

Karnataka Science and Technology Academy

Department of Science and Technology

Government of Karnataka

Annual Report 2022-'23

Karnataka Science and Technology Academy

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.	Webinar and Physical Programs	2
2.	Science and Technology Annual Conference	4
3.	Science and Technology Conference in Kannada	5
4.	Skill Vigyan in Biotechnology	7
5.	Lifetime Achievement Awards	8
5.1	Prof. CNR Rao Lifetime Achievement Award in STEAM	8
5.2	KSTA Lifetime Achievement Award for STEAM Communication in Kannada	9
6.	Celebration of Space Day	. 10
7.	Celebration of Telemetry Day	. 10
8.	IP in Academics: Patents	. 10
9.	Introduction to Statistical Data Analysis using R software	. 10
10.	Celebrations of National Science Day	. 10
11.	URR, SKS and KSTA Innovation Award for UG, PG and General Public	. 11
12.	National Seminar on 'Millets for Healthy Living'	. 12
13.	Digital Content Generation	. 12
14.	Best Book Award 2022	. 12
15.	Science Talent Search Program for Pre-University Students	. 13
16.	KSTA Fellowships, Associateship and Memberships	. 13
16.	1 Fellowships (FKSTA)	. 14
16.	2 Institutional Membership	. 14
16.	3 Associates	. 15
16.	4 MOU and collaborations	. 15
17.	Koti Kanta Gayana	. 16
18.	Celebration of Good Governance Month (December 2022)	. 16
19.	KSTA Publications	. 16
19.	1 Vijnana Loka	. 16
19.	2 Frontiers of Science and Technology - Vijnana Loka Special Issue	. 17
19.	3 Strategy Paper-2	. 17
19.	4 Approach Paper - 2	. 18
19.	5 Year Book 2023	. 18
19.	6 Quarterly e-Newsletter – Vijnana Vahini	. 19
20.	Prestigious National Award to KSTA	. 19
Col	ntact Details	21

Karnataka Science and Technology Academy

Department of Science and Technology Government of Karnataka

Karnataka Science and Technology Academy, a Unit of the Department of Science & Technology, Government of Karnataka, has been functioning since 2005, with the objectives of inculcating scientific temper across civil society through science communication, technology dissemination, fostering innovations and entrepreneurship for societal benefits, recognising talents and organising outreach programmes, capacity building and acting as STI Policy Advisory Body for the State.

Presently, Padma Shri Prof. S Ayyappan, Chancellor, Central Agricultural University, Imphal and Former Director General, ICAR/ Secretary, Department of Agricultural Research and Education, GOI is the Chairman. KSTA has 15 members, including special invitees, comprising of renowned educationists, distinguished scientists and senior administrators.

Majour programs conducted during 2022-23 are as follows:

1. Webinar and Physical Programs

During FY 2022-23, 30 programs related to frontier areas of science and technology were conducted through Video Conference (VC) and Physical mode in association with research institutes/ science forum/ educational organizations. About 2500 participants benefited by these programs.

1.1 Webinar

SI. No	Date	Program Title	Associate Institution/ Organisation
1	April 7, 2022	'6/6: Eye Care' - Dr Arun Adkoli	
2	April 18, 2022	'Rare Genetic Disease Diagnosis' - whole-exome & whole-genome Sequencing	
3	April 19, 2022	'Magic of Pi' - Prof. Sarmishta Sahu	
4	May 7 2022	Science and Technology Education in Kannada	e-Jnana and Surana College
5	June 2-4, 2022	3-D Printing for Innovative Research and Knowledge Development	Jyothy Institute of Technology, Bengaluru
6	June 4, 2022	Science and Technology Journalism for Women Writers	Vigyan Prasar, New Delhi and Kuthuhali

