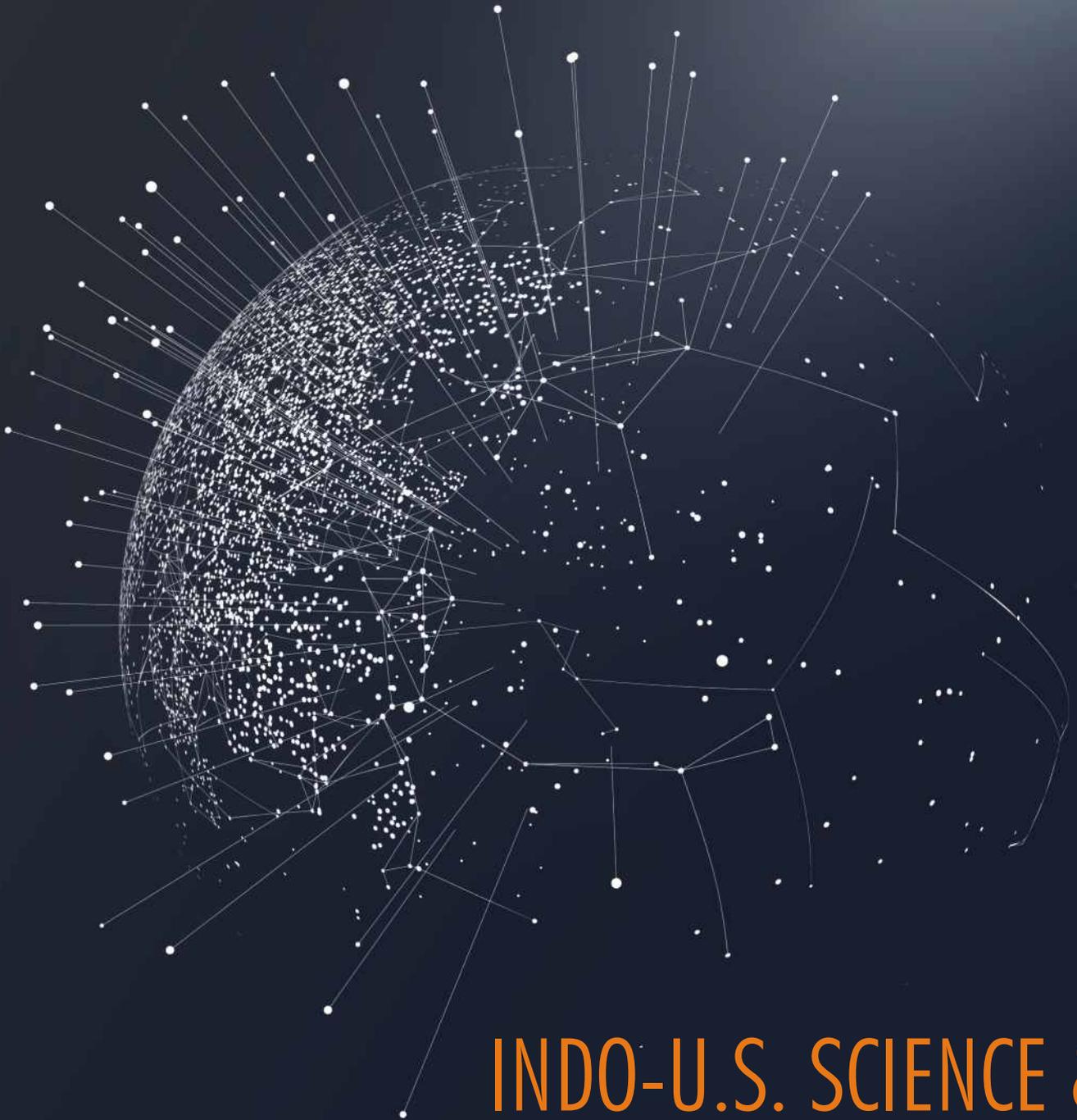




IUSSTF

Indo-US Science and Technology Forum



INDO-U.S. SCIENCE & TECHNOLOGY FORUM

*Catalyzing India-U.S. Science &
Technology Cooperation*

www.iusstf.org

About Us

The Indo-U.S. Science and Technology Forum (IUSSTF) established under an agreement between the Governments of India and the United States of America in March 2000, is an autonomous, bilateral organization jointly funded by both the Governments that promotes Science, Technology, Engineering and Innovation through substantive interaction among government, academia and industry. The Department of Science & Technology, Government of India and the U.S. Department of State are the respective nodal departments.



Vision



Excellence in Science, Technology and Innovation space through collaborative initiatives between India and the United States of America.

Mission

- Act as a catalyst to promote long-term scientific collaborations between India and the U.S. through partnerships amongst individual scientists, scientific institutions and the scientific community at large.
- Establish platforms and mechanisms to connect the S&T ecosystems of both the countries to act as a fertile ground to foster individual and institutional partnerships in a natural and sustainable manner.



