



Government of Karnataka



THIRD STATE LEVEL SCIENCE AND TECHNOLOGY CONFERENCE - 2012

Theme:

ROLE OF SCIENCE AND TECHNOLOGY IN RURAL DEVELOPMENT

PROGRAMME

Date: 31st July and 1st August 2012

Venue: Sri Jayachamarajendra College of Engineering, Mysore

Organized by:

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Indian Institute of Science, Bangalore

VISION GROUP ON SCIENCE AND TECHNOLOGY,

DEPARTMENT OF SCIENCE AND TECHNOLOGY, GOVERNMENT OF KARNATAKA

JSS MAHAVIDYAPEETHA

SRI JAYACHAMARAJENDRA COLLEGE OF ENGINEERING

JSS Technical Institutions Campus, Mysore

Catalyzed and Supported by:
VISION GROUP ON SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
GOVERNMENT OF KARNATAKA

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

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Theme:

ROLE OF SCIENCE AND TECHNOLOGY IN RURAL DEVELOPMENT

Introduction

Records of economic development in the world during the past century show how vastly improved products were created through the use of Science and Technology and the scope of authority of science expanded beyond the economic development. Recognizing the capacity of Science and Technology to transform the quality of human life, the Government of India attached higher priority to the field of science since early stages of the planning process and the constitutional role of the state enabled India to experiment with Science and Technology for development. The emphasis given at the early stages in state's involvement of technology transfer through rural development programme demonstrates state's proactive role in bringing about social and economic transformations.

The Indian Government has declared 2010-2020 as the “Decade of Innovation”. Although the gamut of innovation is vast and government efforts will be directed towards stimulating reforms in various sectors including education, environment, healthcare, and legal, there is an underlying emphasis to boost advances in science and technology. The stress on providing an impetus to science and technology is important, keeping in mind the crucial role it plays in the progress of the nation. The main aim of this declaration is to develop an innovation eco-system in the country to stimulate innovations and to produce solutions for the societal needs in terms of healthcare, energy, urban infrastructure, water and transportation.

The Ministry of Science and Technology, Government of India is promoting innovations through various schemes such as Techno-entrepreneur Promotion Programme (TePP); Technology business incubators under Science and Technology Entrepreneurship Development Scheme; Drugs and Pharmaceuticals Research; Innovation Clusters; Small Business Innovative Research Initiative (SBIRI); Biotechnology Industrial Partnership Programme (BIPP); Open Source Drug Discovery (OSDD) projects and grass root innovations through National Innovation Foundation.

Karnataka State has always been in the forefront of scientific and technological developments, thanks to visionaries like Sir M. Visvesvaraya and Sir C.V. Raman, who inspired science, technology and industrial policies of the State during the first half of the 20th century.

Rural development generally refers to the process of improving the quality of life and economic wellbeing of people living in relatively isolated and sparsely populated areas. Rural development has traditionally centered on the exploitation of land-intensive natural resources such as agriculture and forestry. However, changes in global production networks and increased urbanization have changed the character of rural areas. Increasingly tourism, niche manufacturers, and recreation have replaced resource extraction and agriculture as dominant economic drivers. The need for rural communities to approach development from a wider perspective has created more focus on a broad range of development goals rather than merely creating incentive for agricultural or resource based businesses. Education, entrepreneurship, physical infrastructure, and social infrastructure all play an important role in developing rural regions. In contrast to urban regions, which have many similarities, rural areas are highly distinctive from one another. For this reason there is a large variety of rural development approaches used globally.

With this background, Vision Group on Science and Technology (VGS&T), constituted by the Department of Science and Technology (DST), Government of Karnataka and Karnataka State Council for Science and Technology (KSCST) are jointly organizing a two-day Third, Fourth and Fifth State Level Conference on Science and Technology. These conferences will focus on the issues pertaining to rural development, challenges and opportunities in rural development and especially on role of science and technology in rural development. The participants would be teachers, faculty members of the universities,

educationists, science promoters, scientists, policy makers, administrators and officers from the Department of Rural Development and Panchayat Raj, Government of Karnataka.

Objectives of the proposed conference

- To develop better co-ordination, collaboration, joint participation, relations and understanding amongst various constituents of the rural sector for promoting welfare of the rural masses by eradicating thirst, hunger, illiteracy, disease, poverty and by providing shelter and employment.
- To promote active involvement of general public, Faculty, Students, NGOs and teachers for preparing plans for rural development.
- To undertake integrated programmes for the upliftment and economic development of rural Karnataka and providing backward and forward linkages to the rural economy by allowing them to access global technology, funds & market.
- To serve as a forum in association with professionals, research scientists, social scientists, reformists, technocrats, and agriculturists, to provide critical inputs on major issues, relevant to development of rural people and to seek appropriate representation on the various committees, bodies, delegations, teams etc. at the State level.

