## Department of Agricultural Engineering Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli

#### Name of the Department/Section:

# Department of Agricultural Engineering, College of Agriculture, Dr BSKKV, Dapoli

#### About Department:

It is a constituent department of Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli established in year 1974 for importing higher education, research and extension of agricultural engineering technologies. The department of Agricultural Engineering offers Undergraduate course related to discipline of agricultural engineering to the Under graduate course to B.Sc (Hon.) Agriculture, B.Sc (Hon.) Horticulture and B.Sc. (Hon.) Forestry as per 5<sup>th</sup> Dean Syllabus from 2017.

#### Academic Programme

| 1 <sup>st</sup> Term | (Odd | Semester) | ) |
|----------------------|------|-----------|---|
|                      |      |           |   |

|          | (Ouu Semester)            |            |        |     |                      |
|----------|---------------------------|------------|--------|-----|----------------------|
| SN       | Title                     | Course No. | Credit | Sem | Degree<br>B.Sc (Hon) |
| 1        | Elementary Mathematic     | MATH-111   | 2(1+1) | Ι   | Agriculture          |
| 2        | Elementary Mathematic     | MATH-111   | 2(1+1) | Ι   | Horticulture         |
| 3        | Elementary Mathematic     | MATH-111   | 2(1+1) | Ι   | Forestry             |
|          | (Forestry)                |            |        |     |                      |
| 4        | Information and           | ENGG 111   | 2(1+1) | Ι   | Forestry             |
|          | Communication             |            |        |     |                      |
|          | Technology                |            |        |     |                      |
| 5        | Farm Power & Machinery    | ENGG-232   | 2(1+1) | III | Agriculture          |
| 6        | Agriculture Informatics   | COMP-231   | 2(1+1) | III | Agriculture          |
| 7        | Agriculture Informatics   | COMP-231   | 2(1+1) | III | Forestry             |
|          | (Forestry)                |            |        |     |                      |
| $2^{nd}$ | Term (Even Semester)      |            |        |     |                      |
| SN       | Title                     | Course No. | Credit | Sem | Degree               |
| 1        | Soil & Water Conservation | ENGG-121   | 2(1+1) | II  | Agriculture          |
|          | Engineering               |            |        |     |                      |
| 2        | Water Management in       | H/ENGG-121 | 2(1+1) | II  | Horticulture         |
|          | Horticultural             |            |        |     |                      |
| 3        | Renewable Energy & Green  | ENGG-243   | 2(1+1) | IV  | Agriculture          |
|          | Technology                |            |        |     |                      |
| 4        | Forest Hydrology &        | F-ENGG-242 | 2(1+1) | IV  | Forestry             |
|          | Watershed Mgt.            |            |        |     |                      |
| 5        | Protected cultivation &   | ENGG-364   | 2(1+1) | VI  | Agriculture          |
|          | Secondary Agril.          |            |        |     |                      |

| +    |                                   |                   |            |            |             |
|------|-----------------------------------|-------------------|------------|------------|-------------|
| 6    | Forest Survey &                   | F-ENGG-363        | 2(1+1)     | VI         | Forestry    |
|      | Engineering                       |                   |            |            | -           |
| 7    | Natural Resource                  | ELM-ENGG-         | 10         | VIII       | Agriculture |
|      | Management                        | 485               | (0+10)     |            | -           |
| Cou  | urse Curricula and syllabi of eac | h subject: Enclos | e as a sep | arate file | e as aUG    |
| svll | abus website.                     |                   |            |            |             |

## **Academic Infrastructure**

**Laboratories**: There are six laboratories in this department to conduct the practical of UG students from B.Sc.(Hon.) Agriculture, Horticulture and Forestry. The list of laboratories is as below.

| Sr. No. | Name of the Laboratory                           |
|---------|--|
| 1.      | Farm Machinery and Power Laboratory              |
| 2.      | Post-Harvest Technology Laboratory               |
| 3.      | Soil and Water Conservation Laboratory           |
| 4.      | Irrigation and Drainage Laboratory               |
| 5.      | Renewable Energy and Green Technology Laboratory |
| 6.      | Computer laboratory                              |



Farm Power and Machinery Laboratory



Postharvest Technology Laboratory



Soil and Water Conservation Engineering Laboratory



Irrigation and Drainage Engineering Laboratory



**Renewable Energy and Green Technology** 



**Computer Lab of Deptt. of Agril. Engineering** 

# **Faculty Strength**

The Department has following strength for the teaching/research and extension activities

| Sr.<br>No. | Name of the Post    | Sanctioned<br>Posts | Present Position    | Vacancies |
|------------|---------------------|---------------------|---------------------|-----------|
| 1          | Head                | 1                   | Dr. S.V. Pathak     | 1         |
|            |                     |                     | (Additional Charge) |           |
| 2          | Associate Professor | 2                   | 1                   | 1         |
| 3          | Assistant Professor | 4                   | 1+2#                | 1         |
| 4          | Agril. Assistant    | 1                   | 1                   | 0         |
| 5          | Lab boy             | 1                   | 0                   | 1         |
| 6          | Clerk               | 1                   | 0                   | 1         |
| 7          | Peon                | 2                   | 0                   | 2         |
| 8          | Mazdoor             | 2                   | 2                   | 0         |

