



## Thoughtworks - e4r Symposium 2023

Thoughtworks cordially invites **the students of Rajiv Gandhi University of Knowledge Technologies** to the fifth Edition of the e4r Symposium, themed Space Supply Networks: An Engineering Grand Challenge for the 21st Century. It is an open, free, and virtual (online/remote) event, and an email-based registration is required for receiving the webinar details.

In recent years, the development of reusable launch vehicles has rekindled interest across sectors like telecommunications, tourism, rare earth metal mining, and planet colonization, leading to increased discussions on the 'space economy.' Yet, achieving a space economy hinges on understanding the necessary supply networks.

Imagine a bold future when space missions fly routinely to the Moon, Mars, and beyond, on "space highways" with fuel stations, repairing stations, warehouses, rest houses for crews connecting mining camps, manufacturing plants, and settlements. It is an enormous challenge, even for a single country to take on. In accordance with the definition provided by the US National Academy of Engineering, we believe that building space supply networks fits in as an engineering grand challenge for the 21st century.

This challenge necessitates collective efforts across multiple advanced engineering disciplines, including energy harvesting and transmission, material science and engineering, machine manufacturing, robotics, computing hardware and software, and artificial intelligence.

If this proposition intrigues you, you may find the talks by the symposium speaker panel relevant and inspiring.

### **Speakers and Topics:**

1. Shri. R.V. Nadagouda (ISRO, India); Topic: Space Supply Networks Requirements for Mars Missions
2. Dr. C.V.S. Kiran (Skyroot, India); Topic: Affordable and reliable launch vehicles: Challenges and opportunities
3. Dr. Advenit Makaya (ESA, the Netherlands); Topic: In-situ resource planning
4. Dr. Yang Gao (King's College London, UK); Topic: Future AI Robotics for Sustainable Space Exploration and Exploitation
5. Dr. Olivier de Weck (MIT, USA); Topic: Space Supply Networks: Opportunities and challenges

### **Event details:**

**Date:** November 4, 2023, Saturday

**Time:** 2:00 pm - 8:00 pm IST (UTC+5:30 hrs)

**Mode:** Virtual (Zoom Webinar)

**Registration link:** [Click here](#)

Interested students are requested to register by November 2, 2023, Thursday.

### **About Thoughtworks:**

We're a leading global technology consultancy that integrates strategy, design and software engineering to enable enterprises and technology disruptors to thrive. For over 30 years, we've been at the forefront of digital innovation and have vast experience creating adaptable technology platforms, designing world-class digital products and harnessing the power of data and AI to unlock new sources of value.

### **About e4r:**

1. Engineering for Research (e4rTM) is an India-based Service Line with a dedicated team of researchers and engineers who collaborate with scientific institutions and academia to create novel computing solutions to complex scientific problems

[Registration Link](#)

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