SI. No	Date	Program Title	Associate Institution/ Organisation
7	June 8, 2022	World Ocean Day – Theme- Revitalization : 'Collective Action for The Ocean' - Dr N Ramaiah	
8	June 29, 2022	Talent Search Program: Thermodynamics by Dr Dr G. K. Venkatesh	KSTePS, GOK
9	June 30, 2022	Talent Search Program: Elements in the Humam Body By Dr. C. K. Manjunath	KSTePS, GOK
10	June 28 - July 04, 2022	Biotechnology Workshop – Skill Vigyan Program	KTECH, GOK
11	August 22 -26, 2022	Hydro-Geological Engineering	JNNCE Shivamogga
12	September 9, 2022	James Webb Space Telescope	Sheshadripuram First Grade College, Bengaluru
13	September 18, 2022	2nd Virtual National Conference on "Space Science and Technology for School Students"	ISIE Ahmadabad, People Science Forum, KRVP, Mysuru and Space Geek
14	September 21- 23, 2022	62nd Annual International Conference - "Microbes and Society: Current Trends and Future Prospects"	Association of Microbiologists of Indian and University of Mysore, Mysuru
15	September 23- 25, 2022	Teachers Training Program	-
16	October 01-14, 2022	Science Talent Search Program (Oct: 1, 6, 7, 10, 11, 14)	KSTePS, Bengaluru
17	November 01- 30, 2022	Science Talent Search Program (Nov: 3,5,7,8,14,15,23,25,29,30)	KSTePS, Bengaluru
18	November 21- 23, 2022	Nobel Prize Lecture Series 2022	-
19	November 21, 2022	Re-Search'22	SRN Adarsh College, Bengaluru
20	December 12- 14, 2022	Agripreneurship Development	Manage, Hyderabad
21	December 17, 2022	Panel Discussion on Good Governance: Panel comprising of KSTA Fellows	
22	December 22, 2022	Special Talk on Good Governance: Shri M N Vidyashankar IAS and Prof. Gopal Naik	-
23	December 01- 31, 2022	Science Talent Search Program (Dec: 1,2,5,7,21,22,26,27,28,29,30,31)	KSTePS, Bengaluru

1.2 Physical Programs

SI. No	Date)		Program Title		Associate Institution/ Organisation			
	October 2022	06-12,	Skill Vigya	an in Biot	echnology				KITS &Department of Biotechnology, Govt. of India
_	October 2022	'	'Vijnana Someshw	Sanje' ⁄ara)	(Resource	expert:	Dr.	Na	Kutuhali, Vijnan Prasar, New Delhi

SI. No	Date	Program Title	Associate Institution/ Organisation
3	October 18-19, 2022	Science and Technology Content Translation	Kutuhali, Vijnan Prasar, New Delhi
4	November 12, 2022	Vijnana Sanje' Resource expert: Prof. VijayaRaghavan	Kutuhali, Vijnan Prasar, New Delhi
5	December 10, 2022	Vijnana Sanje'	Kutuhali, Vijnan Prasar, New Delhi
6	December 13- 17, 2022	Research Methodology and Data Analysis	VTU, Belagavi
7	December 22, 2022	Vijnana Vismaya 2022	Sri Sai Science & Commerce College, Darawada

2. Science and Technology Annual Conference

KSTA and Siddaganga Institute of Technology, Tumakuru jointly organized a three-day National Conference on "Science & Technology for Start-ups" during July 19-21, 2022. The conference was inaugurated by Shri Jyothi Ganesh, Member of Legislative Assembly, Tumakuru, with an introductory address from Prof. S. Ayyappan, Padma Shri Awardee, Chairman, KSTA, Bengaluru and the key note address was delivered by Dr. K.P.J. Reddy, Former Professor, Department of Aerospace, IISc, Bengaluru. Sri T.K.Nanjundappa, Secretary, SSES presided over the inaugural function. Dr. A.M.Ramesh, Chief Executive Officer, KSTA, Dr. Shivakumaraiah, CEO, SIT, Dr. S.V.Dinesh, Principal, SIT and Dr. C.P Lohith, Convener NCSTS 2022, Faculty Coordinator, Siddaganga TBI were present during the inauguration.

The three-day event witnessed a galaxy of experts from scientific community, policy makers, Technology Experts, Innovators, successful and budding young entrepreneurs sharing their knowledge in the conference. More than 500 deligates consisting of students, research scholars, faculties, entrepreneurs from the state of Karnataka and else where attended the event. As part of the event, 91 scientific papers were presented in the form of posters in various areas like Physical Sciences & Mathematical Sciences, Chemical Sciences, Engineering & Technology and multi disciplinary science.





