College of Agricultural Engineering & Technology

Dediapada, Dist.-Narmada (Gujarat)

INFORMATION BROCHURE

NAVSARI AGRICULTURAL UNIVERSITY

Navsari Agricultural University

Eru Char Rasta, Navsari-396 450

College of Agricultural Engineering & Technology

About C.A.E.T…..

College of Agricultural Engineering and Technology (CAET), under the aegis of Navsari Agricultural University (NAU) Navsari was established at Dediapada in 2012-2013, to meet the ever-increasing demand for qualified and trained manpower in the field of emerging areas of Agricultural Engineering & Technology. The CAET is located at Parsi Tekra, Dediapada, in Narmada district which is 72 kilometres east of Ankleshwar railway station, 45 kilometres south of Rajpipala and 70 kilometres from Statue of Unity, Sardar Sarovar Dam site, Kevadia colony.

Agricultural Engineering is a branch of Engineering that takes care of engineering and technology pertaining to agriculture, from land preparation to harvest to reaching the end consumer. The main concern is to meet the food demand of teeming population, improving the livelihood of farmers, reducing drudgery, increasing productivity, efficiency and quality while getting higher net returns per unit of land and water, per unit of input costs. Thus, Agricultural Engineering covers from soil management, irrigation and drainage of land; to managing the facilities farm structures, protected cultivation, green houses, precision agriculture; determining the best use of land; Design and use of appropriate farm machinery for each crop; Post-harvest technologies, processing, value addition, packaging, storage and transportation of food items. The use of renewable energy, and amalgamation of basic engineering science in agriculture. Developments in areas like Artificial Intelligence, Machine Learning, Remote Sensing and GIS is recent inclusion in various branches of Agricultural Engineering.

Mission Statement

- Attain excellence in education, relevance in research and outreach to exchange information.

Goals

- Technically trained manpower to bridge the gap between industry and agriculture sector.
- Comprehensive personality development with sense of moral values and responsibilities.
- Research innovations on crop specific engineering technologies suitable for the Agro climatic situation.
- Technical solutions on the emerging issues to the farmers of the region.

Objectives

- To empower graduating engineers with technical skills for sustainable management of natural resources by using appropriate method of irrigation, efficient designs as per the cropping needs.
- To disseminate knowledge about use of farm power and machinery for improving efficiency, removing drudgery and quicker field operations while using renewable sources of energy.
- To educate about post-harvest technologies, value addition, packaging and transportation of food with an aim to achieve higher net returns.
- To sensitize the budding engineers in latest modules of Artificial Intelligence, Machine Learning, Remote Sensing, GIS, Drone Technologies, Computer Models, Precision farming, AutoCAD designs and use of Sensors in different agriculture activities.
- To teach about different farm structures, green houses, soil and water conservation and rain water harvesting structures.
- To establish network with industry and premium institutions for latest trends and emerging needs of agricultural engineering.
- To study and fine tune the existing technologies for location specific applications.
- To provide guidance to the tribal and poor farmers of south Gujarat on various technical issues.

Vision

- Technology driven agriculture for achieving higher Total Factor Productivity with limited natural resources in the era of global warming and climate change.
- Generate entrepreneurial opportunities and skilled man power to address the food demands by infusing modern techniques.

Highlights

- ICAR Accredited College with state of art infrastructure
- Well-equipped advanced Laboratories
- Smart Classrooms
- State government scholarships
- Hostels to accommodate Boys and Girls
- Indoor and Outdoor Game
- Internet Wi-Fi connectivity
- Central Library with 4000 number of books in Agricultural Engineering
- Educational Tours to research institutes and industries
- Qualified and Experienced faculties
- Skill based short term training courses
- Smart Seminar hall
- Need based coaching classes for Competitive Examinations pertaining to Agricultural Engineering.
- Safe and secure campus with play grounds
- Placement cell with campus to corporate trainings.
- Opportunities to nurture hobbies in sports and cultural activities
- Expert lectures from accomplished personalities






Academic programmes

- The college offers undergraduate and post graduate degree programmes in Agricultural Engineering:

Degree Programme	Field of Specialization	Duration
B. Tech.	Agricultural Engineering	8 Semesters
M. Tech. (Agricultural Engineering)	Farm Machinery and Power Engg. Soil and Water Conservation Engg. Processing and Food Engg. Renewable Energy Engg.	4 Semesters

B. Tech. (Agril. Engg.) Programme

B. Tech. (Agril. Engg.) is a four years' professional degree programme conducted in eight semesters, in which six semesters are allocated for theory & practical courses, while two semesters are for skill development, industrial attachment training and practical exposure through research project. From the academic year 2024-25, the college adopted the courses curriculum and syllabi recommended by VI Dean's committee, appointed by Indian Council of Agricultural Research (ICAR), Government of India, New Delhi. Presently 37 seats are filled on the basis of merit list prepared from marks obtained in 12th Board as well as marks obtained in entrance test (GUJCET) conducted by the Gujarat State Education Board. In addition, there is a provision of admitting 15 % students from other states, based on the merit rankings in Common University Entrance Test (CUET) Conducted by National Testing Agency (NTA).

