

Key milestones of NSF Global Digital Platform (As at 17.04.2025)

Direct Capacity building of STI personnel			
Title of the programme	Resource person	No. of beneficiaries	Output/outcome
01. Practical implementation of a digital supply chain in the era of digital economy (2025, In-person)	Dr Nimal Gamage, a globally recognized expert in the field and an expatriate scientist from USA	A group of 20 top-level executives representing the retail and manufacturing industries.	The programme successfully enhanced the awareness and practical understanding of digital supply chain strategies among senior professionals in Sri Lanka's retail and manufacturing sectors. Participants were equipped with actionable insights and tools to implement data-driven, technology-enabled solutions. As a result, the initiative is expected to accelerate digital transformation, improve supply chain resilience, and strengthen the competitiveness of local industries in the digital economy.
02. An online Training Programme to build capacity in qualitative analysis using SPSS and how to develop questionnaires for conducting surveys (2024, 2023)	Dr Anas M. Usoof Postdoctoral Fellow Dept. of Biological Sciences University of Alberta Canada	50 Development officers attached to the Department of Manpower and Employment, Ministry of Labour.	Participants gained practical skills in data handling, interpretation, and survey development, enabling them to conduct more reliable and insightful labor market and social research. The program was expected to improve the quality of data-driven decision-making and policy formulation within the Ministry.
03. A 6-day in-house training on Tissue Culture technologies (2024)	Prof. Ranjith Pathirana School of Agriculture, Food and Wine University of Adelaide Australia	10 Agriculture officers of SL Army's Directorate of Agriculture.	Participants acquired hands-on experience and updated knowledge on modern tissue culture practices and global trends. The training enhanced their knowledge and capacity to apply advanced propagation techniques in practical settings, paving the way for the establishment and improvement of tissue culture facilities within military-run agricultural initiatives. This was expected to support the production of high-quality planting material, contribute to food security efforts, and promote innovation in the Army's agricultural development programs.

04. Development of national-level Diploma course on Data Science for NAITA harnessing renowned Data Science expatriates in Australia (2024)	Dr Liwan Liyanage, Australia Dr Charni Nanyakkara, Australia Dr M.A. Danushka Bandara, Australia Dr Rasika Rajapaksha, Sri Lanka		The draft curriculum was submitted to NAITA and it marked a significant milestone in bridging the national skills gap in data science by introducing a structured, industry-relevant program. This initiative is expected to enhance the employability of Sri Lankan youth, foster a data-literate workforce, and support national development goals through the integration of modern data analytics competencies into vocational education.
05. Capacity Building of UNIVOTEC staff on IoT: A series of workshop sessions on IoT (2023 and 2024, Online)	Prof. Wasantha Perera, a renowned IoT expert in Australia	A group of 08 lecturers of the Department of IT, Faculty of Information Technology, UNIVOTEC.	By providing in-depth knowledge and practical insights into IoT technologies, the programme reduced the department's reliance on external experts for teaching in this field. As a result, UNIVOTEC is now somewhat better positioned to independently deliver comprehensive IoT education, fostering innovation and strengthening its academic offerings in emerging technologies.
06. Economics - a STEM subject: Relevance of Mathematics and Statistics (2024, Online)	Prof. Dakshina Silva Professor of Economics Lancaster University Management School, UK	An audience of around 30 comprised mainly of academics and researchers from the fields of Economics, Mathematics and Statistics attended.	The need to have formal interdisciplinary academic and research linkages in the university/higher education system engaging these three subject areas was highlighted with examples providing insights as to how such degree programmes could be initiated. Then Vice-Chairman of UGC also attended for this programme.
07. Writing articles to high impact journals: a guide to researcher (2021, Online)	Prof. Upali Samarajeewa, Emeritus Professor in Food Science & Technology Prof. Dilanthi Amarathunga, Global Disaster Resilience Center University of Huddersfield UK	765	The program successfully raised awareness among researchers about best practices for publishing in high-impact journals. It emphasized the importance of prioritizing data generation and interpretation before beginning manuscript writing, discouraged the submission of fragmented or previously presented research, and highlighted the risks of publishing in or creating low-quality journals. The initiative was expected to contribute to improved research quality, increased publication success in reputed journals, and strengthened academic standards within Sri Lankan institutions. As a result of this session 06 articles have been published in peer-reviewed and indexed journals.

