



# Access to MATLAB Software allowed for Academic Users

## Why in News?

For the first time in the country, **academic users in India will be able to access the MATLAB software suite** at no cost through the **Indian Science Technology and Engineering facilities Map (I-STEM) portal**.

## What is MATLAB?

- MATLAB is a **proprietary multi-paradigm programming language** and numeric computing environment **developed by MathWorks**.
- MATLAB, used by more than **4 million users globally**, allows matrix manipulations, plotting of functions and data, implementation of algorithms, creation of user interfaces, and interfacing with programs written in other languages.

## How is this Step Significant?

- The software suite is **hosted on the cloud server of I-STEM** to provide user friendly access from anywhere in India.
- It is **expected to assist many students and researchers in the country**, especially those in the **more remote and less-endowed institutions**, thereby enhancing learning outcomes and **promoting Research & Development efforts** across India.

## What is an I-STEM Portal?

- **About:**
  - I-STEM is a **National Web portal for sharing R&D (Research and Development) facilities**.
  - The portal **facilitates researchers to access slots** for the use of equipment, as well as to share the details of the outcomes, such as, patents, publications and technologies.
  - In July, 2021, I-STEM project was **accorded an extension for five years, until 2026** and entered its second phase with added features.
- **Launch:**
  - Launched in January 2020, it is an initiative of Office of the **Principal Scientific Adviser** to the Government of India under the aegis of **Prime Minister Science, Technology and Innovation Advisory Council (PM-STIAC) mission**.
    - **PM-STIAC:** It is an **overarching Council that facilitates the Principal Scientific Adviser's Office to assess the status** in specific science and technology domains, comprehend challenges in hand, formulate specific interventions, develop a futuristic roadmap and advise the Prime Minister accordingly.
- **Goal:**
  - The **goal of I-STEM is to strengthen the R&D ecosystem** of the country by connecting researchers with resources.

- **Promoting technologies and scientific equipment development indigenously**, and providing necessary supplies and support to researchers by enabling them an access to existing publicly funded R&D facilities in the country through the I-STEM web portal.
- **Phase-I:**
  - In the first phase, the **portal was listed with more than 20,000 pieces of equipment from 1050 institutions** across the country and has more than 20,000 Indian researchers.
- **Objectives under Phase-II:**
  - The portal will **host indigenous technology products listed through a digital catalogue**. It will **also host and provide access to selected R&D (Research and Development) software** required to undertake research projects by students and scientists.
  - The portal will **also provide a platform for the various City Knowledge and Innovation Clusters** to enhance effective use of R&D infrastructure through leveraging collaboration and partnership built on a shared **STI (Science Technology and Innovation) ecosystem**.
  - New phase will be **designed as a dynamic digital platform that will provide a boost to research and innovation** especially for 2 tier and 3 tier cities and also for the emerging **start-up ecosystem**.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

**Q. 'SWAYAM' an initiative of the Government of India, aims at (2016)**

- (a) promoting the Self Help Groups in rural areas
- (b) providing financial and technical assistance to young start-up entrepreneurs
- (c) promoting the education and health of adolescent girls
- (d) providing affordable and quality education to the citizens for free

**Ans: (d)**

**Exp:**

- [Study Webs of Active-Learning for Young Aspiring Minds \(SWAYAM\)](#) is a web portal where Massive Open On-line Courses are made available on all kinds of subjects.
- It is an Indian electronic e-educational platform which proposes to offer courses from the high school stage to postgraduate stage in an interactive electronic platform.

**[Source: PIB](#)**

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