

A Building Saved IS A Building Built

National Network Of Retrofitting Clinics

(Status as on 28.05.2007)

CIDC Accredited Regional Centers of Retrofitting

Department of Civil Engineering

Indian Institute of Technology

Guwahati (Assam)

Tel: 91-361-2690401 (O)

Engineering College Bikaner

Karni Industrial Area

Pugal Road, Bikaner - 33404 (Rajasthan)

Tel. 151-223404

CIDC Accredited Retrofitting Clinics

Maulana Azad National Institute of Technology

(Deemed University)

Department of Civil Engineering

Bhopal 462007 (Madhya Pradesh)

Tel.: 0755-54206006-10, 416, 417 Extn. 1419

Deenbandhu Chhoturam University of Science and Technology

Department of Architecture

Murthal - 131032 (Haryana)

Tel.: 01302484004-08-09 Extn. 108

Rajkiya Polytechnic Mahavidyalaya

Barmer (Rajasthan)

Tel.: 02982-220634

Govt. Polytechnic College

Sirohi

Tel.: 9414448098

Govt. Polytechnic College

Hanuman Garh Road, Richo Industrial Area

Churu 301 001 (Rajasthan)

Tel.: 9829077277

Govt. Polytechnic College

Alwar - 301001 (Rajasthan)

Govt. Polytechnic College

Bharatpur (Rajasthan)

Tel.: 05644 22254

Uttarakhand Building Centre

Srikot Ganganali

Srinagar (Gharwal) - 246174 (Uttarakhand)

Tel.: 9412033340

The Govt. Polytechnic, Jhajjar

Jhajjar (Haryana)

List of Major Equipment Needed at a Retrofitting Clinic

- * UPV (Ultrasonic Pulse Velocity Tester)
- * Schmidt Hammer; Rebound Hammer
- * Corrosion Analyzer : G-core cutter for assessing corrosion levels
- * Profometer
- * Concrete Core Cutting Equipment (with diamond core bit)
- * Porosity meter for permeability determination (Water & Chlorine)
- * Crack Microscope

- * Advanced Condition Assessment Systems such as improved thermography, Impact Echo, Spectral Analysis of surface waves, surface slabs impulse response

- * Structural tomography imaging; and portable PC data Acquisition System

- * Evaluation of in-place short crete

- * Tools and tackles for penetration test, pull over test, pull off test etc.

- * Offsite Durability test systems such as for Absorption, permeability, Bond Strength, Modulus of Elasticity, SC Test Kits etc.

Concrete Testing Laboratory Equipment including AIM 344 (15 x 15 x 15)

Resource Persons and Experts

Dr. A S Arya, Padamshri Awarded by

President of India, National Seismic Advisor

Ministry of Home Affairs (GOI), Disaster Risk

Management Program, Professor Emeritus

IIT Roorkee, New Delhi

Prof. Yudhbir, Former Professor

Geotechnical Engineering

Indian Institute of Technology, Kanpur

Dehradun

Dr. T V S Apparao, Former Director SERC (M)

Scientist Emeritus

SERC - CSIR Complex, Chennai

Shri R K Bhandari, Chairman

Center for Disaster Mitigation & Management

VIT University, Vellore

Dr Prem Krishna, Hon. Visiting Professor

Department of Civil Engineering

Indian Institute of Technology, Roorkee

Prof. D K Paul, Professor and Head

Department of Earthquake Engineering

Indian Institute of Technology, Roorkee

Dr. N Lakshmanan, Director, SERC & CMS

SERC - CSIR Complex, Chennai

Shri Mahendra Raj, President

Indian Association of Structural Engineers

& Mehendra Raj Consultants Pvt. Ltd

New Delhi

Prof T K Datta, Chair Professor

Department of Civil Engineering

Indian Institute of Technology, New Delhi

Prof Ravi Sinha

Department of Civil Engineering

Indian Institute of Technology,

Powai, Mumbai

Prof Alok Goyal

Department of Civil Engineering

Indian Institute of Technology

Powai, Mumbai

Shri V Suresh, Former CMD, HUDCO

Advisor Good Governance India Foundation

Gurgaon

Shri S. A. Reddi, Advisor

Gammon India Limited, Mumbai

Dr. P. S. Rana, Chairman

Boston Infrastructure & Development (P) Ltd.

