

Government of India
Ministry of Housing and Urban Affairs

Global Housing Technology Challenge-India

Light House Projects: Live Laboratories

1. Hon'ble Prime Minister Shri Narendra Modi laid the foundation stone of Light House Projects (LHPs) on January 1, 2021, in six cities i.e. Indore (Madhya Pradesh), Rajkot (Gujarat), Chennai (Tamil Nadu), Ranchi (Jharkhand), Agartala (Tripura) and Lucknow (Uttar Pradesh) via video conferencing. The Hon'ble Governors, Hon'ble Chief Ministers of six states along with State Ministers joined the event from the LHP sites through video conference.
2. The LHPs are model housing projects comprising of nearly 1,000 houses at each location with allied services are being constructed for showcasing use of the best of new-age technologies, materials and processes in the construction sector.
3. Hon'ble Prime Minister during the event emphasized that these projects will be incubation centres and the technical professionals, planners, architects, engineers, students and faculty of Engineering Colleges/Technical Universities should visit the site to learn and experiment with new construction technologies and document the whole learning experience.
4. Taking inspiration from Hon'ble Prime Minister, the Ministry of Housing and Urban Affairs (MoHUA) is promoting these LHPs as **Live Laboratories** for learning, facilitating transfer of technology to the field and its further replication. The primary goal of making these LHPs as Live Laboratories is to encourage large scale citizen participation and create technical awareness for on-site learning, multistakeholders consultation, find ideas for solutions, learning by doing, experimentation and encouraging innovation, thereby mainstreaming the globally identified proven innovative technologies under GHTC- India in Indian context.
5. In order to create wide scale knowledge dissemination and awareness in the country regarding use of innovative technologies through LHPs, the Ministry is conducting a series of activities as detailed below:
 - a) **Online certificate course on NAVARITHI:**
 - ❖ Hon'ble Prime Minister on 1st Jan 2021 released an online certificate course- NAVARITHI (New, Affordable, Validated, Research Innovation Technologies for Indian Housing) which is based on the best construction technology. This course aims to enhance the capability of the building professionals about the new and emerging building materials and technologies for housing and building construction. The duration of the Course shall be 7 days. An individual who holds B.E./B.Tech (Civil) or

B.Arch. (or equivalent) or Diploma degree in civil with 5 years of experience shall be eligible to take up the course.

- ❖ After the launch of the Course by Hon'ble Prime Minister, the registration was opened. The online class for the first batch of 125 students was started from February 12, 2021. Registration for second batch is currently open.

b) Enrollment of TECHNOGRAHIS:

- ❖ A drive for online Enrolment of Technograhis is being launched on 16th February 2021 by Secretary, MoHUA. The Faculty & Students of IITs/ NITs/ Engineering colleges/ Planning & Architecture colleges; Technical Professionals engaged in Private/ Public sectors; Elected Representatives; Construction Agencies/ Builders/ Developers; Center/ State Government/ULB officials; Central/State PSUs; Research Students; Startups/ Innovators/ Entrepreneurs; Knowledge partners; NGOs/CSOs; Media; Individuals (Professions) and other concerned stakeholders can enroll themselves as Technograhis through a simple online procedure available at <https://ghtc-india.gov.in/>
- ❖ Technograhis are the change agents innovative and sustainable technologies who will bring about technology transition in the construction sector and its adoption in the country. They will act as catalysts to transform the urban landscape for the New Urban India for fulfilling the vision of AatmaNirbhar Bharat. **Technograhis will be exposed to the innovative construction technologies** through Onsite activities to learn different phases of use of innovative technologies in LHPs and Offsite Workshops/ Webinars, Webcasting, Mentoring on Technical know-how/Module etc.

c) E-Newsletter of LHPs:

- ❖ The construction work of six LHPs are to be completed within 12 months in a challenge mode. The First Volume of LHP E-Newsletter is being released by Secretary, MoHUA which captures the progress of the project at the six sites. It gives an idea about the projects through write-ups and photographs which can be shared with students, faculty, stakeholders and public. Twelve volumes of E-Newsletter will be created to promote a healthy competition among the six states regarding the progress of each state, timely completion, to enable them to learn from the different technologies being used at the site, etc.