- To undertake identification, development, adaptation and promotion of appropriate technologies, organize or assist in transfer of technology activities relating to rural development.

Activities

KSCST is planning to organize two-day Third, Fourth and Fifth State Level Conference during July – December 2012 in Sri. Jayachamrajendra College of Engineering, Mysore, BLDE University, Bijapur and PDA College of Engineering, Gulbarga respectively. The following issues related to the rural development will be discussed during the conference.

- Reduction in rural unemployment and develop S&T initiatives for rural ecosystem.
- Popularization of solar energy and other alternative sources of energy to the rural masses.
- Bringing innovation in agricultural practices.
- Strengthening individual income by taking alternate jobs to agriculture such as sericulture, horticulture, poultry etc.
- Establishment of linkages between S&T in rural sector and rural infrastructure.
- Special support to women entrepreneur and empowerment.
- Addressing health and hygiene issues of women and children.

- Providing low cost materials to build environment friendly houses in villages.

The scientists, engineers and industrialists / technocrats and administrators from various fields are participating as experts in two day conference.

These conferences would be helping to address the issues of rural development and other related issues.

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VISION GROUP ON SCIENCE AND TECHNOLOGY

Vision Group on Science and Technology (VGST) was constituted in October 2008 under the Chairmanship of distinguished scientist Prof. C. N. R. Rao, F.R.S. Chairman of the Science Advisory Council to Hon'ble Prime Minister, GoI and National Research Professor, JNCASR, Bangalore.

VGST is an apex advisory body to recommend Science and Technology Programs relevant to mandate of Department of Science and Technology, Government of Karnataka. The objective is to encourage and promote Science and Technology education and research in the state. VGST plays a vital role in catalyzing, strengthening educational institutions to meet scientific and technological needs. To accomplish this, VGST is involved in developing, in stages, mechanisms to bring a paradigm shift in the Basic Science Education, research and taking science to the masses through a wide range of initiatives. These programmes are implemented in association with state departments, autonomous institutions, universities, non-governmental organizations and educational institutions.

VGST emphasizes for a strong foundation in the pure sciences with prudent investment to reap rich dividends in the future. For the year 2010-11, the VGST has formulated a set of more than thirty programmes to promote science education and research in the state.

VGST work encompasses:

- Formulation of programs relating to advancement of Science and Technology in the state.

- Developing state level S and T promotional modules/instruments
- Strengthening educational institutions for imparting good quality teaching and conducting research.
- Promotion of Science and Technology in the state.
- To ensure its effectiveness, VGST supports Science and Technology promotional programs in ten modules such as: Science Educational programs, In-service Teacher Training Programs in Science and Technology. Catalyzing Quality research in Science and Technology. Recognizing and rewarding outstanding researchers, teachers and science communicators. Infrastructure strengthening in schools and higher educational institutions. Development, production and dissemination of Science and Technology communication software. Science and Technology outreach campaign. Scientific awareness programs. Creation of new institutions of Science and Technology and state summit on Science and Technology.

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KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Karnataka State Council for Science and Technology was established to play a catalytic role in promoting the use of science and technology in the development process of the state. With a view to develop technologies appropriate to and in harmony with the ecological conditions, the Council has been catalyzing interaction between developers and users of technologies, by bringing together scientists and engineers on the one hand and policy makers as well as administrators on the other.

Over the years, the Council has been very active in the areas of energy, low cost housing, environment and ecology, urban development, agriculture, rural development, bio-diversity, Natural Resources Data Management System etc. Some of the success stories arising from the activities of the Council include - Design of Novel Biogas Plants, Solar Collectors and Ponds, Gasifiers, Design of High Efficiency Cooking Stoves, Setting up of Rural Energy Centers and innovative use of Sisal plant. Some of the recent major initiatives of the Council include Rainwater Harvesting, Creation of National Spatial Data Infrastructure, Municipal Solid Waste Management, and E-Waste Management. In addition to such catalytic role in the application of simple S&T solutions to variety of problems, the Council has also been promoting innovation in scientific and technical education.

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SRI JAYACHAMARAJENDRA COLLEGE OF ENGINEERING, MYSORE

Sri Jayachamarajendra College Of Engineering, conceived in 1963, is the dream child of Jagadguru Dr. Sri Shivarathri Rajendra Mahaswamigalavaru, the 23rd pontiff of Sri Suttur Mutt. It comes under the aegis of JSS Mahavidyapeetha, which is the primary institution of many such institutions. The college was officially inaugurated by the esteemed founder of Manipal Institutes, Dr. T.M.A.Pai, the then chairman of the academy of education, Manipal, Mysore State.

