

## Research

The institute has been a pioneer in conceptualizing, developing, implementing, commissioning and servicing some of country's well recognized IT initiatives in Education, Agriculture and E-Governance applications and its services. Thus it has already established linkages with the scientific and academic community. Being situated in the Technopark campus, IIITM-K has also linkages with the IT industry and some of the visiting faculty are drawn from among the IT professionals working in the companies of Technopark. The institute has been working on several advanced research oriented projects on applied informatics areas and developed several such advanced information systems for various domains. Some of the major collaborations on education and research are summarized below.

- IIITM-K is a partnering Institution with European Research & Educational collaboration with Asia (EURECA) Project, funded by the European commission, which aims to establish a Eurasian academic mobility Network, for achieving excellence in research and education in a global context, by identifying key themes for cooperation, leveraging on the complementary competencies and providing synergies essential for the progress and mutual benefit of the targeted Asian countries as well as the European Union. The consortium comprises of 16 prominent educational institutions (9 from Europe and 7 from Asia including IIITM-K). 6 PGD-IT students and 3 faculty / staff of IIITM-K are selected for the Eureka mobility programme during the current year. IIITM-K is the only Govt academic institute selected for the Eureka mobility program from Kerala along with other leading national institutions like IIT Kanpur, Amrita institute of Technology, XLRI etc.
- The Kerala EduGrid is a project of Higher Education Department of Kerala Government, implemented by IIITM-K to establish the Education Grid infrastructure in the engineering colleges across the state to provide quality education to all the students of higher education in the State. Education Grid is both architecture and management over the Internet of structured Web-enabled services within and across institutions that provides for disciplined information, interaction and collaboration between teachers, learners and education administrators.
- IIITMK has joined hands with the Indian Institute of Science, Indian Institute of Remote Sensing and the French Institute of Pondicherry for establishing a "School of Eco-informatics" at IIITMK. An advisory group has been formed with eminent persons drawn from JNU, IISc. IIRS, FRP, TBGRI, with Vice Chairman Planning Board, Kerala as Chairman of the Group to take the initiative forward.

- IIITM-K has signed an MOU with STUTTGART University, Germany to work together in research and teaching areas of geoinformatics and allied areas. STUTTGART UNIVERSITY has already offered scholarship to one of the student from IIITM-K to undertake a project on Geo Informatics area with them. Several academic exchange programs are being worked out with STUTTGART University.
- IIITMK has been chosen as an Institute of excellence by the Ministry of Social Justice & Empowerment and Ministry of Tribal Affairs, Govt. of India for grant of scholarship to SC/ST students for pursuing PGDIT programme of two year duration at IIITMK. As per the scholarship, 10 students from SC category and 5 students from ST category get full scholarship for this course.
- The Indian Council of Agricultural Research (ICAR), Govt. of India has recognized IIITM-K as a leading technology institute for undertaking various potential research oriented Agri-Informatics activities of the institute. ICAR has invited IIITM-K as a major technology partner to develop and implement various agricultural information systems under National Agricultural innovation Project (NAIP). IIITM-Kerala is one of the collaborating institutes along with IIT-Kanpur, IIT-Bombay, NAARM, GBPUAT, UASDharwad, and ICRISAT to implement this project in the country. The objective of the project is to build, demonstrate and sustain a model agricultural knowledge organization and system in support of extension in India. The project is expected to result in significant enhancement of capacity among agricultural experts at various levels in the refinement and management of new knowledge flows and platforms.
- Department of Information Technology (DIT), Govt. of India has assigned IIITM-K with the task of developing and implementing various research and academic programs in Information Security. It includes, (1) Developing a curriculum on Introduction to Information Security, (2) Various training programs for system administrators and professionals. (3) Train Government Officers – Center and State, on Information Security issues i.e. computer networking, cyber hygiene, data security etc., (4) Bring Information Security Awareness in the country and (5) Start Education Exchange Programme.
- IIITM-K is a partner for the INDIAN LANGUAGE CONSORTIA INITIATIVE (ILCI) by Department of Information Technology, Government of India. The project involves building annotated parallel corpora with standards and tools for 12 major Indian Languages including English, 8 Indo Aryan languages (Hindi, Urdu, Punjabi, Bangla, Oriya, Gujrati, Marathi and Konkani) and 3 Dravidian languages (Tamil, Telugu, Malayalam) in the domain of tourism and health. IIITM-K is assigned for the work of Malayalam Language and other 10 centres involved are JNU for overall coordination, ISI Kolkata, Utkal University-Orissa, IIT Mumbai, Gujarat

University- Ahmedabad, Goa University, Dravidian University-AP, Tamil University-TN and Punjab University. This would benefit the state and the country for developing number of Natural Language Processing (NLP) application and also to prepare the corpora for ready-to use form for Malayalam Dictionary, Thesaurus, Grammar Checking, Annotation, tagging and parsing, Malayalam Editors, and Browsers.

- IIITM-K is the official technology partner in implementing various ICT oriented information systems and solutions to Department of Agriculture, Government of Kerala. The Department has assigned IIITM-K for the development and implementation of Karshaka Information Systems, Services and Networking (KISSAN Kerala) project in the entire state. KISSAN is an integrated, multi-modal ICT oriented agricultural information system, conceived, developed and managed by IIITM-K for the Department of Agriculture, Govt. of Kerala. This is the first project in the country where the multi-modal delivery of agriculture information services through interactive portal, television, mobile and telephonic advisory services for the farming community. This project has won several regional and national awards for its unique architecture and service delivery.

- IIITM-K has been collaborating with Kerala Agricultural University for the implementation of a project on Virtual University for Agricultural Trade (VUAT) project of Government of Kerala which is a consortium of state and central agencies as per the recommendations of the Commission on WTO Concerns in Agriculture headed by Prof. M.S. Swaminathan. E-Krishi is a collaborative project between IIITMK and IT Mission Kerala funded by UNDP. IIITMK is the technology and management service provider to the project. The objective of the project is to provide a common platform for farmers or agriculture producers to advertise their produces and buyers to post their requirements.

- Department of Science and Technology (DST), Govt. of India has awarded the fast track young scientist project for IIITM-K on the domain of computational chemistry. Kerala State Council for Science Technology and Environment (KSCSTE) awarded IIITM-K a research project on Computational Chemistry

- IIITM-K is the official academic collaborator with Indira Gandhi National Open University in offering a Web based course on Computational Chemistry at the post graduate level.

- UNESCO Post Doctoral Fellowship has been awarded to IIITM-K Faculty for his concept on 'Global Biodiversity Hotspots'. IIITM-K is a member of the International Steering Committee of

ISIS, (ICCI) constituted by UNESCO, Paris. This Steering committee accredited by UNESCO, will assist and collaborate with BIREME, UNESCO and the ISIS Software Developers, user community etc.