



Karnataka Science and Technology Academy

Department of Science and
Technology
Government of Karnataka

Annual Report 2024 -25

Karnataka Science and Technology

Prof. U R Rao Vijnana Bhavana, Horticultural Science
College Entrance, GKVK Campus, Major Sandeep
Unnikrishnan Road, Doddabettahalli, Vidyaranyapura
Post, Yelahanka, Bengaluru – 560 097

Content

1. Progrmas	1 - 9
2. MOU and Collaborations	10
3. Institutional Membership	10
4. Associates	10

Karnataka Science and Technology Academy

Department of Science and Technology, Government of Karnataka

PROGRAMS CONDUCTED DURING FY 2024 - 2025

1. *Vijnana Loka* publications

'*Vijnana Loka*', a bimonthly science magazine is being regularly published in Kannada since August 2007. During FY 2024-25, six issues of the magazines were published. 2000 copies of each issue were distributed to subscribers comprising of pre-university and science degree colleges, science centres, libraries and other organizations across the state. All the issues of *Vijnana Loka* magazine were made available on the KSTA website: www.kstacademy.in



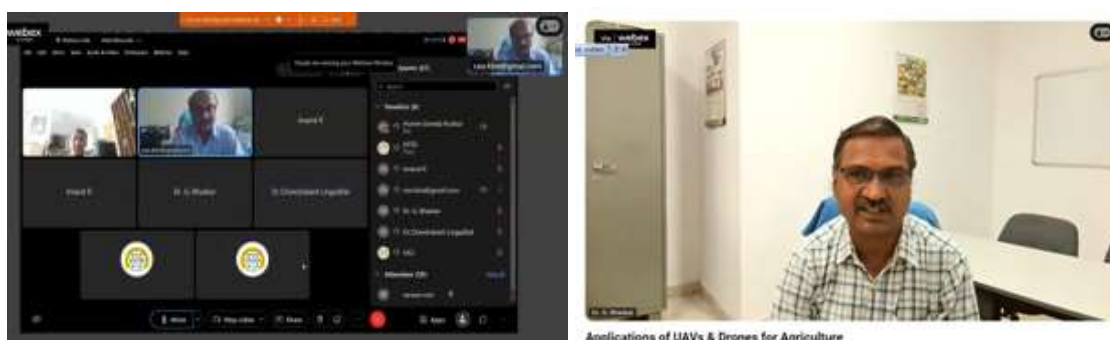
2. Digital Content Generation

Digital teaching & learning contents are being developed for the high school students in Physics, Chemistry, Mathematics and Biology as per the Karnataka Secondary Education Examination Board (KSEEB) syllabus and are being distributed in the form of DVD to the selected Government High Schools across the State. During FY 2024-25, editing and finalisations of videos were carryout.



3. Workshop on Applications of UAVs and Drones for Agriculture

KSTA in collaboration with National Centre for Management of Agricultural Extension at Hyderabad (MANAGE), Ministry of Agriculture & Farmers Welfare, Government of India had organized three-day online workshop on 'Applications of UAV's and Drones in Agriculture' during May 14-16, 2024. The program was inaugurated by Dr Bhaskar Gujji, Assistant Director, MANAGE, Hyderabad and Dr. A. M. Ramesh, CEO of the KSTA was presided over the function. The webinar was attended by Scientists/Professors/Research Scholars/Students and also Industry Professionals from different parts of India. Twelve technical talks were arranged and the Resource Experts/Scientists were drawn from Industries/ R&D Institutions and also from the Startup founders and CEOs.



4. **Webinar on Career Guidance** was organised on June 01, 2024 for the benefit of students.

5. **Hands on Python webinar** was organized in association with Webinar Park from 3-7 June 2024.

6. National Workshop on 'Impact of Climate Change on Soil and Land'

KSTA and the Environment Association of Bangalore (EAB) jointly organized a one-day National Workshop on 'Impact of Climate Change on Soil and Land' on 8 June 2024 at KSTA on the occasion of the World Environment Day. Distinguished resource experts delivered talks on various aspects of climate change and its impact on soil and land. Essay and quiz competition were organised on the occasion.