3. Science and Technology Conference in Kannada

Fourth Science and Technology Conference in Kannada was organized in Bidar in association with Karnatak Arts, Science & Commerce College during September 14-16, 2022. Invited talks by scientists, leading science writers and communicators were organized. In addition, apart from poster presentation

were made by research scholars in Kannada. The conference was inaugurated by Prof. H. A. Rajasab, Former Vice Chancellor, Tumkur University/Member, KSTA. Dr. Suresh Jangamashetty, Chairman, Department of Electrical and Electronics, Basaveswara Engineering College, Bagalakote graced the occasion, while the inaugural session was preside over by Shri Basavaraj Jabashetty, Chairman, Karnataka National Education Institute, Bidar. Around 500 participants from Kalyana Karnataka region attended the conference and 170 posters were presented during the conference.





4. Skill Vigyan in Biotechnology

KSTA-DBT-Skill Vigyan Program in Biotechnology is a 15 days Faculty Training Program (FTP) for the pre-university/UG/PG teaching faculty and mid-career scientists of various colleges/universities/educational institutes from Karnataka State to gain theoretical as well as practical knowledge in new trends in biotechnology with the funding support of the Department of Biotechnology, Govt. of India through the Karnataka Innovation and Technology Services (KITS), Dept. of Electronics, Information Technology & Biotechnology, Science and Technology, Govt. of Karnataka.

KSTA has successfully conducted the FTP program on "Skill Vigyan in Biotechnology" on a hybrid mode for 2 weeks [one week online and one week offline] at KSTA premises for about 25 biology lectures of various colleges/universities/educational institutes from the state. Resource Experts from the renowned academic and research institutes were invited to deliver distinguished talks along with hands-on training. Exposure visits to different R&D laboratories and institutions in and around Bengaluru was also arranged.



5. Lifetime Achievement Awards

Prof. C.N.R. Rao-KSTA Lifetime Achievement Award for the year 2022 and the KSTA Lifetime Achievement Award in STEAM communication in Kannada were presented on August 02, 2022. These awards carry a gold medal, cash prize and an honorary fellowship of the Academy.







Hon'ble Minister of Higher Education, Electronics, Information Technology, Biotechnology and Science and Technology, Skill Development, Entrepreneurship and Livelihoods, Government of Karnataka Dr. C. N. Ashwath Narayana honoured the selected scientists with the awards and fellowships. Prof. A. K Sood, Principal Scientific Advisor to the Hon'ble PM graced the occasion as Chief Guest. Padma Shri Awardee & Chairman, KSTA Prof. S Ayyappan, Shri A. B. Basavaraju, IAS, Director (Technical), DST, Govt. of Karnataka and Dr. A M Ramesh, CEO, KSTA were present on the occasion.

5.1 Prof. CNR Rao Lifetime Achievement Award in STEAM

Following senior scientists/technologist have been awarded with Prof. C. N. R. Rao-KSTA Lifetime Achievement Award for the year 2022.

Year	Awardees
2022	Dr. C. A. Viraktamath, Retired Emeritus Professor, University of Agricultural Sciences, Bengaluru
	Dr. T. Shivanandappa, CSIR Emiretus Professor, University of Mysore, Mysuru



Dr. C. A. Viraktamath

Retired Emeritus Professor

University of Agricultural Sciences, Bengaluru



Dr. T. ShivanandappaCSIR Emiretus Professor
University of Mysore, Mysuru

5.2 KSTA Lifetime Achievement Award for STEAM Communication in Kannada

Following renowned communicators were awarded with KSTA Lifetime Achievement Award for STEM communication in Kannada for the year 2022.

Year	Awardees
2022	Dr. N. Someswara, Medical Doctor & Renowned Quiz Master, Bengaluru
	Dr. K. V. Rao, Director, Pilikula Regional Science Center, Mangaluru



Dr. N. SomeswaraMedical Doctor & Renowned Quiz Master,
Bengaluru



Dr. K. V. RaoDirector, Pilikula Regional Science Center,
Mangaluru

6. Celebration of Space Day

Organized 'Space Science Day' on March 10, 2023 to commemorate 91st birth anniversary of Padma Vibhushana awardee Late Prof. U R Rao, Former Chairman, ISRO/KSTA. As a part of this celebrations, a distinguished online talk on "Indian Planetary and Space Missions" by renowned space scientist Dr. Anil Bhardwaj, Director, Physical Research Laboratory, Ahmedabad was organised.