## **Present Staff Position**

# Lady staff member

## **Present Teaching Staff members**

|    | Tresent Teaching Start memory |             |                     |                                |  |  |  |
|----|-------------------------------|-------------|---------------------|--------------------------------|--|--|--|
| SN | Name of                       | Designation | Qualification &     | Contact Information            |  |  |  |
|    | Faculty                       |             | Specialization      |                                |  |  |  |
| 1  | S. V.                         | Head        | Ph.D. (Farm         | sachinpathak76@gmail.com       |  |  |  |
|    | Pathak                        |             | Machinery and       | 7728096850                     |  |  |  |
|    |                               |             | Power Engineering)  | 7843047153                     |  |  |  |
| 2  | A.A.                          | Assistant   | Ph.D. (Farm         | amitdeogirikar@rediffmail.com, |  |  |  |
|    | Deogirikar                    | Professor   | Machinery and       | amitdeogirikar@gmail.com       |  |  |  |
|    |                               |             | Power Engineering)  | 9405522971                     |  |  |  |
| 3  | B. S.                         | Assistant   | Ph.D. (Agricultural | bhawanashirsat@yahoo.co.in     |  |  |  |

| + |           |           |                    |                          |
|---|-----------|-----------|--------------------|--------------------------|
|   | Shirsat   | Professor | Process            | 9730245977               |
|   |           |           | Engineering)       |                          |
| 4 | Er. S. S. | Assistant | M. Tech. Soil and  | palkarshweta23@gmail.com |
|   | Nagarkar  | Professor | Water Conservation | 9422632278               |
|   |           |           | Engineering        | 8010473429               |
|   |           |           |                    |                          |

## **Infrastructure/ Instructional Farm:**

The department is having one instructional farm (75 m  $\times$  60 m) with Kokum plantation (No. of plant 121). It is used for students practical work.

#### **News/Events**

| Research Activities and Recommendations |   |     |
|---|---|-----|
| Add departmental recommendations here   | : | Nil |

#### **Extension Activities for the Year 2022-2023**

| Conducted demonstration on Rice Mechanization      | - 5 |
|--|-----|
| Demonstration on Engineering Tools used in Farming | - 4 |
| Demonstration of Fam pond                          | - 4 |

#### **Contact Information**

Head, Department of Agricultural Engineering, College of Agriculture, Dapoli, Distt Ratnagiri. PIN 415712 Email: <u>ghodagrieng@dbskkv.ac.in</u> Phone: 02358 – 280213

| 0  | Name                       | : | Dr. Sachin Vishnudas<br>Pathak |
|----|----------------------------|---|--------------------------------|
| 99 | Date of Birth              | : | 12-07-1976                     |
|    | Present Post held          | : | Professor (CAS)                |
|    | Date of Joining on Present | : | 08.08.2016                     |
|    | post                       |   |                                |
|    |                            |   |                                |

| Name of College/Department      | :   | Department of Farm Machinery and Power, CAET |
|---------------------------------|-----|--|
| Residential Address             | ••• | F.No.7/2, "Snehlata" Apartment, Kokamba Ali, |
|                                 |     | Dapoli                                       |
| Mobile number and email address | :   | 7728096850, sachinpathak76@gmail.com         |
| Academic qualification          |     | Ph.D.(Farm Machinery and Power Engineering)  |

| Degree   | Year of | University   | Grade/Class | Major Subjects     |
|----------|---------|--------------|-------------|--------------------|
|          | Passing |              |             |                    |
| B. Tech. | 1997    | MPKV, Rahuri | Second      | Agril. Engg.       |
| M. Tech  | 2001    | JNKVV,       | First       | Farm Machinery and |
|          |         | Jabalpur     |             | Power              |
| Ph.D.    | 2016    | MPUAT,       | First       | Farm Machinery and |
|          |         | Udaipur      |             | Power              |

| Professional Experience of Teaching/ Research/ Extension |            |                         | :             |
|--|------------|-------------------------|---------------|
| Designation  | From       | То                      | Total (Years) |
| Research Associate                                       | 01-01-2002 | 25-08-2004              | 2 Y, 8-M      |
| Assistant Professor                                      | 27-08-2004 | 04-04-2010              | 5-Y, 7-M      |
| Associate Professor                                      | 05-04-2010 | 07-08-2016              | 6-Y, 4-M      |
| Professor (CAS)  | 08-08-2016 | Till date               | 7-Y, 1-M      |
|  |            | <b>Total Experience</b> | 21 Years 8-M  |

| TECHNOLOGIES DEVELOPED / ASSISTED IN DEVELOPMENT   |      |
|--|------|
| Recommendation/Patent  | Year |
| The developed 35 HP tractor operated shredder is recommended for shredding of pruned branches /cutting of horticultural and spices crops up to 2.0 cm diameter and harvested grasses for farmers |      |
| DBSKKV developed hand operated arecanut dehusker is recommended fro<br>dehusking arecanut  | 2010 |
| Dr. BSKKV developed bullock drawn zero till drill for bean seeds is recommended for Konkan region for sowing beans after harvest of kharif rice.   | 2010 |
| DBSKKV developed hand operated arecanut scrarifier is recommended for freshly harvested arecanut scrarifying for Konkan region of Maharashtra.   | 2011 |

| +  |      |
|--|------|
| Dr. BSKKV, Dapoli developed hand operated rotary arecanut dehusker is          | 2012 |
| recommended for arecanut dehusking.  |      |
| (AICRP-ESA)  |      |
| Dr. BSKKV, Dapoli developed manually operated rotary arecanut scrarifier is    | 2012 |
| recommended for arecanut scrarifier.   |      |
| (AICRP-ESA)  |      |
| Dr. BSKKV improved vaibhav sickle is recommended for harvesting of paddy.      | 2013 |
| DBSKKV developed pedal operated arecanut dehusker is recommended for           | 2014 |
| dehusking of dried arecanut.   |      |
| The self propelled reaper developed by Dr. B.S.K.K.V., Dapoli is recommended   | 2014 |
| for harvesting of paddy.   |      |
| Pure Latex (non slip) glove is recommended for cashew nut deshelling and       | 2014 |
| scooping operation.  |      |
| (AICRP-ESA)  |      |
| It is recommended to use non slip latex gloves during cashewnut deshelling for | 2015 |
| protection of hands from Cashew Nut shell Liquid (CNSL)                        |      |
| Ergonomical study and refinement of work practices and health hazards of men   | 2016 |
| and women in cashew industries.  |      |
| (NATIONAL)   |      |
| Development and Performance Evaluation of Power Operated Coconut Dehusker      | 2017 |
| Design and Development of Cono Weeder  | 2018 |
| Design Development of Bamboo House   | 2018 |

| Member of State/National level committee            | :  | -  |
|---|----|----|
| Member of State/National level Professional Society | •• | 04 |
| Research Paper Published                            | :  | 28 |