7. National Conference on “Sustainable Ground Water Management for Water Security”

A National level conference on "Sustainable Groundwater Management for Water Security" was organised at KSTA during June 19 – 21, 2024. The conference was supported by the Ministry of Jala Shakti, GoI. The conference was inaugurated by Shri N S Boseraju, Hon'ble Minister of Minor Irrigation and Science & Technology, Government of Karnataka. Dr. Shailesh Nayak, Padmashri Awardee and Director of the National Institute of Advanced Studies (NIAS), Bengaluru graced the occasion as the Chief Guest. Renowned Educationist and Chief Mentor of Prayoga Institute of Education Research, Dr H S Nagaraja was the guest of honor.

The conference delegates include postgraduate students, research scholars, teaching faculty, and scientists from across the Country. Distinguished talks by eminent domain experts on topics related to the focal theme were organised.



8. The Role of ICT in Agriculture & Allied Sector: A Ten-day Faculty Development Program was organized by KSTA from June 25 to July 04, 2024.

9. Quantum Science & Technology: A Webinar Series was organised during August 19-23, 2024, in which five distinguished talks were delivered by experts.

10. National Space Day: Celebrated by organising an expert talk on Aditya L1 Journey on 22 August 2024.

11. National Conference on Blue Revolution for Sustainable Fisheries Development

A National level conference on "Blue Revolution for Sustainable Fisheries Development" was organised at KSTA during September 25 – 27, 2024. The conference was supported by the National Fisheries Development Board, GoI. The conference was inaugurated by Shri N S Boseraju, Hon'ble Minister of Minor Irrigation and Science & Technology, Government of Karnataka. Hon'ble Minister for Fisheries and Inland Water Transport, Government of Karnataka Shri Mankal S. Vaidya graced the occasion as the Chief Guest. Dr. C N Ravishankar, Director and Vice Chancellor, ICAR-Central Institute of Fisheries Education, Gov t. of India, Mumbai, Dr. Dinesh Kumar K, Director, Department of Fisheries, Govt. of Karnataka and Dr. Vijaykumar Yaragal, Chief Executive Director (Technical), National Fishery Development Board, Govt. of India, Hyderabad were the guest of honor. A compendium of Abstract Volume was released during the inaugural function of the conference.



The conference delegates include postgraduate students, research scholars, teaching faculty, and scientists from across the Country. Distinguished talks by eminent domain experts on topics related to the focal theme was organised. An oral presentation competition was organized in four categories, in which 58 participants from various institutes across the country made presentations. In each category, four prizes were awarded with a total prize money amounting to a total of Rs. 1.50 lakh. Last day, that is September 27, 2024, was fully dedicated to panel discussion. Experts discussed various issues and opportunities in the areas of Aquaculture, Fish Processing Technology, Ornamental Fisheries and Future Trends in Fisheries under four separate sessions.

12. Eco Conference 2024 was organized from 26-28 September 2024 in association with Padmashree Institute of Management and Sciences, Bengaluru & KSCST.

13. International Seminar on 'Plate Tectonics, Sedimentation and Metallurgy Through Time' was organised in association with SDM College of Engineering and Technology, Dharwad during November 26-28, 2024

14. National Conference on 'Graph Theory and Allied Topics' was organised in association with the Department of Mathematics, Mysore University on October 23 and 24, 2024.

15. Nobel Lecture Series

Webinar talks on the prize-winning research of the Nobel laureates of 2024 was organised. Eminent speakers gave an insightful talk on the scientists and their research for which the Nobel Prize was awarded. Following is the list of speakers and topics:

Sl. No.	Resource Expert	Subject	Date
1.	Dr Nagasuma Chandra Professor, IISc-Bengaluru	Chemistry	05.11.2024
2.	Dr M.R.N. Murthy Former Dean, ISc, Bengaluru	Chemistry	06.11.2024
3.	Dr Venkatreddy Former Professor, UAS-GKVK, Bengaluru	Economics	07.11.2024
4.	Dr S. N. Omkar Chief Research Scientist Guidance & Control	Physics	08.11.2024
5.	Dr Anirban Chakraborty Professor, NITTE-Mangaluru	Biology	11.11.2024

16. District and State Level Essay Competition

Organised essay competition in Kannada or English at both district and state levels for High School students to commemorate the 155th Birth Anniversary of Father of Nation Mahatma Gandhi. The competition aims to encourage high school students to analyze and articulate the relevance of Gandhian philosophy in today's science and technology-driven world. State level written competition was held on 12 November 2024 at the KSTA office



