

CONREPNET

PERFORMANCE BASED REHABILITATION OF
REINFORCED CONCRETE STRUCTURES

CONFERENCE

Prague

Thursday, 23 June, 2005



Invitation



On behalf of Thematic Network CONREPNET and Czech Concrete Society we have a pleasure to invite you to the second open conference on Performance Based Rehabilitation of Reinforced Concrete Structures in Prague, CZ, on 23. June, 2005.

The conference will present the first results of the Thematic Network CONREPNET, which was launched in September 2002. CONREPNET is a four years programme partly funded by EC under the FP5 Programme "Competitive and Sustainable Growth".

The scope of the conference will encompass different aspects of rehabilitation of reinforced concrete structures:

- TN CONREPNET has started with studies of past and current performance and practices. These are used as baseline for outlining guidelines for future concepts of performance based rehabilitation of reinforced concrete structures. Current results of these studies will be presented during the event.
- EN 1504 Standards will be explored from perspectives of consultants, material suppliers and contractors. Discussion will be raised e.g. on their limitations and advantages.
- European approaches to concrete repair and some recent advances/innovations will be presented by several European experts.

Attendance

The Conference is intended for representatives of the entire supply chain concerning maintenance and rehabilitation of concrete structures including asset owners, planners, contractors, material suppliers, consultants, repair specialists, researchers, students etc.

Date and Venue

The Conference will take place on Thursday 23 June 2005 at Masarykova kolej, Thakurova 1, Prague 6, Czech Republic.

We are looking forward to see you in Prague.

GENERAL INFORMATION

Language

The official language of the Conference is English.

Workshop Website

For further details of the Conference, please visit <http://projects.bre.co.uk/conrepnet>

Prague

Prague, the capital of the Czech Republic, is a city with over a thousand-year history.

It is said that Prague is one of the most beautiful cities in Europe. In recent years, Prague has become a top tourist destination and has been recognised by UNESCO as a gem of the world's cultural heritage. It has been created by some of Europe's greatest architects and artists. Its bridges, cathedrals, and statues are renowned worldwide.

Cultural life in Prague is very rich - world-famous festivals, prestigious exhibitions, theatres and film shows, concerts and other events are held there all year round.



Accommodation – prebooked hotels and their reduced rates

Hotel	Single room	Double room	Web site
Crowne Plaza****	186 EUR	208 EUR	
Maria Prag****	142 EUR	174 EUR	
Julis***	122 EUR	166 EUR	
Central***	99 EUR	132 EUR	
Adalbert***	78 EUR	112 EUR	
Olympik Tristar***	66 EUR	88 EUR	
Masarykova kolej***	55 EUR	78 EUR	

Please use for room booking website www.visitprague.cz and write " CONREPNET" into the question's window.

All the hotels are pre-booked till 23 May 2005.

Supported by:

- European Commission
- Building Research Establishment (UK)
- Instituto de Ciencias de la Construcción "Eduardo Torroja" (E)
- Gifford & Partners (UK)
- Belgian Building Research Institute (B)
- Freyssinet International (F)
- STU-K (CZ)
- CT Group (FIN)
- Czech Concrete Society (CZ), (www.cbz.cz)

Performance Based Rehabilitation of Reinforced Concrete Structures – CONREPNET Conference

Thursday 23 June, 2005

08:30 – Registration & Coffee
8:45

PROGRAMME

Chair: Dr Stuart Matthews, Building Research Establishment (UK)

08:45 **Welcome**
Dr Vaclav Vimmr, STU-K (CZ) & Prof Jan L. Vitek, Czech Concrete Society

Thematic Network CONREPNET

09:00 **An Overview of the TN CONREPNET**
Dr Stuart Matthews, Building Research Establishment Limited (UK)

09:15 **Performance of Past Repairs**
Prof Graham Tilly, Gifford & Partners (UK)

09:40 **Current Practice**
Mr Josse Jacobs, Belgian Building Research Institute (B)

10:00 **Towards a Performance Based Approach**
Dr Vaclav Vimmr, STU-K (CZ)

