Brochure

TRAINING COURSE
ON
DESIGN OF DISASTER RESISTANT HOUSING AND RISK MITIGATION

February 24-26, 2016

CSIR – CENTRAL BUILDING RESEARCH INSTITUTE

ROORKEE – 247667 (UTTARAKHAND)

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Training Course on

Design of Disaster Resistant Housing and Risk Mitigation

February 24-26, 2016

Context:

Design professionals agree that the most successful way to mitigate losses of life and property is to design disaster-resistant buildings. An integrated approach should be incorporated into the project planning, design, and development at the earliest possible stage. A variety of techniques are available to mitigate the effects of natural hazards on the built environment. Depending on the type of hazard, the location and type of construction of a structure can be designed to resist hazard induced loads. To reduce the risk from natural hazards in existing building retrofitting and repairs of the structure can be undertaken. This demands proper planning, design, construction methods, use of innovative materials and trained manpower. CSIR-CBRI is one of the leading institutions in the country which has developed innovative technologies for architurel and structural design of multi-hazard resistant construction. These building technologies have been demonstrated in field, and hands-on training has been provided of grass root level functionaries in different parts of the country. It is essential to mass implement disaster-resistant innovative technologies developed by different institutions. This demands development of skills and capacity building among the administrative and technical functionaries at the state/district level for its systematic implementation. To achieve this, professionals needs to be trained in the application of innovative technologies for disaster risk mitigation.

Aim of the Course:

Recognizing the need to develop a pool of trained professionals in the construction of disaster resistant building risk mitigation, CSIR-Central Building Research Institute, Roorkee is conducting a three day Training course on "Design of Disaster Resistant Housing and Risk Mitigation" during February 24-26, 2016 at its premises. This training course is particularly aimed at enhancing knowledge and skills of the implementing archives to incorporate disaster resistant techniques in building design and construction and to mitigate the risks in existing buildings through lectures, demonstrations and hands-on exercises.

Objectives:

The main objectives of the course are as follows;

- ✓ To learn from the building damage scenario created by past disasters.
- ✓ To appreciate the importance of disaster-resistant construction.
- ✓ To enable the participants to understand and apply basic concepts of disaster-resistant designs and planning strategies in housing projects.
- ✓ To identify various foundation techniques, structural deigns and building construction methods for different disasters.

- ✓ To identify the various structural and non-structural retrofitting and strengthening measures for existing buildings/houses
- ✓ To improve the skills of participants in implementing disaster-resistant technologies in the construction of buildings/houses

Venue and Duration:

The course will commence on February 24, 2016 and will conclude on February 26, 2016. The course venue will be CSIR-Central Building Research Institute, Roorkee. The lectures and hands-on exercises would be conducted in Lecture Hall of the Centre.

Course Details:

The course schedule the course has been indicated on the following pages.

Target Group:

The target group for this course would be district and city level officers and functionaries from various line departments of the State/district involved in activities related to planning, design and construction of residential, school, community, health buildings and retrofitting. This training course will accommodation maximum of 30 participants only.

Evaluation of the Course:

The final session will be devoted to evaluation and valediction. The participants will be supplied with an evaluation proforma, which they will complete and hand over to the course staff.

Certificate:

A Certificate will be awarded to each participant on successful completion of the training course.

Training Course Fee:

Training course fee is Rs. 6,000/- (six thousand only) per participant which includes training kit, reading materials, boarding and lodging. Accommodation would be provided for outstation participants at CSIR-CBRI Guest House located inside the institute campus on twin sharing basis.

Please send the duly filled-in application form with training course fee in the form of account payee Demand Draft, drawn in favor of **"Director, Central Building Research Institute"** payable at Roorkee. The duly filled application form along with the above documents should reach Director, CSIR-Central Building Research Institute, Roorkee – 247 667, through speed post by **February 05, 2016**. Kindly provide e-mail address, Fax No. and Mobile No. in the application form for due communication.

Tentative Course Schedule

Day / Date	Sessions	Topic
Day 1	Session 1	Introductory Activities, Course Objectives, Schedule, Ground rules, Expectations
		Inauguration
	Session 2	Natural Disasters – An Overview of Damage Scenario of Buildings
	Session 3	Architectural designs and planning for disaster resistant housing
	Session 4	Foundation design of disaster resistant buildings - Geotechnical engineering aspects
	Session 5	Disaster Resistant Designs of Buildings – Basic Concepts and Multi-Hazard Building Bye-Laws
	Session 6	Interaction with participants
Day 2	Session 1	Understanding Building failures
	Session 2	Design & Construction of masonry and RC frame buildings
	Session 3	Design of earthquake & cyclone resistant buildings with case studies
	Session 4	Structural and Non-structural Retrofitting Measures for Disaster Risk Mitigation
	Session 5	Building Materials and Technologies for Disaster resistant cost effective housing
	Session 6	Interaction with participants
Day 3	Session 1	Management of Floods and Storm Water Drainage
	Session 2	Codal Provisions for Landslide Risk Mitigation and Control Measures
	Session 3	Seismic Microzonation for Urban Areas
	Session 4	Fire safety in buildings – Methods and practices in design and construction
	Session 5	Disaster Case study – Presentations by the participants
	Session 6	Evaluation & Validation

Course Coordinators	**Dr. R. Dharmaraju /Ar. S.K. Negi** Sr. Principal Scientist Email: rdraju@yahoo.co.in & sknegicbri@rediffmail.com Mobile: 01332 283212 (O), 0706079075 (M) & 01332 283485 (O), 09412968993 (M)

Registration Form for attending Training Programme at CSIR-CBRI, Roorkee

Training Course on
Design of Disaster Resistant Housing and Risk Mitigation
Duration: February 24-26, 2016

(One form to be filled per delegate; photocopy of this form may be used for additional copies requirement)

Name	
Designation	
Organization	
Address for Communication	
Phone & Fax	
E-mail	
Educational Background	
Age	
Professional Background	

I am enclosing a crossed demand draft No. _____ Dated _____ for Rs. _____ drawn in favour of Central Building Research Institute, Roorkee payable at Roorkee towards registration fee.

Date: **Signature**

Address for Communication

Dr. R. Dharmaraju /Ar. S.K. Negi
Course Coordinators
Training Course on **Design of Disaster Resistant**
Housing and Risk Mitigation
CSIR-Central Building Research Institute
ROORKEE – 247667 (UK)