## **RESEARCH PUBLICATIONS**

| International Research Journal      | : 23  |
|-------------------------------------|-------|
| National Research Journal           | : 8   |
| Presented in Symposium or seminars  | :12   |
| Book published                      | : 02  |
| Booklet published                   | : Nil |
| Extension/Popular article published | : 15  |
| Radio Talk (AIR, Ratnagiri)         | : 08  |
| TV Shows (on Agril. Technology)     | : 05  |
| Research articles reviewed          | : 02  |
| Patent published                    | : Nil |

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## A} ASSOCIATION WITH PROFESSIONAL BODIES: 04

- a. Life Member of Institution of Engineers, New Delhi (AM 155937-3)
- b. Life Member of ISASaT, DBSKKV, Dapoli (R.No 63 dtd: 15/11/2016)
- c. Life Member of Indian Socity of Costal Agricultural Research LM/440/16
- d. Life Member, ISAE, New Delhi (LM-9983)

#### B} Books published: 02

- 1. Bhat shetitil Yantrikikaran
- 2. BAMBOO KUTIR Income Booster for Farmer by AGRO TOURISM

## C} Booklet

- 1. Nil
- D} Patent published : NIL

## E} Awards received

- 1. Acquired 1<sup>st</sup> winner for guided student innovative project at DIPEX-2012
- 2. Acquired 1<sup>st</sup> winner for guided student innovative project at DIPEX-2019
- 3. Best Performance Award in Agriculture and Social Services-2022
- 4. Best Researcher Award against the Hand Operated Rotary Type Arecanut Dehusker -2022
- 5. Best Research Paper Award for Determination of Optimum Seed Deatachung Force for Development of prototype threshing unit for Cumin Seed by ISASTRE, Raichur, Karnataka -2022

## **F**} Externally funded projects:

#### **Co-Investigator:**

- 1. Coconut Processing Unit financed by CDB, Kochin
- 2. Coir Processing Unit financed by Coir Board, Kochine
- **3.** Farm machinery Testing and Training centre, RKVY Project Financed by Central Ministry of Agriculture, New Delhi
- 4. Bamboo Processing Centre, College of Forestry, RKVY project

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|---|-------|
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| - |       |
|   |       |

| Name of the Faculty      | Amit Ashokrao Deogirikar      |  |
|--------------------------|-------------------------------|--|
| Post Held                | Assistant Professor(FMP)      |  |
| DateofBirth              | 22 <sup>nd</sup> August1977   |  |
| Qualification            | M.E.(FMP&E)                   |  |
| Area of Specialization   | Farm Machinery and Power      |  |
|                          | Engineering                   |  |
| Experience (Years)       | 22Years                       |  |
| Research Projects guided |                               |  |
| PhD                      | 00                            |  |
| M.Sc./M.Tech             | 02                            |  |
| B.Tech./ BSc.            | 00                            |  |
|                          | 00                            |  |
| Present area of Research | Farm Machinery, Magnetic      |  |
|                          |                               |  |
|                          | Seed treatment                |  |
| Contactdetails           |                               |  |
| Landline No.             | 02358280213                   |  |
| Mobile                   | 9405522971                    |  |
| Fax                      |                               |  |
| Email                    | amitdeogirikar@rediffmail.com |  |
|                          | amitdeogirikar@gmail.com      |  |

| EDUCA | ATIONAL BACKGROUND  |   |
|-------|---|---|
| Year  | Qualification   | CGPA or<br>percentage                   |
| 2001  | M.E. (Agril. Engg) (Farm Machinery & Power<br>Engineering)<br>College of Technology and Engineering, Udaipur<br>MaharanaPratap University of Agriculture<br>&Technology, Udaipur, (Rajasthan) INDIA | 3.31/4.00 CGPA                          |
| 1999  | ICAR Junior Research Fellow Exam'1999 Conducted<br>by Indian Council of Agriculture Research, New Delhi,<br>INDIA   | 27 <sup>th</sup> rank all<br>over India |
| 1999  | <b>B. Tech. (Agril. Engg)</b><br>College of Agricultural Engineering and Technology,<br>Akola Dr. PanjabraoDeshmukhKrishiVidyapeeth, Akola<br>(Maharashtra), INDIA                                  | 7.25/10.00<br>CGPA                      |
| 1995  | Higher Secondary Certificate (H. S. C.)<br>Shri. Shivaji College, Akola<br>Amravati Divisional Board, Amravati (Maharashtra)<br>INDIA   | 68.00 %                                 |

| +    |   |         |
|------|---|---------|
| 1993 | Secondary School Certificate (S. S. C.)           | 63.71 % |
|      | New English High School, Akola                    |         |
|      | Amravati Divisional Board, Amravati (Maharashtra) |         |
|      | INDIA   |         |

| WOR | <b>RK EXPERIENCE</b> |                 |                        |                     |
|-----|----------------------|-----------------|------------------------|---------------------|
| Sr. | Name and Address of  |                 |                        | Name of the Project |
| No. | Institute            |                 |                        |                     |
| 1   | Dept of Agril        | Junior Research | Sept 22 <sup>nd</sup>  | Regular Post        |
|     | Chemistry and Soil   | Assistant       | 2005 to April          |                     |
|     | Science, DrPDKV,     |                 | 23 <sup>rd</sup> 2008  |                     |
|     | Akola                |                 | (02-07-01)             |                     |
| 2   | Dept of Agricultural | Assistant       | April 28 <sup>th</sup> | Regular Post        |
|     | Engineering,         | Professor       | 2008                   |                     |
|     | DrBSKKV, Dapoli      |                 | (Continued             |                     |
|     |                      |                 | till date)             |                     |

| <b>RESEARCH PUBLICATIONS</b> (List enclose | ed separately) |  |
|--|----------------|--|
| International Research Journal             | 18             |  |
| National Research Journal                  | 14             |  |
| Presented in Symposium or seminars         | 18             |  |
| Book published                             | 04             |  |
| Booklet published                          | 02             |  |
| Extension/Popular article published        | 33             |  |
| Radio Talk (AIR, Ratnagiri)                | 03             |  |
| Research articles reviewed                 | 01             |  |
| Patent granted                             | 01             |  |
| Patent filed                               | 01             |  |
|  |                |  |