OBJECTIVES

- Create awareness through exchange and dissemination of Information and Opportunities in S&T cooperation.
- Capitalize and build on the scientific and technological synergy leading to long term partnerships on shared values.
- Support an exciting program portfolio that leads to sustainable interactions and strengthens strategic partnerships.
- Nurture contacts between young and mid-career scientists to develop mutual trust, foster excellence and explore new frontiers.
- Encourage public-private partnerships to foster elements of Innovation, Application and Enterprise.

IUSSTF PROGRAM PORTFOLIO CLASSIFIED BY VERTICALS

I. Scientific Networks

- Bilateral Workshops/Training Programs
- Indo-U.S. Virtual Network Centres
- Indo-U.S. Frontiers of Science/Engineering

II. Innovation & Entrepreneurship

- U.S.-India Science and Technology Endowment Fund (USISTEF)
- India Innovation Growth Program (IIGP)
- Women's Entrepreneur's Quest (WEQ)

III. Research & Development

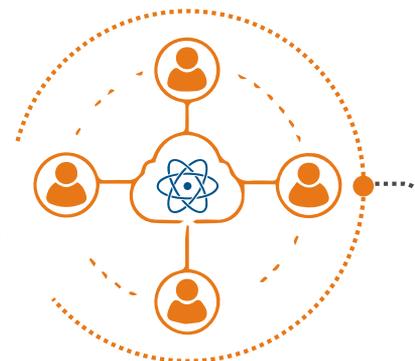
- Indo-U.S. Joint Clean Energy Research and Development Centre (JCERDC)
- Affordable Blood Pressure Measurement Technologies for Low Resource Settings in the U.S. and India
- Partnership for International Research and Education (PIRE)
- Indo-U.S. PACEsetter Fund
- Real Time River Water and Air Quality Monitoring (WAQM)

IV. Visitations & Fellowships

- Water Advanced Research and Innovation (WARI) Fellowship
- Bhaskara Advanced Solar Energy (BASE) Fellowship
- SERB Indo-U.S. Postdoctoral Fellowships for Indian Researchers
- Bioenergy-Awards for Cutting Edge Research (B-ACER)
- Building Energy Efficiency Higher & Advanced Network (BHAVAN) Fellowships
- IUSSTF-American Physical Society Fellowships
- ASM-IUSSTF Indo-US Professorship in Microbiology
- Research Internships in Science and Engineering (RISE)
- Graduate Research Opportunities Worldwide (GROW)
- Khorana Program for Scholars
- IUSSTF-Viterbi Program
- S.N. Bose Scholars Program
- Initiative for Research & Innovation in Science (IRIS)
- Genome Engineering/Editing Technology Initiative (GetIn) Program
- Women in Science (WIS) Fellowship Program

Scientific Networks

As professional networking is an important and integral part of the scientific voyage, IUSSTF promotes and supports such networks to foster long term collaborations between the scientific communities of India and the United States through two separate yet complimentary schemes, Bilateral Workshops/Training Programs & Virtual Networked Centers



A. Bilateral Workshops/ Training Programs

Bilateral workshops are targeted to promote interactions between Indian and American scientists and engineers from academia, laboratories and industry with the explicit aim to develop sustained linkages.

Proposals are peer-reviewed both in India and the United States. Novelty of topic, mutual benefits to India and the U.S., background of workshop coordinators & participants, potential for developing new & sustained bilateral linkages and student participation, are among the important review parameters.

The workshops acts as an instant connect and point of formal initiation.

There are two calls for proposal with submission deadline during March & August, each year.

B. Virtual Networked Centers

Virtual Networked Centers is to enable Indian and American scientists to carry out joint research activities by leveraging already existing infrastructure and funding available with the partners on both sides through a linkage established by a virtual mechanism that provides for seamless connectivity and exchange of faculty/ scientist and students from both sides.

It provides a formal mechanism to support specific collaborations for an extended period of about two years.

These centers are supported under two categories:

1 Knowledge R&D Networked Centres

- Partners: R&D labs and academia partnership (min. of 2 Indian & 2 U.S. separate institute partners)
- Provide opportunities for integrating research and education

2 Public-Private Networked Center:

- Partners: Academia R&D lab - Industry partnership (min. of 2 Indian & 2 U.S. separate institute partners)
- Promote pre-commercial R&D with application potential

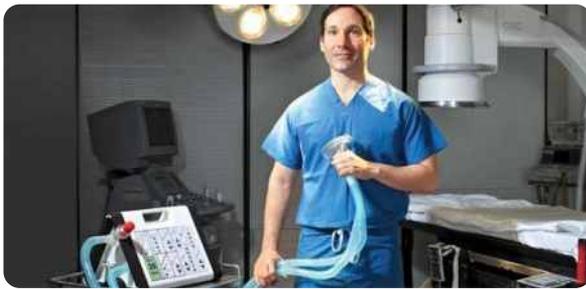


Innovation and Entrepreneurship



1. United States-India Science and Technology Endowment Fund

The governments of the United States of America (through the Department of State) and India (through the Department of Science & Technology) have established the United States-India Science & Technology Endowment Fund (USISTEF) for the promotion of joint activities that would lead to innovation and technopreneurship through the application of science and technology. The Fund activities are administered through IUSSTF.



