

## FOREWORD

The Karnataka State Council for Science and Technology (KSCST) established in the year 1975 with a view to utilize the scientific and technical expertise of a large number of scientists, technologists and engineers in the state to improve the living standards of people and to provide solutions through S & T interventions. 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.

Some of the earlier success stories arising from the activities of KSCST include - Design of novel biogas plants, solar collectors, solar pond, gasifiers, alternate building technologies design of high efficiency cooking stove (ASTRA *O/e*), setting up of rural energy centers, innovative use of sisal plant etc. The recent major initiatives of KSCST for societal benefits include geospatial action plan for informed decision-making, rainwater Harvesting, rejuvenation of traditional water harvesting systems, Karnataka Geoportal, village mapping, Faculty Project Program, Patent Cell, watershed management and digital mapping of heritage sites, renewable energy related activities, implementation of virtual classroom in high schools and S & T outreach activities. Apart from playing a catalytic role in the implementation of sustainable technologies to society-centric problems/ issues, KSCST has also been promoting research, development and innovation in universities and institutions.

Recognizing the need for innovation to develop product and services, KSCST initiated the Student Project Program, popularly known as SPP, as early as 1977. The main purpose of this program is to support talent and innovative spirit in the minds of young engineers graduating from colleges across the State. Under this program, KSCST has been providing both technical and financial support to selected projects undertaken by the final year engineering students of Karnataka. KSCST is playing a crucial role in building confidence and enhancing the capabilities of engineers graduating from the colleges in the State.

This is the 46<sup>th</sup> edition of SPP - Seminar and Exhibition series being conducted uninterruptedly since its inception. We are delighted that Alva's Institute of Engineering and Technology, Moodubidire is hosting this major event this year and the Council is indebted to them. Under the 46<sup>th</sup> Series of SPP, KSCST has selected 443 projects from seminar and exhibition. Among the selected 443 projects, 204 are selected for presentation in the seminar and 239 are selected for exhibition. We hope that this state level Seminar and Exhibition will inspire students to be more innovative and build an entrepreneurship ecosystem. KSCST intends to support projects having potential for commercialization. This year we have identified and supported 27 projects for product and prototype development under Faculty Project Program. We thank the Department

of Science and Technology, Government of India and the Department of Science and Technology, Government of Karnataka for their continued support in conducting this program. We also thank the Karnataka State Bioenergy Development Board for their support to the biofuel related projects for the undergraduate and post graduate engineers. We thank the engineering colleges of our State for their continued support to the student project programme since inception.

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Executive Secretary

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Secretary, KSCST