



The Institution of Engineers Sri Lanka

Apex body for Professional Engineers in Sri Lanka

Progress Report

Mechanical Engineering Sectional Committee (MESC)

June 2021

1. MESC meeting

The MESC meeting for the month of June was conducted on was conducted on 9th June 2021, 6.30 P.M on zoom platform.

2. Public Lecture:

a. Mech Cast and Pod Cast.

Already 4 sessions of Mech-talks and 3 sessions of pod cast completed



Mech Talks1: Innovations to market by Dr. Rangika De Silva



Mech Talks2 - Education Leading to Innovation by Dr. Bandula Wijay



Mech Talks 3 - Mindfulness by Eng. Kithsiri Samarasinghe



Mech Talks 4 - Research to Market - Real Solutions by Prof. Gamini Rajapakse



Mech Cast Episode-01: Engineering Council Sri Lanka with Eng. Tilak De Silva



Mech cast episode 02: Sustainable Development with Prof. Niranjanie Ratnayake



Mech Cast Episode-03: Wisdom of an Engineering Pioneer with Eng. Priyal De Silva

Note- An outside student was engaging with video editing and other graphic works and MESc decided to arrange a reasonable payment (5,000/= per session) to his contribution.

Refer following link to access videos.

<https://www.youtube.com/channel/UC7N27ekb2mqrK-Buq6YyhCA/videos>

b. Lecture series.

It was also proposed to conduct webinar series for corrosion engineering in collaboration with ACA (Australian corrosion Association) and MESc.

3. Innovation:

MESc innovation program was initiated with a main focus of helping national economy by helping to develop technology in health sector and industries.

a. Industrial Innovation program

Development of tea mechanization project collaboratively with TRI and universities (UOM, UOP, UOJ) was commenced as the initial projects. Tea industry is the one of the key sectors which govern the national economy.

Progress:

i. Initial kick off meeting was done with participation Engineering and academic expert represent from University of Moratuwa, University of Peradeniya, University Jayewardenepura and foreign, senior officer of TRI including the chairman and Director of TRI and MESc innovation committee.

ii Field Visit to Rathnapura tea research institute

Representatives from university of Moratuwa, university of Peradeniya and members of MESc participated for the visit and familiarized with tea mechanization and tea processing process and Identified available opportunities for the developments.



A report with finding of the field visit is attached in annexure1.

iii Implementation of projects

Three main projects were already picked by faculty of engineering of university of Moratuwa, University of Jayawardenepura and university of Peradeniya.

University of Moratuwa

To develop efficient wood heater:

Consent from UOM was received to undertake above project and the field visit to be done for finalizing. Heat is one of the key factor effects to the processing cost of tea and its quality.

University of Jayawardenepura

To develop efficient tea dryer

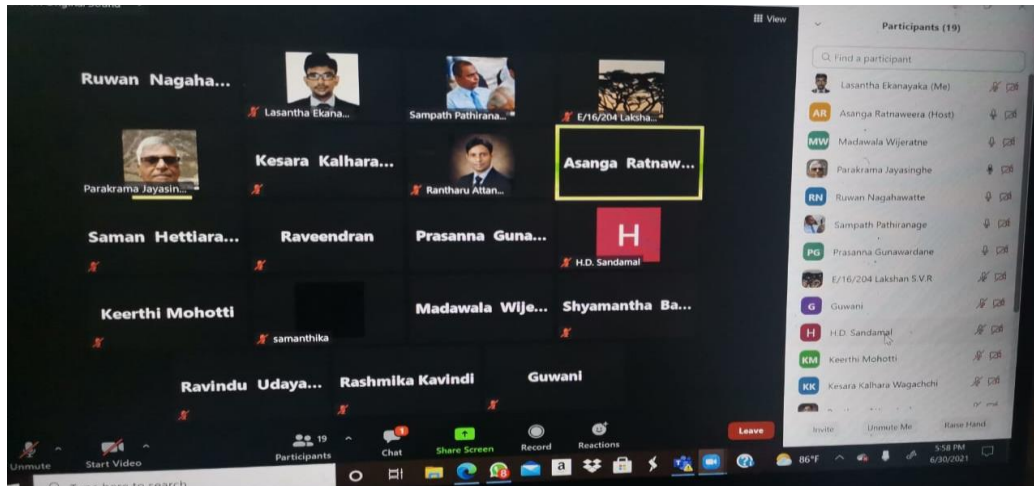
University of jayawardenepura has decided to develop a tea drier and they are waiting for the next field visit to initiate the project. Tea drier is one of the major component of tea processing process which has direct impact to the energy cost and quality.

