Rachana Sansad’s
Institute of Environmental Architecture
Research & Design Cell
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Rachana Sansad’s Institute of Environmental Architecture
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Contents

- Introduction
- Objectives
- Services Offered
- Projects
  - Corporate Projects
  - Municipal Projects
  - Community Projects
- Merits, Awards & Collaborations
Introduction:

The Rachana Sansad’s Institute of Environmental Architecture conducts environmental research, design and development projects through its Research & Design Cell.

It has conducted seminars and training programs on various subjects such as green architecture, eco-housing technical criteria, eco-friendly building materials, environmental design, geographic information system, building physics & energy simulation, rainwater harvesting and decentralized waste water treatment as part of an ongoing process of education for professionals and awareness for non-professionals.

The Institute also organizes free sapling distribution program annually. Its ‘Project Harvest to Harness’ - an annual rainwater harvesting competition, which documented and created awareness on water conservation & harvesting, commenced in 2004, and has documented to date more than 70 cases of rainwater harvesting throughout the country, and conducted awareness programs with NGO’s and the Municipal bodies.

It has a number of social projects to its credit - prepared through a dedicated project team of students and faculty members striving to implement environmental design in the real world.

The Institute is part of a Committee of the Municipal Corporation of Greater Mumbai (MCGM) for evaluation of consultants for rainwater harvesting and panel on education and development at Maharashtra Nature Park (MNP), Mumbai.

The Institute was also a member of the team drafting eco-housing technical criteria for the Municipalities of Pune and Mumbai in India and continues to collaborate with leading academic institutions and corporate bodies to mainstream green buildings.
Objectives:

- To provide research, design and consultancy services to government and non-governmental organizations;

- To engage in projects targeted at serving social and community-related projects;

- To organize training programs, conferences, seminars and workshops on subjects related to environment, architecture, design and planning for capacity building of various stakeholders;

- To foster the development of core competencies in applied research and development related to environmental architecture, design and planning.
Services Offered:

- Environmental design and architecture projects
- Environmental Management Plan (EMP) for projects
- Environmental Impact Assessment Reports
- Feasibility Study Reports
- Research
- Rainwater harvesting and waste water treatment
- Ecotourism planning
- Environmental planning based on GIS
- Ecological landscape
- Passive Design
- Building Energy Simulation
- Eco-friendly building materials
- Green building certification
- Training and workshops
- Exhibition
Projects:

Feasibility Study & Implementation for Rainwater harvesting for Hindustan Petroleum headquarters in Mumbai - Petroleum office, Churchgate, Mumbai.

Catchment 1
Terrace of Main Building
RWH potential = 11,933 lpd

Catchment 3
Surface runoff
RWH potential = 28,416 lpd

Storage 1
10 cu.m.
FRP Filtration tanks

Storage 3
RwGSR
35 cu.m.

Storage 4
Ring well
low yield
10.6 cu.m.

Storage 5
Ring well
high yield
10.6 cu.m.

STRATEGY 1
50mm PVC pipe overflow
Downtake pipes looped

STRATEGY 2
Surface run-off loop R1 to R10

STRATEGY 3

STRATEGY 4
Overflow
RWH tanks to supply water to upper floor canteen washing
To Canteen on Ground floor for washing

STRATEGY 5
PETROLEUM HOUSE BLDG.

RWH tanks to supply water to upper floor canteen washing
To O/H tanks
Projects:

Training workshop for Godrej Interio on Green Interior Materials and Projects & Students’ Material Research Project

In a collaborative effort to improve knowledge and understanding of green materials used in interiors, the Rachana Sansad's Institute of Environmental Architecture joined hands with Godrej Interio in July 2010 to launch a number of green initiatives within the company. A unique model of academia-corporation collaboration, the first project under the partnership was a training workshop on Green Interior Materials & Products for Godrej Interio which was organized from 3 - 5 August 2010 at the Godrej Plant 13 Annex, Pirojshanagar, Vikhroli. Godrej Interio, which is involved in producing products for home, office and institutions launched 10 projects focussed on green initiatives.

