



Department of Farm Structural Engineering

College of Agricultural Engineering and Technology,
Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth,
Dapoli, Dist: Ratnagiri



Faculty Strength:

Academic:



Name Dr. S.K. Jain
Qualification Ph.D.
Designation Professor and Head
Experience 32 years 7 months
Area of Specialization Agricultural Structures and animal comfort
Email ID skj11@rediffmail.com
jsandeep1967@gmail.com

Name
Qualification
Designation
Experience
Area of Specialization
Email ID



Name Dr. H.T. Jadhav
Qualification Ph.D.
Designation Associate Professor
Experience 19 years 10 months
Area of Specialization Agricultural Structures and Environment management
Email ID htjadhav@gmail.com

Name
Qualification
Designation
Experience
Area of Specialization
Email ID

Technical: Lab Assistant - 01.....Vacant

All India Coordinated Research Project – Plasticulture Engineering in Agriculture Structures and Environment Management

1. Assistant Research Engineer - 02. ... (Vacant - 02)
2. Research Associate - 03.... (Filled - 02; Vacant - 01)
3. Technical Assistant - 01.... (Vacant - 01)

Name Er. (Ms.) Ankita Pawar
Qualification M. Tech. (Agril. Engg.)
Designation Research Associate
Experience 6 months
Area of Specialization Animal comfort
Email ID ankitapawar6977@gmail.com

Name Er. R.R. Mhade
Qualification M. tech. (Agril. Engg.)
Designation Research Associate
Experience 6 months
Area of Specialization Poly houses
Email ID rushikeshmhade@gmail.com

Supporting: Lab boy - 01.....vacant

Education:

Degree Offered	Intake Capacity	Year of Establishment
B.Tech (Agricultural Engineering)	64	1999-2000
M.Tech (Agricultural Structures and Environment Management)	04	2018-2019
Ph.D. (Agricultural Structures and Environment Management)	02	(Starting from Academic Year 2023-2024)

Courses Offered:

B.Tech (Agricultural Engineering)	1 st Term	2 nd Term
	<ul style="list-style-type: none"> FS-111 (Engineering Mechanics) FS-355 (Agricultural Structures, Storage Engineering and Environmental Control) 	<ul style="list-style-type: none"> FS-122 (Strength of Material) FS-244 (Building Construction and Cost Estimation) FS-ELE-481 (Green House Structures for Protected Cultivation) FS-ELE-482 (Rural Transport, Water Supply and Sanitation) GAE-486 (Project Planning and Report Writing)
M.Tech (Agricultural Structures and Environment Management)	<ul style="list-style-type: none"> FS-501* Advance Structural Engineering FS-503* Agricultural Structures And Animal Housing FS-511 Farm Structures and Environmental Control RES-507 Agricultural Waste And By-Products Utilization MATH-502 STAT-511 Methods Of Numerical Analysis PGS-501 Library And Information Services PGS-504 Basic Concepts In Laboratory Techniques FS-507 Environmental Management FS-592* Special Problem PGS-505 Agricultural Research Ethics Rural Development PGS-506 Disaster Management PGS-595 Industry/Institute Training 	<ul style="list-style-type: none"> FS-502* Environmental And Pollution Control In Agriculture FS-504* Design of Structures for Agricultural Production FS-510 Design of Storage structures FS-513 Greenhouse Technology PFE-502 Engineering Properties of Biological Utilization PGS-502 Technical Writing and Communication Skills PGS-503 Intellectual Property and its Management in Agriculture FS-591 Masters Seminar FS-599 Master Research
Ph.D.	<ul style="list-style-type: none"> FSE-601* (Hi-Tech Agricultural 	<ul style="list-style-type: none"> FSE-604 (Advance

(Agricultural Structures and Environment Management)	structures for Agricultural Production) <ul style="list-style-type: none"> • FSE-602* (Design of Structures for Animal Housing) • FSE-603 (Advance Storage Structural Engineering) 	Environmental Science and Engineering) <ul style="list-style-type: none"> • FSE-605 (Design of Advance Green House Structures) • FSE-606 (Aquaculture Processing Technology and Structures Design)
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***Compulsory Courses**

Training Imparted:

SN	Training Imparted to	Title	Year
1	Farmers, Buruds, unemployed youth and self-help group	Bamboo Furniture	2009
2	Taluka Krishi Adhikari, Regional Research Station, Karjat and Roha	Bamboo Handicrafts	2010
3	Local farmers of Dapoli	Bamboo Handicrafts and Furniture	2010
4	SHG Chiplun, Dist-Ratnagiri	Bamboo Furniture	2011
5	Sukh Sampatti Samvardharn Sanstha, Nalasopara, Mumbai	Bamboo Handicraft and Furniture	2011
6	Rashtra Seva Samiti, Vasai, Thane (Government approved registered social Institute)	Bamboo Handicraft	2012

PG & Ph.D. Student Research Projects:

M.Tech (Agricultural Structures and Environment Management)				
SN	Name of Candidate	Title of Thesis	Year of submission	Name of the Guide/Co-Guide
1.	Mr. Pawar Ranjit Rajkumar	Development of Laterite Quarry Scrap Stabilized Blocks for Rural Housing in Konkan	2021	Dr. S.K. Jain
2.	Mr. Shirke Prasad Santosh	Design And Development Of Mechanism For Operation Of Curtains In Greenhouse	2021	Dr. S. K. Jain
3.	Mr. Gavali Jaypal Suklal	Development of Bamboo Reinforced Concrete Structural Member for Rural Housing	2021	Dr. S.K. Jain
4.	Miss. Dhage Puja Vishwas	Studies on Thermal Modelling of Naturally Ventilated Broiler House	2022	Dr. H.T. Jadhav
5.	Miss. Chavan Maheshwari Mansing	Comparison of Silo Structure Types on Quality of Silage made from Crop Residue	2023	Dr. S.K.Jain
6.	Miss. Pawar Ankita	Study of Heat Stress	2023	Dr. S.K. Jain

	Balasaheb	Reduction Techniques for Enhancing Animal Comfort in Dairy Barn		
7.	Mr. Gurav Amit Anandrav	Design and Development of Open Roof Mechanism for Greenhouse	2023	Dr. S.K. Jain
8.	Mr. Mhade Rushikesh Ramesh	Development and Evaluation of Low Rise Bamboo Polyhouse for Vegetable Production	2023	Dr. H. T. Jadhav
9.	Mr. Dewade Omkar Mangesh	Design and Development of Aeroponics for Greens Suitable in Urban Farming	2023	Dr. S.K. Jain
10.	Miss. Mali Aarati Sudhakar	Development of Control System for Automatic Fogging in Naturally Ventilated Greenhouse	2023	Dr. H. T. Jadhav
11.	Miss. Patole Pushp mala Shivaji	Development of Control System for Automatic Fogging System in Naturally Ventilated Poultry House	2023	Dr. H. T. Jadhav

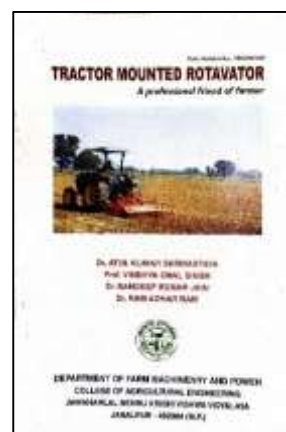
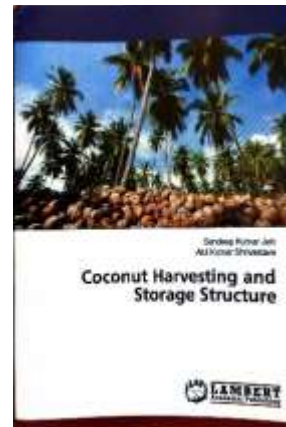
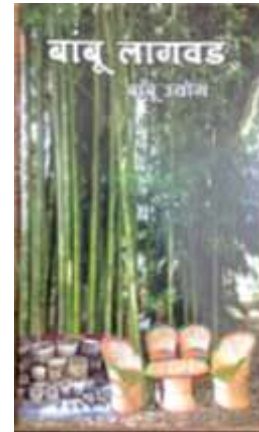
2. Training (PG Students)