08. Motivational Webinar to School Children (2021, Online)	Eng. Nipuni Karunaratne Model Factory Manager Digital Technology of Rolls Royce PLC, UK.	Around 265 school children participated.	This motivational webinar was conducted to inspire school children on pursuing STEM careers with first-hand experience from the resource person on her own learning and professional avenues.
09. How to prepare a PhD research proposal for an interdisciplinary research project (2021, Online)	Prof. Danthure Wickremasinghe Professor of Management Accounting Adam Smith Business School University of Glassgow, UK	Around 422 university undergraduate and Postgraduate opportunity-seeking students attended this event.	The purpose of this session was to enhance capacity of young researchers to submit competitive proposals to win grants. As per the follow-up, it was noted that 36 students prepared PhD research grant proposals using this knowledge and 07 students contacted the resource person as well for further information.
10. How Sri Lankan expatriates could contribute to enhancing the academic and research performance of HEIs in Sri Lanka (2021, Online)	Prof Saman K. Halgamuge, Dept. of Mechanical Engineering The University of Melbourne, Australia Prof. Danture Wickramasinghe, Adam Smith Business School University of Glasgow, UK Prof. Dilantha Fernando, Dept. of Plant Science University of Manitoba, Canada Prof. Aruna Weerasooriya, College of Agriculture & Human Sciences Prairie View A&M University, USA	Around 365 consisting of expatriate scientists and local scientists and professionals attended this event.	The purpose of this session was to build the local capacity for linking Sri Lankan researchers and expatriates abroad for leveraging R&D outputs.

Cutting-edge knowledge transfer			
Title of the programme	Resource person	No. of beneficiaries	Output/outcome
01. Molecular Logic Based Computation (2025, In-person)	Prof. A.P. de Silva Emeritus Professor, School of Chemistry and Chemical Engineering Queen's University Belfast, Northern Ireland.	Jointly organized with the National Academy of Sciences Sri Lanka (NASSL). 45 attended this event in- person.	During this programme the speaker elaborated the principles and how he contributed to invent the Molecular Logic-based Computation – a new field which bridges Chemistry and Computer Science to shed light on the informational basis of life processes at the level of molecules, cells and organisms.
02. IoT: Insights on Empowering Industry, Future Trends, Opportunities and Challenges (2024, Online)	Prof. Wasantha Perera, Telecommunications and 5G Wireless Engineering Consultant, Senior Network Solutions Engineer, Team Lead, Program Manager, Qualcomm International, Australia.	A group of 70 final-year students of IET, Katunayake (online).	The event was fruitful and paved the way for brainstorming and capacity building of final year students at IET, those who were engaged with final year projects on IoT, to carry out their projects better.
03. Bioinformatics (2024, Hybrid)	Bioinformatics Programmer/Analyst II at the Baylor College of Medicine - USDA/ARS Children's Nutrition Research Center, Houston, Texas, USA.	Around 65 comprising of students, researchers and academia attended.	Latest know-how on Bioinformatics and its applications was transferred with examples. This has been useful for several students in broadening their knowledge at the Postgraduate studies, as per the feedback.
04. Sensing at the point of consumption and the ubiquitous use of sensors in an AI centric world (2024, Online)	Dr Nimal Gamage, a globally recognized expert in the field and an expatriate scientist from USA	An audience of 35 online participants from academia and industry attended.	The knowledge and practical examples shared had been of wide interest to the industrialists who participated at this session.
05. The wisdom beyond chemistry: Novel technologies to expedite the drug-	Prof. Gomika Udugamasooriya Associate Professor	About 86 participants comprising undergraduates from universities and Higher Educational Institutes,	Three collaborations with the resource person, were emerged as a result of this webinar for which NSF facilitated the initiation: <ul style="list-style-type: none"> • Dr Subodha Charles, Senior Lecturer, Department of Electronic and Telecommunication Engineering, University of Moratuwa:

lead discovery process (2023, Online)	Department of Pharmacological & Pharmaceutical Sciences University of Houston USA	early career researchers who are to pursue research in the field of cancer, took part in this programme.	<p>A collaboration related to related to drug discovery through machine learning / computational chemistry.</p> <ul style="list-style-type: none"> • Associate Professor, Swarna Hapuarachchi, Faculty of Indigenous Medicine, University of Colombo: A collaboration related to getting support to develop indigenous natural product-based drug development. • Prof. Sharmini Gunawardena, Consultant Parasitologist and Senior Professor, Department of Parasitology, Faculty of Medicine, University of Colombo: A collaboration to get input on screening the possibilities of making products against nematodes/immunotherapeutic agents
06. Cyber Threats and Information Security (2023, Online)	Dr Chaminda Hewage Dept. of Computer Science Cardiff School of Technologies Cardiff Metropolitan University, UK	Jointly organized with the Department of Information Technology Management, Ministry of Finance. Around 60 attended.	A broader knowledge on different aspects of Cyber Threats and Information Security was provided to the practitioners.
07. Electronic Industry: From R & D to practice and future prospects (2023, Online)	Dr M.D. Sandeepa Lakshad Wimalananda Research Professor/Ph.D. Advanced IT-Convergence Materials Institute, Suncheon National University, South Korea	Around 33 attendees from industry, R & D institutions, universities, etc. participated at this session.	This session was focused at addressing the need of a right blend of resources and cohesive effort, i.e., top trials to real world applications whilst value addition to local mineral resources, leading to propel R&D outputs beyond bench. As a take-home message, it was mentioned by the resource person that a high future potential exists in Sri Lanka for 2D material in wearable technologies and energy generation.

