



Indian Society of Heating, Refrigerating and Air-Conditioning Engineers – Chennai Chapter

Presents a  
Seminar on

# GREEN BUILDINGS

REGISTRATION FREE - ALL ARE WELCOME

VENUE  
VANI MAHAL  
103, G.N. Road,  
T.Nagar, Chennai - 600017.  
Phone : 28152166.

Date : 26th March 2009

Time : 2.00 pm to 5.00 pm

ISHRAE – Chennai Chapter.

116, Habibullah Road, T.Nagar – Chennai – 600 017. email : [ishraechennai@yahoo.com](mailto:ishraechennai@yahoo.com)  
Contact : Mr.Rajaraman – ( 24769490)

## ABOUT ISHRAE :

ISHRAE was founded during 1982 with the main objective to “ Promote and Disseminate Technical Knowledge in the fields of Heating, Refrigeration and Air-conditioning”. ISHRAE has been organising lectures / seminars on various topics. The Chennai chapter was founded in 1989. Since then the Chapter has successfully conducted many seminars on a variety of subjects.

## BACKGROUND

**What is a Green Building:** Building design and construction that significantly reduces or eliminates the negative impact of the building on the environment and occupants in five broad areas:

- Sustainable site planning
- Safeguarding water and water efficiency
- Energy efficiency and renewable energy
- Conservation of materials and resources
- Enhanced indoor environment quality

**Why to go for a Green Building :** Worldwide the construction industry is growing very rapidly. In India the industry is growing at over 13% and real estate is seeing a growth of around 30%. The environmental impact of buildings is greater now than ever before. More than 60% of the country’s energy, 40% of the country’s raw materials, 12% of regular water are due to buildings. In addition, millions of tons of construction and demolition waste are generated every year. To reduce impacts of natural resource consumption it is imperative that we design sustainable, energy-efficient, water-efficient and ecologically conscious green buildings.

## Benefits of a Green Building:

- Reduce the impacts of natural resource consumption
- Reduced energy by over 20% and water requirements by over 30%
- Enhance occupant health and comfort
- Minimize strain on local infrastructure and improve quality of life
- Promote local/regional materials and thereby local industries
- Utilize recycled and reused materials thus reducing impact on virgin materials

## PROGRAMME OBJECTIVE

The objective of the workshop is to create awareness and foster a greater understanding on green buildings. The participants will be exposed to the current international trends in green building technologies. The programme will also provide a platform to network with the experts in the industry and facilitate new business opportunities.



## WHO CAN BENEFIT FROM THIS WORKSHOP

- **Architects and Consultants**
- **Building Owners**
- **Contractors**
- **Builders and Developers**
- **HVAC and Energy Engineers**
- **Facility Managers**
- **Project Managers**
- **Government Agencies**
- **Corporate Companies**
- **Educational Institutions**

## TOPICS COVERED

- **Learnings from Green Buildings - Mr. Ashish Rakheja**
- **ISHRAE and Green buildings - Mr.Pankaj Dharkar**
- **The Worlds of Intelligent & Sustainable Buildings – Lessons Learnt & Case Studies- Dr. Prem C. Jain**

## PROFILE OF THE SPEAKERS:

### **Dr. P. C. Jain :**

Dr. Prem Jain founded Spectral Services Consultants Private Limited in 1980 with a vision to provide innovative engineering solutions and design energy efficient, fire safe buildings with excellent indoor air quality. More than 1000 projects are a living testimony to his engineering excellence.

An Alumnus of the Banaras Hindu University and University of Minnesota, Dr. Jain was accredited with the ph.D in Mechanical Engineering from University of Minnesota in 1967.

Dr. Jain is the first practicing engineer in India to be nominated as a Fellow of ASHRAE USA, 1995. He was awarded ASHRAE's highest honour – Louise and Bill Holladay 'Distinguished Fellow' award. He is also the Founder and President Emeritus of ISHRAE.

Dr. Prem C. Jain also lectures at the Delhi School of Planning & Architecture (SPA), Delhi University, and at Indian Institute of Technology as a visiting faculty. Dr. Prem Jain served as Chairman, Indian Green Building Council (IGBC) in the year 2007. He has designed services systems for five LEED Platinum Rated Green Buildings.



**Mr. Pankaj Dharkar:**

Mr. Pankaj Dharkar is an Engineering graduate of 1980 batch with distinction and Specialization in Air-conditioning and Refrigeration.

He is an HVAC Consultant, heading M/s Pankaj Dharkar & Associates, having offices at Ahmedabad, Mumbai, Delhi, Surat, Indore & Bangalore. During his rich experience of 26 Yrs in the field of HVAC & R, he has to his credit, of designing & installation of more than 2800 Projects worth 400000 TR. At present, he is handling 250 projects of more than 100000 TR of all possible applications. His Pharma / Clean Room experience is well accepted & acknowledged in the Pharma Industry.

He was associated with School of Building Sciences and Technology (CEPT) in Ahmedabad, as a Visiting Faculty. He is an active member of ASHRAE and ISHRAE,

**Mr. Ashish Rakheja :**

Mr. Ashish Rakheja is the Chief Operating Officer (COO) of Spectral Services Consultants. He completed his graduation from REC Allahabad in Mechanical Engineering followed by M.Tech in Thermal Engineering from Indian Institute of Technology, New Delhi in the year 1997.

He has been working with Spectral for last fourteen years and expertise includes design & coordination of multi-disciplinary engineering activities.

He is a visiting faculty at School of Planning & Architecture (SPA) and Vastu Kala Academy, New Delhi for last several years. He has been the panel member in revision of National Building Code on HVAC System and alternate member in panel for revision of ducting system set-up by Bureau of Indian Standard.

He has handled several green building projects in India over which four have been rated LEED-Platinum by US Green Building Council. He is spearheading the green building movement in India in as member of LEED India formation committee and also a certified LEED India Trainer.

He is Member of ASHRAE USA, President Elect of ASHRAE India Chapter and National President ISHRAE. He has presented several papers at the various National Forums.