OneBreath: Affordable Mechanical Ventilator



Clean Energy and Power Source for Rural Households in India

2. DST-Lockheed Martin India Innovation Growth Program (IIGP)

A Public-Private Partnership, originally a joint initiative of Department of Science and Technology (Govt. of India) and Lockheed Martin Corporation, with Tata Trusts joining hands in 2017 is operational for more than 10 years now. The program aims to create an ecosystem enabling entrepreneurs to develop technology-based solutions for betterment of society, as well as accelerating innovative Indian technologies into the global marketplace. To build on to success in the 2nd decade, IIGP 2.0 continues to be implemented by IUSSTF and FICCI along with partner IIM Ahmedabad, IIT Bombay (IITB) and MIT's Energy Initiative (MITEi).

3. Women Entrepreneurship Quest (WEQ)

IUSSTF partnered with the National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology (Govt. of India) and the Anita Borg Institute (ABI), U.S.A to enhance the entrepreneurial ecosystem for women entrepreneurs in India. The joint partnership is established in synergy with the Women Entrepreneurship Quest (WEQ). It is designed to reach out and identify talented women in the founding or leadership role of early stage startups, who have applied technology in innovative ways to solve meaningful business problems and/or address societal issues.



Research and Development

Indo-U.S. Science & Technology Forum supports broad portfolio of R&D programs in key strategic areas that are of interest to both the countries. The current portfolio includes the following flagship programs:

Joint Clean Energy Research and Development Center (JCERDC)



It is a joint initiative of the Ministry of Science and Technology and the U.S. Department of Energy introduced during 2012 with IUSSTF as the implementing agency. It aims to facilitate joint research and development on clean energy technologies that may be deployed rapidly with the greatest impact. Based on a public-private partnership model of funding, the program is a first-of-its-kind initiative that has brought together more than 100 Indian and U.S. academic and industrial partners to work jointly in the space of clean energy research. JCERDC Phase II was launched in 2016 to expand the Partnership in Advance Clean Energy Research (PACE-R) to two new research areas: Smart Grid and Energy Storage

Affordable Blood Pressure Measurement Technologies for Low- Resource Settings in India and the U.S.

The Indo-U.S. Grand Challenge Initiative between Science & Engineering Research Board (SERB), Govt. of India and the National Institute of Biomedical Imaging and Bioengineering (NIBIB), NIH, USA is to encourage collaborative research to propose new approaches to the measurement of Blood Pressure that are unobtrusive or passive, low cost and can automatically provide frequent data recording and reporting to healthcare workers as well as feedback to the patients.



Indo-U.S. PACEsetter Fund:

The Ministry of New and Renewable Energy (MNRE), Govt. of India and the U.S. Embassy support the PACEsetter Fund (PSF) that is an INR 50 Crore (USD 7.9 Million) fund. Jointly capitalized by both with an aim to do research to improve the viability of off-grid renewable energy businesses that sell small scale (under 1 megawatt) clean energy systems to individuals and communities without access to grid connected power or with limited/intermittent access (less than 8 hours per day).



Research Initiative for Real-time River Water and Air Quality Monitoring

Recognizing the importance of developing online River Water and Air Quality Monitoring (WAQM) systems, the Department of Science and Technology (DST), Govt. of India and Intel® have collaborated to jointly initiate the Research Initiative for Real-time River Water and Air Quality Monitoring by providing grant-in-aid support to project(s) with an intent to develop tools and constituent blocks that will enable end-to-end water and air quality monitoring systems on smart, networked, low cost, low power sensor nodes with large-scale cloud based data analysis.



Partnerships for International Research and Education (PIRE)

PIRE is NSF's (National Science Foundation, U.S.A) flagship program to support high quality projects across all disciplines in which advances in research and education could not occur without international collaboration. Science and Engineering Research Board (SERB), Govt. of India partners with NSF for this program.

Note : All the above programs are implemented & administered by Indo-U.S. Science & Technology Forum

• Visitations and Fellowships

To address the need for human resource development and capacity building in science and technology, the Indo-U.S. Science and Technology Forum (IUSSTF) is committed to nurture contacts between scientists and students from India and the United States. Providing students and young scientists with an exposure to cutting-edge scientific research experiences at a formative stage not only broadens their intellectual horizons but also leads to increased engagements in scientific and technological research careers.