Year	Student Name	Title of Training	
2020	Mr. Pawar Ranjit Rajkumar	Programming in Python Programming Language Internshala Trainings	
2020	Mr. Shirke Prasad Santosh	Programming in Python Programming Language Internshala Trainings	
2020	Mr. Gavali Jaypal Suklal	Programming in Python Programming Language Internshala Trainings	
2021	Ms. Pawar Ankita Balasaheb	Introduction to Post Harvest Engineering and Technology	
2021	Ms. Chavan Maheshwari Mansing	Introduction to Post Harvest Engineering and Technology	
2021	Mr. Mhade	AUTOCAD	

	Rushikesh Ramesh	Internshala Trainings	
2021	Mr. Gurav Amit Anandrav	AUTOCAD Internshala Trainings	

3. Extension Publications (No. & Front Page)

Booklet = 06



Leaflets = NIL

Training manuals = NIL

Gallery:

Photos with caption of Technologies developed by department



The battery operated areca nut harvester controlled from ground is recommended for harvesting of the areca nut having height of 6 m to 9 m.



Blocks prepared from laterite stone scrap (85% w/w), cement (12% w/w) and paddy husk ash (3% w/w)



Rubber Mat Flooring of size 1524 mm (L), 1060 mm (W), and 15 mm (T) for increasing milk production and comfort of cows in dairy barn



DBSKKV developed bamboo treatment Unit is recommended for chemical treatment of bamboo.



DBSKKV Dapoli developed bamboo mat board using Mes (*Dendrocalamus stocksii*) variety of bamboo is recommended.



Dr.B.S.K.K.V. design and developed bamboo greenhouse of 24 m length and 8 m width is recommended for cultivation of vegetables in konkan region.

BAMBOO KUTIR
Income Booster for Farmer by AGRO TOURISM



DBSKKV developed bamboo house structure made from kalak and mes varieties of bamboo is recommended for Konkan region.



Dr. BSKKV developed bamboo houses of an area 37 sq.m, 28 sq.m and 18.5 sq.m are recommended for agro tourism in Konkan region.



Recommendation :

DBSKKV developed bamboo house structure made from kalak and mes varieties of bamboo is recommended for Konkan region.
If bamboo is not available locally, bamboo poles can be used with the following conditions: 1) poles should be treated with borax solution.

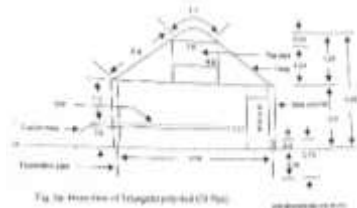


Fig. 10. Front view of Vegetable polyhouse (GI Pipe)

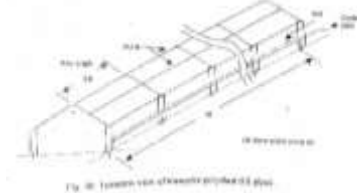


Fig. 11. Top view of Vegetable polyhouse (GI Pipe)

Dr. BSKKV Dapoli developed GI pipe nursery polyshed having approximate area 96 m² (length 18 m, width 5.34 m and height 3.2 m) is recommended for efficient production of mango and cashew rootstock seedlings and grafts in the Konkan region.

Dr. BSKKV Dapoli developed low cost treated bamboo (variety mes) nursery polyshed having area 81 m² (length 18 m, width 4.5 m and height 3.3 m) is recommended for efficient production of mango and cashew seedlings and grafts in the Konkan region.

The “DBSKKV Automatic Fogging System (DAFS)” developed by Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth is recommended to use in a Naturally Ventilated Polyhouse to control air temperature and relative humidity (VPD) at optimum levels for the crops.

The ‘DBSKKV Solar Radiation Shield (DSRS-V1)’ developed by DBSKKV Dapoli is

recommended for use with the respective sensors for accurate measurement of temperature and relative humidity under varied agricultural and other industrial applications. The 'DBSKKV High Rise Bamboo Polyhouse (DHRBP)' developed by DBSKKV Dapoli (gutter height = 4.57 m) is recommended for better inside environmental control & to use the fullest crop potential.

The "DBSKKV Bamboo Polyhouse Design Calculator (DBPDC)" developed by DBSKKV Dapoli is recommended for the design of structural members of naturally ventilated bamboo polyhouses of different sizes.

The 'DBSKKV Bamboo Polyhouse Innovative Joints (DBPIJ)' developed by DBSKKV Dapoli are recommended for joining of bamboo structural members during construction of bamboo polyhouses.