

# **SELF STUDY REPORT**

## **FOR ACCREDITATION OF**

**Dr N.T.R. COLLEGE OF AGRICULTURAL ENGINEERING  
BAPATLA**



**ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY**

**Dr N.T.R. COLLEGE OF AGRICULTURAL ENGINEERING  
BAPATLA - 522 101**



**2020**





# **Self Study Report 2020**

**College**



**Dr N.T.R. College  
of Agricultural  
Engineering,  
Bapatla - 522 101  
Andhra Pradesh**

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## **ACCREDITATION REPORT – TASK COMMITTEE**

Chairman	:	Dr S. Joseph Reddy, Associate Dean
Coordinator	:	Dr B.V.S. Prasad, Professor, Dept. of PFE
Members	:	Dr B. Hari Babu, Associate Professor, Dept. of FMPE Dr B. Sreenivasula Reddy, Assistant Professor, Dept. PFE Dr R. Ganesh Babu, Assistant Professor, Dept. of IDE Dr K. Krupavathi, Assistant Professor, Dept. of IDE Er D. Vijay Kumar, Assistant Professor, Dept. of FMPE Er K.N. Raja Kumar, Assistant Professor, Dept. of SWCE Sri S. Srinivasa Rao, Administrative Officer

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# **SELF STUDY REPORT FOR ACCREDITATION OF COLLEGE**

## **Dr NTR College of Agricultural Engineering, Bapatla**

### **6.5.1 College Administration**

Dr NTR College of Agricultural Engineering, Bapatla is having Associate Dean's Office supported by Administrative Office.

#### **6.5.1.1 College Dean's Office Establishment**

Highest authority in College is Associate Dean. Faculty Dean of Agricultural Engineering and Technology is positioned at Acharya N.G. Agricultural University head quarters at Lam, Guntur, Andhra Pradesh. Office Staff of the College shown under Section 6.4.3 of B.Tech. (Agricultural Engineering) degree programme are responsible for all the activities of B.Tech. (Agricultural Engineering), M.Tech. (Agricultural Engineering) and Ph.D. (Agricultural Engineering) degree programmes.

There is a Associate Dean position available in the College. Associate Dean is nominated as per the seniority of the Professor in Faculty of Agricultural Engineering and Technology. Normally, Associate Dean's tenure is for two years and it may be extended further based on the requirement. Present Associate Dean is Dr S. Joseph Reddy joined in the present position on 06-07-2020.

Associate Dean is having a separate office with conference table to accommodate 10 people. Associate Dean is equipped with computer, black and white printer, color printer, internet LAN facility, surveillance CC camera network, fridge, etc. There is a separate meeting hall with audio system available adjacent to Associate Dean's chamber. Administrative Office is established separately in two different halls having full-fledged office furniture. All staff members are provided with furniture, computer, internet LAN facility, etc.

#### **6.5.1.2 Monitoring Mechanism for Quality Education (On-line)**

Student-Teacher Council (STC) is formulated every year with academic toppers from all the classes of B.Tech. (Agricultural Engineering), M.Tech. (Agricultural Engineering) and Ph.D. (Agricultural Engineering), active students those participate in sports, games, cultural and literary activities and teachers who are having additional duties connected with the students. The Council meet once in a Quarter and discuss about improvements to be taken up in the College related to academics, co-curricular and extra-curricular activities, etc.

Apart from Student-Teacher Council meetings being held regularly, all classrooms, laboratories, examination hall, all premises of the College, etc. are connected with surveillance CC cameras to continuously monitor the teaching activities both in classrooms and laboratories. Video of each camera is recorded in the system.

#### **Student-Teacher Council Members**

<b>Sl. No.</b>	<b>Name of the Faculty/Student</b>	<b>Council Position</b>
1	Dr. A. Mani, Associate Dean	Chairman
2	Dr. L. Edukondalu, Associate Professor and OSA	Convener
<b>Staff members</b>		
1	Dr. B.V.S. Prasad, Professor & Head	Member
2	Dr. G. Ravi Babu, Professor & Head	Member
3	Dr. H.V. Hema Kumar, Professor & Head	Member
4	Dr. K. V. S. Rami Reddy, Associate Professor	Member
5	Dr. B. Sreenivasula Reddy, Assistant Professor and Warden	Member
6	Er. N. Vinoda, Assistant Professor and Library incharge	Member
7	Er. B. Raj Kiran, Assistant Professor	Member
8	Er. K.N. Raja Kumar, Assistant Professor	Member
9	Er. K. Krupavathi, Assistant Professor	Member
10	Er. R. Ganesh Babu, Assistant Professor	Member
11	Sri. I. S. Naidu, Part-time Physical Director	Member
12	Sri. S. Srinivas, Administrative Officer	Member
<b>Student Members</b>		
1	Mr. N. Nagahari Sairam, Ph.D., I Year	Member
2	Ms. K.T. Arya, Ph. D., I year	Member
3	Ms. S. Pavana Deepthi, M. Tech., I Year	Member
4	Mr. K. Santosh, M. Tech., I Year	Member
5	Ms. B. Namratha, M. Tech., II Year	Member
6	Ms. C. Pallavi, M. Tech., II Year	Member
7	Mr. K. Subrahmanyam, B.Tech., IV Year	Member
8	Ms. K. Pavithra, B.Tech., IV Year	Member
9	Mr. Vishesh Jain, B.Tech., IV Year	Member
10	Mr. M. Ram Prakash, B.Tech., III Year	Member
11	Mr. Gulshan Kumar, B.Tech., III Year	Member
12	Ms. M. Mikhilya, B.Tech., III Year	Member
13	Ms. Priyanka Kumari, B.Tech., II Year	Member
14	Mr. M. V. Praveen, B.Tech., II Year	Member
15	Ms. K.V.L. Supraja, B.Tech., II Year	Member
16	Ms. K. Sonika, B.Tech., I Year	Member
17	Mr. T. Sai Krishna, B.Tech., I Year	Member
18	Mr. Tejas Shrivasa, B.Tech., I Year	Member





**Student-Teacher Council Meeting during 2019-20**

#### **6.5.1.3 CC/Board of Studies**

There is no CC at department level and Board of Studies for the College. Instead Faculty Board meeting is being held at University level twice in a year to improve the academics at College level. Dr NTR College of Agricultural Engineering, Bapatla implements the decisions of the University without any deviation.

