

ECBC WORKSHOPS
BRIEF REPORT FOR
SESSION 2018-19

ECBC Workshops Detail – Session 2018-2019

| S. No. | Type of Workshop | Type of Training | Date of conduct | Venue of Workshop | No. of participants | Master Trainer |
|--------|------------------|------------------|--------------------------|--|---------------------|---------------------------------------|
| 1. | One-day | A | 15.09.2018 | Hareda, Panchkula | 30 | Mr. Anurag Bajpai |
| 2. | One-day | A | 27.09.2018 | Mini Secretariat, Gurugram | 30 | Mr. Anurag Bajpai |
| 3. | Two-day | B | 26.11.2018 27.11.2018 | Shushant college of architecture, Gurugram | 42 | Mr. Anurag Bajpai Mr. Jeyarj K. |
| 4. | One-day | A | 30.11.2018 | Hareda, panchkula | 30 | Mr. Anurag Bajpai |
| 5. | One-day | A | 15.01.2019 | Northcap univ., Gurugram | 32 | Mr. Anurag Bajpai |
| 6. | Two-day | B | 16.01.2019 17.01.2019 | Northcap univ., Gurugram | 50 | Mr. Anurag Bajpai |
| 7. | One-day | A | 22.01.2019 | Deptt. of Architecture, Chandigarh | 33 | Mr. Anurag Bajpai |
| 8. | Two-day | B | 10.06.2019 11.06.2019 | NIT,Kurukshetra | 36 | Mr. Money Khanna Mr. Vamshi Ranga |
| 9. | Two-day | B | 13.06.2019 14.06.2019 | Om Institute of Technical Management, Hisar | 50 | Mr. Money Khanna |
| 10. | Two-day | B | 24.06.2019 25.06.2019 | Chandigarh College of Architecture, Chandigarh | 31 | Mr. Money Khanna Mr. Vamshi Ranga |
| 11. | Two-day | B | 27.06.2019 28.06.2019 | Dronacharya College of Engineering, Gurugram | 37 | Mr. Vamshi Ranga Mr. Jeyaraj K. |
| 12. | One-day | A | 01.07.2019 | Dcrust, Sonipat | 30 | Mr. Vamshi Ranga |
| 13. | Two-day | C | 02.07.2019 03.07.2019 | Dcrust, Sonipat | 31 | Mr. Vamshi Ranga Mr. Jeyaraj K. |
| 14. | Two-day | C | 04.07.2019 05.07.2019 | Buddha College Of Architecture, Karnal | 32 | Mr. Vamshi Ranga Mr. Anurag Bajpai |
| 15. | Two-day | C | 17.07.2019 18.07.2019 | Maharishi Markandeshwar University, Ambala | 34 | Mr. Money Khanna Mr. Vamshi Ranga |
| 16. | Two-day | C | 23.07.2019 24.07.2019 | Manav Rachna University, Faridabad | 36 | Mr. Anurag Bajpai Mr. Vamshi Ranga |

- Total No. of ECBC Workshops to be organised as Per BEE Roadmap: Type A = 6 , Type B = 6, Type C = 4
- Total No. of Workshops organised = 16
- Total number of participants = 564

WORKSHOP – 1

- **Training** : One day ECBC Awareness Training Program
- **Date**: 15th September 2018
- **Venue** : Akshay Urja Bhawan, HAREDA, Panchkula
- **ECBC Master Trainers** : Mr. Anurag Bajpai



The one-day ECBC training workshop was hosted by State Designated Agency for energy conservation, HAREDA, Haryana in co- ordination with ECBC cell Haryana. Mr. Sukhchain Singh (Project Manager) HAREDA welcomed all the delegates to the One day training program on ECBC and began the program with an outline of the ECBC initiative by the government and its objective. Mr Anurag Bajpai (ECBC Master Trainer) put light on the ECBC-2017 and how it covers every aspect of buildings design such as roof, windows, walls indoor lighting and outdoor lighting. He also highlighted the importance of mechanical systems including HVAC & service hot water.