Former CMD, HUDCO, New Delhi

Shri B Majumdar, Former Director General

Central Public Works Department

Govt. of India, New Delhi

Prof. Mahesh Tondon

Tondon Consultants (P) Ltd.

New Delhi

Shri Rajendra Desai

Hon. Jt. Director (Technical)

'National Center for Peoples' - Action in

Disaster Perparedness, Ahemdabad

Dr. V M Sharma, Chief Consultant

Advance Technology Engineering Services

'Naimax House' A-8, New Delhi

Prof. Yogendra Singh

Department of Earthquake Engineering

Indian Institute of Technology, Roorkee

Shri K B Rajoria, Former E

ngineer-in-Chief

Public Works Department, Govt. of Delhi

New Delhi - 48

Prof S K Deb, Associate Professor

Department of Civil Engineering

Indian Institute of Technology, Guwahati

Prof M N Joglekar, Director

"Vastukala Academy"

School of Architecture, New Delhi

Shri A N Purohit, Managing Director

Avas Vikas Limited (AVL), Jaipur

Dr. Protima Rani Bose, Principal

Government Colege of Engineering

Jafarpur Netaji Subhash Institute of

Technology, Delhi

Shri S Ratnavel, Chief Executive

Sceba Consultancy Services

Madurai

Dr. Mohini Saxena, Head

Materials Development, Group

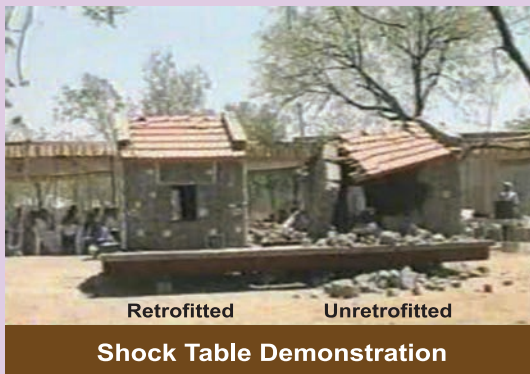
Regional Research Laboratory , Bhopal

Dr. J. S. Chauhan, Professor & Head

Civil Engineering Deptt.

Samrat Ashok Technological Institute

Vidisha



In the present programme CIDC is partnering their efforts with

- National Disaster Management Authority
- State Governments
- Local Governments
- Institutions imparting education in engineering/ architecture
- R&D Institutions
- Technology Transfer Organisations
- Eminent Experts and Peer Groups
- Public & Private Sector Construction organisations
- State level Disater Management Institutions
- Building Materials Manufacturers/ Suppliers
- Organisations providing construction and engineering services
- Equipment manufcturers
- NGOs enaged in disaster mitigation & management activities
- Directorate General of Resettlement, Ministry of Defence



Construction Industry Development Council

801, (8th Floor), Hemkunt Chambers

89, Nehru Place

New Delhi - 110 019 (India)