#### TECHNOLOGIES DEVELOPED / ASSISTED IN DEVELOPMENT

Small capacity sugarcane juice concentrator (Falling film type) Cotton Shredder, DPDKV, Akola Cotton Under Root Cutter, DPDKV, Akola Multi fruit Harvester, DBSKKV, Dapoli Domestic cashew nut roaster (Patent filed).

#### ASSOCIATION WITH PROFESSIONAL BODIES

Life Member of Indian Society of Agricultural Engineering, New Delhi, INDIA (LM9990) Life Member of PKV Research Journal of DrPanjabraoDeshmukhKrishiVidyapeeth, Akola, (Maharashtra), INDIA.

Member of Bioved Research Society, Allahabad, INDIA.

Member of Agricultural Research Communication Centre, Karnal, (Hrayana), INDIA. Member of Editorial Board, International Journal of Agricultural Engineering,

Muzaffarnagar (U.P) INDIA.

Acted as Jury Member for the evaluation of the Diploma projects in the Dipex 2018 Dipex 2018 – a State Level engineering project competition conducted by ABVP and Srijan Trust held at Walchand College of Engineering, Sangli during 10-13 March 2018.

#### Enclosed list of publication/ research projects etc.

#### International

- Kamble A. K., R. H. Rahate, A. A. Deogirikar, K. P. Arulkar and L. P. Diwane (2003). Development and evaluation of multi power operated cotton planter. *Bioved* Vol. 14(1,2): 29 32.
- 2. Katkhede S. S., P. S. Parshurame, **A. A. Deogirikar**, C. N. Gangde (2003). Feasibility testing of plot thresher for green gram.*Bioved* Vol. 14(1,2):75–78.
- Rahate R. H., Kamble; A. K., A. A. Deogirikar, K. P. Arulkar and L. P. Diwane (2003). Effect of blade inclined angles on performance of power weeder. *Bioved* Vol. 14(1, 2): 87 90.
- 4. Deogirikar Amit, Y. C. Bhatt, N. N. Narkhede and K. P. Arulkar (2004) Studies on cone type rotary nozzle for air assisted spraying. *Bioved* Vol. 15 (1, 2): 1-4.
- Patil V. D., N. N. Narkhede, A. A. Deogirikar and K. P. Arulkar (2004) Modifications and testing of rotavator for cotton shredding. *Bioved* Vol. 15 (1, 2): 9 – 12.
- Edlabadkar M. V.; A. A. Deogirikar, P. B. Kale and K. P. Arulkar (2004) Evaluation of Jojoba seed germination inside and outside the polyhouse. *Bioved* Vol. 15 (1, 2): 57 – 60.
- Arulkar K. P.; S. S. Hiwase, A. A. Deogirikar, and M. M. Deshmukh (2004) Water requirement estimation from climatological data by probability analysis for sugarcane crop in Nagpur district. *Bioved* Vol. 15 (1, 2): 75 – 78.
- Arulkar K. P.; S. S. Hiwase, A. A. Deogirikar, and M. M. Deshmukh (2004) Irrigation planning for Nagpur division of Maharashtra state. *Bioved* Vol. 15 (1, 2): 79 – 82.
- Patil R. D.; A. A. Deogirikar, D. M. Mahalle, D. S. Kharche and M. M. Deshpande (2004) Milk pasteurization with pulse electric field. Bioved Vol. 15 (1, 2): 83 88.
- 10. UtgikarSwarupa, KavitaArulkar, **Amit Deogirikar** (2006) Growth and yield of isabgol (PlantagoovataForsk.) as influenced by nitrogen and phosphorus levels. New Agriculturist Vol 17 (1/2): 239-240
- 11. **Deogirikar A. A.**, S. B. Gite and Y. C. Bhatt (2010) Performance evaluation of rotary nozzles for air assisted sprayer for cotton crop. International Journal of Agricultural Engineering Vol 3(2) 236-242.
- Gite S. B., A. A. Deogirikar (2010) Design and testing of suitable boom for power tiller operated sprayer for blower type pattern of grape vineyard. International Journal of Agricultural Engineering Vol 3(2) 295-298.
- Powar R. V., V. V. Aware, A. A. Deogirikar, S. V. Aware and P. U. Shahare (2017) Comparative evaluation of cashew nut shelling machines. International Journal of Agricultural Engineering Vol 10(2): 570-576.
- 14. **Deogirikar Amit A.,** V. V. Aware, R. V. Powar (2017) Time and motion study of a cashew nut processing factory in Dapoli. International Journal of Agricultural Engineering Vol 10(2): 581-589.