M. Tech. (Agril. Engg.) Programme

The M. Tech (Agricultural Engineering) programme is two years' full time course designed to impart specialization in various branches of Agricultural Engineering. The college offers specialization in Farm Machinery and Power Engineering (FMPE), Processing and Food Engineering (PFE), Soil and Water Conservation Engineering (SWCE) and Renewable Energy Engineering (REE). The eligibility of admission

in M.Tech. (Agril. Engg.) degree programmes is B. Tech (Agril. Engg.) along with the merit ranking in the entrance test conducted by State Agricultural University of Gujarat. In addition, 25 % students from other State Agricultural Universities of India are admitted on the basis of merit rankings of All India Entrance Exam for Admission (AIEEA) conducted by ICAR.

Carrier opportunities

- Irrigation Companies (Drip - Sprinkler)
- Rain Water Harvesting
- Surface and sub surface drain intallation
- Solar and Renewable Energy manufacturing, installation and distribution companies
- Custom Hiring Services
- Non-Government Organizations - Watershed Development (soil & water conservation)
- Remote sensing and GIS applications in watershed developments
- Tractor and Farm Machinery – manufacturing and marketing
- Design and Maintenance of Aquaculture ponds
- Survey, design, installation and maintenance of race courses, golf courses
- High tech Protected cultivation
- Drone applications in Agriculture
- Agro Based Industries
- Artificial Intelligence applications in Agriculture
- Food Processing Industry
- Food Packaging and Transportation Industry
- Food (Cold) Chain
- Food Inspectors
- Research and development
- Self-Employment and Entrepreneurship
- Higher Studies

Student Financial Aid

Students receive different fellowships awarded by ICAR, GOI, New Delhi, Government of Gujarat. Different fellowships awarded to the Agricultural Engineering students are NTS-UG, NTS-PG, ICAR-JRF, STUDENT READY, NAU PG fellowship, NAU Girls meritorious

fellowship, SC, ST and SEBC / EWS fellowships. Most of the students get one or the other fellowship consequently there is absolutely no financial constraint for enrolling in Agricultural Engineering.

Infrastructure facilities

The college consists of three storied Green Building which houses modern class rooms, laboratories, examination hall, seminar-cum-conference hall, administrative unit, open lobbies and staff rooms. Laboratories are well equipped with the state of art instrumentations, machineries and equipment's to deliver the UG and PG practical's. The building also has internet and Wi-Fi connectivity to organize online lectures from around the world. Following research laboratories / facilities are available in the college for practical's and hands on trainings:

FMPE Laboratory | FMPE Workshop | PFE Laboratory | IDE Laboratory | REE Laboratory | Biomass Testing | Basic Sciences Laboratory | Drawing Hall | Computer Lab | Field unit of solar and Bio char production unit | Protected cultivation Experimental fields | College Library | Examination hall | Reading corners

The college campus has accommodation facility for both Boys' and Girls' as well as residential quarters for faculty and staff. The hostels have furnished rooms, students mess, common room, gymnasium and all necessary amenities for indoor and outdoor games.

Co-curricular Activities

In addition to the routine course curriculum, both UG and PG students are encouraged to take part in the sports and cultural events organized on regular basis through which they get opportunity to compete in Inter collegiate, Inter University and National level. Every year college team participates in outdoor games like Kabaddi, Cricket, Kho-Kho, Volley Ball, Basket Ball, Badminton and Athletes, while students are also encouraged to participate in the indoor games like Badminton, Table Tennis, Carom, Chess and Yoga is there at the University level tournaments. The college has National Service Scheme (NSS) unit under which several programmes are organized within and outside the college campus, NSS Camps are also arranged in remote villages in which students get in touch with the rural society for exchange of information, learning the socio economic status of farming community while generating awareness among them about the nationally mandated objectives, like cleanliness, health care, education, water conservation and afforestation.

Annual cultural programme is organized by Students Representative Council (SRC) in which activities like Folk dance, Drama, Mime, Mono Acting, Extempore, Debate, *etc*. are organized, later the selected teams are sent for inter university competitions. The college also celebrate Teachers Day, Environmental Day, World Water day, International day of Forest, International Yoga Day, *Vanmahotsav*, etc which helps in educating them about the emerging issues of the modern world.

Contact : Principal & Dean
Tel : 9913599332 • Email : caed@nau.in • Website: www.nau.in