Department of Agricultural Engineering

1. **Name of the Department/Section : Department of Agricultural Engineering:**
   The Deptt.of Agril. Engineering was established in the year 1974, for importing higher training in the discipline of Agricultural Engineering, keeping in view the special demands of agricultural community of the Konkan region comprising Thane, Raigad, Ratnagiri and Sindhudurg districts of Maharashtra. It is a constituent department of Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli.

2. **About Department :**
   There are well-equipped laboratories of following six sub-departments of Agril. Engineering discipline.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the sub-department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farm Machinery and Power Laboratory</td>
</tr>
<tr>
<td>2</td>
<td>Agril. Process Engineering Laboratory</td>
</tr>
<tr>
<td>3</td>
<td>Soil and Water Conservation Laboratory</td>
</tr>
<tr>
<td>4</td>
<td>Irrigation and Drainage Laboratory</td>
</tr>
<tr>
<td>5</td>
<td>Farm Structures Laboratory</td>
</tr>
<tr>
<td>6</td>
<td>Computer laboratory</td>
</tr>
</tbody>
</table>

The University has appointed specialized and highly qualified staff in the above-mentioned disciplines of agriculture engineering and technology of the department. This has led to the improvement in the educational level of students due to detailed study of each and every aspect through the above disciplines of the college. The upgradation in faculty and staff, as well as, improvement in educational facilities of this department was only being achieved due to funding received from the ICAR. Similarly, various activities related to development and strengthening of laboratories through purchase of many advanced machineries, equipments, instruments are undertaken with the assistance of ICAR funding. This has resulted in improvement of the students’ potential in different activities, such as technical education, sports, cultural and scientific research.
Deptt. of Agril. Engineering

Display Boards of Deptt.of Agril. Engineering

Well-equipped cabins for faculty members
3. **Academic Programmers**: Provide the details of each doctoral programme as
   a. **Bachelor Programmes**

**B.Sc. (Agri):**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Semester No.</th>
<th>Term No.</th>
<th>Course No.</th>
<th>Credits</th>
<th>Title of the course offered by the department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I</td>
<td>I</td>
<td>MATH-111</td>
<td>2(1+1)</td>
<td>Mathematics (DC)</td>
</tr>
<tr>
<td>2.</td>
<td>II</td>
<td>II</td>
<td>ENGG-121</td>
<td>2(1+1)</td>
<td>Fundamental of Soil &amp; Water Conservation</td>
</tr>
<tr>
<td>3.</td>
<td>III</td>
<td>I</td>
<td>ENGG-232</td>
<td>2(1+1)</td>
<td>Introduction to computer Application</td>
</tr>
<tr>
<td>4.</td>
<td>V</td>
<td>I</td>
<td>ENGG-352</td>
<td>2(1+1)</td>
<td>Farm Power and Machinery</td>
</tr>
<tr>
<td>5.</td>
<td>VI</td>
<td>II</td>
<td>ENGG-363</td>
<td>2(1+1)</td>
<td>Protected Cultivation and Post Harvest Engine</td>
</tr>
<tr>
<td>6.</td>
<td>VII</td>
<td>I</td>
<td>RAWE</td>
<td>2(0+2)</td>
<td>Rural Agril. Work Experience Programme</td>
</tr>
<tr>
<td>7.</td>
<td>VIII</td>
<td>II</td>
<td>AEL- ENGG - 486</td>
<td>2(0+2)</td>
<td>Natural Resources Management</td>
</tr>
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</table>
### B.Sc. (Horti):

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Semester No.</th>
<th>Term No.</th>
<th>Course No.</th>
<th>Credits</th>
<th>Title of the course offered by the department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>I</td>
<td>MATH-111</td>
<td>2(1+1)</td>
<td>Mathematics (DC)</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>I</td>
<td>H/COMP-111</td>
<td>2(1+1)</td>
<td>Introduction to computer Application</td>
</tr>
<tr>
<td>3</td>
<td>V</td>
<td>I</td>
<td>H/ENGG-351</td>
<td>2(1+1)</td>
<td>Farm Power &amp; Machinery</td>
</tr>
<tr>
<td>4</td>
<td>VII</td>
<td>I</td>
<td>EL-HORT-471</td>
<td>1(0+1)</td>
<td>Nursery Management</td>
</tr>
<tr>
<td>7</td>
<td>VIII</td>
<td>II</td>
<td>EL-HORT-472</td>
<td>2(0+2)</td>
<td>Protected cultivation of high value horticultural crops</td>
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</tbody>
</table>

