

Participants may join the Training Programme either under Non Residential category or Residential category. Charges for the Training Programme under Non Residential category and Residential category will be different. The details of these two categories are as follows:-

Non Residential Category

Participants will be required to attend the Training Programme from 2" January to 5" January 2019 at venue in Goa. Under this category, participants will be provided only Tea/Snacks on 2" January 2019. Lunch along with Tea/Snacks will be provided on 3" & 4" January 2019.

Participants will be required to arrange their Boarding & Lodging in Goa on their own for three days (from 2nd to 4m January 2019) during the Training Programme, NPC will not be responsible for arranging the accommodation for participants under Non Residential Category. Training session on 2rd January 2019 will start in the afternoon. On 3rd and 4rd January 2019, training sessions will take place in the forenoon followed by visual learning/sightseeing in the afternoon. On 5° January 2019, there will be closing ceremony of Training Programme Only Tea/Snacks will be served on 5" January2019.

Residential Category

Participants will be required to attend the Training Programme from 2" January to 5" January 2019 at renue in Goa. Under this category, NPC will be providing the Boarding & Lodging to participants. Under Residential Category; participants will be required to check-in Hotel around 11:00 am on 2nd January 2019 and check-out around 11:00 am on 5th January 2019. Participants will be served Lunch & Dinner on 2nd January 2019. Breakfast, Lunch & Dinner will be served on 3rd & 4th January 2019 and only Breakfast on 5th January 2019. Night stay will be provided from 2nd to 4ⁱⁿ January 2019 at Hotel in Goa. Training session on 2nd January 2019 will start in the afternoon. On 3rd and 4th January 2019, Training session will take place in the forencon followed by visual learning/sightseeing in the afternoon. On 5th January 2019, there will be closing ceremony of Training Programme.

Participation Fees For Non Residential category: -

Rs. 15,000/- (Rupees Fifteen Thousand only) + GST @ 18% per participant towards professional fees for participation in the Training Programme, course material (soft copy), visual learning/sightseeing.

For Residential category: -

Rs. 35,000/- (Rupees Thirty Five Thousand only) + GST @ 18% per participant. Stay will be provided on single occupancy basis. These charges are towards professional fees for participation in the Training Programme, board, lodge, course material (soft copy), visual learning/sightseeing.

Delegates coming with spouse will pay an additional Rs. 1500/-(Rupees One Thousand Five Hundred only) per day towards stay, bed tea, breakfast, lunch, dinner, etc. directly to the Hotel and share the same room.

Delegates coming with children having the age 06-12 years will be charged additional Rs. 1200/- (Rupees One Thousand Two Hundred only) per child per day payable directly to the Hotel and children will share the parent's room.

The organizations / participants may please send the nominations, stating the name, designation, their mobile no./contact no. with full address, along with required demand draft favouring National Productivity Council twenty days before the start of the programme date positively to the following address. Replacement of enrolled participants will be honoured. Total no. of seats per programme is 30 only. First come first serve criteria will be followed.

National Productivity Council,

4th Floor, Kabir Bhawan, G.T. Road, Kanpur, U.P.-208005

Rameshwar Dubey Regional Director

<u>Inquiries</u>

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(pics sources: high-performance buildings.org, htttp://news.barilga.mn/r/71029)

Training Programme

Practical ways of Designing Energy Efficient Buildings in India

(with special focus on Energy Conservation Building Code compliance for achieving Energy Efficiency in Buildings)

02-05 January 2019, Goa 12-15 March 2019, Diu



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National Productivity Council

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(pics sources: high-performance buildings.org, htttp://news.barilga.mn/r/71029)

Practical ways of Designing Energy Efficient Buildings in India

(with special focus on Energy Conservation Building Code compliance for achieving Energy Efficiency in Buildings) Introduction

The challenge before the Construction Industry in India is not only to provide the low cost buildings or housings to all but also to minimize the overall running and maintenance cost of buildings with special focus on reducing Energy Consumption of buildings for sustainable development. It is important to incorporate energy efficiency measures in buildings at the inception of designing and construction of buildings, so as to augment the potentials of energy savings. Energy Consumption in residential and commercial buildings is going to increase many folds in coming years with climate change along with increase in building electrical demand which necessitate the requirement of implementing Energy Efficiency measures in buildings to a large extent. Savings accrued from implementing Energy Efficiency measures directly benefit the building owners and developers over the life cycle of

There are apprehensions among real estate developers, builders, architects, civil engineers, construction companies, etc. that energy savings can be achieved to a large extent in end uses such as lighting, cooling, and ventilation by implementing simple and cost effective interventions, by following guidelines of Energy Conservation Building Code (ECBC), by incorporating energy efficient building materials in construction, by encompassing passive design elements and energy efficient building features at the time of design of buildings itself.

