

## Tentative Agenda - GRIHA Training Programme for Evaluators & Trainers

Date: 16th, 17th & 18th March 2015

Venue: India Habitat Centre, Lodhi Road, New Delhi - 110003

1st Day

09.30 - 10.00	<b>Inaugural Session</b>	Overview of GRIHA	A brief description of genesis and principles of GRIHA rating system.
10:00 – 10:15	<b>Tea Break</b>		
10.15 - 12.00	<b>Session-1: Sustainable Site Planning Presentation</b>	<p>Criterion 1: Site selection</p> <p>Criterion 2: Preserve and protect landscape during construction</p> <p>Criterion 3: Soil conservation (till post-construction)</p> <p>Criterion 4: Design to include existing site features</p>	<p>The session describes sustainable site planning related criteria of GRIHA with relevant examples. The intent of the presentation is to familiarize participants with practices and initiatives which can help neutralize the negative impact of construction on the site.</p> <p>Main tools used during presentation are –</p> <ul style="list-style-type: none"> <li>Group discussion</li> <li>Group exercise on site planning with help of site models provided to each group</li> <li>Presentation and review of the site planning schemes by the facilitator</li> </ul>
12.00 - 12.45	Exercise on site planning	Criterion 5: Reduce hard paving on-site and/or provide shaded hard paved surfaces.	
12.45 - 01.15	Presentation by participants	Criterion 7: Plan utilities efficiently and optimise on-site circulation efficiency	
01.15 - 01.30	Discussion of proposed scheme	Criterion 9: Reduce air pollution during construction	
01.30 - 02.00	<b>Lunch Break</b>		
02.00 - 4.00	<b>Session-2: Building Design Optimisation Presentation</b>	<p>Criterion 13: Optimise building design to reduce conventional energy demand (part 1)</p>	<p>This criterion deal with the visual and thermal comfort of the building occupants. The session on building design optimization shall focus on two broad parameters; namely the basics of solar passive building design and the quantitative analysis based on criterion. Session shall be followed by a detailed individual exercise on the basic understanding of the criterion.</p>
4.00 - 4.15	<b>Tea Break</b>		
4.15 - 4.45	Exercise on Building design optimisation		
4.45 - 5.15	Discussion with the participants		
5.15 - 5.30	Final Answer Discussion		



2nd Day			
9.30 - 10.30	<b>Session-3: Artificial Lighting Presentation</b>	Criterion 13: Optimise building design to reduce conventional energy demand (part 2) Criterion 6: Enhance outdoor-lighting system efficiency	A detailed presentation on energy efficient artificial lighting design shall be made. This presentation will equip the participants for choosing efficient fixtures and their installation for adequate lighting.
10.30 - 11.30	Exercise on Artificial lighting		
11.30 - 11.45	Tea Break		
11.45 - 1.00	<b>Session-4: Energy Performance Optimisation Presentation</b>	Criterion 14: Optimise energy performance of building within specified comfort limits	This session shall cover basics of thermal comfort analysis, HVAC design, and energy optimisation of building energy systems as per ECBC/GRIHA understanding.
1.00 - 1.30	Lunch Break		
1.30 - 2.15	Exercise on Energy Performance Optimisation	Criterion 14: Optimise energy performance of building within specified comfort limits	An individual exercise for the calculation of energy optimization and equipment efficiency will be carried out for more clarity.
2.15 - 3.15	<b>Session-5: Renewable Energy Utilization</b>	Criterion 18: Renewable energy utilisation, Criterion 19: Renewable-energy-based hot water system	This session shall cover renewable energy applications in buildings. The facilitator shall present the applications through the specified criteria of GRIHA, with examples and exercises. The session also explores the possibility of generating onsite/ offsite green power.
3.15 - 3.30	Tea Break		
3.30 - 4.30	<b>Session-6: Sustainable Building Material &amp; Construction Tech. Presentation</b>	Criterion 15: Utilisation of fly ash in building structure Criterion 16: Reduce volume, weight, and construction time by adopting efficient technologies Criterion 17: Use low-energy material in interiors	A detailed presentation shall be made on low-energy building material and its implication in GRIHA. New technologies saving on materials and promoting reduce, reuse and recycling of materials to decrease overall embodied energy of building will be discussed.
4.30 - 5.30	<b>Session-7: Health, Wellbeing and Environmental Quality Presentation</b>	Criterion 8: Provide minimum level of sanitation/safety facilities for construction workers Criterion 26: Use low-VOC paints/adhesives/sealants Criterion 27: Minimise ozone depleting substances Criterion 28: Ensure water quality Criterion 29: Acceptable outdoor and indoor noise levels Criterion 30: Tobacco and smoke control Criterion 31: Provide at least, the minimum level of accessibility for persons with disabilities Criterion 32: Energy audit and validation Criterion 33: Operation and maintenance Criterion 34: Innovation points	This session of the workshop deals with health and wellbeing of the labor during construction and occupants after the building is occupational. A detailed presentation shall be made on environmental aspects of building design, construction and operation which may impact habitant's health. The session also focuses on permanence of operations and maintenance to continue same results as been desired by GRIHA during building life.



3rd Day			
09.30 - 10.00	<b>Session-8: Water Management Presentation</b>	Criterion 10 Reduce landscape water requirement Criterion 11 Reduce water use in the building Criterion 12 Efficient water use during construction	A detailed presentation on water related issues and solutions through GRIHA. The presentation shall focus on water management in building sector with examples from current green building projects.
10.00 - 11.45	<b>Session-9: Wastewater Management Presentation</b>	Criterion 20 Wastewater treatment, Criterion 21 Water recycle and reuse (including rainwater)	The facilitator shall discuss about the wastewater related issues and solutions. A detailed presentation shall be made on waste water management systems and various technologies available in India with examples from current green building projects of GRIHA. At the end of the session a design exercise shall be conducted along with the Q & A.
11.45 - 12.00	Tea Break		
12.00 - 1.30	<b>Session-10: Solid waste Management Presentation</b>	Criterion 22 Reduction in waste during construction Criterion 23 Efficient waste segregation Criterion 24 Storage and disposal of wastes Criterion 25 Resource recovery from waste	This session focuses on efficient management of solid waste by means of reduction, segregation and safe disposal. The speaker suggests ways of solid waste management while participants share their experiences.
1.30 - 2.00	Lunch Break		
2.00 - 2.30	<b>Session-11: Website Demonstration</b>	GRIHA/SVAGRIHA online documentation tool.	Website and documentation tool of GRIHA/ SVAGRIHA are demonstrated to the participants for them to get familiarize with the online tools.
2.30 - 3.00	<b>Revision time</b>		
3.00 - 4.00	<b>Session-12: GRIHA TRAINER's EXAMINATION</b>	One hour written test (Objective Type)	For the participants who are interested in GRIHA trainer's certificate
4.00 - 4.15	Tea Break		
4.15 - 5.00	<b>Session-13: GRIHA EVALUATOR's EXAMINATION</b>	Forty five minutes written test (Subjective Type)	For the participants who are also interested in GRIHA evaluator's certificate
5.00 - 5.15	Distribution of participation certificate		

- **The programme shall cover the description of all 34 criterions and provide the participant with an overall understanding of the GRIHA rating system.**

