

A report on the national workshop on “Capacity building in Indian Knowledge Systems: Documentation, validation, and communication”

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CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR) organised a one-day National Workshop on “Capacity Building in Indian Knowledge Systems (IKS): Documentation, Validation, and Communication” on 04th March, 2025 in collaboration with Dwarka Doss Goverdhan Doss Vaishnav College, Chennai under the national initiative SVASTIK (Scientifically Validated Societal Traditional Knowledge) to communicate scientifically validated Indian traditional knowledge to the society. The workshop gave an insight to the participants that included faculty members, teachers, and science communicators, on various aspects of documentation, validation, and dissemination of IKS.

The workshop was inaugurated with lamp lighting by the Chief Guest, Prof M D Srinivas, Chairman, Centre for Policy Research, Chennai. The other dignitaries during the session were Dr K Vijayalakshmi, Research Director, Centre for Indian Knowledge System, Chennai; Dr S. Santhosh Baboo, Principal, DDGD Vaishnav College, Chennai; and the Coordinators from CSIR-NIScPR (Dr Charu Lata & Dr Paramananda Barman) and DDGD Vaishnav College (Dr Uthra Dorairajan and Dr V Renganayki).

Dr Uthra Dorairajan, Associate Professor, DDGD Vaishnav College, Chennai introduced the audience about the workshop. Dr S. Santhosh Baboo delivered the welcome address and highlighted the various initiatives of the college to promote IKS and its importance in education.



Fig. 1 — (a) Lamp lighting by the distinguished guests, (b) College prayer, (c,d) Introduction by Dr Uthra Dorairajan, (d) Welcome address by Dr S Santhosh Baboo, (e) Felicitation (f) Prof. M. D. Srinivas delivering the keynote address

The keynote address was delivered by Prof M D Srinivas, a renowned expert in theoretical physics and a Padma Shri awardee. He has contributed significantly to the study and documentation of classical Indian sciences especially Indian mathematics and astronomy. He discussed about India's rich intellectual traditions, emphasizing the need for their systematic documentation and integration into modern education. He highlighted how Indian knowledge systems, which once thrived in fields like mathematics, astronomy, medicine, and philosophy, were disrupted during colonial rule. He also shared his views on how western-dominated classification of knowledge, particularly the biases in the Dewey Decimal System, has impacted documentation of IKS, and proposed a new framework for cataloguing Indian knowledge. He stressed on the importance of implementing the National Education Policy (NEP 2020) to revive and integrate traditional knowledge into curricula. Additionally, he covered India's historical contributions to science, technology, and education while advocating for policy changes to promote research and awareness of India's intellectual heritage.

First technical session on India's Science & Technology Heritage chaired by Prof M S Sriram (President, Prof K V Sarma Research Foundation, Chennai) featured plenary talks by Dr K Vijayalakshmi (Research Director, Centre for Indian Knowledge Systems, Chennai), Dr V Aarathi (Research officer Siddha, Central Council for Research in Siddha, Chennai), and Dr Charu Lata (Principal Scientist and Coordinator SVASTIK).



Fig. 2 — (a) Prof. M. S. Sriram, Chairperson for the first session, introducing the participants to the distinguished speakers. (b, c, d) Talks by Dr K. Vijayalakshmi, Dr V. Aarathi, and Dr Charu Lata, respectively

Dr K Vijayalakshmi emphasised about the indigenous knowledge in agriculture and how traditional practices and methods can be used for sustainable farming. She mentioned various traditional rice landraces and the need to conserve them. A key focus was Vrکشayurveda, an ancient Indian plant science that provides insights into soil health, seed treatment, and organic pest management. The importance of conserving indigenous crop varieties, especially rice, was emphasised due to their resilience, nutritional benefits, and climate adaptability. She advocated for integrating traditional knowledge with modern sustainability practices, strengthening organic farming, and promoting farmer-led conservation efforts. Through awareness campaigns, market linkages, and scientific validation, traditional farming methods can be revitalised to ensure food security and ecological balance.

Dr V Aarathi delivered an engaging talk on the Traditional Siddha Medicine. She highlighted the origin of Siddha Medicine and how holistically it approaches the balance between Mind, Body and Soul. She enlightened the audience with core principles of diagnosis the *Ennvagai Theruvu* (eight diagnostic tools) and the treatment using plant, mineral, and animal-based formulations. She advocated for scientific validation of Siddha medicine, integrating it into national health policies, and collaborating with modern medical research. Additionally she shed light on its benefits in reducing inflammation and managing various diseases such as HIV, TB, Chikungunya, Dengue etc.

Dr Charu Lata gave insights on what the national initiative SVASTIK is and how CSIR-NIScPR is working towards popularising IKS among the community through its different initiatives. She talked about the process, challenges like misinformation, piracy, lack of integration in modern education, and declining interest among younger generations and way forward in the area of disseminating IKS to the masses. She also showcased efforts in public engagement through social media campaigns, contests, and international collaborations, including the CDTK-2024 conference, to promote awareness and safeguard TK for sustainable development.

Session I was concluded by the vote of thanks by Dr V Renganayaki, DDGD Vaishnav College.

The second session was a Hands-on training on IKS communication led by Dr Paramananda Barman, Senior Scientist, CSIR-NIScPR and Team SVASTIK. This session was focused on equipping the participants with practical skills in science communication, particularly in how to effectively communicate scientific knowledge to a wider audience. They introduced attendees to various science communication tools and the ways to use them for designing infographics and short videos, emphasising the importance of clarity, visual appeal and audience engagement in scientific storytelling. It was an interactive session with lots of questions from the participants about how to design and make presentable stories on their own.



Fig. 3 — (a,b) Hand-on Training on IKS communication by Dr Paramananda Barman and team SVASTIK. (c,d) Feedback from the participants

An exhibition of SVASTIK stories and publications was also put up by CSIR-NIScPR for the participants and other attendees.

The workshop concluded with an interactive feedback session, where participants shared their learning experiences and key takeaways. Based on the collected feedback from both sessions, the following key insights emerged:



Fig. 4 — (a,b) SVASTIK stories and publication exhibition at the event

- Enhanced understanding of IKS – Participants reported a deeper appreciation of the Indian Knowledge System and its relevance in modern science.
- Improved science communication skills – The hands-on training sessions boosted confidence in using infographics, storytelling, and digital tools for effective communication.
- Increased willingness to Integrate IKS – Many participants expressed interest in incorporating IKS concepts into their academic and professional work.
- Overcoming communication challenges – Discussions highlighted language barriers and digital accessibility as major challenges, with the workshop providing practical strategies to address them.
- Future learning interests – A significant number of participants showed enthusiasm for advanced training in science communication, digital content creation, and social media outreach.

The positive engagement and feedback indicate a strong demand for continued workshops in this area, focusing on practical applications of IKS communication.

The workshop was a resounding success with a total participation of 85 delegates out of 94 registered (77 registration received online plus 17 on the spot registration) including teachers, researchers and science communicators. Conducting such sessions for promoting IKS, its relevance and its applications are valuable for the stakeholders who are genuinely interested in strengthening and promoting IKS.