- 15. Powar R. V., P. U. Shahare, V. V. Aware and A. A. Deogirikar (2017) Energy audit of paddy cultivation practices in Konkan region of Maharashtra. International Journal of Agricultural Engineering Vol 10(2): 647-654.
- 16. ShahareP.U., K. G. Dhande, A. A. Deogirikar and K. P. Kolhe (2018) Efforts towards development of harvesting equipments for mango in Konkan. International Journal of Tropical Agriculture Vol 36 (3): 679-685.
- YadavY.M., S.G. Mahadik, V.V. Dalvi, A. A. Deogirikar, M. M. Burondkar and P.B. Vanave (2018) Effect of Magnetic Treatment on Enzyme Activation of Paddy (Oryza sativa L.) International Journal of Current Microbiology and Applied Sciences. Vol 7 (10): 3573 – 3581.
- ShindeShaileshMahadev, VaibhavLaxmanKachare and Amit A. Deogirikar (2019) Time and Motion Study of Mango Pulp Industry (Shree Samarth Foods, Palgad, Tal Dapoli, Dist Ratnagiri) – A Case Study. International Journal of Agricultural Engineering Vol 12(1): 170 – 175.

#### National

- Malwe; S. S., A. A. Deogirikar and N. N. Narkhede (2003) Development of Tractor Mounted Cotton Under Root Cutter. PKV Research Journal. Vol 27 (1) 26-29.
- Deogirikar A. A., N. N. Narkhede and K. P. Arulkar (2003) Performance of different interculture equipment in cotton crop. PKV Research Journal Vol 27 (1) 30-33.
- Golait S. D., A. A. Deogirikar, P. B. Kale, N. L. Raut, A. P. Deshmukh (2003) Energy and Cost Requirement for Construction of Greenhouse. PKV Research Journal. Vol 27 (1) 34-36
- 4. **Deogirikar** A. A., P. B. Kale, S. G. Wankhade, V. K. Mahorkar (2003) Effect of pre sowing magnetic treatment on the biometric characteristics and yield of Isabgol crop inside greenhouse. PKV Research Journal. Vol 27 (1) 37-42
- 5. Gadling P. P., S. H. Bhange, S. V. Gupta and A. A. Deogirikar (2003) Status of greenhouse technology in Amravati district. PKV Research Journal Vol 27 (1) 71-72.
- 6. **Deogirikar** A. A., P. B. Kale, S. G. Wankhade and B. B. Landge (2003) Germination of SafedMusali (Chlorophytumborvillianum) Tubers Inside and Outside Greenhouse. PKV Research Journal Vol 27 (2) 178-183.
- Landge B. B., A. A. Deogirikar and P. B. Kale (2004) Status of greenhouse technology in Akola and Washim District (A Case Study). PKV Research Journal Vol 28 (1) 103-104
- 8. Landge B. B., A. K. Verma, D. Chaudhari, P. B. Kale and A. A. Deogirikar (2004) Studies on design refinements on CIAE two-row tractor drawn vegetable transplanter. PKV Research Journal Vol 28 (2) 200-206.
- 9. Mange P. O., S. B. Bakal, L. P. Diwane and A. A. Deogirikar (2005) Comparison between tractor and multipairedbullock drawn M. B. Plough. PKV Research Journal Vol 29 (1) 125.
- Arulkar K. P., R. C. Bhuyar, A. A. Deogirikar, S. C. Sarode and P. S. Joshi (2005) Wetting pattern and salt distribution in micro sprinkler irrigation. Agric. Sci. Digest 24(4): 296-298
- 11. **Deogirikar A. A.**, P. B. Kale and S. M. Patil (2005) Effect of greenhouse and shade net on Isabgol crop. Journal of AgrometeorologyVol 7(2):279-283

- 12. **Deogirikar A. A.** and P. B. Kale (2006) Performance evaluation of safedmusali crop inside greenhouse. PKV Research Journal Vol 30 (1) 96-100.
- 13. Kale P. B., **A. A. Deogirikar** and S. M. Patil (2006) Performance evaluation of ventilation and fan-pad system in semi-controlled polyhouse during monsoon season. Journal of AgrometeorologyVol 8(2):226-229
- 14. Nalge D. N., A. A. Deogirikar, N. M. Konde and P. R. Damre (2007) Performance of cotton under drip irrigation on vertisols. Jou. of Soils and Crops. Vol 17 (2): 299-303.

#### List of students projects

- Student project "Multi fruit collector cum dryer" presented in Dipex 2012 a State Level engineering project competition conducted by ABVP and Srijan Trust held at Mumbai during 10-14 March 2012. <u>This project won the Second</u> <u>prize.</u> (Project Guide: A. A. Deogirikar)
- Student project "Multi fruit collector cum dryer" presented in the Spring 2013

   A National Level Technical Festival cum competition held at GIT, Lavel during 6-7 April 2013. This project won the first prize. (Project Guide: A. A. Deogirikar)
- Student project "A boon for diabetes salted cashew (Salted Cashew making machine)" presented in Dipex 2014 a State Level engineering project competition conducted by ABVP and Srijan Trust held at Karmayogi Engineering and Polytechnic College, Pandharpur during 4 7 March 2014. This project won the first prize. (Project Guide: A. A. Deogirikar)
- Student project "Salted cashew nut making machine" presented in the Spring 2014 – A National Level competition held at GITLavel during 22-23 March 2014. This project won the first prize. (Project Guide: A. A. Deogirikar)
- Students project "Cycle operated portray filling machine" presented in Dipex 2015 a State Level engineering project competition conducted by ABVP and Srijan Trust held at Nashik during 7-11 March 2015. This project won the First prize. (Project Guide: A. A. Deogirikar)
- Student project "Roadside marker cum radium fixer" for presentation in Dipex 2015 a State Level engineering project competition conducted by ABVP and Srijan Trust held at Nasik during 7-11 March 2015. This project won the Second prize. (Project Guide: A. A. Deogirikar)
- Students Experiential Learning Module on "Natural Resource Management" has been implemented in the Department from 2021. (Module In charge: A. A. Deogirikar)

#### List of awards

- 1. Received the "**Best Teacher Award**" given by the Balidharm Charitable trust, Nashik for the Year 2013. (**Recipient A. A. Deogirikar**)
- 2. Participated and presented the research work (Automatic pet feed box) in the theme area Agriculture and Animal Husbandry under the category of Teachers representing the College of Agriculture, Dapoli in the Inter-Collegiate Research Convention 'Avishkar 2018' organized by