WORKSHOP – 2

- **Training** : One day ECBC Awareness Training Program
- **Date**: 27th September 2018
- **Venue**: Mini Secretariat, Gurugram
- **ECBC Master Trainers**: Mr. Anurag Bajpai



In this One day workshop, Mr. Anurag Bajpai (ECBC Master Trainer) briefed about ECBC-2017. He explained the mandatory requirements of ECBC 2017. Then he covered the compliance approaches (mandatory and prescriptive compliance method) and concluded the presentation with stressing on the need of energy efficient building design. Further he explained the methodology to create the ECBC case and the proposed case and then explained how to calculate EPI ratio.

WORKSHOP – 3

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 26-27th November 2018
- **Venue**: Shushant College of Arts and Architecture, Gurugram
- **ECBC Master Trainers**: Mr. Anurag Bajpai, Mr. Jeyarj K.



In this Two day workshop, Mr. Anurag Bajpai (ECBC Master Trainer) overviewed about the ECBC-2017 and how it covers every aspect of buildings design such as roof, windows, walls indoor lighting and outdoor lighting. He also highlighted the importance of mechanical systems including HVAC & service hot water. On day second, Mr. Jeyarj K. (ECBC Master Trainer) put light on the ECBC-2017 and how it covers every aspect of buildings design such as roof, windows, walls indoor lighting and outdoor lighting. He gave an overview on the Lighting Systems and Renewable Energy techniques. He also explained about the basics of EMIS software prepared by the BEE and he introduced about eQUEST software for energy modeling of building by taking an example of small building case.

WORKSHOP – 4

- **Training** : One day ECBC Awareness Training Program
- **Date**: 30th November 2018
- **Venue**: Akshay Urja Bhawan, HAREDA, Panchkula
- **ECBC Master Trainers**: Mr. Anurag Bajpai



In this One day workshop, Ar. Siddartha Wig gave presentation in opening session on the case study of HAREDA building which is a GRIHA 5 star rated building, which was designed by him. Later, Mr. Anurag Bajpai (ECBC Master Trainer) gave a background on ECBC. He talked about Energy Conservation and its humanitarian related issues. He also explained about various government initiative plans on climate change and energy conservation. He discussed the role of insulation in energy consumption of buildings and how conduction, convection and radiation play a role in heat transfer in. He explained parameters like occupant heat, equipment load, lighting load as well as infiltration.

WORKSHOP – 5

- **Training** : One day ECBC Awareness Training Program
- **Date**: 15th January 2019
- **Venue**: Northcap University, Gurugram
- **ECBC Master Trainers**: Mr. Anurag Bajpai



In this One day workshop, Mr. Anurag Bajpai (ECBC Master Trainer) explained about various government initiative plans on climate change and energy conservation. He continued her presentation by highlighting the role of techniques such as thermal insulation, efficient building materials and efficient glazing systems in making building envelope ECBC compliant. He explained how efficient HVAC systems can help reduce energy consumption in Indian buildings.

WORKSHOP – 6

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 16-17th February 2019
- **Venue**: Northcap University, Gurugram
- **ECBC Master Trainers**: Mr. Anurag Bajpai



In this Two day workshop, Mr. Anurag Bajpai (ECBC Master Trainer) gave an overview on the building physics. He demonstrated the comfort prediction in a building with the help of scientific tools. He continued his presentation by highlighting the role of passive design in making buildings ECBC compliant which includes the impact of glass and walls in energy consumption. On day second, Mr. Anurag Bajpai (ECBC Master Trainer) put light on ECBC-2017. He explained how HVAC system consumes about 41% of energy in buildings in Indian subcontinent and if we implement the code properly than we can save the energy by at-least one-third. He also explained about the basics of EMIS software prepared by the BEE and he introduced about eQUEST software for energy modeling of building by taking an example of small building case.