10:25 **Methodology for Monitoring and Assessing Performance**
Dr Carmen Andrade and Dr Isabel Martinez Sierra, Instituto de Ciencias de la Construcción "Eduardo Torroja" (E)

10:45 Discussion

11:00 **Coffee Break**

1504 Concrete Repair Standard

11:20 **Overview of 1504 Concrete Repair Standard**
Dr Hywel Davies, Hywel Davies Consultancy (UK)

11:50 Discussion

12:00 **Lunch**

European Approaches to Concrete Repair and Some Recent Advances/Innovations

13:00 **Repairs to Highway and Roads Related Structures**
Mr David Sharpe, Glasgow City Council Land Services (UK)

13:30 **Structural Integrity of Deteriorated and Repaired Concrete Structures**
Dr Geir Hørrigmoe, Norut Teknologi AS (N)

13:55 **Corrosion Risks After Patch Repairs to Concrete**
Prof David Cleland, Queen's University (UK)

14:20 **Some Aspects to be Considered When Replacing a Damaged Concrete Cover With a New Cover**
Dr Manouchehr Hassanzadeh, Lund Institute of Technology (SE) and
Dr Mårten Janz, CBI (SE)

14:45 **Coffee break**

15:05 **EU-project REHABCON – Strategy for Maintenance and Rehabilitation in Concrete Structures: The Use of the Repair Index Method as a Tool for the Selection of the Most Suitable Repair Option**
Dr Carmen Andrade, Instituto de Ciencias de la Construcción "Eduardo Torroja" (E)

15:30 **The Use of Pavix CCC100 as a Reinforced Concrete Impregnate and as an Alternative to Silane**
Prof Laurie Boswell, City University (UK)

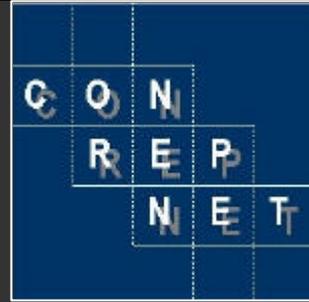
15:55 **Innovation in Repair Techniques**
Mr Mike E. Threadgold, FFB, FlntSMM, Degussa Construction Chemicals (UK)

16:20 **Rehabilitation of Reinforced Concrete Structures Built in the Soviet Time Along with Correction of Their Constructing Mistakes**
Dr Vikis P. Oleka, Vilniaus Miestprojektas (LT)

16:45 Roundup

17:00 Close

CONREPNET - THEMATIC NETWORK ON PERFORMANCE BASED REHABILITATION OF REINFORCED CONCRETE STRUCTURES



Project Co-ordinator: Dr Stuart Matthews Building Research Establishment Limited (UK)

Contractors: Instituto de Ciencias de la Construcción "Eduardo Torroja" (E)
Gifford & Partners (UK)
Belgian Building Research Institute (B)
Freysinet International (F)
STU-K (CZ)
CT Centre (FIN)

Duration: 48 months (commencing 1 September 2002)

PROJECT SUMMARY

It has been estimated that over 50% of Europe's annual construction budget is spent on the rehabilitation of existing structures. This figure will increase as the existing infrastructure ages, especially when structures from the infrastructure boom of the 1970's start to require repair and refurbishment. Premature failure of repairs and lack of certainty in the performance of rehabilitated concrete structures increases the difficulty for building and infrastructure owners managing these assets. There is therefore a need to deliver more durable and effective repairs to concrete structures.

Amongst other issues, there is a need to address the dilemma that exists between the need to ensure longevity (with the attendant impacts on cost, environmental and societal issues) and short term financial considerations.

Specifically:

- Clients/owners, and society generally, want greater certainty in the performance of rehabilitated structures and the associated cost of ownership of concrete structures. This requires more durable repairs, whose performance can be predicted with greater confidence.
- Consulting engineers want more certainty in diagnosis of faults, specification of rehabilitation strategies and future performance of rehabilitated structures.
- Repair contractors and material suppliers want more information on repair performance and opportunities to develop new techniques and technologies.