University of Peradeniya.

To develop tea harvester

Tea harvester is one of challengeable and evolutional project in the tea industry as labor availability is becoming burning issue day by day. Team of UOP (including engineering academic staff and students), TRI (Director, deputy director and officers of TRI) and innovation committee of MESC had the meeting on 30th July 2021. UOP

agreed to undertake the project under the guidance of MESC while TRI providing necessary funding and facilities



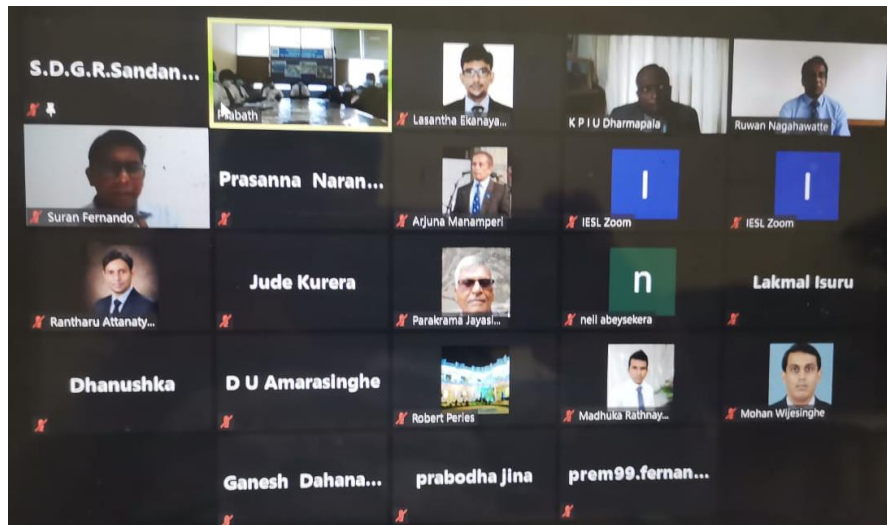
b. Medical innovation program

Mechanical engineering sectional committee initiated a medical innovation program collaboratively with doctors. Anyhow, our program was directed to fulfill the sudden requirement arouse due to the covid pandemic.

MESC successfully completed few projects during first wave of the pandemic and recently came forward to address the oxygen crisis face by the health sector.

District General Hospital of Hambantota-oxygen project.

Accordingly, MESC could fulfill the oxygen demand request came from District General Hospital of Hambantota by a collaborative effort with BSESC. The project estimated cost was Rs 1.75 million and it facilitate for 31 beds by installing 31 units of oxygen wall outlets, respective control devices and safety equipment to support, COVID 19 patients. Funding was fulfilled by annual budget of two sectional committees, IESL voluntarily members and sponsor (API organization). Project was completed within around two weeks and officially handed over on 18th June 2021 with the participation of President IESL, President Elect IESL, hospital staff and committee members of MESC and BSESC.



Oxygen system installation at Horana base hospital

This project was funded by Peradeniya Alumni association and private donor. Design and construction work supervised by MESC. The project was officially handed over on 26th June 2021.



4. Field Visit

MESC had a field visit to Sapugaskanda oil refinery during its major shutdown which comes once in three years. Most of the equipment were dismantled for maintenance and it became important technical visit.



5. Membership Development:

MESC team is continuously assisting to its members to professionally qualify and getting charter.

Lasantha Ekanayaka - Chairman- MESC