Tel: 011- 2623 4770, 2643 3709, 2645 1766

4161 7971, 2648 9992

Fax: 011-2645 1604, 2623 4770

e-mail: cidc@vsnl.com / cidcindia@yahoo.com

http://www.cidc.in

Scope of Training Program

- ❖ To introduce participants to the concept of risk, vulnerability and reasons for dismal performance of buildings during earthquakes
- ❖ Knowledge of severity of earthquake forces – depending upon measure on Richter scale, likely MSK intensities their on, types of buildings including soil and foundation types
- ❖ Methods of risk and Vulnerability assessment relating to following three tiers of assessment
 - i) Rapid Visual Screening (for masonry/ RC frame/ Wooden buildings)
 - ii) Quick structural evaluation based on drawings if available
 - iii) Detailed assessment using NDT and other methods
- ❖ Based on assessment how to determine vulnerability and risk levels for different types of super structures including foundations
- ❖ To determine “**Retrofitting Level**” depending upon importance of buildings to prevent their destruction and loss of human life and lifeline structures to maintain functionality during hazards events
- ❖ Methods of “**Seismic Strengthening**” or “**Seismic Retrofitting**” or “**Seismic upgrading**”
- ❖ Introduction to relevant standards and codes, and provisions therein for earthquake resistant designs and retrofitting etc.

While the course will predominantly focus on and cover “**Buildings of different heights**” constructed with different materials, standing on different soil types and performance of super-structure and foundations, it is intended that the participants are also introduced to methods of risk and vulnerability assessment of bridges, culverts, flyovers, roads etc.

For further information please contact:

T. N. Gupta

Senior Advisor & Chief Programme Coordinator

Niranjan Swarup

Programme Coordinator

P. R. Swarup

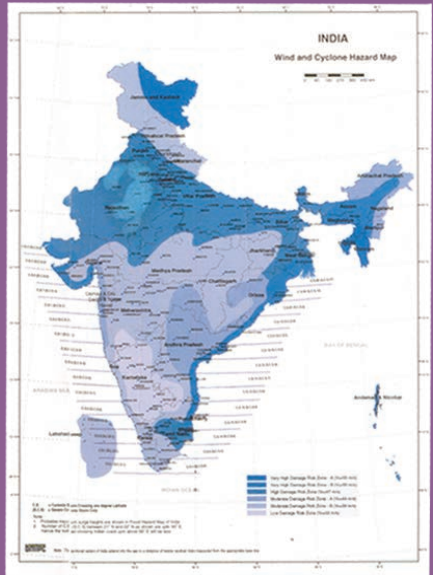
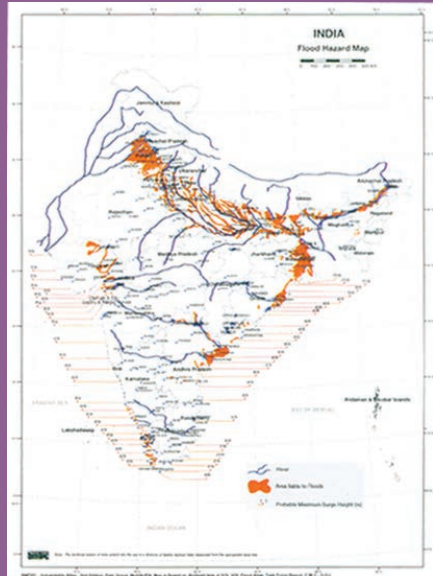
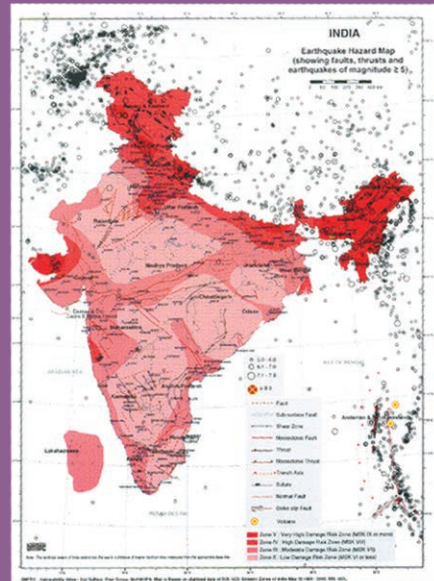
Director General

Design : Laili Gratiinc

an initiative of CIDC

National Network of Retrofitting Clinics

- INVESTING IN SAFETY OF BUILT ENVIRONMENT



CONSTRUCTION INDUSTRY DEVELOPMENT COUNCIL

An Apex Organisation Dedicated to the Cause of Construction

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