

BACHELOR OF TECHNOLOGY IN AGRICULTURAL ENGINEERING

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Graduate

- › Bachelor of Technology in Agricultural Engineering (https://cutm.ac.in/programmes/btech-in-agriculture-engineering-college-paralakhemundi-odisha/)
- › Bachelor of Dairy Technology (https://cutm.ac.in/programmes/bachelor-of-dairy-technology/)
- › Bachelor of Phytopharmaceuticals (https://cutm.ac.in/programmes/bachelor-of-phytopharmaceuticals/)

Bachelor of Technology in Agricultural Engineering

Program Code	Level	Duration
17	Graduate	4 Years

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Overview

Course Fee

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Eligibility Criteria

Career Path

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About the Programme

Course Overview

Earning a bachelor's degree in Agricultural Engineering opens the scope for students to work in various areas including Farm Machinery, Soil and Water Conservation, Food Processing, Dairy Technology, Smart Agriculture, and so on. Students learn the design and operation of different farm machineries and implements like plough, seed drill, harvester, thresher, etc. The application of engineering in solving water management issues using advanced tools like ArcGIS, SWAT, and HEC-RAS, is taught. Students gain insight into the engineering aspects of food equipment design and processing, while getting hands-on experience in different food processing/preservation methods like freeze-drying, extraction, and value-added product development. It is mandatory for students to undergo training in smart agriculture and other specialized domains. They also get to do internships in various training institutes such as CFMTTI, CIPHET, IISWC, etc.

Scope/Job Opportunity

Agricultural Engineer | Plant Physiologist | Survey Research | Environmental Controls Engineer | Microbiologist | Food Supervisor | Agricultural Inspector | Agricultural Specialist | Farm Shop Manager | Soil Scientist | Researcher | Agronomist | Agricultural Crop Engineer | Placement Prospects: Dreams Agro International Pvt. Ltd., Sonalika (International Tractors Ltd.), Sai Sustainable Agro, Our Food Pvt. Ltd., Mahindra Agri Solutions Ltd., East West Seeds, Avani Agro Farms and Seeds, WASSAN, etc.

Eligibility Criteria | 10+2 Science (Physics/Math, Chemistry, Biology)

SMART FARM MACHINERY

Course Overview

This course includes the study of farm machinery design and the application of sensors and actuators. Students learn 3D modelling of machine components and their simulation using Dassault tools like CATIA and SOLIDWORKS. They also get the technical know-how needed for drone piloting and operating different agricultural machines such as tractor-mounted implements and combine harvester. Students have done many projects on creating smart seed planter, smart intra-row weeder, and smart chemical sprayer, while the development of 60 KW electric tractor has already started. In this course, students also get opportunities to do internship in the R&D development of tractor companies like ESCORTS and SONALIKA

SOIL AND WATER CONSERVATION

Course Overview

This course makes students competent in statistical analysis of hydrological data along with visualization of data using R-programming and Geo-spatial application in watershed management using ArcGIS software. As part of the domain project, students get to work on smart engineering applications (e.g. Internet of Things) in solving various water management issues. Students learn various rainwater harvesting structures and

techniques for Integrated watershed management, and get to work on hydrological models such as SWAT and HEC-RAS for simulated watershed processes. They also learn about flood management, drought management, watershed development plan for rainfed areas, and various policies and institutional activities on integrated watershed management. In addition, the course empowers students to collect and process satellite images for watershed delineation, mapping of soil erosion, mapping of evapotranspiration, etc.

FOOD PROCESSING

Course Overview

With this course, students learn various food processing/preservation methods such as hot air drying, freeze-drying, extraction of essential oils, pickling, jam, jelly, sauce and candy preparation, wine preparation, etc. They also get to develop and assemble food processing equipment based on modern technologies such as Microwave Assisted Extraction, IR dryer, etc. Learning to use equipment for determining the food composition, they get the know-how to develop innovative food products viz. cup-cake from ragi, starch free potato residue, vitamin and fibre enriched curd, and so on. Equipped with various analytical equipment including HPLC for food product characterization, students are enabled to make edible film from potato starch and are working to utilize other agro wastes for biodegradable packaging to address environmental issues. With internship programs in bakery units, mini dairy units and SC-CO₂ extraction units, students gain skills and confidence of working in large production plants

PLANT TISSUE CULTURE

Course Overview

Micropropagation of banana, standardization of micropropagation protocol of chrysanthemum, and vegetative propagation of ornamental plants are some of the major activities of the centre. The laboratory works to produce healthy seedlings, free from pathogens and uniformity, and aims to promote academics, research and training for skill development, professional excellence, and productivity at industrial sectors for an ultimate benefit to the tribal farmers, rural society, and entrepreneurs. The focus is on production and the labs are equipped to produce one million plants per year. Students get hands-on experience in using PCR, vegetative and micropropagation of plants. They also learn molecular procedures like RNA and DNA extraction, and the entire operations of x-plant preparation, media preparation, sub culturing, and growth monitoring till primary and secondary hardening in poly houses

Course Fee

	Fee Per Semester	Fee Per Year
FOR PARALAKHEMUNDI CAMPUS		₹ 1,31,250

Syllabus

📄 2022

- + Basket I
- + Basket II
- + Basket III
- + Basket IV
- + Basket V - Domain Course
- + Basket V - Skill Course

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Eligibility Criteria

- 10+2 (physics, Chemistry, Maths/Biology) 50% at plus 2
- Centurion University Entrance Exam (CUEE) Score

Career path you can choose after the course

- Agricultural Engineer
- Plant Physiologist
- Survey Research Agricultural Engineer
- Environmental Controls Engineer
- Microbiologist
- Food Supervisor
- Agricultural Inspector
- Agricultural Specialist
- Farm Shop Manager
- ResearcherAgronomist
- Soil Scientist
- Agricultural Crop Engineer

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Take the next step towards building your dream career.


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- > Holiday List (<https://cutm.ac.in/wp-content/uploads/General/HOLIDAY-LIST-2022-23.pdf>)
- > Track Your Vehicle (<https://cutm.ac.in/campus-facilities/transportation/>)

Admissions

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- > How To Apply (<https://cutm.ac.in/admission/how-to-apply/>) 
- > Course Fee (<https://cutm.ac.in/admission/course-fee/>)

- > MIS/ERP Login
(<https://cutm.icloudems.com/corecampus/index.php>)
- > Student Verification (<https://cutm.ac.in/students-credentials-verification>)
- > Site Map (<https://cutm.ac.in/sitemap/>)
- > CUTM Timesheet APK (wp-content/uploads/Android/Timesheet_V1.apk)
- > CUTM Courseware APK (wp-content/uploads/Android/COURSEWARE_V1.apk)

Placements

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- > Industry And Institutional Linkages
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- > Our Recruiters (<https://cutm.ac.in/placements/our-recruiters/>)
- > Assessment Partners
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- > Placement Brochure
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- > Career Development Cell
(<https://cutm.ac.in/placements/contact-placement-cell/>)

Contact Us

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