

**Department of Soil and Water Conservation  
Engineering**  
COLLEGE OF AGRICULTURAL ENGINEERING AND TECHNOLOGY,  
Dr. BALASAHEB SAWANT KONKAN KRISHI VIDYAPEETH,  
Dapoli, Dist. : Ratnagiri



### Faculty Strength:

#### Academic: Soil and Water Conservation Engineering



Name Dr. B. L. Ayare  
Qualification M.Tech & Ph. D (SWCE)  
Designation Professor and Head  
Experience 27 years  
Area of Soil and Water Conservation  
Specialization Engineering  
Email ID blayare@yahoo.co.in



Name Dr. P. R. Kolhe  
Qualification Ph. D (Computer Science)  
Designation Associate Professor (CAS)  
Experience 23 years  
Area of Computer Application  
Specialization  
Email ID prakash\_r-kolhe@rediffmail.com



Name Dr. H. N. Bhangé  
Qualification Ph. D (SWCE)  
Designation Associate Professor (CAS)  
Experience 19 years  
Area of Soil and Water Conservation  
Specialization Engineering  
Email ID harshalbhangé@gmail.com



Name Shri. M. H. Tharkar  
Qualification M.Sc.(Mathematics)  
Designation Associate Professor (CAS)  
Experience 18 years  
Area of Mathematics  
Specialization  
Email ID mugutrao.tharkar@gmail.com



Name Dr. P. B. Bansode  
Qualification M.Sc. & Ph.D. (Statistics)  
Designation Assistant Professor of  
Statistics  
Experience 06 years  
Area of Statistics  
Specialization  
Email ID pravin.stats@gmail.com

Name  
Qualification  
Designation  
Experience  
Area of  
Specialization  
Email ID

#### Technical:



Name **Er. S. S. Idate**  
Qualification M. Tech (SWCE)  
Designation Lab Assistant  
Experience 18 years  
Area of Soil and Water  
Specialization Conservation Engineering  
Email ID sanjaysidate@gmail.com

Name -  
Qualification -  
Designation -  
Experience -  
Area of -  
Specialization -  
Email ID -

#### Supporting:



Name **Shri. S. S. Thorat**  
Qualification M. P. ed.  
Designation Sports officer  
Experience 19 years  
Area of Sport Education  
Specialization  
Email ID sandipsthorat@gmail.com

### Courses Offered:

B.Tech Agril. Engg.	1 <sup>st</sup> Term	2 <sup>nd</sup> Term
	BS-MATH 111-Engineering Mathematics-I	SWCE-121 Surveying and Leveling
	BS-COMP 111- Computer Programming and Data Structures	BS-MATH-122- Engineering Mathematics -II
	BS-MATH-233- Engineering Mathematics-III	BS-COMP-122-Web Designing and Internet Applications
	SWCE-232- Soil Mechanics	AS-STAT-121- Statistical Methods in Engineering
	SWCE-233 - Watershed Hydrology	SWCE-244 - Soil and Water Conservation Engineering
	SWCE-355- Water Harvesting and Soil Conservation Structures	SWCE-366- Watershed Planning and Management
	GAE-475- Inplant Training –II (4 Weeks duration) after VI sem.	ELE-SWCE-481-Foods and Control Measures
	GAE-474-10 Weeks Experiential Learning on campus	ELE-SWCE-482-Remote Sensing and GIS Applications
		GAE-487-12 Weeks Project Planning & Report Writing

<b>M. Tech Soil and Water Conservation Engineering</b>	*SWCE-501-Advanced Soil and Water Conservation Engineering
	*SWCE-502-Applied Watershed Hydrology
	IDE-505-Design of Drip and Sprinkler Irrigation Systems
	IDE-510-Minor Irrigation
	STAT-501-Statistical Methods for Research Works
	PGS-501-Library and Information Services
	PGS-504-Basic Concepts in Laboratory Techniques
	*SWCE-505-Watershed Management and Modeling
	SWCE-507-Remote Sensing and GIS for Land and Water Resource Management
	SWCE-508-Climate Change and Water Resources
	IDE-506-Groundwater Engineering
	MATH-502-Numerical Methods for Engineers
	CSE-504-Soft Computing Techniques in Engineering
	PGS-502-Technical Writing and Communication Skills
	PGS-503-Intellectual Property and its management in Agriculture
	SWCE-599-Thesis Research
	SWCE-503-Soil and Water Conservation Structures
	SWCE-510-Dry Land Water Management Technologies
	SWCE-591-Seminar
PGS-505-Agricultural Research, Research Ethics and Rural Development Programmes	
SWCE-599-Thesis Research	
SWCE-599-Thesis Research	

