KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Secretary: Prof. Ashok M. Raichur

Executive Secretary: Dr. U T Vijay

Karnataka State Council for Science and Technology (KSCST) an autonomous S&T organization under Department of Science & Technology, Government of Karnataka established in the year 1975 is one of the first State S&T Councils to be set up in the country. Education, Water, Energy, Housing, Geospatial Technologies, Natural Resource Management are some of the sectors identified by KSCST to pursue research, development and dissemination of ideas, products, services and technologies with the support of State and Central government. During the last 47 years of its existence, KSCST has been pro-actively engaging itself to identify, propose and implement S&T based solutions to locale specific needs / problems. In association with the Indian Institute of Science and several other premier R&D institutions, KSCST has been executing many projects and programs aimed at improving socio-economic conditions of the people of the state.

Over the years, a number of technologies have been translated from research and demonstration phase to the implementation and operational phase. KSCST provides support to the State Government in formulation of S&T based policies. Also supports Central and State Governments in scientific surveys, project implementation, evaluation, co-ordination & monitoring, organization of scientific meets and awareness campaigns.

MAJOR PROGRAMMES

- **Natural Resources Data Management System (NRDMS**) - A Repository of Natural Resources and Socio-economic geo-database to support local level planning. Developed guidelines for generating village cadaster using high resolution satellite imageries. First state to generate Geospatial Action Plan for line departments and use of Geospatial Technologies for Preparation of Action Plan made mandatory. Support to urban/rural local bodies in developmental planning for informed decision-making and support to COVID management. Developed webapps for several GIS applications.

- **Karnataka State Spatial Data Infrastructure (KSSDI):** KSSDI is a web portal to find and access spatial information/services via the Internet. Assisted in establishing National Data Registry.

- **Academic and Industry Interaction Cell (AIIC)** – Under Student Project Program (SPP), supporting and mentoring innovative under-graduate and post-graduate engineering student projects. Supported more than 16,800 projects so far. More than 100 projects commercialized. Established E-learning centers in government high schools to improve access to advanced educational resources, digital contents and lab experiments in the form of 3D animations using latest IT gadgets & internet. Support to faculty projects to develop innovative products & services. Science popularization / Communication / Teachers Enrichment programs; Science radio serial; National Science Day / National Mathematics Day

- **Rainwater Harvesting (RWH)** - End-to-end solution on RWH including awareness and technical support, implementation, preparation of DPR and support to enforcement. Has a patent on RWH and assisted state government in drafting RWH policy and guidelines Installations of more than 1.75 lakhs RWH structures for Institutions and Residence in Bangalore. Supporting urban local bodies in implementing RWH system in their buildings.

- **Digital Heritage -** Laser scanning of state archaeological sites and Hampi World Heritage site for creating virtual walk through and reconstruction/restoration. Mapping of all the state archaeological sites is in process.

- Geospatial mapping of **Traditional Surface Water Bodies** for restoration and rejuvenation. Mapped over 13,000 Traditional Surface Water Bodies across Karnataka, which includes Kalyani, Kunte, Gokatte and Katte**.** Based on the reports state government is taking up restoration works of surface water bodies under Jal Shakti Abhiyan and MGNREGA programs.

- **Energy Cell** – Demonstration and dissemination of new technologies, workshops, techno-economic feasibility reports and energy conservation & management including bio-energy. Providing detailed project reports to government institutions.

- **Housing** - Research, development & dissemination of energy efficient building technologies. Over 1 lakh houses built in India and over 20,000 houses built in Bengaluru using cost- effective energy efficient building technologies. Organizing training programs to engineers and architects.

- **Patent Information Centre** - Promotion, protection and commercialization of Intellectual Property Rights of inventors and creators. Established over 55 IP cells in engineering and degree colleges/institutions to encourage faculty, students, start-ups and entrepreneurs. Supported filing more than 100 patents, designs, copyrights and trademarks.

- **State Awards for Scientists and Engineers** - Recognize and reward Scientific and Technological eminence in the state. Instituted by Government of Karnataka.

- **Established SC/ST cell** to promote adaptation of appropriate and relevant technologies for socioeconomic development of SC/ST and marginalized communities by assessing natural & human resource endowment, upgrading skills and creation of micro enterprises for sustainable livelihoods. Developed a tool to identify local specific training and skill building programs for improved livelihood and development of micro enterprises.

- **Establishing SHG/FPO enterprises** to address malnutrition, provide rural livelihoods and to reduce the fruit and vegetable spoilage and post-harvest losses because of lack of primary processing facilities by adopting fuel-efficient biomass dryers in Yadgir District of Karnataka. Envisaged to produce variety of nutrition products to address malnutrition specifically among children and women.

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