7. Celebration of Telemetry Day

'Telemetry Day' was celebrated in commemoration of the birth anniversary of Padma Shri awardee Late Dr S K Shivakumar, Former Chairman, KSTA on March 17, 2023. Quiz and elocution competitions were organized for the UG students.

8. IP in Academics: Patents

One-day workshop on patents was jointly organized by KSTA and The Karnataka State Council of Science and Technology (KSCST) on January 30, 2023. A total of 42 students, including faculty of engineering and science, research scholars and professors, from different parts of the state were participated in the workshop.

9. Introduction to Statistical Data Analysis using R software

A three-day training on 'Introduction to Statistical Data Analysis using R-Software' was organised for the PG Students/Research Scholars during February 21-23, 2023 at KSTA.

10. Celebrations of National Science Day

National Science Day (NSD) is being celebrated on February 28th every year to commemorate announcement of "Raman effect" on February 28th, 1928 by Indian physicist Sir C.V. Raman. National Science Day was celebrated in KSTA on March 07, 2023. Prof. M. R. S. Rao, Former President and SERBYOS Chair Professor, JNCASR gave the commemorative address and presented the Prof. UR Rao Award for PG students, Dr. SK Shivakumar Award for UG students and KSTA Award for the General Public.

11. URR, SKS and KSTA Innovation Award for UG, PG and General Public

Exemplary innovations/ solutions emanating from Science & Technology or any segment of economy that have helped transform the lives of people, particularly in rural areas or have enabled enterprises and employment are being recognised every year. The three categories of Awards include: Prof. U. R. Rao Award (URR) for best innovation at postgraduate level; Dr S. K. Shivakumar Award (SKS) for best innovation at undergraduate level; and KSTA Award for best innovation by General Public. Each award carries a cash prize of Rs 10,000 and a Certificate. An expert committee constituted by KSTA has selected best innovative projects in each category. Five projects were awarded with URR Award, Five projects were awarded with SKS Award and Six projects from General Public were awarded with KSTA Award. Selected awardees were awarded during the celebration of NSD on March 07, 2023.

11.1 Prof. U. R. Rao Award (URR) Award

Title of the Project	Name of the Investigator	Prize Amount (Rs.)
Topical formulation loaded with pomegranate seed oil for the treatment of Psoriasis.	Ms. Vidya K	10,000
Exploration and screening of insect species from different habitat for their antimicrobial activity against plant pathogens of horticultural crops.	Mr. Akshay Kumar	10,000
Design of nasal route mucoadhesive in-situ gel and establish pharmacodynamic treatment for motion sickness using animal model	Ms. Shivani Srinivasan H	10,000
A low-cost Nanomaterial based electro chemical immunosera for detection of trichomoniasis	Mr. S Ajith Kumar	10,000
To analyze the protective role of quercetin and saroglitazar on ethanol induced hepatic steatosis	Ms. Lakshana D P	10,000

11.2 Dr S. K. Shivakumar (SKS) Award

Title of the Project	Name of the Investigator	Prize Amount (Rs.)
Biomedical foot balancing platform to measure plantar foot pressure	Mr. Vibhu Karan and Group	10,000
Leg aided hole digger for sapling plantation	Ms. Padma Priya Mohan and Group	10,000
Smart city auto ticketing and crowd management for bus travel	Mr. S.C. Arham and Group	10,000
Chalaka Mithra	Ms. Ninaada M S	10,000
Modified desalination system with water cooled condenser operated by solar PV panel	Mr. Ganesh Amate	10,000