### \*Compulsory courses

<b>Ph. D Soil and Water Conservation Engineering</b>	*SWCE-601-Advances in Hydrology
	*SWCE-602-Soil and Water Systems and Simulation and Modelling
	SWCE-604-Modelling Soil Erosion Processes and Sedimentation
	SWCE-607-Drone and Google Earth Engine for NRM
	SWCE-621-Special Problem
SWCE-622-Internship	

SWCE-691-Seminar-I
SWCE-692-Seminar-II
SWCE-699-Thesis Research
IDE-604-Soil-Water-Plant Atmospheric Modelling
AGRO-607-Stress Crop Production
CSE-506-Digital Image Processing
CPE-RPE-Research and Publication Ethics

### PG & Ph. D Student Research Projects Completed:

M. Tech ( Soil and Water Conservation Engineering )				
Sr. No.	Name of Candidate	Title of thesis	Year of Submission	Name of the Guide/Co-guide
1	Mr. Vaijyanath Bombale	Evaluation on Earthen and Cement Nala Bunds in Selected Watershed of Dapoli	2007	Prof. D. M. Mahale
2	Mr. Anand Gattani	Simulation of Ground Water Recharge in Priyadashini Watershed	2008	Prof. D. M. Mahale
3	Mr. Dhiraj Patil	Dry Spell Analysis For Kharland Management	2008	Dr. S. B. Nandgude
4	Mr. Sanjay Idate	Analysis of one day and extended days rainfall of Konkan region	2009	Prof. D. M. Mahale
5	Ms. Varsha Newase	Effect of rainfall intensity raindrop size & Land cover on runoff & Soil loss under Simulated conditions	2009	Prof. D. M. Mahale
6	Ms. Rupali Nikam	"Effect Of Synthetic Polymer (Sg) On Runoff And Soil Loss In Lateritic Soil Under Simulated Conditions"	2012	Prof. D. M. Mahale
7	Ms. Gauri Mehendale	Study of Rainfall Runoff Relationship using ANN and SCS-CN Models for Bench	2012	Dr. K. G. Gharde
8	Ms. Sangita Shinde	"Soil Erosion Modeling Of An Agricultural Watershed Using Geographical Information System"	2012	Prof. D. M. Mahale
9	Ms. Vidya Deshmukh	Estimation Of Runoff And Soil Erosion From Watershed Using Remote Sensing And Gis	2012	Er. H. N. Bhangre
10	Mr. Dhiraj Ayare	Stream Flow Forecasting Of Savitri River Using Arima	2014	Dr. S. B. Nandgude
11	Ms. Pallavi Chavan	"Study Of Water Harvesting Potential Of Morna River Catchment Using Remote Sensing And Gis	2014	Prof. D. M. Mahale
12	Mr. Pradeep Jaybhaye	Event Based Rainfall-Runoff Simulation Using HEC-HMS Model	2014	Prof. D. M. Mahale
13	Ms. Shena Tawkar	"Estimation Of Erodibility At Selected Locations In Konkan Region"	2014	Dr. S. B. Nandgude
14	Ms. Ujjwala Dandekar	"Development Of Geomorphological Instantaneous Unit Hydrograph Using Remote Sensing And Geographical Information System"	2015	Prof. D. M. Mahale
15	Mr. Swapnil Kothe	Development Of Rainfall Runoff Model Using Artificial Network for a Priyadarshini Watershed	2015	Dr. B. L. Ayare
16	Ms. Varsha Mendale	"Trend Analysis Of Rainfall In Konkan Region Of Maharashtra"	2016	Prof. D. M. Mahale
17	Ms. Nayana Mehendale	"Hydrological Stream Flow Modeling of Morna Catchment Using Soil and Water Assessment Tool (SWAT)."	2016	Dr. S. B. Nandgude
18	Mr. Ganesh Jadhav	Stream Flow Modeling and Development of Dimensionless Unit Hydrograph of Micro Watershed Using HEC-Geo HMS Model.	2016	Dr. S. B. Nandgude
19	Ms. Tejashri Bhambure	"Study Of Moisture Variability In Savitri Basin Using Rs And Gis Data Based."	2017	Dr. K. G. Gharde
20	Ms. Sanjani Salunkhe	"Soil Erosion and Crop Productivity Model for Ratnagiri District"	2017	Prof. D. M. Mahale
21	Mr. Nitin Bandgar	"Study of Comparative Performance of WEPP and USLE Model For Prediction of Soil Loss From Karli River Catchment"	2018	Dr. B. L. Ayare
22	Mr. Nitin Mohite	Study the comparative Performance of HEC-HMS & SWAT Model for Prediction of Surface runoff from kal River of Konkan Region of MH	2018	Dr. K. G. Gharde
23	Ms. Madhuri Padtare	"Studies on Soil Erosion and Crop Productivity Loss for Raigad and Sindhudurg Districts"	2018	Dr. S. B. Nandgude
24	Ms. Shrdha Shejale	Studies on Soil erosion & crop Productivity loss for Palghar & thane Districts.	2018	Prof. D. M. Mahale