### B.Sc. (For):

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Semester No.</th>
<th>Term No.</th>
<th>Course No.</th>
<th>Credits</th>
<th>Title of the course offered by the department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>I</td>
<td>MATH-111</td>
<td>2(1+1)</td>
<td>Basic Mathematics (DC)</td>
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<td>2</td>
<td>II</td>
<td>II</td>
<td>F/ENGG-121</td>
<td>3(2+1)</td>
<td>Principles Hydrology, Soil &amp; Water Conservation</td>
</tr>
<tr>
<td>3</td>
<td>V</td>
<td>I</td>
<td>F/ENGG-351</td>
<td>2(1+1)</td>
<td>Introduction to Computer Application</td>
</tr>
</tbody>
</table>

Course Curricula and syllabi of each subject: [Enclose as a separate file as a UG syllabus website.](#)

### 4. Infrastructure

a. **Laboratories:** There are four laboratories in this department namely Laboratory of Soil and water conservation, Laboratory of Irrigation and Drainage Engineering, Laboratory of Agriculture process and structure Engineering, Laboratory of Farm Power and Machineries.
Soil & water conservation Engineering laboratory

Irrigation & Drainage Engineering Laboratory

Post harvest Technology Laboratory
Farm Structures laboratory

Farm Power and Machinery Laboratory
5. Faculty
   a. Academic staff: Assistant professor and above with the details of the staff as given below

<table>
<thead>
<tr>
<th>Recent Photograph</th>
<th>Name of the Faculty</th>
<th>Dr. Y P Khandetod</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Post Held</td>
<td>Head</td>
</tr>
<tr>
<td></td>
<td>Date of Birth</td>
<td>05 August 1961</td>
</tr>
<tr>
<td></td>
<td>Area of Specialization</td>
<td>Renewable Energy</td>
</tr>
<tr>
<td></td>
<td>Experience (Years)</td>
<td>27 Year</td>
</tr>
<tr>
<td></td>
<td>Research Project Guided Ph.D</td>
<td>02 (In Progress)</td>
</tr>
<tr>
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<td></td>
<td>M.Sc./M.Tech</td>
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<td></td>
<td>B.Tech.</td>
</tr>
<tr>
<td></td>
<td>Present area of Research</td>
<td>Renewable Energy</td>
</tr>
<tr>
<td></td>
<td>Contact details</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Land line No.</td>
<td>(02358) 282414</td>
</tr>
<tr>
<td></td>
<td>Mobile No.</td>
<td>09420156693</td>
</tr>
<tr>
<td></td>
<td>Fax No.</td>
<td>(02358) 282414</td>
</tr>
<tr>
<td></td>
<td>Email</td>
<td><a href="mailto:pkhandetod@rediffmail.com">pkhandetod@rediffmail.com</a></td>
</tr>
</tbody>
</table>
Name : Dr. Sonawane Somnath Pralhad
Post Held : Associate Professor of APE, Department of Agricultural Engineering, College of Agriculture, Dapoli - 415 712 Dist - Ratnagiri (Maharashtra)
Date of Birth : 13.12.1973

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Degree</th>
<th>Year</th>
<th>CGPA</th>
<th>Institution/University</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ph.D. (Agril. Engg) in PFE</td>
<td>2012</td>
<td>8.90/10.00 (89.0 %)</td>
<td>Maharana Pratap University of Agriculture and Technology</td>
</tr>
<tr>
<td>2.</td>
<td>M.E.(Ag) in PFE</td>
<td>1997</td>
<td>3.87/4.00 (86.2 %)</td>
<td>Rajasthan Agricultural University (RAU), Bikaner</td>
</tr>
<tr>
<td>3.</td>
<td>B. Tech. (Agril. Engg.)</td>
<td>1995</td>
<td>8.36/10.00 (83.6 %)</td>
<td>Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri</td>
</tr>
</tbody>
</table>

• Additional Qualification
1. Qualified NET-98 (National Eligibility Test) held in December 1998 for Lecturership or Assistant Professorship conducted by ASRB, ICAR New Delhi.
2. Qualified GATE-95 (Graduate Aptitude Test in Engineering) in subject of Agricultural Engineering conducted by IIT, Kanpur.