In addition to providing high quality research experiences to Indian students in world class universities & research institutes in U.S. these programs also encourage to bring talented American students to research laboratories in India to build a deeper appreciation of the culture of innovation and longstanding tradition of scientific enquiry in India. IUSSTF collaborates with several Federal Agencies, Industry, Professional Bodies and Not For-Profit Organizations to administer a large number of Visitation programs, across various disciplines and levels.

Visitation Programs

S.No.	Name of Program	Partner	Area
1.	Water Advanced Research and Innovation (WARI) Fellowship	DST	Water Science and Engineering
2.	Bhaskara Advanced Solar Energy (BASE) Fellowship	DST	Solar Energy
3.	SERB Indo-U.S. Postdoctoral Fellowships for Indian Researchers	SERB	Focus areas of Science & Technology
4.	Bioenergy-Awards for Cutting Edge Research	DBT	Biofuel and Bioenergy
5.	Building Energy Efficiency Higher & Advanced Network (BHAVAN) Fellowships	DST	Building Energy Efficiency
6.	IUSSTF–American Physical Society Fellowships	APS	Physics
7.	ASM-IUSSTF Indo-U.S. Professorship in Microbiology	ASM	Microbiology
8.	Research Internships in Science and Engineering		All areas of Science and Technology
9.	Graduate Research Opportunities Worldwide (GROW)	SERB & NSF	All areas of Science and Technology
10.	Khorana Program for Scholars	DBT & WINStep Forward	Life Sciences
11.	IUSSTF-Viterbi Program	USC	Electrical Engineering, Computer Sciences and Computational Sciences.
12.	S.N. Bose Scholars Program	SERB & WINStep Forward	All areas of Science and Technology (except Life Sciences)
13.	Initiative for research & Innovation in Science (IRIS)	NCSTC, DST and Intel® through Intel® India	All areas of Science and Technology
14.	Genome Engineering/Editing Technology Initiative (GetIn) Program	DBT	Life Sciences
15.	Women in Science (WIS) Fellowship Program	DBT	All areas of Science, Engineering and Technology including Agricultural and Medical Sciences

United States-India Science and Technology Endowment Fund (USISTEF)

Commercialialising Technologies for Societal Impact

The governments of the United States of America (through the Department of State) and India (through the Department of Science & Technology) have established the United States-India Science & Technology Endowment Fund (USISTEF) for the promotion of joint activities that would lead to innovation and technopreneurship through the application of science and technology. The Endowment Fund activities are implemented and administered through the bi-national Indo-US Science and Technology Forum (IUSSTF).



Mandate

The fund aims to select and financially support promising joint U.S. - India entrepreneurial initiatives that address the theme of "Commercializing Technologies for Societal Impact" through a competitive selection process.

Program Areas

Healthy Individual (HI)

- Development of affordable biomedical devices, & diagnostics.
- Preventive & curative measures, for health improvement.
- Food and nutrition products.

Note: Drug development & clinical trials are not eligible activities in this category.

Empowering Citizens (EC)

Aims to reduce digital/ technology divide, therefore it could include information and communication technologies with societal impact in areas as-

- Water
- Agriculture
- Financial inclusion
- Education or other areas

Note: The areas are subject to change with evolving priorities. Promising areas other than the above areas may also be considered.

Broad Eligibility

- Bi-national teams of Entrepreneurs & Innovators (e.g. incorporated companies including start-up companies; or Non-incorporated entities; or Individuals or consortia from academia, government laboratories, non-government R&D institutions)
- Innovative product or technology beyond the idea stage
- High societal impact projects
- Projects having potential to commercialize between 2- 3 years

Funding

Grants size up to INR 25 Million or approx USD 400,000*.

*Note: * All grants are awarded denominated in Indian Rupees (INR) at prevailing exchange rate.*





GLIMPSES



Transforming Arsenic and Fluoride Crisis in Drinking Water into an Economic Enterprise



Affordable and User-Centric Knee Joints to Remobilize Above-Knee Amputees



Affordable Digital Braille Accessibility



Transformational Modular Roofing Solution for Low-income Urban Homes



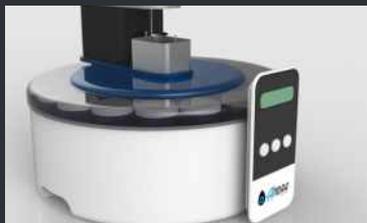
Solar Electric Tractor



A Fair Price for Healthy Fruits and Vegetables



Branchless Banking and Financial Services for the Unbanked and Underbanked



Modular Diagnosis of Cervical Cancer Using Smartphone and Artificial Intelligence



A Low-cost, Portable Autorefractor

Contact Us

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