WORKSHOP – 7

- **Training** : One day ECBC Awareness Training Program
- **Date**: 22nd January 2019
- **Venue**: Department of Arts and Architecture, Chandigarh
- **ECBC Master Trainers**: Mr. Anurag Bajpai



In this One day workshop, Mr. Anurag Bajpai (ECBC Master Trainer) gave a background on ECBC 2017. He discussed the role of the insulation in reducing energy consumption in the buildings. He explained about parameters like occupant heat, equipment load, lighting load as well as infiltration. He concluded the presentation by explaining the building energy simulation basics in brief and building performance method.

WORKSHOP – 8

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 10-11th June 2019
- **Venue**: NIT, Kurukshetra
- **ECBC Master Trainers**: Mr. Money Khanna, Mr. Vamshi Ranga



In this Two day workshop, Mr. Money Khanna (ECBC Master Trainer) highlighted the implementation of techniques like efficient building materials, thermal insulation, efficient glazing systems and efficient HVAC systems making ECBC complaint buildings. On day second, Mr. Vamshi Ranga (ECBC Master Trainer) put light on the ECBC-2017 and how it covers every aspect of buildings design such as roof, Fenestration, indoor lighting and outdoor lighting. He gave an overview on the Lighting Systems and importance of lighting controls in buildings. He continued his presentation by highlighting the role of passive design in making buildings ECBC compliant which includes the impact of sensors and VRV's in energy consumption.

WORKSHOP – 9

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 13-14th June 2019
- **Venue**: Om Institute of Technology and Management, Hisar
- **ECBC Master Trainers**: Mr. Money Khanna (both days)



In this Two day workshop, Mr. Money Khanna (ECBC Master Trainer) gave an overview on the building physics. He discussed the role of insulation in energy consumption of buildings and how conduction, convection and radiation play a role in heat transfer through building envelope. He gave an overview on the Lighting Systems and discussed measures to reduce consumption in lighting energy. On day second, he explained the mandatory requirements of ECBC 2017. He covered the compliance approaches (mandatory and prescriptive compliance method) and concluded his presentation with stressing on the need of energy efficient building design.

WORKSHOP – 10

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 24-25th June 2019
- **Venue**: Chandigarh College of Architecture (CCA), Chandigarh
- **ECBC Master Trainers**: Mr. Money Khanna, Mr. Vamshi Ranga



In this Two day workshop, Mr. Money Khanna (ECBC Master Trainer) put light on ECBC-2017. He explained about various government initiative plans on climate change and energy conservation. He explained the mandatory requirements of ECBC 2017. Then he covered the compliance approaches (mandatory and prescriptive compliance method). In last session, a panel discussion was also chaired by Mr. Sohan Lal, HOD Architecture Department, CCA. On day second, Mr. Vamshi Ranga (ECBC Master Trainer) explained about the mandatory requirements of ECBC 2017. He covered the compliance approaches (mandatory and prescriptive compliance method) and concluded his presentation with stressing on the need of energy efficient building design.

WORKSHOP – 11

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 27-28th June 2019
- **Venue**: Dronacharya College of Engineering, Gurugram
- **ECBC Master Trainers**: Mr. Vamshi Ranga, Mr. Jeyaraj K.



In this Two day workshop, Mr. Vamshi Ranga gave an overview on the building physics. He continued his presentation by highlighting the role of techniques such as thermal insulation, efficient building materials and efficient glazing systems in making building envelope ECBC compliant. A panel discussion was also chaired by Principal Director of Dronacharya College of Engineering, Gurugram. On day second, Mr. Jeyaraj K. (ECBC Master Trainer) explained about the basics of EMIS software prepared by the BEE and he introduced about eQUEST software for energy modeling of building by taking an example of small building case, he covered the parts of simulation on multi-zone type building model, modeling techniques, building geometry material assignment as per ECBC.

WORKSHOP – 12

- **Training** : One day ECBC Awareness Training Program
- **Date**: 01st JULY 2019
- **Venue**: DCRUST, Sonipat
- **ECBC Master Trainers**: Mr. Vamshi Ranga



In this One day workshop, Mr. Vamshi Ranga (ECBC Master Trainer) gave an overview on the Lighting Systems and importance of lighting controls in the buildings. He demonstrated the comfort prediction of Lighting in a building with the help of scientific tools. He continued his presentation by highlighting the role of passive design in making buildings ECBC compliant which includes the impact of sensors and VRV's in energy consumption. In the last session, a panel discussion was also chaired by Dr. Chitra Kabre, HOD (DCRUST, Department of Architecture).

