Advanced Course in Materials, Techniques and Design Approaches for the Structural Strengthening

2nd Edition

University of Minho, Guimarães, 19th-30th June 2017

The Advanced Course in Materials, Techniques and Design Approaches for the Structural Strengthening aims to provide a solid formation on the use of advanced cement and polymer based materials, appropriate strengthening techniques and design guidelines.

Participants will acquire the capability of defining inspection and diagnosis strategies, selecting the proper materials and strengthening techniques, and designing the strengthening solutions by using recent guidelines and advanced computer simulations based on the finite element method.

The course is organized by the *Structural Composites Research group of the Dep. of Civil Eng. of Minho University*, a group with a solid background on structural strengthening by using fibre reinforced cement composites (FRCC) and fibre reinforced polymer (FRP) systems, as well as on the development of software for advanced numerical modelling.

For more info and registration, please visit the following link or contact us:

http://sc.civil.uminho.pt/strengtheningtechniques

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Course Organization

The Course is organized in two units, each one composed of two modules:

1st unit: Materials, analysis and design using FEM approaches

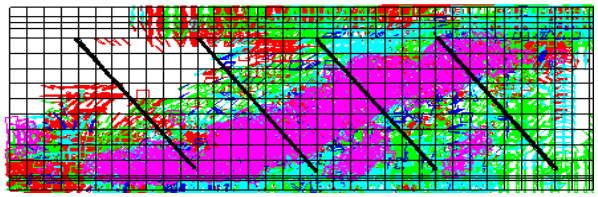
- **Module 1**: *Materials with strengthening capabilities*
- **Module 2**: *Strengthening assessment and design by using approaches based on the finite element method*

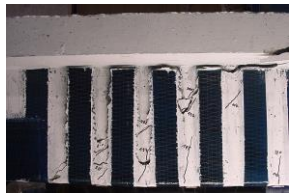
2nd unit: Inspection, diagnosis, strengthening techniques and design approaches

- **Module 1**: *Inspection, diagnosis and strengthening techniques*
- **Module 2**: *Design approaches for structural strengthening*

Each module has a duration of half week and include both theoretical lectures and practical case studies.

Participants attending the course and successfully completing assignments, will receive a certificate.

Venue

The Advanced Course will take place at the Department of Civil Engineering of the University of Minho, located in the historical Portuguese city of Guimarães.