



**“ADVANCED ENTREPRENEURSHIP AND SKILL
DEVELOPMENT PROGRAMME (ADVANCED E-SDP)
SCHEME TRAININGS OF MSMES”**

**ADVANCED E-SDP ON
Precision Agriculture and Protected Cultivation**

19 - 24 MARCH 2024



Coordinators:

Dr. Rajendra Machavaram

Nodal Officer: Dr. Aditya Bandopadhyay

Venue:

Agricultural & Food Engineering Department

Computer and Informatics Centre (CIC), IIT Kharagpur



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INTRODUCTION OF THE TRAINING PROGRAM

Precision Agriculture and Protected Cultivation are advanced farming methods focused on optimizing yield while conserving resources. Precision Agriculture utilizes sensors to monitor soil conditions, map fields, and optimize fertilizer and water use. These technologies enable data-driven decision-making, enhancing productivity and reducing waste. Protected Cultivation involves growing crops in controlled environments, such as greenhouses and polyhouses, to regulate factors like temperature and humidity for healthier yields. Techniques like drip irrigation and mulching conserve water and suppress weeds, extending the cultivation season.

A training program on “Precision Agriculture and Protected Cultivation” is proposed under Advanced Entrepreneurship and Skill Development program (Advanced E-SDP) of MSMEs to impart the fundamental knowledge on Precision Agriculture encompassing the sub-topics of precision technology for seed-bed preparation for cultivation; sowing, planting and transplanting of agricultural crops; variable rate technology for nutrient and pest management; use of AI-ML technology for crop-health monitoring and yield monitoring. In protected cultivation, the sub-topics proposed under the training program are the various types of methods and structures employed in protection of the crop; structural design for the low-cost protected cultivation; the micro-climatic condition of the crop-growth environment and plan of practices for the protected cultivation crops.



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TENTATIVE ADVANCED ESDP SCHEDULE

Day 0 (AN): Arrival of the participants at IIT Kharagpur.

Day 1: Precision technology for seed-bed preparation for cultivation; Sowing, planting and transplanting of agricultural crops.

Day 2: Practice on precision seed-bed preparation; Practice on Sowing, Planting and Transplanting operations. Variable rate technology for nutrient management and Pest Management; Practice on VRT nutrient and pest management.

Day 3: Use of AI-ML technology for crop-health monitoring and yield monitoring; Practice on AI-ML crop health monitoring and yield monitoring.

Day 4: Protected Cultivation Structural Design, Planning and Practice on Structure construction

Day 5: Micro-climatic condition of the crop-growth environment - Modelling; Sensors and Practices for micro-climatic condition monitoring; Testing and Evaluation.



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PROGRAM DETAILS

Date of start: 19 March (FN) to 24th March 2024 (Sunday)

Duration: One week (Five Working Days)

Target Group: Graduates looking for Entrepreneurship

Participation/ registration Fee: Nil

Venue: PC Lab VI, and CIC, IIT Kharagpur

Accommodation: It will be provided at IIT Kharagpur

Visit CEP IIT Kharagpur portal for more detail

CONTACT:

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19 MARCH- 24 MARCH 2024

- **MODE: OFFLINE-MODE AT IIT KHARAGPUR**
- **SEATS: LIMITED (*ONLY SHORTLISTED CANDIDATES WILL BE INFORMED AND NOTIFIED)**
- **APPLICATION AND REGISTRATION FEES: NIL**
- **DATE OF START: 19 TO 24 MARCH 2024**
- **WELCOME AND REGISTRATION: 19 MARCH AT 9.15 A.M.**
- **DURATION: ONE WEEK (FIVE WORKING DAYS)**
- **TARGET GROUP: Engineers, Entrepreneurs, MBA Graduates, Agricultural Graduates**

***IMPORTANT INFORMATION:**

(1) APPLICATION LINK : <https://forms.gle/JKCCZDnDcmpTJ6U17>

(2) SEATS ARE LIMITED, ONLY SHORTLISTED CANDIDATES WILL GET A CHANCE TO ATTEND.

(3) NO APPLICATION AND COURSE FEE FROM THE PARTICIPANTS, FOOD (BREAKFAST, LUNCH, AND DINNER) AND LODGING (ON A TWIN-SHARING BASIS) WILL BE PROVIDED TO THE PARTICIPANTS.

Venue:

Agricultural & Food Engineering Department

Computer and Informatics Centre (CIC), IIT Kharagpur