17. Research Methodology and Data Analysis workshop

A five-day faculty development workshop was organised during November 26-30, 2024 for Research Scholars & Teaching Faculty of Science & Engineering Colleges/ Universities across the State. The objective of the workshop is to give an insight into the importance of research methodology and ways of data analysis. A total of 57 participants from various Universities/Colleges/ Educational Institutions across the State were participated in this workshop. The inauguration of the workshop was held at KSTA Auditorium on 26th November



2024. Dr. S.G. Srikanteshwara Swamy, Former Executive Secretary, KSCST, & Prof. Uttam Kumar, Professor, IIIT-B Bengaluru as Chief Guests were inaugurated & graced the program. Dr. A. M. Ramesh, CEO of KSTA presided over the function. Dr. Anand R. Senior Scientific officer welcomed the gathering and the guests and then Mr. V.K. Srinivasu, Scientific Officer/Program Co-ordinator proposed the vote of thanks.

18. Intellectual Property Rights (IPR): A strategic Imperative for Innovation

training was organised on December 7, 2024 in Association with Research and Development Cell, Suran College, Bengaluru

19. Workshop on Applied Mathematics and Physics: Bridging Theory and Practice for Future Innovators

KSTA and the Research and Development Cell, Surana Educational Institutions organized a two-day workshop titled "Applied Mathematics and Physics: Bridging Theory and Practice for Future Innovators" on January 9 -10, 2025. This workshop aimed to provide a platform for academicians, researchers, and students to gain insights into the practical applications of mathematical and physical principles in innovation and technology development.

20. Workshop on Machine Learning Using Python: Two-day workshop on Machine Learning Using Python was organised during 17th and 18th of December 2024.

21. Exploring Nature's Pharmacy: Potential of Medicinal and Aromatic Plants and Their Conservation

A National level conference on 'Exploring Nature's Pharmacy: Potential of Medicinal and Aromatic Plants and Their Conservation' was organised at KSTA during January 07 – 9, 2025. The conference was inaugurated by Shri N S Boseraju, Hon'ble Minister of Minor Irrigation and Science & Technology, Government of Karnataka. Hon'ble Minister for Health and Family Welfare, Government of Karnataka Shri Dinesh Gundurao graced the occasion as the Chief Guest. Shri Sadashiaprabhu, IAS, Director, Department of Science and Technology and MD, KStePS participated in the inaugural function as the Guest of Honor. Dr. N. S. Venkateshan, IAS, CEO, KaMPA, Govt. of Karnataka and Dr. Manish Das, Director & Project Coordinator, ICAR-Directorate of Medicinal & Aromatic Plants & Research, Gujarat were also present in the inaugural function. Dr. A.M. Ramesh, CEO, KSTA welcomed the dignitaries. A compendium of Abstract Volume was released during the inaugural function of the conference. 140 delegates include postgraduate students, research scholars, teaching faculty, and scientists from across the Country have participated. Distinguished talks by eminent domain experts on topics related medicinal & Aromatic plants was organised. An oral presentation competition was organized on January 06, 2025 in which 66 participants from various institutes across the country made presentations.

22. National Scientific Conclave on Interdisciplinary Research: KSTA assisted Sri Devaraj Urs Academy of Higher Education and Research in organising this conference on 4th and 5th February 2025

23. Radio Program

Organised mental health and neuroscience radio program series in Kannada on All India Radio- Bangalore in association with NIMHANS. The program is conceptualized, edited and presented by Dr. M.M. Srinivas Bharath, Professor of Clinical Psychopharmacology and Neurotoxicology, NIMHANS. Out of 36 episodes of 15 minutes each, 08 episodes on the various aspects of mental health and wellbeing were telecasted on every Wednesday during January 01 to 22, 2025 on FM Rainbow Bangalore- 101.3 Hz from 7.15 am to 7.30 am.