11.3 KSTA Award

Title of the Project	Name of the Investigator	Prize Amount (Rs.)
Sahyadri nidhi coffee leaf beverage instant dip sachet technology-	Dr. Sudharani N	8,333
Novel JD-flower shaped KTaoJ perovskite prepared by areca seeds for effluent treatment & hydrogen generation.	Dr. Praveen BM	8,333
Automated biological cell stainer technology,	Dr. Anin Prakash	8,333
Metacarpus pressure measuring device for better assisting in physiotherapy procedurals	Ms. Preeta Sharan	8,333
Development of natural stain remover using soapnut extract & biofunctionalized silver nanoparticles	Dr. Ravishnkar Bhat	8,333
Reinforcement of bamboo with polypropylene band	Ms. Anusha M	8,333

12. National Seminar on 'Millets for Healthy Living'

KSTA collaborated with the Faculty of Biological Sciences, St. Aloysius College, Mangaluru, Department of Food Processing and Engineering (DDU) in organising National Seminar on 'Millets for Healthy Living' on March 16, 2023.

13. 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 in Kannada and are being disseminated through DVD to the selected Government High Schools





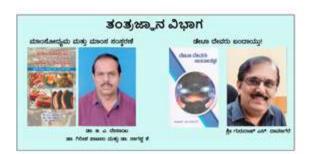
across the State. DVDs comprising of 70 lecture/experiments were sent to 400 Schools. The Program is supported by KSTePS, DST, Govt. of Karnataka.

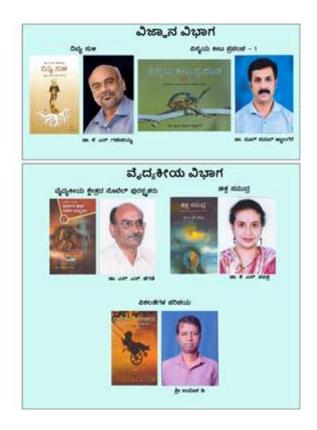
14. Best Book Award 2022

In order to encourage writing and publication of books related to science, technology, agriculture and medicine in Kannada, KSTA has instituted Best Book Awards. The biennial awards in each of the above four categories will be conferred on selected authors, with felicitation, cash price of Rs 25,000/- and Certificate. Following books were awarded with the best book award for the

year 2022-23:







15. Science Talent Search Program for Pre-University Students

KSTA, in association with KSTePS, has organized Science Talent Search Program for Pre-University Students. In this program, 10 PU students from each district, totaling to 320 students from the State were selected based on merit. During 2022-23, 72 online talks by eminent scientists in physics, chemistry, biology, engineering, and agricultural sciences were organized for the selected students. Around 3600 students are benefited by this program.

16. KSTA Fellowships, Associateship and Memberships

KSTA is providing fellowships, institutional memberships and associateship to recognize the contributions of academicians, researchers, engineers, technologists and young professionals in the field of science and technology, science communication/popularization and dissemination.

16.1 Fellowships (FKSTA)

Based on recognizable individual merit and contribution to STEAM and recommendations of KSTA-Awards and Fellowships Selection Committee (AFSC), 50 fellowships were conferred during the year 2022-23.

SI. No.	Name	Sl. No.	Name
1	Prof. A. K. Sood	26	Dr. Prasad C.S.
2	Dr. Abraham Varghese	27	Prof. Rabinal M.K.
3	Prof. Adimurthi A.	28	Dr. Rajani M.B.
4	Prof. Amruthesh K.N.	29	Dr. Ramachandra T.V.
5	Dr. Arun C. Inamadar	30	Prof. Ramesh S. R.
6	Prof. Bagyaraj D.J.	31	Prof. Rangaswamy B.E.
7	Prof. Balasubramanian A.	32	Prof. Revanasiddappa H.
8	Dr. Bhaskar N.	33	Prof. Roopa K.M.
9	Dr. C. L. L. Gowda	34	Prof. Shankar K.M.
10	Prof. Dandin S.B.	35	Mr. Siddique M.Z.
11	Prof. H.R. Ramakrishna Rao	36	Dr. Someswara N.
12	Prof. Honnappagol S.S.	37	Dr. Sridevi A. Singh
13	Prof. Indiresh K.M.	38	Dr. Sreekanteswara Swamy S.G.
14	Prof. Jagadeesh G.	39	Dr. Srikrishna Isloor
15	Prof. Jagadish R. Tonannavar	40	Dr. Subarna Roy
16	Dr. Jali M.V.	41	Dr. Sudarshan H.
17	Dr. K.V. Rao	42	Prof. Thimme Gowda B.
18	Dr. Kurpad A.V.	43	Prof. Uma Shaanker R.
19	Dr. Lalitha R. Gowda	44	Prof. V. Ravishankar Rai
20	Prof. Manohar V. Kulkarni	45	Prof. Veerappa Gowda G.D.
21	Prof. Murthy K.N.B.	46	Prof. Venkataraman A.
22	Dr. N. K. S.Gowda	47	Prof. Vijayalakshmi Dega
23	Prof. Naduvinamane N.B.	48	Prof. Viraktamath C. A.
24	Prof. Navakanta Bhat	49	Dr. Vishal Rao
25	Dr. Navalgund R. R.	50	Dr. Viswanath S.