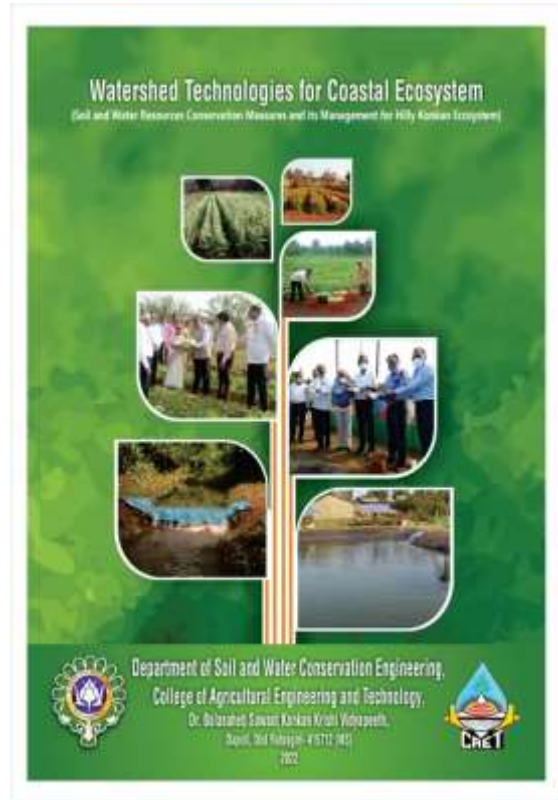
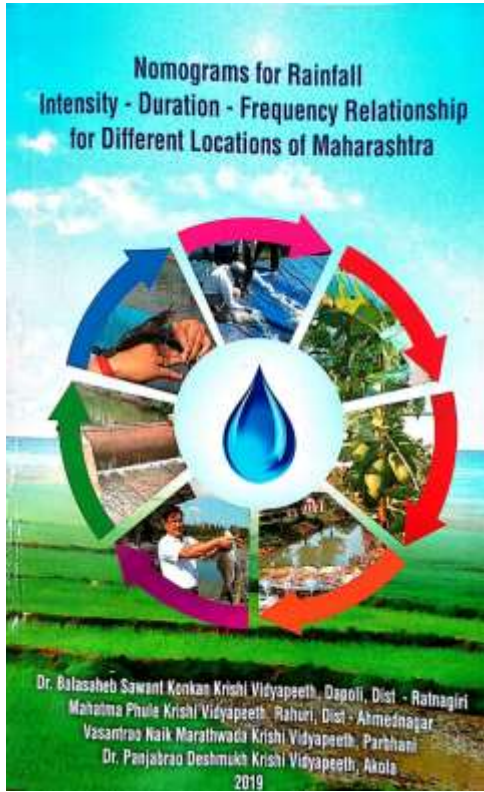
25	Ms. Sonal Khot	"Study of Comparative Performance of MMF and RUSLE Model for Prediction of Soil Loss from Karli River Catchment"	2019	Dr. B. L. Ayare
26	Mr. Pavan Paulzagade	" Estimation of Carbon Stock in Agricultural and Forest Land in Southern part of Ratnagiri District "	2019	Dr. H. N. Bhange
27	Mr. Prakash Hittanagi	"Forecasting of Water Table Fluctuations for Priyadarshini Watershed Using Artificial Neural Network"	2019	Dr. H. N. Bhange
28	Mr. Rahul Shelar	"Estimation of Carbon Stock in Agricultural and Forest Land in Northern Part of Ratnagiri District"	2019	Dr. S. B. Nandgude
29	Ms. Dara Rooha Blessy	"Planning and designing of Soil and Water Conservation structures in Dapoli Tehsil using Remote Sensing and GIS"	2021	Dr. B. L. Ayare
30	Mr. Suraj Dhaigude	Land cover mapping with change detection of South Konkan region for soil erosion risk assessment using Remote Sensing and GIS.	2021	Dr. H. N. Bhange
31	Ms. Suvarna Kale	"Planning and Designing of Soil and Water Conservation Measures for Kudavale Micro-Watershed using Remote Sensing and GIS."	2021	Dr. B. L. Ayare
32	Mr. Deepak Patil	"Delineation of groundwater potential zones and site selection for artificial recharge using geo spatial technologies"	2021	Dr. H. N. Bhange
33	Ms. Rasika Surve	"Site selection for water harvesting structures in Tetavali watershed using remote sensing and GIS"	2021	Dr. H. N. Bhange
34	Ms. Sayali Shinde	"Development Of Geomorphological Instantaneous Unit Hydrograph (GIUH) Model For An Ungauged Watershed"	2022	Dr. B. L. Ayare
35	Mr. Chandarkant Sapkale	"Influence Of Drainage Basin Morphometric Parameters Generated By Different DEM Data Sets Of Micro-Watershed Of Vashishti Basin"	2022	Dr. H. N. Bhange