• Academic Achievements, Rewards.
1. Recipient of Graduate Aptitude Test in Engineering Scholarship during Master Programme at College of Technology & Agricultural Engineering, Udaipur.
3. Stood or Rank FIRST in school and college for SSC and HSC examination respectively.

Area of Specialization : Processing and Food Engineering (OR Agricultural Process Engineering)
Experience : 16 years
Research Project Guided : (including as a Major Advisor and Member of SAC)
PhD : 02
M. Tech. (Agril Engg) : 05
B. Tech. : 15
Present Area of Research : 1. Development and Performance Evaluation of Kokum Seed Sheller
2. Influence of hydrothermal treatments on dehulling of Kokum seed
3. Extraction of Oil (Butter) from Kokum Seed
4. Packaging and Storage study of Kokum (oil) butter
5. Development of high energy value finger millet biscuits
6. Development of Extruded Products from Finger Millet Based Composite flour
7. Studies of Extraction of Cashew Nut Shell Liquid (CNSL)

<table>
<thead>
<tr>
<th>Research Publication</th>
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<tbody>
<tr>
<td>Articles in journals</td>
<td>10</td>
</tr>
<tr>
<td>Conference/Technical</td>
<td>52</td>
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<td>Publication</td>
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<table>
<thead>
<tr>
<th>Books published</th>
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<tbody>
<tr>
<td>No. of Books</td>
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</tr>
<tr>
<td>Chapter in Books</td>
<td>01</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone No.</td>
<td>02358 282415 (O) 02358 283481 (R)</td>
</tr>
<tr>
<td>Mobile No.</td>
<td>09421610791</td>
</tr>
<tr>
<td>e mail</td>
<td><a href="mailto:spsonawanel@gmail.com">spsonawanel@gmail.com</a></td>
</tr>
</tbody>
</table>

*****
Name of the Faculty | Er Amit Ashokrao Deogirikar
---|---
Post Held | Assistant Professor (FMP)
Date of Birth | 22nd August 1977
Qualification | M.E. (FMP&E)
Area of Specialization | Farm Power and Machinery
Experience (Years) | 13 Years
Research Projects guided PhD | 00
| 00
M.Sc./M.Tech | 01
B.Tech. | 
Present area of research | Farm Machinery, Magnetic seed treatment
Contact details | 
Land line No. | 02358280213
Mobile | 8877449177
Fax | 
Email | amitdeogirikar@rediffmail.com

H) RESEARCH PUBLICATIONS (List enclosed separately)

- International Research Journal: 11
- National Research Journal: 14
- Presented in Symposium or seminars: 16
- Booklet published: 02
- Extension/Popular article published: 33
- Radio Talk (AIR, Ratnagiri): 03

SCIENTIFIC/TECHNICAL /POPULAR PUBLICATIONS OF Er. A. A. Deogirikar

A. International

B. National

C. Presented
1. Pethe M. M., A. A. Deogirikar and P. S. Phirke (2002). Design and development of small capacity juice concentrator. XXXVI Annual Convention of ISAE