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The Institution serves as one of the major landmarks of the western part of mysore, with its sprawling 117 acres of campus and several recognizable buildings. As one of the leading institutes in India, SJCE has been recognized under the Technical Education Quality Improvement Programme (TEQIP), which is a World Bank associated scheme.

Acknowledging the state of the art infrastructural facilities, faculties and expertise, that have been the hallmarks of the college, the Visvesvaraya Technological University has conferred the Autonomous status to the college from the year 2007-08.

The institution also has the reputation of academic, excellence in professionally oriented programs, and equal proficiency in extra-curricular activities, that makes it a lucrative option for students from all over the country, especially those staying in the remote places eyeing at an engineering seat.

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Karnataka State Council for Science and Technology,
Indian Institute of Science, Bangalore

**Vision Group on Science and Technology,
Department of Science and Technology, Government of Karnataka
and Sri Jayachamarajendra College of Engineering, Mysore**

THIRD STATE LEVEL SCIENCE AND TECHNOLOGY CONFERENCE - 2012

Theme : “Role of Science and Technology in Rural Development”
Date : 31st July and 1st August, 2012
**Venue : Auditorium, Computer Science & Information Science Block
Sri Jayachamarajendra College of Engineering,
JSS Technical Institutions Campus, Mysore**

INAUGURAL FUNCTION

Date: Tuesday, 31st July 2012

09.30 AM – 10.30 AM : Registration

10.30 AM – 10.40 AM : Nada Geethe

10.40 AM – 10.50 AM : **Welcome**
Prof. B. G. Sangameshwara
Principal, SJCE, Mysore

10.50 AM – 11.00 AM : **Address**
Prof. M. S. Mohan Kumar
Secretary, KSCST

- 11.00 AM – 11.20AM : **Inauguration and Inaugural Speech**
Karnataka Rathna Prof. C. N. R. Rao, ^{FRS}
National Research Professor, Linus Pauling Research Professor,
President, Vision Group on Science and Technology, GoK
Chairman, Scientific Advisory Council to the Prime Minister
Hon. President, Jawaharlal Nehru Center for
Advanced Scientific Research
- 11.20 AM – 11.30AM : **Address by Chief Guest**
Prof. M. H. Dhananjaya
Director (Technical)
JSS Mahavidyapeetha, Mysore
- 11.30 AM – 11.50 AM : **Presidential Address**
Shri. Anand Vasant Asnotikar
Hon'ble Minister for Science & Technology and Fishries,
Government of Karnataka
- 11.50 PM – 12.00 PM : **Vote of Thanks**
Dr. S. G. S. Swamy
Organizing Secretary, S & T Conference & Fellow, KSCST
- 12.00 PM – 12.30 PM : Coffee break

TECHNICAL SESSIONS

Date: Tuesday, 31st July 2012

- 12.30 Noon – 01.15 PM : **Plenary Lecture – 1**
“The Role of Water in Rural Economy”
Prof. M. S. Mohan Kumar
Secretary, KSCST & Professor
Department of Civil Engineering, IISc
- 01.15 PM - 02.00 PM : Lunch Break
- 02.00 PM – 03.30 PM : **Technical Session – 1 : Health & Hygiene**

Chairman : Dr. N. C. Ashok
Head, Department of Community Medicine
JSS Medical College and Hospital, Mysore
- 02.00 PM – 02.30 PM : Lecture – 1
“Role of Tribal Medicine in Rural Health Care System”
Dr. G. Panduranga Murthy
Shridevi Institute of Engineering & Technology
Tumkur
- 02.30 PM – 03.00 PM : Lecture – 2
“Providing cardiovascular care facilities to the rural mass”
Dr. Suresh Babu
Associate Professor of Medicine
JSS Medical College and Hospital, Mysore
- 03.00 PM – 03.30 PM : Lecture – 3
“Educating Rural people about communicable diseases and their management”
Dr. Ashok N. C.
Head, Department of Community Medicine
JSS Medical College and Hospital, Mysore