**Ph. D ( Soil and Water Conservation Engineering )**

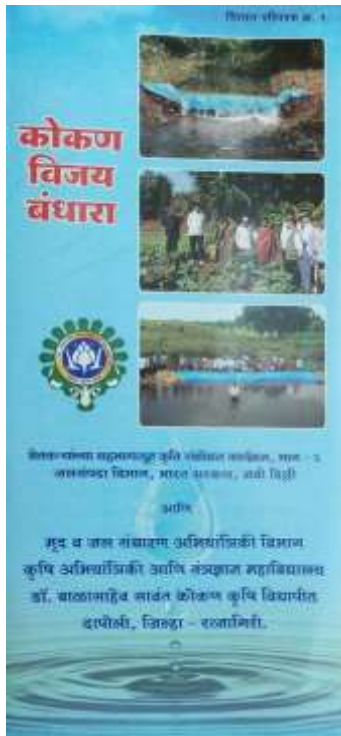
Sr. No.	Name of Candidate	Title of thesis	Year of Submission	Name of the Guide/Co-guide
1	Ms. Sangita Shinde	Modelling of Soil Erosion and Water Harvesting Potential for Improved Carbon Sequestration in Urmodi Basin	2017	Dr. S. B. Nandgude
2	Ms. Sanjani Salunkhe	Multi-Criteria Based Land Suit ability Evaluation of Watershed of Ratnagiri District for Mango Using Geospatial Technologies	2021	Dr. B. L. Ayare

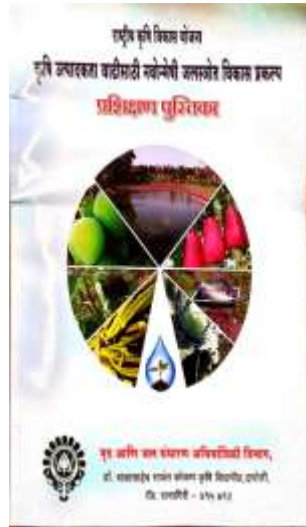
### 3. Extension Publications (No. & Front Page)

Booklet = 02



Leaflet = 03





**Gallery:**

Photos of Technologies developed by department

Konkan Vijay Bandhara developed to store rainwater after monsoon season in Konkan Region.



Plastic lined Farm pond with 500 micron thick UV stabilized HDPE lining material is recommended for harvesting rainwater and its use for irrigating 1ha area and aquaculture in Konkan region.



Scrap tyre bandhara (temporary check dam) is recommended for water conservation after monsoon season.