KaarmaveerRajaramMarathe College of Agriculture, Phondaghat during December 29 to 30, 2018. Won the first prize. (Recipient A. A. Deogirikar)

- 3. Participated and presented the research work (Automatic pet feed box) in the theme area Agriculture and Animal Husbandry under the category of Teachers representing the Dr BSKKV, Dapoli in the Inter-University research Convention 'Avishkar 2018' organized by Gondwana University, Gadchiroli during January 15 to 18, 2019. (Recipient A. A. Deogirikar).
- 4. Participated and presented the research work (Use of commercial domestic oven toaster griller (OTG) for cashew nut kernel and Almonds roasting with the attachment of perforated drum) in the theme area Agriculture and Animal Husbandry under the Teachers category representing the DrBSKKV, Dapoli in the Inter-University research Convention 'Avishkar 2019' organized by Mumbai University, Mumbai during January 28 to 31, 2020. Won the Second prize. (Recipient A. A. Deogirikar).

#### **Books published**

- Deogirikar Amit Ashokrao, Kishor Ganpat Dhande, Atul Ganesh Mohod (2018) A Text Book on Farm Machinery and Power. Pub. Shri Rajlaxmi Prakashan, Aurangabad ISBN 9789384710873.
- Deogirikar Amit Ashokra and Sanchali Kshirsagar (2019) A Text Bok on Agri-Informatics. Pub. Shri Rajlaxmi Prakashan, Aurangabad ISBN 9789384710897.
- Deogirkar Amit Ashokrao (2019) A Text Book on Protected Cultivation and Secondary Agriculture. Pub. Shri Rajlaxmi Prakashan, Aurangabad ISBN 9789384710958.
- 4. **Deogirikar Amit Ashokrao** and Atul Ganesh Mohod (2019) A Text Book on Renewable Energy and Green Technology. Pub. Shri Rajlaxmi Prakashan, Aurangabad ISBN 9789384710965.
- Deogirikar Amit Ashokrao and Vaishali Ramesh Rao Wankhade (2021) Question and Answer as per Exam Format on Protected Cultivation and Secondary Agriculture. Brillion Publishing, New Delhi ISBN ISBN: 978-93-90757-90-9, e-ISBN: 978-93-90757-98-5.
- Mohod Atul Ganesh, Amit Ashokrao Deogirikar and Prachi Chndrakant Khorgade (2023) Subjective and Objective Question Bank on Renewable Energy and Green Technology. Brillion Publishing, New Delhi ISBN ISBN: 978-93-90757-90-9, e-ISBN: 978-93-93980-92-2.

#### Patent granted

 Deogirikar Amit Ashokrao and Anagha Amit Deogirikar (2023) Device for roasting cashew nuts and almonds with commercial domestic Oven-Toaster-Griller (OTG). Application No. 201921041121 and Patent No. 453703 date of grant 22/09/2023

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|--------------------------|----------------------------------|
| Post Held                | Assistant Professor of APE       |
| Date of Birth            | 06 <sup>th</sup> December 1975   |
| Qualification            | PhD (APFE)                       |
| Area of Specialization   | Agricultural Processing and Food |
| I I                      | Engineering                      |
|                          | ( <b>OR</b> Agricultural Process |
|                          | Engineering)                     |
| Experience (Years)       | 12 years                         |
| Research Projects guided |                                  |
| PhD                      | 00                               |
| M.Sc./M.Tech             | 00                               |
| B.Tech.                  | 00                               |
| Present area of research | Studies of Chickpea for making   |
|                          | Flakes.                          |
| Contact details          |                                  |
| Land line No.            | 02358280213 (O)                  |
| Mobile                   | 09730245977                      |
| Fax                      |                                  |
|                          | bhawnashirsat@rediffmail.com     |

Shirsat Bhawna Samadhan

| 2, | Post Held     | : | Assistant Professor of APE,              |
|----|---------------|---|--|
|    |               |   | Department of Agricultural Engineering,  |
|    |               |   | College of Agriculture, Dapoli - 415 712 |
|    |               |   | Dist - Ratnagiri (Maharashtra)           |
| 3. | Date of Birth | : | 06.12.1975                               |
| 4. | Qualification | : | M. Tech. (APFE)                          |

Name of the Faculty

| Sr. | Degree                  | Year | CGPA          | Institution/University    |
|-----|-------------------------|------|---------------|---------------------------|
| 1   | M. Tech. in APFE        | 2003 | 7.35/10 (73.5 | Indira Gandhi             |
| 1.  | WI. Teell. III AI FE    | 2003 | %)            | KrishiVishvaVidyalaya,    |
| n   | P. Tash (Agril Enga)    | 2000 | 6.68/10.00    | Dr.                       |
| ∠.  | B. Tech. (Agril. Engg.) | 2000 | (6.68 %)      | PanjabraoDeshmukhKrishiVi |

## Additional Qualification

Nil

Academic Achievements, Rewards. Nil

| 5. | Area of Specialization         | : | Agricultural Processing and Food<br>Engineering |
|----|--------------------------------|---|---|
|    |                                |   | ( <b>OR</b> Agricultural Process Engineering)   |
| 6. | Experience                     | : | 08 years  |
| 7. | <b>Research Project Guided</b> | : |   |
|    | Ph.D.                          | : | Pursuing  |
|    | M. Tech. (AgrilEngg)           | : | Nil   |

| +   |                                  |   |  |
|-----|----------------------------------|---|--|
|     | B. Tech.                         | : | Nil                                    |
| 8.  | Present Area of Research         | : | Studies of Chickpea for making Flakes. |
| 9.  | <b>Research Publication</b>      | : |  |
|     | Articles in journals             | : | 10                                     |
|     | Conference/Technical Publication | : | 01                                     |
| 10. | Books published                  |   |  |
|     | No. of Books                     | : | Nil                                    |
|     | Chapter in Books                 | : | Nil                                    |
| 11. | Contact Details                  |   |  |
|     | Phone No.                        |   | 02358 282415 (O)                       |
|     | Mobile No.                       |   | 09730245977                            |
|     | e mail                           |   | bhawnashirsat@rediffmail.com           |

