IINDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

WEST BENGAL, INDIA-721302

A Proposal for 6 days of Workshop on "EMERGING TRENDS IN AGRICULTURAL TECHNOLOGIES" For AARDO Representatives at IIT Kharagpur, India in Virtual mode.

TITLE: EMERGING TRENDS IN AGRICULTURAL TECHNOLOGIES

Proposed Dates: 27th March to 4th April, 2023

<u>**Introduction**</u>

IIT Kharagpur in collaboration with AARDO aims to conduct a six days training program at IIT Kharagpur for the developing countries affiliated with AARDO from **27th March to 4th April,** 2023. The course is specially designed for the representatives of AARDO member countries including the middle and senior-level executives from government departments, ministries, agriculture scientists and engineers engaged in precision agriculture especially on mechanization. The course content will also emphasize on policy formulation, and its proper implementation and planning for innovative and affordable technologies developed at IIT Kharagpur for the reduction of drudgery, and upliftment of the lifestyle of the rural population and help getting inside about the related policy making decisions.

The Workshop will have major focus on

- Mechanization of modern agriculture.

- AI/ML based technologies in modern agriculture.

- Drone and its application in agricultural produces.

- Latest innovative affordable technologies of IIT Kharagpur.

- Modern machineries in food process and post- harvest engineering.

- Globalization of agricultural machineries: The constraints/ limitations/ challenges in commercialization.

- Developing policy framework for effective transfer of technologies to AARDO member countries.

- Promoting the innovative affordable rural technologies for raising the living standard of rural people.

- Intellectual Property Right (IPR) and Technology Transfer

PARTICIPATION

The training programme will be attended by experts, senior officials and individuals working in the relevant field in AARDO member countries. Resource persons from the host Institute (IITKGP) and other institutions having rich experiences on the subject will be invited to share their experiences and expertise with the participants.

ESSENTIAL QUALIFICATIONS

Bachelor Degree in Sciences/or its equivalent with a considerable working experience in planning and executing programmes related to the subject of the training;
Must be subject specialist and related to the programme;
Must be willing to undertake an online training course

MEDIUM OF COMMUNICATION

The medium of communication is English only. The participants are expected to have a good working knowledge of English.

CERTIFICATE

E-Certificate authenticated with the signature of H.E. Secretary General, AARDO, and IITKGP authorities will be provided after the successful completion of the training programme.

Broad Course Components

- Electronics and automation in agricultural technologies.

- Mechatronics in Agriculture.

- Computational Fluid Dynamics and modeling.

- AI/ML and block chain technology in agriculture.

- Low and affordable technologies for Rural India.

- Developing Institutions for Rural Technologies.

- Intellectual Property Right (IPR) and Technology Transfer

Tentative sessions:

Day-1	27th March, Monday	AI/ML based agriculture
Day-2	28th March, Tuesday	Modern food processing Industries
Day-3	29th March, Wednesday	Challenges and Engineering aspects of Post-harvest processing of food
Day-4	30th March, Thursday	Advanced agricultural technologies
Day-5	3rd April, Monday	Mechanization of cost effective machines for rural sectors
Day-6	4th April, Tuesday	IP Challenges and technology transfer issues in Agriculture

About the organizing institution

Indian Institute of Technology Kharagpur (IIT Kharagpur) established in 1951, is the first of the IITs to be recognized as an Institute of National Importance by the Government of India. In 2019 it was awarded the status of Institute of Eminence by the Government of India. The institute was initially established to train engineers after India attained independence. However, over the years, the institute's academic capabilities diversified with offerings in management, law, architecture, humanities, etc. IIT Kharagpur has an 8.7-square-kilometre (2,100-acre) campus and has about 22,000 residents.

Considering the importance of agriculture in ensuring food and nutritional security, Agricultural Engineering department had been incepted at Indian Institute of Technology, Kharagpur in 1952 according to the recommendation of the Dhar committee appointed by the Board of Governors. Subsequently, with upgradation of its academic programmes, the department was re-christened as Agricultural & Food Engineering department in 1994. Among 23 IIT institutes, IIT Kharagpur has the sole distinction of having an Agricultural & Food Engineering department, which comprises of six disciplines such as Farm Machinery and Power, Land and Water Resources Engineering, Agricultural Biotechnology, Food Process Engineering, Agricultural Systems Management and Aquacultural Engineering, respectively. Sponsored research projects and development activities deal with Integrated Rainwater Management, Soil Tillage, Utilisation of Fly ash, Ergonomic Database for Agricultural Equipment, Integrating Remote Sensing Data with Distributed Hydrological Models, Model Pilot Plant and koji room facilities for production of industrial enzymes etc. The department has filed several patent applications and transferred many technologies to the industries and various stake-holders based on its innovative research.

Contact persons

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