WORKSHOP – 13

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 02-03rd July 2019
- **Venue**: DCRUST, Sonipat
- **ECBC Master Trainers**: Mr. Vamshi Ranga, Mr. Jeyaraj K.



In this Two day workshop, Mr. Vamshi Ranga (ECBC Master Trainer) put light on the ECBC-2017 and how it covers every aspect of buildings design such as roof, windows, walls indoor lighting and outdoor lighting. He also highlighted the importance of mechanical systems including HVAC & service hot water. A panel discussion was also chaired by Dr. Chitra Kabre, HOD (DCRUST, Department of Architecture). On day second, Mr. Jeyaraj K. gave an overview on the building physics. He continued his presentation by highlighting the role of passive design in making buildings ECBC compliant which includes the impact of glass and walls in energy consumption. Then he explained about building energy simulation basics in brief and building performance method. He continued his presentation with building energy simulation (WBP Method) in which he explains energy performance index, the modeling assumptions and EPI calculation methodology for baseline/standard case/ECBC case and user case/proposed case and EPI ratio computation for checking ECBC compliance.

WORKSHOP – 14

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 04-05th July 2019
- **Venue**: Buddha College Of Architecture, Karnal
- **ECBC Master Trainers**: Mr. Vamshi Ranga, Mr. Anurag Bajpai



In this Two day workshop, Mr. Vamshi Ranga (ECBC Master Trainer) briefed about ECBC-2017. He explained the mandatory requirements of ECBC 2017. He also highlighted the importance of mechanical systems including HVAC & service hot water. Then he explained about building energy simulation basics in brief and building performance method. A panel discussion was also chaired by Mr. Anuj Sharma, Director (Budha College of Architecture, Karnal). On day second, Mr. Anurag Bajpai explained about the basics of EMIS software prepared by the BEE and he introduced about eQUEST software for energy modeling of building by taking an example of small building case. He covered the parts of simulation on multi-zone type building model, modeling techniques, building geometry material assignment as per ECBC.

WORKSHOP – 15

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 17-18th July 2019
- **Venue** : Maharishi Markandeshwar University, Ambala
- **ECBC Master Trainers** : Mr. Money Khanna, Mr. Vamshi Ranga



In this Two day workshop, Mr. Money Khanna (ECBC Master Trainer) put light on the ECBC-2017 and how it covers every aspect of buildings design such as roof, windows, walls indoor lighting and outdoor lighting. He also highlighted the importance of mechanical systems including HVAC & service hot water. In the last session, a panel discussion was also chaired by Mrs Lily Dewan, HOD Department of Architecture (NIT Kurushetra). On day second, Mr. Vamshi Ranga (ECBC Master Trainer) gave an overview on the Lighting Systems and Renewable Energy techniques. He explained about the basics of EMIS software prepared by the BEE and he introduced about eQUEST software for energy modeling of building by taking an example of small building case.

WORKSHOP – 16

- **Training** : Two day ECBC Awareness Training Program
- **Date**: 23-24th July 2019
- **Venue** : Manav Rachna University, Faridabad
- **ECBC Master Trainers** : Mr. Anurag Bajpai, Mr. Vamshi Ranga



In this Two day workshop, Mr. Anurag Bajpai (ECBC Master Trainer) overviewed about the ECBC-2017 and how it covers every aspect of buildings design such as roof, windows, walls indoor lighting and outdoor lighting. He also highlighted the importance of mechanical systems including HVAC & service hot water. On day second, Mr. Vamshi Ranga (ECBC Master Trainer) put light on the ECBC-2017 and how it covers every aspect of buildings design such as roof, windows, walls indoor lighting and outdoor lighting. He gave an overview on the Lighting Systems and Renewable Energy techniques.

THANK

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