The network seeks to **improve the performance of rehabilitated concrete structures** by *looking to the past, at the current and to future circumstances*. This has three main components:

- By bringing together existing information from industry and state-of-the-art research to create a "critical mass" of knowledge about concrete durability and rehabilitation issues, as well as coherence in the availability of this knowledge by encouraging technology transfer.
- To identify problems and barriers to achieving durable rehabilitated concrete structures.
- Propose new solutions for industry and researchers to pursue.

The primary objectives of the network are to:

Create a **dynamic web-based catalogue of case histories of past performance and current practices for repair materials and systems** mapping to draw out the knowledge, experiences and lessons learnt by the various actors involved; as well as the standards, philosophies, materials, methods and practices employed to effect repairs and rehabilitation of concrete structures - thereby allowing benchmarking of contemporary best practice.

1. **Map RTD activities** relating to the deterioration and rehabilitation of concrete structures.
2. Evolve and promote a **performance-based approach to the rehabilitation of concrete structures** in order to meet the needs of all actors and stakeholders throughout the supply chain.

The thematic network:

- Involving stakeholders throughout the supply chain.
- Cataloguing the performance of previously rehabilitated concrete structures and the technical, environmental, cultural, commercial and process issues influencing this, critically examining traditional approaches.
- Mapping RTD activities concerned with deterioration and rehabilitation of concrete structures.
- Improving understanding of current industry practice and draw upon the state-of-the-art in research.
- Exploring performance-based concepts to improve the delivery of durable and effective repairs to concrete structures.
- Improving integration of organisations through the industry supply-chain (by involving all the relevant stakeholders).
- Linking widely at national, European and international levels to aid progress on these issues.
- Disseminating the findings by a wide variety of methods.
- Developing benchmarks for performance of rehabilitated concrete structures and current industry practices.



CONREPNET 2005 CONFERENCE REGISTRATION FORM

PLEASE REGISTER EARLY!

Please complete and return this form with the corresponding payment **by 23 May 2005** to:
CBS Service, CONREPNET 2005 Secretariat, Samcova 1, CZ-110 00 Prague 1, Czech Republic
Phone: +420 222 316 173, +420 222 316 195, **Fax:** +420 222 311 261, **E-mail:** conrepnet@cbz.cz

This registration form is also available on the CBS web site: **www.cbz.cz**

Please print clearly or type and keep a photocopy of this form for your records.

A. DELEGATE

Please tick as appropriate: Prof Dr Mr Ms

Last name: First name:

Organization:

Street address: City:

Postcode: Country:

Telephone: Fax:

E-mail: Web site:

B. REGISTRATION FEE

The registration fee covers participation, lunch, refreshments, printed as well as CD conference proceedings.

Discount for students 50%.

Type of Registration	Until/After 23 May 2005
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Delegate of CONREPNET Conference	EUR 120/160
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MS/PhD Student	EUR 60/80
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Note: For cancellations received in writing before 23 May 2005, an administration fee of 50 EUR will be charged; no refunds will be given after this date, but substitute delegates will be welcome. Non-attendance at a conference would be considered a late cancellation and the full fee would be payable.

C. ADDITIONAL CONFERENCE PROCEEDINGS

Besides the printed proceedings included in the standard fee, a set of additional proceedings can be ordered.

Additional Proceedings	EUR 20
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D. PAYMENT

Total payment for Parts B + C	EUR
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An invoice will be raised on registration. Billing address if different to above:

E. METHOD OF PAYMENT

Bank Transfer

Bank account No.: 195844851/0300 at Ceskoslovenska obchodni banka, a. s.

Account name: CBS Servis, IBAN: CZ26 0300 0000 0001 9584 4851

Address: Na Porici 24, 110 00 Prague 1, SWIFT: CEKOCZPP

A copy of the bank transfer stating the name of the participant for whom payment is made, the name of your bank, the date of transaction and the reference CONREPNET 2005 should be attached to this Form. Please note all payments have to be "free of any charges for the recipient".

F. SIGNATURE

Date:/...../2005

Signature:

Correspondence

For further information and registration, please address all correspondence to:

CBS Servis

Samcova 1

110 00 Prague 1

Czech Republic

conrepnet@cbz.cz