24. National Conference on Ecotourism: Harnessing Travel to Discover Nature, Promote Conservation, and Support Sustainable Development

A three-day national conference on Ecotourism: Harnessing Travel to Discover Nature, Promote Conservation, and Support Sustainable Development was organised during February 19 to 21, 2025 at KSTA. The conference was inaugurated by the Former Director General, ICAR and our beloved Former Chairman, KSTA and Padma Shri awardee Dr S. Ayyappan. Dr. H V Parshvanath, IAS, Chief Executive, Gokula Research Center, Bengaluru graced occasion as the Guest of Honor. While, Shri Veerabadrapa Hanchinal, KAS, PS to Hon'ble minister for Science and Technology graced the occasion as the Chief Guest and Dr Jeorg Lekha, Principal, Mount Carmel College as the Guest of Honor. In this conference, Fourteen eminent domain experts delivered distinguished talks on various aspects of medicinal and aromatic plants. In addition, a panel discussion and an oral presentation competition for research scholars, young faculty, and scientists to present their research was also organised. As many as 65 Postgraduate students, research scholars, faculty members and entrepreneurs participated in the oral presentation



25. Bio Bridge 2025

KSTA, Department of Biotechnology, Govt. of India and Jyoti Nivas College Autonomous, Bengaluru organised a national level conference on Bio Bridge 2025: uniting voices in research and Entrepreneurship was organised on February 2025

26. PG Special Lecture Series

KSTA in association with the following Institutions/Universities organised PG Special Lecture Series:

Sl. No.	Institutions/Universities	Subject	Date
1	Garden City University, Bengaluru	Biological Sciences	January 21-22, 2025
2	Surana Educational Institutions, Bengaluru	Applied Mathematics and Physics	January 9-10, 2025
3	AL-Badar Rural Dental College and Hospital, Kalaburagi	Biological Sciences (advanced topics in Dental Sciences)	February 24-25, 2025
4	Karnataka Arts, Science and Commerce College, Bidar	Mathematics, Computation and Analytics in the Age of Data Sciences	March 7-8, 2025
5	JSS Arts, Commerce and Science college, Mysore	Pre-placement training	March 26, 2025

27. National Conference on Quantum Science and Technology

KSTA in association with Karnataka Physics Association (R), Bengaluru conducted a two-day national conference on Quantum Science and Technology - Role of Artificial intelligence in Physics Teaching and Materials Science during March 21 - 22, 2025 at Vijaya College, Basavanagudi, Bengaluru.Fifth

28. Kannada Science and Technology Conference in K

The Fifth Science and Technology Conference was organized in association with Kodagu University at Field Marshal K. M. Cariappa College, from March 25 to 27, 2025, on the theme "Science and Technology for Sustainable Development." The conference featured invited lectures by scientists, eminent science writers, and communicators. Additionally, research students presented posters in Kannada. The conference was inaugurated by Shri N. S. Bosaraju, Hon'ble Minister for Minor Irrigation and Science & Technology and In-charge Minister of Kodagu, Government of Karnataka. Shri A. S. Ponnanna, Hon'ble Minister for Higher Education, Government of Karnataka, graced the occasion as the Chief Guest. Dr. A. M. Ramesh, CEO, KSTA, spoke about the activities and initiatives of the Academy. The conference witnessed the participation of about 500 delegates, and a total of 170 posters were presented.

29. MOU and Collaborations

KSTA has been collaborating with various institutions, universities and colleges to conduct various activities and programmes of mutual interest with each other with the following objectives:

- Inculcating scientific temper across civil society through science communication
- Facilitating technology dissemination through Academia-Farm-Industry interface, with a focus on rural areas
- Fostering innovations and entrepreneurship for societal benefits
- Organising conferences & outreach programmes
- Capacity building in frontier areas of Science & Technology

During FY 2023-24, 05 MOUs were signed. Till now a total 64 MOUs have been signed with organisations/institutions

30. Institutional Membership

In total 11 institutions have obtained Institutional Membership as on November 2024. Institutions who are desirous of obtaining Institutional Membership of KSTA have to submit a letter of intent and pay a membership fee of Rs. 1,00,000/- (Rupees One lakh only). This membership is valid for a tenure of 10 years.

31. Associates

Academics/Researchers/Teachers/Practitioners in any branch of Science, Technology, Engineering, Agriculture and Medicine, working or retired from Educational/Research and related organisations including Corporate, are being admitted as associates. Individuals who are desirous of becoming Associates of KSTA may do so by paying a fee of Rs. 1,000/- (Rupees One thousand only), and submitting a duly filled application form available on the KSTA website throughout the year. During FY 2023-24, 24 applicants were admitted as associates out of the total 151 applicants admitted as associates of KSTA so far.