This programme has been designed to train all possible stakeholders of building construction sector (Commercial & Residential) and make them aware about the energy efficient design principles, energy efficient latest technologies available for various services of buildings, energy efficient building materials and compliance of Energy Conservation Building Code (ECBC) for achieving Energy Efficiency in buildings.

Programme Objective

This programme has been designed to:-

designing energy efficient buildings

- 1. To train participants about various energy savings features which need to be incorporated in buildings at the time of planning, designing, and construction for energy efficiency
- 2. To inform participants about the latest energy efficient technologies available in the market, energy efficient materials and the intelligent building elements for achieving energy efficiency 3. To create awareness among participants about Energy Conservation Building Codes for
- 4. To give overview to participants about energy simulation softwares for measuring energy performance and energy savings in buildings
- 5. To present before participants about various case studies of energy efficient buildings for demonstrating energy savings accrued in such buildings after incorporating energy efficient measures.

Our Other Programme is as follows

- Practical ways of Designing Energy Efficient Buildings in India (with special focus on Energy Conservation Building Code com-pliance for achieving Energy Efficiency in Buildings):- 12-15 March 2019, Diu
- Participation Fee for Diu Programme is as follows: -1.For Non Residential category: - Rs. 15,000/- (Rupees Fifteen Thousand only) + GST @ 18%per Participant. 2. For Residential category: - Rs. 35,000/- (Rupees Thirty Five Thousand only) + GST @ 18%per participant.

Programme Coverage

- 1. A brief introduction of Climatic Zones of India and its impact on design of Indian Buildings
- 2. Spatial layout and Orientation of Buildings for Energy Efficiency
- 3. Energy Efficient Building Envelope and Building Massing
- 4. Energy Efficiency in Cooling/Heating Systems of Buildings
- 5. Energy Efficiency in Services of Buildings (information about latest Energy Efficient technologies)
- 6. Usage of latest Energy Efficient Building Materials
- 7. Incorporation of Renewable Energy for Energy Efficiency in Buildings
- 8. Overview of Energy Performance measuring softwares
- 9. Designing Energy Conservation Building Code (ECBC) compliant Buildings for **Energy Efficiency**



Participant Profile

Architects, Civil Engineers, Architecture Teachers & Students, Civil Engineering Teachers & Students, Real Estate Professionals, Building Construction Professionals, Energy Auditors, Energy Managers, Developers, Government Officials belonging to the Urban Development Departments, Town and Country Planning, Roads and Building Departments, Public Works Departments, major Municipal Corporations, City government officials, Development ties, State Housing Boards and Energy Departments (State Designated Agencies, Chief Electrical Inspectorates), etc.

Faculty & Methodology

Senior Faculty Members from NPC & Energy Consultants from other Institutions / Organizations / Companies will conduct the programme. Besides Interactive Presentation Sessions, Building Case Studies, Informative Films, Energy Softwares will be used to stimulate learning





NPC is national level organization to promote productivity culture in India: Established by the Ministry of Industry, Govemment of India In 1958, it is an autonomous, multipartite, non-profit organization with equal representation from

employers' & workers' organizations and Government, apart from technical & professional institutions and other interests, NPC is a constituent of the Tokyo-based Asian Productivity Organisation (APO), an Inter Governmental Body, of which the Government of India is a founder member.

NPC teams up with its clients to work out solutions towards accelerating productivity, enhancing competitiveness, increasing profils, augmenting safety and reliability and ensuring better quality. It provides reliable database for decision-making, improved systems and procedures, work culture as well as customer satisfaction both internal & external. The solutions can be all-encompassing or specific depending on the nature of the problem. The council also helps monitor, review and implement the identified strategies. Promotional and catalytic in nature, NPC's services have bearings on economic growth and quality of life. The Council promotes a comprehensive view of productivity focused on improving triple bottom line - economic, environmental and social and adds value for all the stakeholders through generation & application of advanced knowledge for inclusive Growth.