# Scientific/Technical /Popular publications of Er. B. S. Shirsat International

| No. | Author (s)  | Title of published<br>paper  | Name of<br>Journal   | Year, Vol.,<br>and Page<br>No. |
|-----|---|--|--|--------------------------------|
| 1.  | Bhawna S.<br>Shirsat; S. Patel;<br>P. A. Borkar and<br>P. H. Bakane | PHYSICAL<br>PROPERTIES OF<br>FRESH GINGER<br>(Zingiberofficinale)<br>RHIZOMES  | MULTILOGIC<br>IN SCIENCE   | 2018; Vol.                     |
| 2.  | <b>Bhawna S.</b><br><b>Shirsat</b> and<br>GirjaSharan               | Small Innovations to<br>Improve Quality and<br>Safety of Vegetables<br>Retailed in Ahmedabad<br>City   | В  | 2015; Vol.                     |
| 3.  | <b>Bhawna S.</b><br><b>Shirsat</b> and<br>Nayansingh J.<br>Thakor   | Studies on Physico-<br>chemical characteristics<br>of Carambola<br>( <i>Averrhaocarambola</i><br>L.) fruit.  | Journal of Life<br>Sciences, India                                   | 2014;<br>Vol.25(2):<br>121-125 |
| 4.  | <b>B. S. Shirsat</b> and S. D. Kulkarni                             | Saturation Moisture<br>Content of Kodo<br>( <i>PaspalumScrobiculatu</i><br><i>m</i> L.) Millet And its<br>Dependence On<br>Temperature And<br>Duration of Soaking. | Bionan   | 2014;<br>Vol.(2):1-<br>2       |
| 5.  | S.<br>ShirsatBhawna<br>and P.S.Phirke                               | Thermal properties of different pulses.  | International<br>Journal of<br>Agricultural<br>Engineering,<br>India | 2                              |

| +   | ,   |  | ··••   | <b>-</b>                        |
|-----|---|--|--|---------------------------------|
| 6.  | GirjaSharan,<br>Kishor P.<br>Rawale and<br><b>Bhawna S.</b><br>Shirsat          | Quality-oriented fresh<br>vegetable supply chain:<br>A pilot in Ahmedabad,<br>India.   | Food Chain,<br>Warwickshire,<br>CV239QZ, UK                          | 2011;<br>Vol.1 (1) :<br>95-105  |
| 7.  | BhawnaShirsat,<br>S.D.Kulkarni,<br>and S.Patel                                  | Hydration<br>charactericteristics and<br>saturation moisture<br>content of kodo<br>( <i>Paspalumscrobiculatu</i><br><i>m</i> L.) millet. | International<br>Journal of<br>Agricultural<br>Engineering,<br>India | 2                               |
| 8.  | BhawnaShirsat,<br>S.D.Kulkarni,<br>and S.Patel                                  | Effect of premilling<br>treatments on colour<br>analysis of kodo<br>( <i>Paspalumscrobiculatu</i><br><i>m</i> L.) millet.                | International<br>Journal of<br>Agricultural<br>Engineering,<br>India | 2009;<br>Vol.2 (1)<br>: 153-156 |
| 9.  | BhawnaShirsat,<br>S.D.Kulkarni,<br>S.Patel, and<br>S.P.Singh                    | Milling characteristics<br>of kodo<br>( <i>Paspalumscrobiculatu</i><br><i>m</i> L.) millet.  | International<br>Journal of<br>Agricultural<br>Sciences, India       |                                 |
| 10. | BhawnaShirsat,<br>S.Patel,<br>S.D.Kulkarni,<br>P.H.Bakane and<br>ManishaKhedkar | Physical properties of<br>kodo<br>( <i>Paspalumscrobiculatu</i><br><i>m</i> L.) millet.  | International<br>Journal of<br>Agricultural<br>Sciences, India       | 287                             |

National – Nil

|     | Name                               | : | Er. Shwetambari Sameer<br>Nagarkar |
|-----|------------------------------------|---|------------------------------------|
|     | Date of Birth                      | : | 23.09.1984                         |
| 0.0 | Present Post held                  | : | Assistant Professor<br>(SWCE)      |
|     | Date of Joining on Present<br>post | • | 01.09.2016                         |

| Name of College/Department      | : | Department of Agricultural Engineering, College of Agriculture, Dapoli   |
|---------------------------------|---|--|
| Residential Address             | : | F.No.202, Shri Swami Samarth Residency, Ganesh<br>Nagar, Jalgaon, Dapoli |
| Mobile number and email address | : | 9422632278, palkarshweta23@gmail.com                                     |
| Academic qualification          | : | M.Tech. (Soil and Water Conservation                                     |
|                                 |   | Engineering)   |

| Degree   | Year of<br>Passing | University          | Grade/Class      | Major Subjects                                |
|----------|--------------------|---------------------|------------------|---|
| B. Tech. | 2006               | Dr.BSKKV,<br>Dapoli | First with Dist. | Agril. Engg.                                  |
| M. Tech  | 2008               | MPKV, Rahuri        | First            | Soil and Water<br>Conservation<br>Engineering |
| Ph.D.    | Pursuing           | MPKV, Rahuri        | -                | Soil and Water<br>Conservation<br>Engineering |

| Professional Experienc       | e of Teaching/ Resea | rch/ Extension:  |                |
|------------------------------|----------------------|------------------|----------------|
| Designation                  | From                 | То               | Total (Years)  |
| Senior Research<br>Assistant | 06.02.2009           | 31.08.2016       | 07 Y 06 M 25 D |
| Assistant Professor          | 01.09.2016           | Till date        | 07 Y 04 D      |
|                              |                      | Total Experience | 14 Y 07 M      |

| Member of State/National level committee            | : Nil |
|---|-------|
| Member of State/National level Professional Society | : 03  |
| Research Paper Published                            | : 08  |
| Recommendations                                     | : 05  |
| Research Project Guided                             | : 07  |
| B.Tech.(UG level)                                   |       |

