Training Calendar and Agenda (Revised)

Name of the Training Agency	M/s GreenTree Building Energy Private Limited
Zone	Zone I • Thiruvananthapuram • Kollam • Pathanamthitta • Alappuzha • Kottayam
Name of the Contact Person	1. Mr. Gaurav Kumar (English & Hindi) 2. Mr. Arshad (English, Hindi & Malayalam)
Contact Number	1. Mr. Gaurav Kumar 8882634905 (Calling) & 7389300412 (WhatsApp) 2. Mr. Arshad 9789010778 (Calling & WhatsApp)
Email Id.	1. Mr. Gaurav Kumar placements@greentree.global 2. Mr. Arshad placements@greentree.global

Training Calendar

Training A

Batch	**Date**
Batch 1	18/10/2021 to 26/10/2021 (Last Day Examination)
Batch 2	Will be decided later (by viewing responses and the total number of registration under Batch 1)

Training B

Batch	**Date**
Batch 1	30/10/2021 to 31/10/2021
Batch 2	Will be decided later (by viewing responses and the total number of registration under Batch 1)

Annexures…
(The detailed training calendar and agenda is attached as annexure)

Annexure I: Calendar & Agenda for Training A

PROJECT "Training of Building Energy Efficiency Expert Applicants" (Ref No.: EMC/502/2020-PE(ESS))			
TRAINING - A (Batch - I) 'Online Certificate Course on ECBC Compliance Check through Energy Simulation'			
REVISED - 'Proposed Date, Time & Agenda - October 18, 2021 - October 26, 2021 (Examination Date: October 26, 2021) - Zone I			
Day	**Date**	**Time**	**Agenda**
1	18.10.2021	7:00 - 9:30 PM	Orientation & Induction Program
			1.1 ECBC- A Brief on ECBC and Kerala State ECBC Rules 2017
			1.2 Understanding Building Physics
			2.1 Introduction on ECBC &Compliance Approach · Mandatory Requirements · Prescriptive Approach · Whole Building Performance Approach
2	19.10.2021	7:00 - 9:30 PM	3.1 Technical Aspects of ECBC
			3.2 Building Physics, U-Value Calculation
3	20.10.2021	7:00 - 9:30 PM	3.3 Building Design, Form, Zoning & Orientation Optimization
			4.1 Daylighting Analysis - Shading, Daylighting, Glass Selection
			4.2 Case Study – Presentation
4	21.10.2021	7:00 - 9:30 PM	5.1 Introduction to Energy Modelling
			5.2 Demonstrations on Tools Interface
			5.3 Presentation of Case Study
5	22.10.2021	7:00 - 9:30 PM	6.1 Hands-on Training for Sample Energy Model: · Building Geometry Development
			7.1Optimization of Building Envelope (Zoning, Insulation, Shading Devices, and their Impact on Building Energy-Load Calculation)
6	23.10.2021	7:00 - 9:30 PM	7.2 HVAC System Sizing
			8.1 Modelling of Different Systems
			8.2 Simulation of Developed Model
7	24.10.2021	7:00 - 9:30 PM	9.1 Simulation-Output Analysis
			10.1 Hands-on Training Exercise Problem · Base case modelling as per KSECBC Rules (ECBC 2007 Guide) – Notified in the State
8	25.10.2021	7:00 - 9:30 PM	11.1 Hands-on Training Exercise Problem Proposed Case as per Sample Exercise Shared · Proposed Case Modelling as per the exercise given.

			12.1 Hands-on Training- Exercise Problem EPI evaluation and comparison of Base Case and Proposed Case Models-(Specific Building Type from the Code)
9	26.10.2021	10:00 - 5:00 PM	ECBC Examination for Participants – Multiple Choice Questions type.
			Simulation Examination for a sample energy model of typical building type – With the Building Descriptions shared with participants

Annexure II: Calendar & Agenda for Training B

PROJECT "Training of Building Energy Efficiency Expert Applicants" (Ref No.: EMC/502/2020-PE(ESS))				
TRAINING - B (Batch - I) 'Intensive Training on ECBC Compliance Check'				
REVISED - Proposed Date, Time & Agenda - October 30, 2021 - October 31, 2021 i.e. Saturday & Sunday (Zone I)				
Day	**Date**	**Time**	**Time**	**Agenda**
1	30.10.2021	10:00 AM - 06:00 PM	**ECBC Awareness & Overview (60 Minutes Session)**	
			Module 1	Orientation & Induction Program
				World Energy Scenario & Energy Scenario in India
				About ECO-III Project, Milestones, EC Act,
				Introduction to ECBC
				Impact of ECBC Compliance
			ECBC Scope & Administration (70 Minutes Session)	
			Module 2	ECBC Scope, Applicability
				ECBC Compliance approach KSECBC Rules 2017
				ECBC Compliance Process in Kerala
				Administration and Enforcement
				ECBC Documents in force
				Assignment: ECBC Compliance Check Building Permit Documentation
			Envelope Design Considerations (90 Minutes Session)	
			Module 3	Design & details of opaque construction, Fenestration, Shading devise, cool roofs
				Heat transfer principles - Material Properties - Moisture & Infiltration – Design methods Calculations
				Code requirements – Mandatory & Prescriptive- ECBC Compliance forms
				Assignment: Calculation of thermal property of Construction materials /U-Value calculation for a sample building
			Heating Ventilation & Air-Conditioning – basics ECBC (120 Minutes Session)	
			Module 4	Whole building design approach and role of HVAC
				Refrigerative cooling, system types and details
				HVAC System components

				&Efficiency
				Cooling load reduction
				System Balancing & Building Commissioning overview
				Assignment: HVAC modelling in Simulation tool for a sample system
			Lighting Basics (90 Minutes Session)	
			Module 5	Lighting Principles, Light Quality optimisation
				Energy Efficient Lighting Systems
				Lighting control design, BAM, SFM
				Whole building approach, Concept of LPD
				Mandatory & Prescriptive -ECBC Compliance forms
				Assignment: LPD calculations (Manual and Simulation tool based)
2	31.10.2021	10:00 AM - 06:00 PM	**Daylighting Analysis (90 Minutes Session)**	
			Module 6	Significance of Daylighting Analysis, DEF, Surface Reflectance, UDI Code Requirements
				Daylighting Analysis Simulation Method
				Assignment: Daylighting factor calculation (based on Prescribed ECBC Methods)
			Electrical Power & Service Hot Water & Pumping - Basic (90 Minutes Session)	
			Module 7	Power Distribution, Transformers, Electric Motors
				Types- selection criteria- Sizing
				Losses- PF & PFC- Efficiency
				Mandatory & Prescriptive- ECBC Compliance forms
				Types of water heaters - Source type and system details
				Solar water heater sizing- Efficiency- Supplementary water heating
				Energy loss- piping Insulation- heat traps
				Mandatory & Prescriptive- ECBC Compliance forms
				Assignment: Modelling Service hot water systems in simulation tool (for a sample building)
			Hands-on Compliance Check (95 Minutes Session)	
			Module 8	Prescriptive requirements

				Trade- off compliance
				Assignment: Prescriptive analysis method for a hypothetical project
			Hands-on Compliance Check (150 Minutes Session)	
			Module 9	Whole Building Performance using software
				Assignment: Whole building analysis method for a sample project
			Report Generation & Assessments (60 Minutes Session)	
			Module 10	Guidance on Report Generation as per the ECBC
				Assessment on ECBC Compliance
				Assignment: Report generation for a Pre-modelled sample project.