



WEST: A New I-STEM Initiative

For Prelims: Indian Science Technology and Engineering facilities Map (I-STEM), Women in Engineering, Science, and Technology (WEST), Prime Minister Science, Technology and Innovation Advisory Council (PM-STIAC) mission

For Mains: Government Initiatives to Promote Women Participation in Science, Technology, Engineering, and Mathematics (STEM)

Why in News?

Recently, a [new Indian Science Technology and Engineering facilities Map \(I-STEM\)](#) initiative called “**Women in Engineering, Science, and Technology (WEST)**” was launched.

What is WEST Initiative?

- The WEST programme will cater to **women with a Science, Technology, Engineering, and Mathematics (STEM) background** and empower them **to contribute to the science, technology, and innovation ecosystem**.
- Through the WEST initiative, I-STEM shall provide a **separate platform to scientifically inclined women researchers, scientists**, and technologists for pursuing research in basic or applied sciences in frontier areas of science and engineering.
- Women may join the WEST program and **explore opportunities to become stakeholders in various domains and pursue careers in R&D** at various levels: technicians, technologists, scientists, and entrepreneurs.
 - Opportunities range from operating scientific equipments and maintaining them, to designing and manufacturing them.
- The **Skill Development programmes** under the WEST initiative **will provide training for women with S&T backgrounds** to brush up on their abilities and become engaged “in the field” as lab technicians and maintenance engineers.
- The access to R&D facilities and R&D software platforms (COMSOL, MATLAB, LABVIEW, AUTOCAD) will be available through the I-STEM portal.
- In addition, a **digital consortium “Connect Quickly”** for online discussion and immediate support has also been established through the I-STEM WhatsApp and Telegram platforms.
- A **dedicated team of women** will ensure the successful implementation of the WEST initiative.

What is I-STEM?

- **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.
- **Launch:**
 - Launched in January 2020. It is an initiative of the 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.

I-STEM
Linking Researchers and Resources
Launched by the Honourable
Prime Minister of India

Indian Science, Technology and Engineering facilities Map (I-STEM)

I-STEM: Strengthen the Indigenous Development of Scientific Instruments

After establishing a National web portal through which R&D equipment in institutions across the country can be located and accessed in a transparent way, I-STEM is entering a New Phase with the following objectives –

- ▶ Working towards a more comprehensive listing of R&D facilities. Availability, and their active use
- ▶ Providing partial assistance to Tier 2 and Tier 3 institutions for the maintenance of facilities shared through I-STEM through Comprehensive AMC program
- ▶ Partial assistance to Users from Tier 2 and Tier 3 institutions who use facilities through I-STEM
- ▶ Promoting the indigenous development – especially by startups – of scientific equipment and value-added technical supplies, including software, used for R&D; enabling such development via the (national) Digital Catalogue of indigenously developed technologies and products maintained by the I-STEM portal
- ▶ Establishing regional centres for providing technical training and skill development, in part by restoring/stripping R&D equipment written off by I-STEM institutions; thus developing a stream of talent and gainful employment through maintaining and upgrading R&D facilities
- ▶ Providing access through the web to R&D software platforms to Academic Users to promote R&D and more effective instruction/learning, especially in smaller institutions.

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graph TD; A[Software Services through I-STEM] --> B[Indigenous Equipment Development]; B --> C[Skill Development Program]; C --> D[User friendly R&D facilities access across the country]; D --> E[Partial funding to Institution, Researchers and Start-ups]; E --> A;
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What is the Significance of WEST and Way Forward?

- **Significance:**
 - This initiative will also help **bring women back into S&T domains after a career break.**
 - Crucial gaps in the R&D infrastructure of the country will be filled.
 - **A strong support network for women entrepreneurs** in S&T will be built.
 - I-STEM shall provide a platform/forum for women researchers to deliberate on achievements, issues, and **exchange ideas on taking the country forward through advances in science, technology, and innovation.**
 - Women can become entrepreneurs to **serve as consultants for the operation and maintenance of sophisticated equipment/instruments** through the I-STEM platform.
 - This would go a long way towards **filling a “skills gap”, and putting publicly-funded equipment to good use.**
- **Way Forward:**
 - I-STEM **must monitor the impact of the initiative** by obtaining feedback.
 - Steps must be put in place to **increase the wider participation of women in WEST and I-STEM.**

Source: PIB

