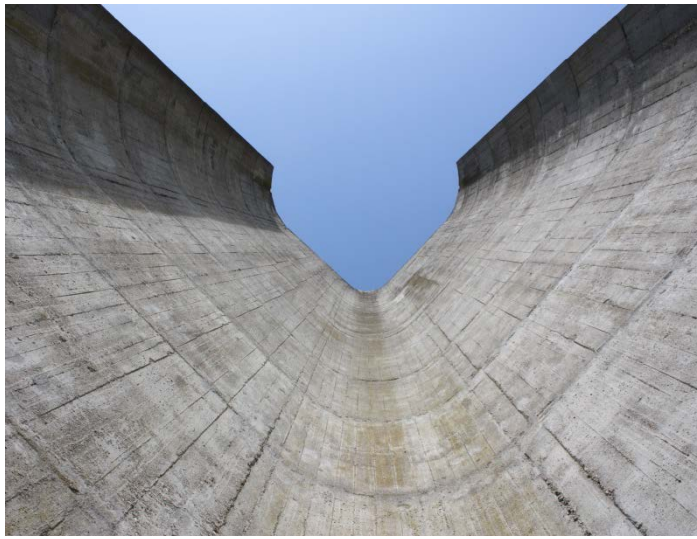
VIII International PhD Student Workshop

Service Life and durability of Reinforced Concrete

CALL FOR ABSTRACTS
SECOND ANNOUNCEMENT

September 26-27, 2016 - Marne-la-Vallée – France



USR 3224

Welcome

The 8thInternational PhD Student Workshop on Service Life and Durability of Reinforced Concrete will be held in Marne-la-Vallée, France, on September the 26th and 27th 2016, and will be hosted by LRMH.

The PhD-workshops have a history which dates back to 2003 when Jan-Magnus Østvik took the initiative to organise a series of Workshops related to reinforcement corrosion and service life in 2003- Madrid and 2005 – Lofoten. A major boost for the workshops was introduced through the activities of RILEM TC-213 MAI "*Model assisted integral service life prediction of steel reinforced concrete structures with respect to corrosion induced damage*", with the main focus of this TC on analysing service life models related to reinforcement corrosion. To date successful workshops have been organised in Madrid-2007, Zagreb-2008, Guimarães-2009, Madrid-2010, Espoo-2012, Delft-2013 and Madrid-2014. All meetings have been under the auspices of RILEM EAC (Educational Activities Committee), with the aim to bring together young researchers in the field of durability of concrete.

Scope

Reinforced concrete structures may prove to be very durable; however, their gradual degradation over time impairing both serviceability and structural safety is still a matter of great practical concern in view of the economic consequences for assessment, maintenance and repair.
Corrosion of steel reinforcement is considered to be the most detrimental process responsible for structural deterioration. Many studies are in progress to develop a comprehensive engineering approach for assessment of the initiation and the propagation period in both uncracked and cracked concrete. Modelling of chloride penetration and carbonation has attracted a great deal of attention in recent years; however, essential aspects such as the chloride threshold still remain controversial. Other mechanisms remain important areas of study: ASR, and acid, sulphate and frost attack. In addition, the interaction between different degradation mechanisms requires further understanding.

Topics

The topics should be related to durability performance of reinforced concrete, service life modelling, prevention, protection and repair. Some suggested topics are:

- ▶ Causes and mechanisms of deterioration for new binders
- ▶ Durability modelling and prediction and their reliability for new and existing structures
- ▶ The role of cracks for initiation and propagation of corrosion
- ▶ Corrosion assessment techniques
- ▶ Structural behaviour following degradation of concrete structures
- ▶ Prevention, protection and repair of damage in concrete structures

Objectives

The workshop is intended exclusively for PhD students who work at the frontier of knowledge in the field of durability of reinforced concrete. In order to achieve a high quality of the meeting the workshop is open for attendance by a limited number of PhD-students within an informal and friendly atmosphere. The major objectives are :

- ▶ to bring together PhD students, in the stage of just starting to well advanced in their study;
- ▶ to put PhD students from the same field of research in contact with each other and promote a scientific dialogue between them;
- ▶ to help students to become more familiar with the presentation of their research activities and to generate technical discussions in a more relaxed environment;

to exchange ideas on methods and scientific goals;
and to contribute to international exchange of knowledge.

Registration, Dates & Fees

For **students** attendance of the workshop is free of charge (no fee). Supervisors are invited to be present for a small fee of 200€. Participants need to support their own travel, accommodation, lunch and dinner expenses.
Please register by sending an email to any of the contact persons. Please include your full contact information. **An abstract (less than 300 words) should be sent** to the same contact person within the time frame below.

Important dates

- ▶ Deadline for abstract submission – 30th of June 2016
- ▶ Acceptance of abstracts – 15th of July 2016
- ▶ Acceptance decision on papers for publication – 7th of October 2016
- ▶ Deadline for papers – 27th of November 2016

For the PhD-workshop it is thus not required to submit a full paper in advance. Based on the quality and quantity of the information given in the presentation during the PhD-workshop and taking into account the relevance of the topic, shortly after the workshop contributions will be selected to be elaborated as full papers.

Proceedings

The Abstracts will be sent in digital format via mail to all participants before the event. In the winter of 2016, a digital version of the Proceedings with accepted papers will be distributed.

Venue

The workshop will be held at the **Laboratory of Research on Historical Monuments (LRMH)**, in Champs-sur-Marne, Marne-la-Vallée, France. It will be hosted by the Concrete department. Updated information on accommodations in Champs-sur-Marne will be sent to those who register for the workshop.