d) Site wise LHP Booklets

- ❖ The six-site specific LHP booklets is also being released by Secretary, MoHUA which captures structured information about each site, its technical specifications, and other details. These booklets will serve as a guiding document for technocrats in learning about the use of specific technology, information exchange and promotion of the Light House Projects as a whole.

e) Construction Technology Yatra (CTY) for promoting technical learning

- ❖ It is proposed to initiate a 3-day Construction Technology Yatra at six LHP sites for registered Technograhis from April 2021 onwards when the LHPs comes to plinth level Students. This Yatra will promote online adaptive Engagement and learning through classroom session followed by site visit, live demonstration, self-assignments followed by Q&A.

f) Summer/Winter Training

- ❖ It also includes 4 - 6 weeks Summer/Winter Training for Students, Architects, Engineers, Planners as proposed by Institutions to teach the technical know-how of implementation process of LHPs, its assessment and documentation. At the end of training program, the participants shall be required to submit the project report & its efficacy for adaptation as technology for future. The summer/ winter Training may be conducted during semester breaks and Dissertation project on LHPs may be taken up during final semester.

g) Orientation Programme

- ❖ An orientation program for senior officials from Elected Representatives, Central/State Public/ Private Sector/ Associations, Media agencies etc. for providing conceptual Knowledge about the LHPs and its use on ground.

h) Onboarding Mentor Institutes

- ❖ The Ministry has identified Resource Institutes & Mentor Institutes at six sites along with Faculty members who will Trained through interaction with Technology Providers and will act as trainers. The existing five ASHA-India Centers will also be roped in as Mentor Institutes. International collaborations will also be explored fort focused mentoring

i) Sponsoring dissertation/thesis projects

- ❖ It is proposed to sponsor the dissertation/thesis projects on use of innovative technologies through LHPs for M.Tech/ B.Tech/ M.Arch/B.Arch students. Students will be encouraged to take up assignments on new technologies and will be connected with Technology Providers and construction agencies.

j) Making new technologies part of the syllabus

- ❖ MoHUA is coordinating with Ministry of Education, Govt. of India to develop course curriculum for Undergraduate/ Post Graduate students of IITs/NITs/SPAs/CEPT etc. on innovative construction technologies encompassing six broad categories identified/shortlisted under GHTC-India. These courses Ministry of Skill Development and Entrepreneurship is being roped in to prepare training modules on new technologies for artisans/masons/ electricians/ plumbers/ carpenters etc. in ITIs/Skill Development Councils.

k) Other Activities

- **Dynamic/Updated Web-portal:** showcase day-wise progress of LHPs on ground, literature, films, PPTs, webcasting etc.
- **Structured Meetings:** Town Hall Meetings/ Periodic Webinars/ TECH Addah/ College Fests, On-site conclaves, Live Webcasting of construction processes
- **Yearly activities:** (Engineer's/ Planning Day, Technology week, Quiz)
- **Onboarding Elected Representatives:** Facilitating visits of political leaders through Ministry and States
- **Media Events:** Quarterly visits of National/Local Media to LHP sites (LHP story), Regular features in newspapers/media Documentary series on DD News/AIR, Podcasts etc.
- **Call for articles, papers, newspaper editorials**
- **Research Grant** Proposals for 6 LHPs
- Facilitating **site visits of beneficiaries** through State Govt.
- Tulip Interns at all LHP sites
- **Blogs** on LHPs

l) Felicitating the Best Performers

Ministry is finalizing the modalities for felicitating the various stakeholders for their contribution in making the LHPs and Live laboratories successful.

- ❖ Challenge among six LHP States for recognizing their contribution and efforts in successful/timely implementation of LHPs, promoting learnings among various stakeholders through IEC activities and replicating the innovative technologies in other projects.
- ❖ Construction Agencies implementing LHPs will be felicitated for faster completion of projects and facilitating/promoting maximum learning and facilitating technology replication, facilitating number of visitors.