<p>08. Fossil Fuels to Renewables: a Pragmatic and Holistic Approach (2021, Online)</p>	<p>Prof. Sir Ravi Silva, Director Advanced Technology Institute (ATI) University of Surrey, UK</p> <p>Dr Priyantha D.C. Wijayatunga Chief of Energy Sector Group Asian Development Bank Manila, Philippines.</p> <p>Eng. Pasidu Pallawela Founder and Chairman StorTera UK.</p>	<p>Jointly organized with the National Academy of Sciences Sri Lanka (NASSL), Library and Publications Committee of the Institution of Engineers Sri Lanka (IESL) and Section C of the Sri Lanka Association for the Advancement of Science (SLAAS) and 180 attended the webinar.</p>	<p>Its objective was to make Sri Lankan researchers and policy makers aware of latest research trends strategies to harness renewable energy resources for the benefit of Sri Lanka.</p>
<p>09. Ethics in Research (2021, Online)</p>	<p>Prof. Shanthi Mendis An expert in Global Health and Cardiology Former Senior Adviser/Director Noncommunicable Diseases World Health Organization Geneva, Switzerland.</p>	<p>Organized in collaboration with IESL and SLAAS. Around 237 participants attended this event.</p>	<p>New knowledge related to the theme was transferred with international examples.</p>
<p>10. Different Facets of Salinity Affecting Sri Lanka and Solutions (2021, Online)</p>	<p>Prof. Jayantha Obeysekera Director Sea level solution Centre Institute of Environment Florida International University, USA</p>	<p>Organized in collaboration with IESL and SLAAS. Around 120 participants attended this event.</p>	<p>The purpose of this webinar was to make Sri Lankan researchers and other relevant stakeholders aware of the latest technologies and best practices for mitigating the salinity issue.</p>

Research collaborations			
Title of the programme	Resource person	No. of beneficiaries	Output/outcome
01. Facilitating field research on Lentil cultivation in Sri Lanka (2023-2024)	Dr Manjula Bandara Adjunct Professor - Plant Sciences College of Agriculture and Bioresources University of Suskachewan Canada.		NSF coordinated and facilitated field research with input of this scientist by the Field Crops Research Institute (FCRI) of the Department of Agriculture on Lentil cultivation.
02. Research on Critical Minerals (Ongoing)	Prof. Kusali Gamage Adjunct Professor Fulbright Scholar Liaison & Alumni Campus Coordinator Dept of Earth and Environmental Sciences Austin Community College USA		NSF is attending a discussion to initiate collaborative research by US and Sri Lanka research teams on Graphene. Researchers from the Dept. of Geology, University of Peradeniya are communicating with Prof. Kusali Gamage for same.
Partnership building			
The Partnership	Expatriate Scientist engaged	No. of beneficiaries	Output/outcome
01. Facilitation for remote supervision of PhD (2022-2024)	Dr Shashi Goonetilleke, Postdoctoral Researcher School of Agriculture Food and Wine Faculty of Sciences, Engineering & Technology Adelaide University, Australia	01 PhD candidate i.e. Ms Malika Perera Senior Research Officer and Head Division of Crop Improvement Sugarcane Research Institute.	This expatriate Scientist was assigned as a co-supervisor of this candidate's research study at the University of Ruhuna. The study was successfully completed in 2024 earning the PhD.
02. Facilitation for remote	Dr Nirosini Gunasinghe	01 Final year (Botany specialization) B.Sc. student was facilitated.	NSF facilitated in linking the Dept. of Plant Sciences, University of Colombo and the expatriate scientist for this activity.