In the second initiative, 3 students of the Masters Program in Environmental Architecture were selected to conduct a 3-month research fellowship program. The selected candidates were required to work with executives and designers of Godrej Interio on projects such as developing a data-base & developing a scorecard for green interior materials for the company.
In 2004, the Rachana Sansad's Institute for Environmental Architecture, signed a MOU with the Municipal Council of Sawantwadi with an objective to provide advise and consultancy on development of Eco-tourism for the city. Through this joint venture several projects were undertaken. These include:

1. Landscaping and Environmental Design for Shilpagram - an artist's village at Sawantwadi
2. Road-side tree plantation project and social forestry project
3. Geographic Information System (GIS) mapping of Sawantwadi
4. Design and development of Ayurvedic Health Farm at Sawantwadi
5. Design and development of Environmental Awareness Center at Narendra Hill, Sawantwadi
Projects:

Revitalization of Charolette lake in the hill station town of Matheran in collaboration with the Matheran Municipal Council, Grassroots consultancy and MMRDA.

The project was completed by students of the PG Diploma in Environmental Architecture and sanctioned by the Matheran Municipal Council for implementation in 2005.
Projects:

Environmental Design of MIG (middle income group) multi-storeyed residential apartments for Maharashtra Housing and Area Development Authority (MHADA), 2009.
Projects:

Dahisar River Restoration project in collaboration Bombay First, National Environmental Engineering Research Institute (NEERI), local NGOs and Municipal Corporation of Greater Mumbai (MCGM)
Projects:

Integrated Waste management and flood-prevention plan for Mahatma Phule Nagar, Mankhurd in collaboration with MCGM & CORO for Literacy, Mumbai

Research & Design for Drainage Improvement plan for Beharmapada slum, Bandra (east) in collaboration with Committee for the Right to Housing (CRH), Mumbai
Merits, Awards & Collaborations:

The Institute was awarded the prestigious ‘Environmental Leadership Award’ in December 2004 by the United States Asia Environmental Partnership (USAID) in recognition of outstanding contribution made through working in partnership to improve the environment and quality of life for the people of Asia.

The Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India under the IRG USAID ECOIII (International Resources Group USAID Energy Commercialization Project) identified and recognized the Institute as one of 19 organizations in India for capacity of professionals, students and teachers in Energy Conservation for Buildings through Energy Simulation. It has granted books and software as well as technical support and training to the Institute.

The Institute has collaborations with professional organizations such as the Environmental Management Centre (EMC), National Environmental Engineering Research Institute (NEERI), Maharashtra Nature Park (MNP) and Eureka Forbes Institute of Environment to facilitate exchange of resource persons, research facilities and sharing of knowledge.

Graduates from the Institute have been successfully placed in companies like BCIL (Biodiversity Conservation of India Ltd.), Bangalore, Grassroots Consultancy, Environmental Design Solutions (EDS), Mumbai, Clique Consultants, International Institute for Energy Conservation (IIEC), Mumbai and Godrej Green Building Consultancy Services. The Institute maintains close ties with these professional organizations in providing practical exposure to students through the academic program.

The Institute of Environmental Architecture is a partner in the Eco-Housing Initiative of the USAID for which the Head of Department was nominated in October 2004 for a tour of the United States of America to study Green Buildings. These guidelines have been implemented by the Municipality of Pune.
In 2009, the Head of Department was invited by the New York University for a lecture series and the Institute is now part of a team of experts selected by the NYU for its urban sustainability program in Abu Dhabi.

Awareness programs by the Institute include its annual free sapling distribution program, the Harvest to Harness Rainwater Harvesting Competition from 2004 - 2008 which documented more than 70 cases of rainwater harvesting throughout the country, and numerous awareness programs with NGO’s and the Municipal Corporation.

The Head of Department of the Institute was nominated in June 2009 by the US Dept. of State for the prestigious International Visitor Leadership Program (IVLP) on Environment Protection.