16.2 Institutional Membership

During the year 2022-23, the following institution has obtained institutional members of KSTA and a total of 09 institutions were obtained institutional membership of the Academy.

Name
Seshadripuram First Grade College,
Yelahanka, Bengaluru

16.3 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 in the KSTA website throughout the year. At the end of the FY 2022-23, 102 applicatns have been admitted as Associates.

16.4 MOU and collaborations

KSTA has tied up with various institutions, universities and colleges to conduct various activities and programmes in collaboration 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
- Any other aspects with mutual consent

During FY 2022-23, MOU with the following 11 organisations/institutions were signed and till date 57 MOUs with organisations/institutions were signed.

SI. No.	Organisations/Institutions	Date of MOU
1	Dayananda Sagar College of Engineering, Bengaluru	07-04-2022
2	BLDEA's V.P. Dr. P.G. Halakatti College of Engineering and Technology, Vijayapura	09-05-2022
3	B.L.D.E. Association's Shri Sanganabasava Mahaswamiji College of Pharmacy And Research Centre, Vijayapura	11-05-2022
4	Manipal Academy of Higher Education, Manipal	18-05-2022

5	PRESIDENCY UNIVERSITY, BENGALURU	27-05-2022
6	Vigyan Prasar, DST, GoI, New Delhi (SCOPE Project)	04-06-2022
7	Poornaprajna Institute of Science and Research (PPISR), Bengaluru	08.07.2022
8	Don Bosco Institute of Technology, Bengaluru	05.07.2022
9	Poornaprajna Institute of Science and Research (PPISR), Bengaluru	08-07-2022
10	Padmashree Institute of Management and Sciences (PIMS), Bengaluru	08-08-2022
11	Amrita Vishwa Vidypeetham	11-01-2023

17. Koti Kanta Gayana

In order to commemorate 67th Karnataka Rajyostava Koti Kanta Gayana program was conducted on November 28, 2022 as per the Government guidelines. As a part of the program, songs depicting Kannada Nadu Nudi were sung as suggested by the Government. All the staff of KSTA participated in the program.

18. Celebration of Good Governance Month (December 2022)

December 2022 was celebrated as Good Governance Month as declared by Government of Karnataka in memory of late former Prime Minister Atal Bihari Vajpayee. This is to create awareness among citizens about accountability in Government. KSTA celebrated Good Governance Month by organizing special talks by eminent administrators and educationists as well as an essay competition for UG & PG students both in English & Kannada

19. KSTA Publications

19.1 Vijnana Loka

'Vijnana Loka', a bimonthly science magazine is being regularly published in Kannada since August 2007. During FY 2022-23, 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 in the KSTA website: www.kstacademy.in

19.2 Frontiers of Science and Technology - Vijnana Loka Special Issue

Vijnana Loka magazine is being published regularly in Kannada for 16 years under the editorship of Dr. P. S. Shankar. Four special issues have been published till date. One more special issue of 136 pages entitled 'Samshodanegala Munchuniyalli' and comprises of 25 articles on science and technology written by renowned science writers has been brought out.