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#### **Research papers published:**

| Sr.<br>No. | arch papers publish<br>Name of Authors   | Name of Journal   | Title of paper  | Volume<br>number and<br>Year   |
|------------|--|---|---|--|
| 1          | H.M. Palkar, A.V.<br>Gajakos, J.P.<br>Deolekar and <b>S.</b><br><b>M. Palkar</b> | Green Farming   | Performance<br>Evaluation of<br>Conveyor Type<br>Paddy Thresher.  | Vol.3 issue 6,<br>November-<br>December,<br>2012. pp 750-<br>752.<br>ISSN: 0974-<br>0775 |
| 2.         | K.D. Gharde, D.M.<br>Mahale, H.N.<br>Bhange, S.Idate<br>and <b>S.M. Palkar</b>   | Journal of The<br>Indian Society of<br>Coastal<br>Agricultural<br>Research. | Impact Assessment<br>Soil and Water<br>Conservation<br>Measures on Ground<br>Water Recharge.              | Vol. 29 issue<br>1, January<br>2011. pp 40-<br>44<br>ISSN 0972-<br>1584                  |
| 3          | D.M. Mahale, K.D.<br>Gharde, H.N.<br>Bhange, S.Idate<br>and <b>S.M. Palkar</b>   | Journal of The<br>Indian Society of<br>Coastal<br>Agricultural<br>Research. | Rainwater<br>Harvesting through<br>Lined Farm Pond<br>for Sustainable<br>Development of<br>Konkan Region. | Vol. 29 issue<br>1, January<br>2011. pp 45-<br>53.<br>ISSN 0972-<br>1584                 |
| 4          | Sumati P. Chavan<br>and <b>Shwetambari</b><br><b>M. Palkar</b>                   | International<br>Journal of<br>Agricultural<br>Engineering                  | Performance<br>Evaluation of Paddy<br>Drum Seeder.  | Vol.3 issue 2,<br>October,<br>2010. pp 279-<br>287<br>ISSN: 0974-<br>2662                |
| 5          | <b>S.M. Palkar</b> , R.D.<br>Bansod, H.M.<br>Palkar and<br>B.S.Dhekale           | International<br>Journal of<br>Tropical<br>Agriculture                      | A Discrete Linear<br>Rainfall Runoff<br>Model for<br>Watershed at<br>Shenda Park,<br>Kolhapur (M.S.).     | Vol.28, No.<br>1-2, June<br>2010, pp 95-<br>100.<br>ISSN: 0254-<br>8755                  |

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|---|---|---|---|---|
| 6 | Sachin Nandgude,<br>Sneha Thawakar,<br>Dilip Mahale,<br>Sangita Shinde and<br>Shwetambari<br>Palkar | Ecology<br>Environment &<br>Conservation                                    | Advancement in<br>erodibility<br>estimation and<br>thematic<br>mapping for soils of<br>Konkan                                     | 2014, 20<br>(Suppl.) pp<br>265-269.<br>ISSN 0971–<br>765X |
| 7 | Sachin Nandgude,<br>Sangita Shinde,<br>Dilip Mahale and<br><b>Shwetambari</b><br><b>Nagarkar</b>    | Agropedology,   | Assessment of Soil<br>Organic Carbon<br>Storage in Urmodi<br>Basin of Krishna<br>River using<br>Geographic<br>Information System. | 2015, 25 (02),<br>147-153.<br>ISSN: 0971<br>1570          |
| 8 | Gauri G. Sane,<br>Shwetambari S.<br>Nagarkar and<br>Sangita S. Shinde                               | International<br>Journal of Current<br>Microbiology and<br>Applied Sciences | Waste Water Reuse<br>for Agriculture<br>Irrigation- A Review  | (2020),<br>Volume 9<br>Number 12<br>ISSN: 2319-<br>7706   |

## **Association With Professional Bodies: 03**

- a. Life Member of Indian Association of Agrometeorologist (LM 1084)
- **b.** Life Member of ISASaT,DBSKKV, Dapoli
- c. Life Member, ISAE, New Delhi (LM: 10588)

#### **Research Contribution:**

| 1. | Name of Project                   | : "Land cover mapping with change detection<br>analysis of Konkan region for soil erosion risk<br>assessment using Remote Sensing and GIS"                                |  |  |  |
|----|-----------------------------------|---|--|--|--|
|    | Worked as Scientist               |   |  |  |  |
| 2. | Name of Project                   | : "Innovative Water Resources Development for<br>Enhancing Agricultural Productivity" under the<br>Department of Soil and Water Conservation<br>Engineering, CAET, Dapoli |  |  |  |
|    | Worked as an Associated Scientist |   |  |  |  |
| 3. | Name of Project                   | : "Evaluation of Soil and Water Conservation<br>Structures in Selected Watersheds"  |  |  |  |
|    | Worked as a Co-scientist          |   |  |  |  |
| 4. | Name of Project                   | : "Soil Erosion and Crop Productivity Model for<br>Konkan Region".  |  |  |  |

| - | ł  |                          |          |             |    |             |     |     |        |
|---|----|--------------------------|----------|-------------|----|-------------|-----|-----|--------|
|   |    | Worked as a Co-scientist |          |             |    |             |     |     |        |
|   | 6. | Name of Project          | :        | Development | of | Erodibility | map | for | Konkan |
|   |    |                          |          | region      |    |             |     |     |        |
|   |    | Worked as a Co-scientist | <u>.</u> | L           |    |             |     |     |        |