

Progress Report

National Engineering Heritage Forum (NEHF)

Of

The Institution of Engineers, Sri Lanka

October 2024

The progress of the NEHF activities during the month are as follows.

TASK GROUP-01: School Program Task Group Activities

The NEHF School Program subcommittee had several meetings with officials from the **Science Department** of the **Ministry of Education (MoE)**, with the goal of launching initiatives to popularize Sri Lanka's rich national engineering heritage among school children. The broader aim of this initiative is to cultivate attitudes, values, and visions that encourage appreciation and preservation of this heritage, both tangible and intangible.

Initial Focused Areas

Initially, the focus of the subcommittee was directed to the following two areas of activities.

- (1) Carrying out awareness sessions, seminars, and workshops on National Engineering

 Heritage with the view increase the awareness among students
- (2) Inclusion of the National Engineering Heritage aspect into the school curriculum to elevate the understanding of the next generation on the same & make use of it in the current context

Further, it is decided to position the outcomes of the group with a broader scope such as participation in exhibitions, competitions, education policymaking exercising etc.

(1) Outreach Programs in Schools

The Ministry of Education (MOE) has agreed to support NEHF's initiative to conduct awareness sessions on national engineering heritage in schools.

With the support of the MOE, the first outreach program of NEHF was conducted at **Sri Dharmaloka Madya Maha Vidyalaya**, **Kelaniya**, on 4th October 2024. Eng. (Prof.) Bandunee Athapattu, Eng. (Dr.) Chandana Jayawardana, Eng. (Dr.) Chulantha Jayawardana, and Eng. Suran Fernando participated in this program as resource persons, representing NEHF. The program aimed to enhance students' understanding of Sri Lanka's rich engineering heritage and its potential to offer valuable insights for addressing modern challenges.



Following this initial success, the NEHF School Program subcommittee plans to expand the awareness program to several other schools across the island, engaging students with historical engineering marvels to inspire them to apply this knowledge in contemporary contexts.





(2) Introduction of National Engineering Heritage to the School Curriculum

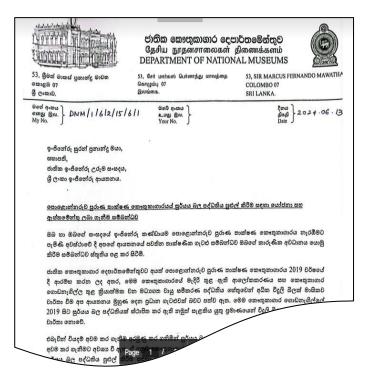
NEHF has also held several meetings with the Science Department of the Ministry of Education to introduce a national engineering heritage elective module for Grades 7, 8, and 9. With the support of the Ministry, NEHF is working on developing this module, which is expected to be launched in the school curriculum by 2025.

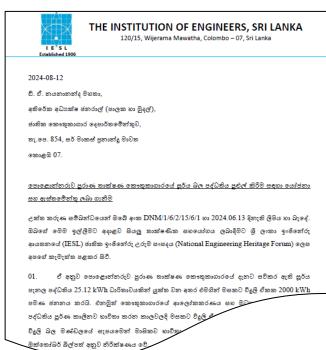
National Engineering Heritage Forum – The Institution of Engineers, Sri Lanka Project: Promote Sri Lankan Engineering History and Heritage among the school students.				
Basic framework for Module contents				
Deliverables and Assessments	Applicable Grade			
	G	G	G	G9
	6	7	8	
Outcomes: Following outcomes should be achieved after following the modules.				
To understand the type of work engineers do and their social benefit.				
To appreciate the availability of such works in Sri Lanka since ancient times.				
To recognize such works as our engineering heritage.				
To identify the school students as owners & protectors of that heritage.				
To identify the engineering accomplishments – in general and in specific				
To evaluate the physical setups behind such engineering accomplishments.				
To explain the related basic engineering concepts and technical terms.				
To relate engineering accomplishments with socio-economic activities.				
To understand the environmental and sustainability aspects.				
Contents: Following areas should be covered in the				
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TASK GROUP-02: National Museum Task Group Activities

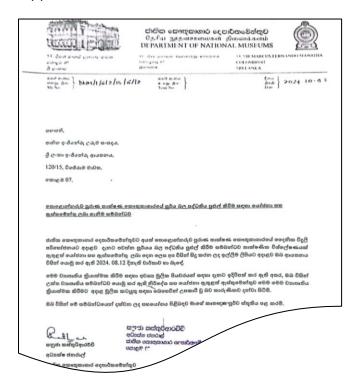
During the recent field visit to Polonnaruwa, the NEHF team visited the Polonnaruwa Ancient Technology Museum. After the museum tour, the authorities informed the team that their electricity bill was nearly Rs. 1.5 million, despite having a rooftop solar power system in place. Upon further inquiry, it was noted that the museum's monthly power consumption, largely due to the central air conditioning system, exceeded 17,000 kWh, while solar power generation was as low as 2,000 kWh.

Following an invitation from the Department of Museums Sri Lanka, members of the National Museum task group conducted a study on upgrading the existing solar power system. It was found that the current 25 kW solar plant could be upgraded to a 175kW plant using the available free roof space. Consequently, the NEHF team, led by Eng. Dinesh, Eng. Chinthaka, and Eng. Dinuka, submitted a technical recommendation for the upgrade, along with an engineering estimate, to the museum authorities.





Upon successful submission of the report, the Director General of Museums issued a letter of appreciation to NEHF for their contribution.



Following the successful completion of the consultancy on the solar power system at the Polonnaruwa Ancient Technology Museum, the Director General of Museums has requested NEHF's assistance to address issues with the museum's central air conditioning system, which is prone to frequent breakdowns and excessive power consumption.



In response, a special subcommittee comprising expert engineers in the HVAC field has been appointed under the NEHF, and the team will soon commence work on resolving the matter.

Reported by

Eng. Suran Fernando - Chairman, National Engineering Heritage Forum (NEHF)