D. Booklet


2. M. N. Patil, Ritu Thakare, N. M. Konde and A. A. Deogirikar (2006) “‘kk‘or ‘ksrhlkBh e’n O;oLFkkiu“ Published by Dept of Agricultural Chemistry and Soil Science, Dr PDKV, Akola
<table>
<thead>
<tr>
<th>Name of the Faculty</th>
<th>Er. Rodage Bhawna Tushar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Held</td>
<td>Assistant Professor of APE</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>06\textsuperscript{th} December 1975</td>
</tr>
<tr>
<td>Qualification</td>
<td>M.Tech. (APFE)</td>
</tr>
<tr>
<td>Area of Specialization</td>
<td>Agricultural Processing and Food Engineering (OR Agricultural Process Engineering)</td>
</tr>
<tr>
<td>Experience (Years)</td>
<td>08 years</td>
</tr>
<tr>
<td>Research Projects guided</td>
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</tr>
<tr>
<td>PhD</td>
<td></td>
</tr>
<tr>
<td>M.Sc./M.Tech</td>
<td></td>
</tr>
<tr>
<td>B.Tech.</td>
<td></td>
</tr>
<tr>
<td>Present area of research</td>
<td>Jamun seed for making Powder, Jackfruit Pulp for Idali making</td>
</tr>
<tr>
<td>Contact details</td>
<td></td>
</tr>
<tr>
<td>Land line No.</td>
<td>02358280213 (O)</td>
</tr>
<tr>
<td>Mobile</td>
<td>09730245977</td>
</tr>
<tr>
<td>Fax</td>
<td><a href="mailto:bhawnashirsat@rediffmail.com">bhawnashirsat@rediffmail.com</a></td>
</tr>
</tbody>
</table>

**H) RESEARCH PUBLICATIONS (List enclosed separately)**

- International Research Journal: 06
- National Research Journal: 00
- Presented in Symposium or seminars: 01
- Booklet published: 02
- Extension/Popular article published: 10
- Radio Talk (AIR, Ratnagiri): 00

**SCIENTIFIC/TECHNICAL /POPULAR PUBLICATIONS OF Er. B. T. Rodage**

**A. International**


**B. National – Nil**

**C. Technical**


**D. Presented (India)**


**E. Booklet**

1. Girja Sharan, Kishor Rawale and **Bhawna Shirsat**. 2004. Clean ‘n’ Fresh Vegetable Chain. Clean ‘n’ Fresh Vegetable Chain is a Research and Development project of Indian Institute of Management, Ahmedabad.

6. **Instructional Farm:** Not applicable

7. **Research Activities and Achievements (including projects)**
   The staff members working in this department conducting their research activities under the Faculty of Agricultural Engineering in the various departments of College of Agricultural Engineering and Technology, Dapoli. Dr. S. P. Sonawane and Er. B. T. Rodage conduct their research projects in the Department of Agricultural Process Engineering and Er. A. A. Deogirikar conduct his research project at Department of Farm Power and Machinery, CAET, Dapoli. To avoid the duplicacy of projects are not highlighted here. Hence for research activities of this department readers are requested to refer the research activities of CAET, Dapoli.

8. **Repository of abstracts of the theses:** Not applicable

9. **Extension Activities**
   a. **Radio/TV Talks delivered by the staff members of the Department/Section:**
      1. Dr. S. P. Sonawane:
         Radio talk – 02
         TV talk- 03
      2. Er. A. A. Deogirikar
         Radio talk – 03
         TV talk- 00
      3. Er. B. T. Rodage
         Radio talk – Nil
         TV talk- Nil
   b. **Farmer-Scientist Forum:** Not applicable
   c. **Other Extension Activities:**
      Trainings provided to farmers
      1. Coconut processing
      2. Finger millet processing
      3. Kokum, Karonda, Jamun and Jackfruit processing
      4. Demonstration of farm tools and implements.
   d. **Publications:**
      1. Books: 07
      2. Booklet/bulletin: 05
      3. Folders: Nil
      4. Souvenir/Proceedings
         of Seminar/Symposia/Conference/Workshop Organized: 02
      5. Training manuals of the training programme organized: Nil
      6. Journal Research papers: 40
      7. Full length research papers published in Proceedings of Seminar/Symposia/Conference/Workshop: 75
10. Details of other activities:
The ARIS LAN Unit of University is under the control of Department of Agricultural Engineering. Er. A. A. Deogirikar, Assistant professor (FMP) works as an incharge of this unit. This department also controls and maintains the UG and PG Computer Laboratory facilities of College of Agriculture, Dapoli. The Kokam plot behind the college is developed by this department and is a demonstration unit to the farmers and students.

11. Contact Information
Name of the Head: Dr. Y P Khandetod
Name of the Department: Department of Agricultural Engineering
Postal Address: Department of Agricultural Engineering
Landline Number: (02358) 282414
Mobile Number: 09420156693
Fax: (02358) 282414
Email: ypkhandetod@rediffmail.com

12. News and Events