



DEPARTMENT OF SOIL AND WATER CONSERVATION ENGINEERING



College of Agricultural Engineering & Technology,
JAU, Junagadh

About Us

Our Legacy: Established in 1984 under the College of Agricultural Engineering & Technology (Gujarat Agricultural University), our department has a deep-rooted history of academic excellence. In 2004-05, we evolved into our current distinguished form under JAU. Aligning with the ICAR 5th Dean's committee recommendations, we were proudly rechristened as the **Department of Soil & Water Conservation Engineering** in 2017-18.

Our Mission: We aim to strengthen the Agricultural Engineering faculty by spearheading cutting-edge teaching, research, and extension activities. Our core focus spans across Soil & Water Conservation Engineering, Watershed Hydrology, Watershed Planning and Management, Ground Water Engineering, Remote Sensing and GIS, and the innovative application of ML/AI/IoT technologies in modern water management.

Infrastructure & Laboratories

Department Library

Soil Conservation Lab

Hydrology Lab

Remote Sensing & GIS
Lab

Soil Conservation Field
Lab

Instrumental Cell

Well-equipped
Seminar Hall

Precision Agriculture
Lab

Instructional Farm

Classroom & Admin
Offices

Staff Position

A. Faculties

Dr. H. V. Parmar

Professor and Head

Ph.D. (Agril. Engg.) | Specialization: SWE

☎ 099256 04525 ✉ hvparmar@jau.in

Prof. H. H. Mashru

Assistant Professor

M.Tech. (Agril. Engg.) | Specialization: SWE

☎ 94262 66590 ✉ hhmashru@jau.in

Dr. K. M. Gojiya

Assistant Professor

Ph. D. (Agril. Engg.) | Specialization: SWE

☎ 83066 78888 ✉ kmgojiya@jau.in

B. Technical / Support Staff

Er. P. J. Bagada

Tech. Assistant

M.Tech. (Agril. Engg.) | Specialization: SWE

☎ 89808 07693 ✉ pjbagada@jau.in

Mr. M. N. Balas

Agricultural Assistant

B.Sc. (Hons) | Specialization: Agri.

☎ 97257 27974 ✉ manojbalas1996@jau.in

Ms. H. G. Nandaniya

Agricultural Assistant

Dip. (Agri.)

☎ 83472 02369 ✉ hgnandaniya@jau.in

Mr. A. P. Zezariya

Mechanic

ITI (MMV)

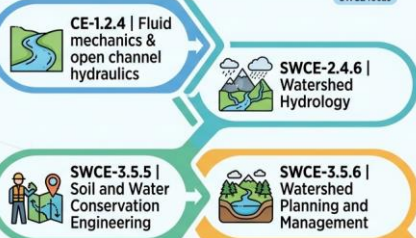
☎ 99989 93888 ✉ apzezariya1985@jau.in

EDUCATION

SUBJECTS IN B.TECH. (AGRI. ENGG.): AS PER 5TH DEANS

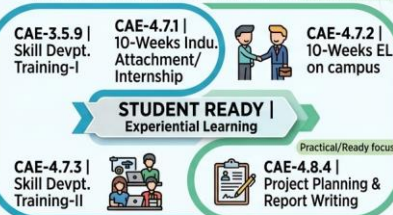
1 CORE CIVIL AND WATER ENGINEERING (SWCE)

SWCE focus



2 STUDENT READY - EXPERIENTIAL LEARNING & PROFESSIONAL DEVELOPMENT

Practical/Ready focus

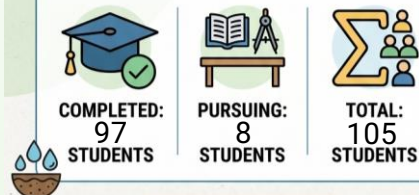


3 SPECIALIZED ADVANCED APPLICATIONS

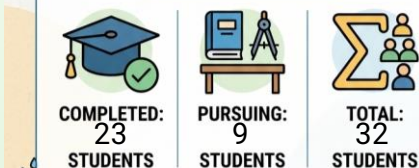


PG STUDENT STATUS

M.TECH.



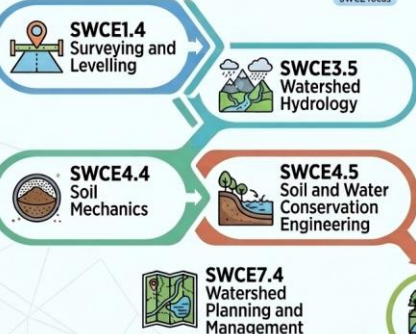
PH.D.



SUBJECTS IN B.TECH. (AGRI. ENGG.): AS PER 6TH DEANS

1 CORE CIVIL AND WATER ENGINEERING (SWCE)

SWCE focus



2 PROFESSIONAL DEVELOPMENT & PRACTICAL TRAINING

Practical/Ready focus

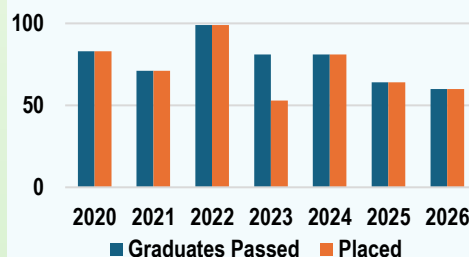


3 SPECIALIZED ADVANCED APPLICATIONS



As per 6th Deans UG Report

B.Tech. placement under T&P cell



M.Tech. Program (SWCE)



