

**MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE, GWALIOR (MP)**

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

**Department of Architecture and Planning**

**Date : 14/01/2023**

**REPORT OF RACHNA 2.0**

<b>Type of activity:</b>	Two-Days Awareness Programme on 'Innovative Construction Technologies & Thermal Comfort in Affordable Housings'
<b>Title of the activity:</b>	Rachna 2.0
<b>Date and Duration of activity:</b>	12 <sup>th</sup> and 13 <sup>th</sup> January, 2023 (10:00 am -5:00pm)
<b>Number of Participants:</b>	120
<b>Resource Person:</b>	CSB Cell Member and Expert Trainer
<b>Objective of the seminar:</b>	The objective of Rachna 2.0 was to teach the future architects about the real challenges that they are going to face in their projects and contracts i.e Thermal Comforting, Green Building Managements, Solar Panel Implementation, etc.
<b>Description of the Program:</b>	<p>Trainings &amp; workshops of Rachna 2.0 on innovative construction technologies &amp; Thermal comfort for Affordable Housing for the students of Architecture Department was scheduled from 12-01-2023 to 13-01-2023 in the Department of Architecture &amp; Planning, Madhav Institute of Technology &amp; Science. The summary of the program is given below:</p> <p><b>Day 1: 12-01-2023</b></p> <ul style="list-style-type: none"><li>• The CSB Cell member welcomed the family of Department of Architecture &amp; Planning.</li><li>• He introduced the students and the faculties to MoHUA's Housing for All Programme, GIZ, and the Bilateral Programme – Climate-Smart Buildings.</li><li>• He informed the students about: A] New age innovative technologies along with the 6 LHP construction technologies focusing on - efficiency in construction, mainstreaming &amp; replication of technologies and sustainable cum thermal comfort aspects. B] DHP &amp; AHRCs &amp; DEMO Projects.</li><li>• The sessions were divided into 4 parts on Day 1:</li></ul>

Session 1:

- Thermal Comfort & Affordable Housing
- Thermal Comfort & factors
- Cooling Requirement Scenario, Cooling Demand Growth
- Building Envelop Impact & Building Physics
- Thermal comfort fundamentals
- Thermal Comfort Indices
- Passive Design Strategies

Session 2:

- Innovative building material
- Effect of material on thermal comfort
- New method of construction for Affordable housing
- Case Studies for the application of thermal comfort in affordable housing
- Demo Projects Analysis
- Low energy cooling technologies & comfort.

Session 3:

- Thermal comfort Standards (ASHRAE, IMAC, ENS, NBC)
- ENC Code Provision
- Eco Niwas Samhita 2018, 2021
- Technical Exercise (RETV Analysis with Example - LHP, DEMO Project)
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Session 4:

- ENS 2018 & 2021 Brief
- ENS Compliance
- Live Demo on Tool, Thermal Comfort Analysis Recommendations to current & future
- Affordable Housing Projects
- Green Building Concepts
- BEE Star Labeling Indian & International Best Practices

After each session there was a question and answer session.

**Day 2: 13-01-2023**

- Day 2 was continued with the 5<sup>th</sup> and 6<sup>th</sup> session that included :

Session 5:

- Affordable Housing Design Challenge
- Design Problem Introduction
- Grouping
- Design Challenge Exercise
- Another Design Challenge Exercise

Session 6 :

- Design Challenge Judgment and Certificate Distribution
- The Programme was concluded with the voting of thanks.



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## **Some Glimpse of Rachna 2.0**











