



Diverse Assets & Applications  
International Laboratory

Classroom for Advanced & Frontier Education

**SERIES 90**  
Prof. Latha Rangan  
2024-03-11

**Series – 90**

Date and Time – **March 11** (3:30 PM JST)

Venue - Zoom

Speaker - Prof. Latha Rangan

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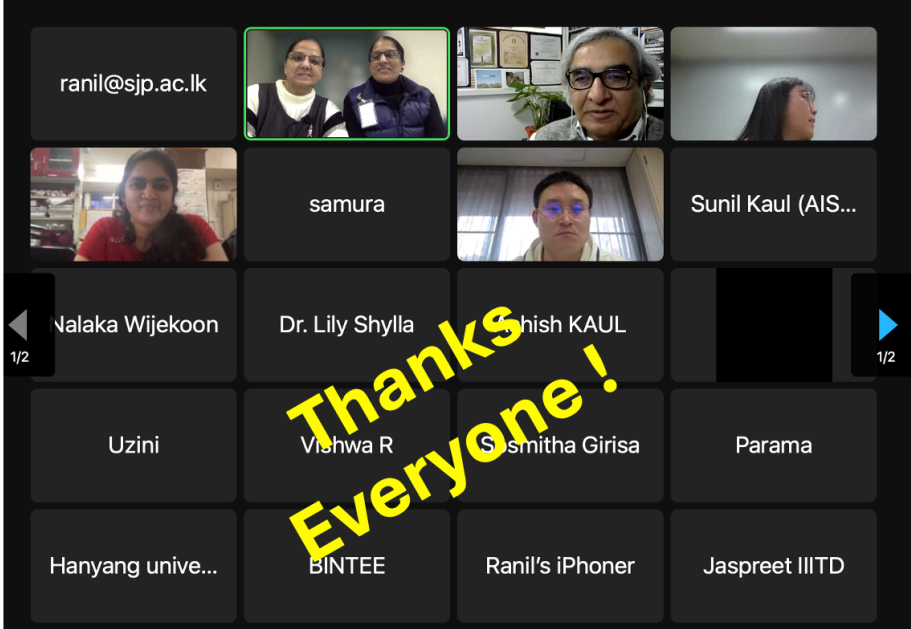
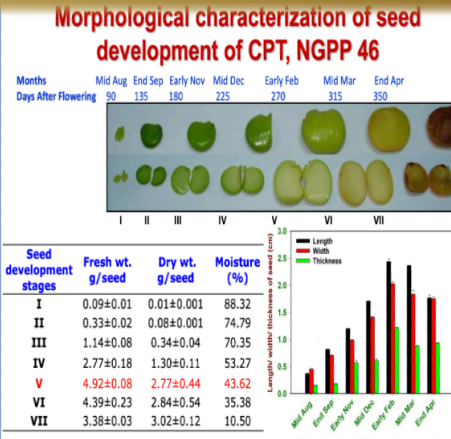
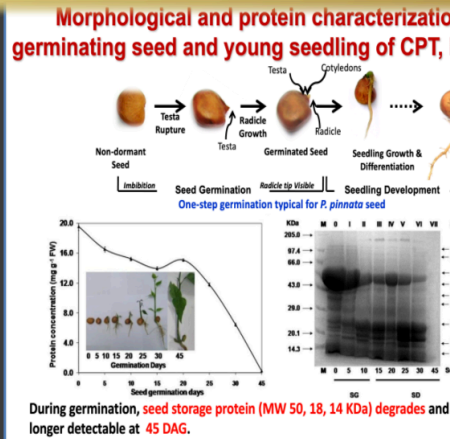
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**Title - Mining Renewable Energy Resources- Pomegranate is very relevant with Karanj**

**Abstract** - It is clear that we need less fossil fuel consumption for under-utilized land, increased agricultural productivity, and an effective bulk source of feedstock from a plant species that does not increase the energy and environmental footprint associated with food production. Karanj (*Pongamia pinnata*), an oil yielding nitrogen-fixing tree species (NFTs) is an ideal biodiesel crop as they support the production of large quantities of seeds, have a wide genetic base, ease of growth and shorter generation time (Kesari et al. 2013, Kishore et al. 2013, Kishore et al. 2013). In preparation for the enhanced global demand for biodiesel, research has been carried out jointly by collaborating partners on genetic, biochemical, physiological knowledge of the tree. Oil quality, content and physio-chemical properties are also being tested in addition to characterizing the secondary metabolites and its diverse role as dissected by *in vitro* and *in silico* studies. This work on Karanj has helped in addressing some of the key issues that have both theoretical and applied significance. Many leads have been obtained from the present research and that can be pursued further for future success of Karanj as an "Indian tree of Biodiesel". In the long term, such a study will form the base for crop improvement, oil seed engineering and sustainable development in terms of techno-economics, environmental as well as socio-cultural considerations.

**40 Participants**



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- RW Renu W. DHWA (I)
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