



International Training Programme on

TECHNOLOGICAL ADVANCEMENT IN AGRICULTURAL AND FOOD ENGINEERING SECTOR IN INDIA

10th December – 19th December, 2023



Indian Institute of Technology Kharagpur, India

Title of the Programme

Technological advancement in agricultural and food engineering sector in India

Sponsoring Organization

African-Asian Rural Development Organization (AARDO)
(www.aardo.org)

Organizer/Training Institute

Indian Institute of Technology Kharagpur (IITKGP)

Duration

10th December – 19th December, 2023

Session Timings

11.00 to 16.00 hrs IST (GMT+5.30)

INTRODUCTION

IIT Kharagpur, in collaboration with AARDO, aims to conduct a ten days training program at IIT Kharagpur for the developing countries affiliated with AARDO from **10th December – 19th December 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 the technological advancements on mechanization. The course content will place a strong focus on policy formulation, as well as the effective implementation and planning of innovative and cost-effective technologies developed at IIT Kharagpur. These technologies aim to reduce the hardships faced by rural populations, elevate their quality of life, and provide insights into the decision-making processes related to policy in this context

BROAD COURSE COMPONENTS

- Electronics and automation in agricultural technologies.
- Mechatronics in Agriculture.
- Computational Fluid Dynamics and modeling.
- AI/ML and blockchain technology in agriculture.
- Low and affordable technologies for Rural India.
- Developing Institutions for Rural Technologies.
- Intellectual Property Rights (IPR) and Technology Transfer

OBJECTIVES

- AI/ML based technologies in modern agriculture.
- Renewable energy operated agri-machinery
- Modern machineries in food process and post- harvest engineering.
- Globalization of agricultural machineries: The constraints/ limitations/ challenges in commercialization.
- Mechanization of modern agriculture.
- Drone and its application in agricultural produces.
- Promoting the innovative affordable rural technologies for raising the living standard of rural people.
- Intellectual Property Right (IPR) and Technology Transfer.
- Developing policy framework for effective transfer of technologies to AARDO member countries.

PARTICIPATION

The training program will be attended by experts, senior officials and individuals working in the relevant field in AARDO member countries. Resource persons from the host Institute (IIT KGP) 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 programs related to the subject of the training;
- ✓ Must be subject enthusiast related to the program;
- ✓ 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 IITKGP authorities will be provided after the successful completion of the training programme.

TENTATIVE SESSIONS

DAY	DATE	ACTIVITY	
		Morning (11 am – 1 pm)	Afternoon (2pm – 4pm)
Day-1	10 th December, Sunday	Arrival of guests	
Day-2	11 th December, Monday	Opening Session	AI/ML-based agriculture
Day-3	12 th December, Tuesday	Modern food processing Industries	IP Challenges and technology transfer issues in Agriculture
Day-4	13 th December, Wednesday	Challenges and Engineering aspects of Post-harvest processing of food	Carbon Capture & Storage in Cropping systems
Day-5	14 th December, Thursday	Advanced aquacultural technologies	Renewable energy operated agri-machinery
Day-6	15 th December, Friday	Mechanization of cost-effective machines for rural sectors	3-D Agricultural systems for urban farming
Day-7	16 th December, Saturday	Guided field visit tour	
Day-8	17 th December, Sunday	Guided field visit tour	
Day-9	18 th December, Monday	Brainstorming Session	Closing Session
Day-10	19 th December, Tuesday	Departure	

HOW TO APPLY

Step 1:
Log on to the link:
SPACE FOR LINK



Step 2:
Fill up the details and submit. Take print out of the filled in application form.



Step 3:
Applicants are required to sign their applications and send them along with the recommendation letter of the Nodal Ministry of AARDO/Centre of Excellence to our Email:
iec@aardo.org

ABOUT THE ORGANIZING INSTITUTION (IIT KGP)

Indian Institute of Technology Kharagpur (IIT Kharagpur), established in 1951, is the first IIT 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-kilometer (2,100-acre) campus and has about 22,000 residents.

Considering the importance of agriculture in ensuring food and nutritional security, the Agricultural Engineering department had been incepted at the Indian Institute of Technology, Kharagpur, in 1952 according to the recommendation of the Dhar committee appointed by the Board of Governors. Subsequently, with the upgradation of its academic programs, the department was re-christened as the 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 six disciplines 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 dealing with Integrated Rainwater Management, Soil Tillage, Utilization of Fly ash, Ergonomic Database for Agricultural Equipment, Integrating Remote Sensing Data with Distributed Hydrological Models, Model Pilot Plant and koji room facilities for the production of industrial enzymes, etc. The department has filed several patent applications and transferred many technologies to industries and various stakeholders based on its innovative research.

Convenor: Prof. Gourav Dhar Bhowmick, Agricultural and Food Engineering Department, IIT Kharagpur

Co-Convenor: Prof. Niharika S. Bhattacharya, Rajiv Gandhi School of Intellectual Property Law, IIT Kharagpur