supervision of graduate degree (2023)	Institute for Life Sciences and the Environment (Research) University of Southern Queensland, Australia		
03. Expert input to mitigate the harm caused by X-press Perl Ship Wrek (2021)	Prof. Charitha Pattiaratchi, Professor in coastal oceanography Oceans Graduate School University of Western Australia (UWA), Australia		NSF coordinated and joined this expatriate scientist, who is an ocean scientist, with the national task forces to provide insights on mitigating the harm caused by X-press Perl Ship Wrek.
04. Enhancing the innovation capacity of local industry (2021)	Prof. Pubudu Pathirana Faculty of Science Engineering and Built Environment/School of Engineering/Institute for Health Transformation Deakin University,Australia.	01 local industry was facilitated	NSF facilitated establishment of a partnership between Deakin University, Australia and Textrip Lanka (Pvt) Ltd., Sri Lanka to enhance innovation capacity of Textrip via tapping a leading expatriate researcher in the field of IoT and wearable sensors.

Tailor-made interventions addressing the demand

Title of the programme	Resource person	No. of beneficiaries	Output/outcome
01. Collaborative proposal for Erasmus + funding on Green Hydrogen Capacity building (2025)	Prof. Dhayalan Velauthapillai Department of Computer science, Electrical engineering and Mathematical sciences Western Norway University of Applied Sciences (HVL) Campus Bergen, Norway		NSF facilitated and acted as an associate partner in submitting a collaborative proposal for Erasmus + funding to initiate a Green Hydrogen capacity building in the higher education sector via a collaborative MSc programme.

02. Initiative to organize the international conference on Climate Change and Agriculture in Tropical Latitudes (CCATL) (2025)	<p>Prof. Dilantha Fernando, Dept. of Plant Science University of Manitoba, Canada</p> <p>Prof. Ranil Cooray Professor of Food Science, Director of Learning and Teaching, School of Molecular and Life Sciences, Curtin University, Australia.</p>	Expected number of around 200 participants	<p>Aims of the event:</p> <ul style="list-style-type: none"> • Advance climate resilient agricultural practices • Promote sustainable food systems for tropical regions • Facilitate collaboration among global stakeholders <p>This event is being organized to be held in May, 2025.</p>
03. Sola villages initiative (Since 2024)	Prof. I.M. Dharmadasa Sheffield Hallam University UK		Kanatholuwa, an under-developed and under-resourced village in Kuliyaipitiya, Kurunegala, was selected to be facilitated through a Solar power in collaboration with Sarvodaya movement.
04. Initiative to organize a conference on Asian Tsunami 2004 (2023)	Prof. Dilanthi Amarathunga, Global Disaster Resilience Center University of Huddersfield UK	The conference was co-organized by the University of Western Australia and the University of Huddersfield, UK in December 2024 with the participation of around 100 researchers and academics.	The purpose of this event was to report progress made thus far to improve adaptability and resilience to disasters such as Tsunami and identify gap that need to be addressed in the future.
05. Serving as a Committee member of the NSF Working Committee on Social Sciences. (Since 2023)	Dr Liwan Liyanage Data Scientist Western Sydney University Australia		Considering her expertise and willingness, she was appointed for this committee as a member.
06. Facilitation to advance S&T and STEM education	Dr Tharanga Wijetunge (Associate Professor of Mathematics) and Dr	Around 50 secondary school children of	A donation to the school was made and motivational lectures were conducted.

and build capacity of under-performing schools in Sri Lanka (2022)	Irosha Nawarathne (Associate Professor of Chemistry) of Lyon College, State of Arkansas, USA	Lihiniyawa Kanishta Vidyalaya, Kalutara District.	
07.	<p>Prof. Dilanthi Amarathunga Global Disaster Resilience Center University of Huddersfield, UK</p> <p>Prof. Shanthi Mendis An expert in Global Health and Cardiology Former Senior Adviser/Director of Non-communicable Diseases World Health Organization Geneva, Switzerland.</p> <p>Prof. Prema-chandra Athukorala Australian National University, Australia.</p>		This publication encompasses proceedings and keynote speeches of the NSF COVID 19 conference, 2021.
08. Enhancing the Impact Factor of Journals (2021)	Prof Saman K. Halgamuge, Dept. of Mechanical Engineering The University of Melbourne, Australia.		Inputs of the expatriate scientist was obtained on methods to improve the impact factor of JNSF.

Key Points to note:

- All the above contributions were done voluntarily. However, if they are estimated in terms of money, the total value would worth several millions, at least.
- Some eminent expatriate Sri Lankan scientists are not registered at the GDP but work with NSF under this initiative with mutual trust and rapport built.
- Most of the recordings of the webinars and capacity-building programmes mentioned above are available at the YouTube Channel of NSF, Sri Lanka.

