

INSTITUTIONAL DISTINCTIVENESS

Quality of life is the general well-being of individuals and societies which include physical health, family, education, employment, wealth, safety, security and the environment. It is the responsibility of the every agency to contribute to the well-being of the society.

Karpagam Academy of Higher Education on its part ensure its academic, research and extension activities are focused towards the quality of life of the society besides its main activity of providing higher education opportunity to the youngsters.

In consonance with the above objective, the Institution has successfully completed the following socially and environmental friendly projects.

Project 1

Environment Protection: Air Pollution Detection and Mitigation Device

This device has been developed in collaboration with Indian Institute of Technology, New Delhi and Anna University, to detect and mitigate the air pollution after various testing procedures. Two types of Air purifiers have been developed one is for Bus Stop and another for Public Chowki.

The Delhi Administration has initiated steps to install the Air Purifiers in all the Bus Stops of New Delhi.

Project 2

On Children Safety: Borewell Rescue Operations

According to the National Disaster Response Force (NDRF) over 40 children have died after falling into borewells since 2009. In the past 15 years atleast 13 children have fallen into unused borewells in Tamil Nadu alone and only three of them were rescued alive. Hence, a need to develop a safe rescue device.

In this regard, the Institution has developed a Borewell Rescue Device to rescue victims trapped in open Borewell. The institution has supported the Rescue Teams with this device to rescue the victim in the shortest possible time and in certain cases it is just 15 minutes to rescue. So far the institution has been part of eight rescue operations in Tamil Nadu.

The institution also trained Tamil Nadu Fire and Rescue Service and National Disaster Response Force on narrow pit rescue operations.

Project 3

On Protection of Health and Safety of Females: Environment Friendly Sanitary Napkin Disposal

The existing napkin has polypropylene material with the super absorbent chemicals which directly affects the health of the individuals during direct contact with physical body and it also becomes a problem of disposal as it non-degradable.

Hence as a social initiative and environmental protection, institution has introduced a mechanism to dispose a sanitary napkin through an eco-friendly manner without affecting the health of the user and polluting the environment.

Project 4

Save Heritage and Culture: Preserving and Renovation of Temples

India is a vast country with a rich cultural heritage with about 15000 structures. Its history dates back to more than 2000 B.C. Ironically, many of these structures are not even traceable today due to neglect and in some cases struggling of antiquities. Many temples gradually dilapidated due to natural degradation, ignorance of their value and improper maintenance. There are about 39000 temples in Tamil Nadu. As many as 7327 temples have been consecrated and renovated so far. Over 1000 temples are in dilapidated condition and need to be renovated and protected.

Karpagam Academy of Higher Education has undertaken a unique and distinctive project of preserving and safeguarding cultural, intellectual and spiritual heritage of great monuments under 'Save Heritage and Culture Project'. This project is jointly executed by the Departments of Architecture, Tamil and Civil Engineering of the institution.

Under this project, the conservation work is carried out in three main broad categories:

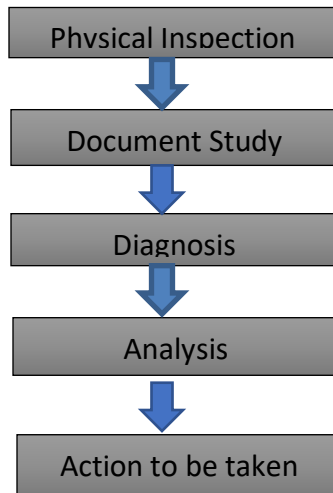
1. Preserving Scripts (Tamil)
2. Conservation Architecture (Architects)
3. Structural Conservation (Civil Engineering)

Structural Conservation

The structures are given additional strength and reinforced to undo the harms done by pollution, acid rains, and other chemicals over the years. The foundations are improved so as to make these structures natural-disasters resistant.

The following process is undertaken and a detailed project report is prepared.

Damage Assessment Procedure



Preliminary Investigation

The following major causes for damage are identified from physical inspection;

- Overloading due to vegetation growth
- Age of structure
- Soil erosion
- Lack of maintenance
- Dampness and algal bloom at inner surface due to poor ventilation and lighting

From the damage assessment if it is concluded that the structural damage is beyond repair either partial or whole demolition and / or reconstruction is recommended.

Based on the inspection the following remedial measures are suggested for renovation.

- Totally remove the vegetation growth in the existing structure, since the root action is the main cause for splitting of the structure at certain points. To arrest vegetation growth in structures use of chemicals is recommended.
- Sand blasting of the entire stone and brick masonry.
- Removal of dilapidated structures and new stone masonry or stone pillars recommended as per the architects advise.
- Wherever the brick masonry is found in distressed condition they are chipped out and redone to match the existing surface.
- To bring back the structure to the original condition temple architects are consulted to retain the shape of the temple structure.

After identifying dilapidated old structures of the temple, the Civil department concentrates on strengthening foundation and general civil works. Architecture department concentrates on maintenance of architectural domain. The literature part is taken care of by the Tamil department.

While Karpagam Academy of Higher Education, bears the cost of renovation of one portion of the temple, the local people contribute for the rest of the temple work and get the renovation completed.

This exercise has greatly helped the students of the Department of Civil Engineering, Architecture and Tamil to understand the nuances behind such a mammoth structural and architectural design of temples. Further, they could also understand, appreciate the intricate applications of principles of engineering in ancient temple constructions.

This distinctive area of renovating the temple architecture through Departments of Architecture, Civil Engineering and Tamil goes with its vision of instilling originality in the learning minds of young students and to make them understand the rich value of Indian traditional culture and also to engage them in Research relating to Temple construction, design and conservation.