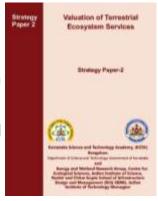


19.3 Strategy Paper-2: Valuation of Terrestrial EcosystemServices

The valuation of ecosystem services (VES) provides an unbiased framework to value unaccounted ecosystem benefits and also helps in developing meaningful policy interventions. In this perspective, KSTA has brought out this Strategy Paper focusing on "Valuation of Terrestrial Ecosystem Services", and is an effort of a group of

eminent scientists led by Prof. T.V. Ramachandra, Coordinator, Energy and Wetlands Research Group, Centre for Ecological Sciences [CES], IISc. This exercise in other states will undoubtedly play a vital role in conservation, planning and ecosystem-based management in India.

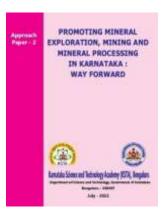




19.4 Approach Paper - 2: Promoting Mineral Exploration, Mining and Mineral Processing in Karnataka : Way Forwar Services

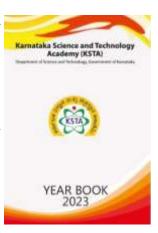
Karnataka state, which is rich in its resource potential for producing several metals and minerals, from the Pre-British era, is one of the biggest industrial hubs in the country. KSTA has brought out this Approach Paper to Promote Mineral Exploration, Mining, and Mineral Processing in Karnataka, keeping in mind the existing gaps, challenges and opportunities. This document is prepared by an expert group led by Dr. Prabhakar Sangurmath, Former Executive Director & Member, Board of Director, Hutti Gold Mines Co. Ltd.





19.5 Year Book 2023

Every year KSTA invites nomination for Fellowship of KSTA (FKSTA). The nominations received were scrutinised by Awards & Fellowship Selection Committee and approved by Executive Committee. 51 Fellowships were awarded for the year 2022 among 12 domains. A Year Book comprising the details of Fellows, Associates, Institutional Members and Institutions having MOU with academy was brought out during third quarter of FY 2022-23. This document consists of details of 177 KSTA Fellows, 08



Institutional Members, 02 Institutional Associates, 94 Associates and 54 organisations having MOU with KSTA.

19.6 Quarterly e-Newsletter – Vijnana Vahini

Bring out quarterly e-newsletter 'Vijnana Vahini' in Kannada and English. The newsletter comprises of invited article, events and upcoming programmes of the Academy and current Science news. During FY 2022-23, 04 issues have been brough out.



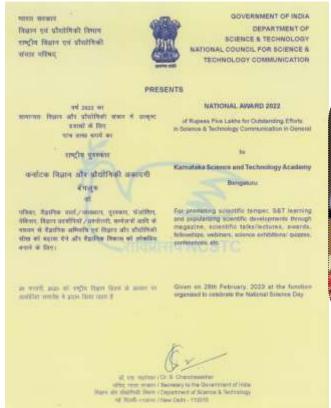
20. Prestigious National Award to KSTA

Karnataka Technology Science and Academy (KSTA) has been conferred with the prestigious national award titled "Outstanding Efforts in Science Technology Communication" by the National Council for Science and Technology Communication (NCSTC), an



autonomous organization under the Department of Science and Technology, Government of India. The award has been bestowed upon KSTA in recognition of its significant contribution to science education and communication. The award includes a cash prize of Rs.5.00 lakh, a memento, and a citation. On the occasion of the National Science Day held on 28th February 2023 at Vigyan

Bhavan, New Delhi, Dr. Jitendra Singh, Hon'ble Union Minister of Science and Technology presented the Award to Dr. A. M. Ramesh, Chief Executive Officer of KSTA.





Dr. Jitendra Singh, Hon'ble Union Minister of Science and Technology presented the Award to Dr. A. M. Ramesh, Chief Executive Officer, KSTA

Contact Details

Chief Executive Officer

Karnataka Science and Technology Academy (KSTA)

Department of Science and Technology, Govt. of Karnataka
Prof. U R Rao Vijnana Bhavana, Horticultural Science College Entrance, GKVK Campus,
Major Sandeep Unnikrishnan Road, Doddabettahalli,
Vidyaranyapura Post, Yelahanka, Bengaluru – 560 097
Ph./Fax: 080-29721550; 080-29721549

email: ksta.gok@gmail.com; website: www.kstacademy.in