- 03.30 PM - 04.00 PM : Lecture 4
“Role of Rural Health Centre in maintaining Rural Health”
 Dr. Mudassir Azeez
 Professor and HOD,
 Department of Community Medicine
 Mysore Medical College and Hospital, Mysore
- 04.00 PM – 04.15 PM : Coffee /Tea break
- 04.15 PM – 05.45 PM : **Technical Session – 2 :**
Education & Women empowerment
Chairperson : Dr. D. S. Leelavathi
 Professor and Chairman, Dept., of Economics
 & Cooperation, University of Mysore
- 04.15 PM – 04.45 PM : Lecture - 1
“Women’s Empowerment through innovation in Technologies – Success stories of TIDE”
 Mrs. Swathi Bhogale
 Chief Executive, Technology Informatics
 Design Endeavour (TIDE), Bangalore
- 04.45 PM – 05.15 PM : Lecture – 2
“Women empowerment through economic inclusion”
 Dr. Bruhadamba
 Principal (Retd), JSS Degree College, Mysore
- 05.15 PM – 05.45 PM : Lecture – 3
“A Standardization of education in rural areas using modern technologies”
 Mr. Prashanth. H. M
 Head – Corporate Strategy
 Excelsoft Technologies Pvt. Ltd, Mysore
- 06.30 PM – 07.30 PM : Cultural Programme
- 07.30 PM : Dinner

Second Day, 1st August 2012

Time: 9.30 AM

- 09.30 AM – 10.15 AM : **Plenary Lecture – 2**
“The Need, Availability and Management of Energy for Rural Development”
Dr. D. V. Gopinath
Retd Director, BARC
- 10.15 AM - 01.15 AM : **Technical Session – 3 : Rural Infrastructure**
- 10.15 AM - 10.35 AM : **Chairman:**
Dr. K. S. Lokesh
Dept. of Environmental Engineering
SJCE, Mysore
“Eco Toilet – a solution to rural sanitation”
- 10.35 AM – 11.05 AM : Lecture – 1
“Success stories in Rural Development”
Shri. K. J. Ashok Kumar
Additional Chief Programme Coordinator,
BAIF Development Research Foundation
Kushalanagar, Coorg District
- 11.05 AM – 11.35 AM : Lecture - 2
“ LED lightings and its benefits”
Shri. R. S. Hiremath
President, FLEXITRON, Bangalore
- 11.35 AM – 11.45 AM : Coffee/Tea break
- 11.45 AM – 12.15 Noon : Lecture - 3
“Empowering rural India with simplified Internet Access”
Mr. Sridharan. B
Group Leader
Centre for Development of Telematics (C-DOT),
Bangalore

- 12.15 PM - 12.45 PM : Lecture – 4
“Technology Challenges for Telemedicine”
 Dr. Shyam Vasudeva Rao
 Innovation Manager
 Philip Innovation Center, Bangalore
- 12.45 PM – 01.15 PM : Lecture – 5
“Development of E-Cycle for Rural Lighting”
 Dr. Madhyastha
 President R & D
 Gramothan Foundation, Bangalore
- 01.15 PM - 02.00 PM : Lunch
- 02.00 PM – 03.30 PM : **Technical Seesion - 4**
“S & T Initiatives for Rural Eco System”

Chairperson : Dr. H. Honnegowda
 Director (Technical),
 Dept. of Science & Technology, GOK
- 02.00 PM – 02.30 PM : Lecture – 1
**“The Drought Situation in Karnataka
 - An Overview”**
 Dr. C. N. Prabhu
 Scientist, Karnataka State Natural Disaster
 Monitoring Center, Bangalore
- 02.30 PM – 02.50 PM : Lecture – 2
**“The Role of GIS and GPS in
 Rural Development”**
 Mr. H. Hemanth Kumar
 Fellow, KSCST
- 02.50 PM – 03.10 PM : Lecture – 3
“Technologies developed by KSCST”
 Dr. S. G. Sreekanteswara Swamy
 Fellow, KSCST

03.10 PM – 03.30 PM : Lecture – 4
“Impact of Rain Water Harvesting”
Shri. A. R. Shivakumar
Senior Fellow, KSCST

VALEDICTORY FUNCTION

Date : Wednesday, 1st August 2012 **Time** : 03.30 PM

Venue : **Sri Jayachamarajendra College of Engineering, Mysore**

03.30 PM – 03.40 PM : **Welcome**
Prof. Syed Shakeeb Ur Rahaman
Vice-Principal, SJCE, Mysore

03.40 PM – 03.50 PM : **Recommendations and Strategies**
Dr. S. G. Sreekanteswara Swamy
Fellow, KSCST

03.50 PM – 04.10 PM : **Valedictory Address by the Chief Guest**
Dr. Vasanth Kumar
Technical Advisor,,
Agricultural Consultancy Research &
Educational Services (ACRES), Mysore

04.10 PM – 04.20 PM : **Presidential Remarks**
Dr. M. Prithviraj
Executive Secretary, KSCST

04.20 PM – 04.30 PM : **Vote of Thanks**
Prof. N. Haraprasad
Head, Department of Biotechnology
SJCE, Mysore

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