TOTAL: 70 CREDITS

Coursework (Major: 20 Cr, Minor: 8 Cr, Supp: 6 Cr, Common: 5 Cr)
Essentials (Seminar: 1 Cr, Thesis: 30 Cr)

Ph.D. Program (SWCE)



TOTAL: 100 CREDITS

Coursework (Major: 12 Cr, Minor: 6 Cr, Supp: 5 Cr, Common: 0 Cr)
Essentials (Seminar: 2 Cr, Thesis: 75 Cr)

M.Tech. Program (SWCE)

SN	COURSE TITLE	CODE
1	Advanced Soil & Water Conservation Enng.	*SWCE 501
2	Applied Watershed Hydrology	*SWCE 502
3	Soil & Water Conservation Structures	SWCE 503
4	Stochastic Hydrology	SWCE 504
5	Watershed Management & Modeling	*SWCE 505
6	Flow Through Porous Media	SWCE 506
7	Remote Sensing & GIS	SWCE 507
8	Climate Change & Water Resources	SWCE 508
9	Numerical Methods in Hydrology	SWCE 509
10	Dryland Water Management Technologies	SWCE 510

Ph.D. Program (SWCE)

SN	COURSE TITLE	CODE
1	Advances in Hydrology	*SWCE 601
2	Soil & Water Systems Simulation & Modeling	*SWCE 602
3	Reservoir Operation & River Basin Modeling	SWCE 603
4	Modeling Soil Erosion Processes & Sedimentation	SWCE 604
5	Waste Water Treatment & Utilization	SWCE 605
6	Hydro-Chemical Modeling	SWCE 606

*Compulsory courses



DEPARTMENT OF SOIL AND WATER CONSERVATION ENGINEERING



RESEARCH

Department conducts research in the fields of watershed management, soil & water conservation, climate change impacts on water resources, groundwater recharge, hydrological aspects, etc.

COMPLETED RESEARCH PROJECTS

SN	Name of Scheme	Year of starting	Year of completion
1	National watershed development project (B. H.18023-4) Plan scheme, GOI	1996	1999
2	ICAR Network Project on National Initiative for Climatic Resilient Agriculture (NICRA)	2010-11	2017-18
3	Modeling Water and Energy Fluxes Over Forested System (B.H.18246-96)	2015	2017
4	River Flow Simulations Integrating Satellite Data in Forested Catchment (B.H.18246-91)	2017	2022
5	Modeling of water fluxes and ground water discharge using 1D-2D coupled model and in situ measurements in the Gir forest catchment (B.H. 18126-25)	2021	2024

Research outcomes



Number of Recommendations: 15

ONGOING RESEARCH SCHEMES

SN	Name of Scheme	Year of starting
1	Establishment of Instructional Farm for College of Agricultural Engineering and Technology (BH 12127)	1992-93
2	Research on Watershed Management (BH: 12905)	2000-01
3	Strengthening of Instructional farm at College of Agricultural Engineering and Technology. (BH. 12120)	2012-13
4	Centre of Remote Sensing and Geoinformatics in Agriculture (BH: 12024)	2012-13



TRANSFER OF TECHNOLOGY

The latest technologies in the field of soil & water conservation engineering are transferred through TV talk, Radio talk, Farmers trainings program, Krishimela, Demonstrations, publishing research papers in national/international journals, seminar presentation/ proceedings, Vernacular article, Pamphlet, Bulletin/ Booklet, Leaflet, chapter in books etc.

SUMMARY OF PUBLICATIONS & MANUALS



RESEARCH
PAPERS

238



VERNACULAR
ARTICLES

67



BOOKS/
BOOK CHP.

14



MANUALS

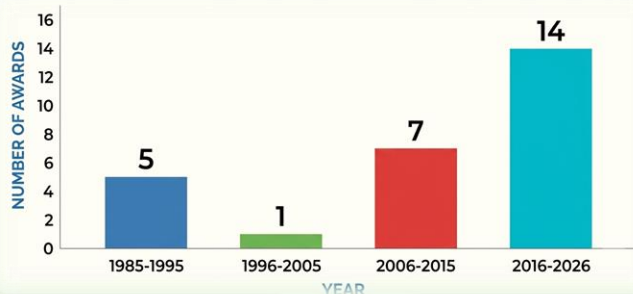
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FACULTY CREDENTIALS

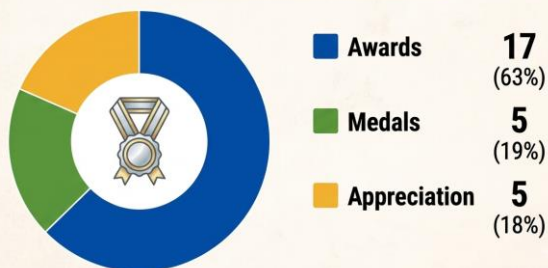
FACULTY	CITATIONS	h-index	i10-index
H. V. Parmar	211	08	04
H. H. Mashru	141	07	02
K. M. Gojiya	102	06	03
P. J. Bagada	07	01	00

AWARDS/FELLOWSHIPS/MEDALS/APPRECIATION

DEPARTMENT ACHIEVEMENTS OVER THE YEARS



BY TYPE OF RECOGNITION



GLIMPSES OF THE DEPARTMENT



Soil Conservation Lab



Students in Surveying pract.



Seminar Hall



Soil Conservation Field Lab



Department Library



Students in Practical Class

CONTACT

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