#### **6.5.1.4 Anti-Ragging Cell**

College is having Anti-Ragging Cell, formulated every year, which consists of Associate Dean, Officer In-Charge of Student Activities as Convener, Deputy Superintendent of Police, Circle Inspector of Police, Mandal Revenue Officer, Advocate, Department Heads, Officer In-Charge of Academic Matters of UG and PG, faculty, Physical Director, students of II, III and Final Year B.Tech. (Agricultural Engineering), parents of the students, Reporters of Daily News Papers, Reporters of News Channels, Secretaries of NGOs, etc. This Cell monitors the any eventuality of the ragging case in the campus. Apart from Anti-Ragging Cell, there is a Disciplinary Action Committee existing in the College for taking any further action on the erring students.

### List of Members of Anti-Ragging Committee

Sl. No.	Name of the member	Designation	Mobile No.	Representation from
1	Dr A. Mani	Associate Dean	9989625205	Teaching Faculty
2	Dr A.Ashok Kumar	Asst. Professor, OSA & Convener	9177522213	Teaching Faculty
3	Sri Someswara Rao P.	Deputy Superintendent of Police, Bapatla (Member)	9440796165	Police Administration
4	Sri Ashok Kumar.B	Circle Inspector of Police	9440796171	Police Administration
5	Sri K.Srinivas	Mandal Revenue Officer (Member)	9849904020	Civil Administration
6	Sri R. Venkateswarulu	Advocate, Bapatla	9985304129	Advocate
7	DrC.Ramana	Professor and University Head	9440914961	Teaching Faculty
8	Dr BVS Prasad	Professor and University Head	8008373741	Teaching Faculty
9	Dr G. Ravi Babu	Professor & OAM (P.G.)	9848572321	Teaching Faculty
10	Dr H.V. Hema Kumar	Professor & Head	8179815632	Teaching Faculty
11	Er K.V.S. Rami Reddy	Assoc. Professor	9490845917	Teaching Faculty
12	Dr B. Hari Babu	Assoc. Professor & OAM (U.G)	9440944597	Teaching Faculty
13	Dr L. Edukondalu	Assoc. Professor	9491351261	Teaching Faculty
14	Er B. Raj Kiran	Assistant Professor	9177345631	Teaching Faculty
16	Er K. N. Raja Kumar	Asst. Professor	9848390891	Teaching Faculty
17	Er R. Ganesh Babu	Assistant Professor	9441392044	Teaching Faculty
18	Ms Er. K. Lavanya	Assistant Professor	9295350600	Teaching Faculty
19	Ms Er. K. Krupavati	Assistant Professor	9533877666	Teaching Faculty
20	Ms Er. N. Vinoda	Assistant Professor	9849724314	Teaching Faculty
21	Sri S. Srinivasa Rao	Administrative Officer	6300864072	Non-Teaching
22	Sri I.S. Naidu	Part-Time Physical Director	9848533448	Teaching Faculty
23	Mr Vimochana Rao P.	ID No. ME-16-40		IV year student
24	Mr K. Anji Babu	ID No. BE 16-008	7780572131	IV year student
25	Mr Ganesh Nakkala	ID No. BE 17-012	9182571994	III year student
26	Sri Mikhilya Nagavarapu	ID No. BE 17-024	9494965646	III year student
27	Mr Veera Babu. B	ID No. BE 18-055		II year student
28	Ms Harika. B	ID No. BE-18-16	9441414976	II year student
29	Sri K. Krishna Rao	Parent	8985604219	Parent of IV year student ( K. Anji Babu)
30	Sri N. Sreenu	Parent	8978839216	Parent of III year student (Ganesh Nakkala)
31	Sri B.Veeranagaiah	Parent	9441414976	Parent of II year student (Harika. B)
32	Sri G. Suresh Kumar	Reporter, Eenadu Daily News paper	9985192637	Media representative

33	Sri B. Dhan Raj	Reporter, Andhra Jyothi Daily News paper	9985411240	Media representative
34	Sri Anjaiah	Reporter, Sakshi Daily News paper	9505517849	Media representative
35	Sri V. Srinivasa Rao	Reporter, Gemini News	8019945257	Media representative
36	Sri B. Sambaiah	Secretary, Adarsa Educational Society, Karlapalem	9866725646	Representative of NGO
37	Sri B.S. Narayana Bhattu	Secretary, Red Cross Society, Bapatla.	9346911199	Representative of NGO/Voluntary Organization
38	Sri P.C. Sai Babu	Secretary, Forum for Better Bapatla, Bapatla	9963521857	Representative of NGO/Voluntary Organization

### **Anti-Ragging Squads**

#### **Anti Ragging Squad – I**

1. Chairman : Dr. B.V.S. Prasad, Professor and Head, Dept .of Processing and Food Engineering, Dr.NTR CAE, Bapatla.
2. Member : Dr B. Hari Babu, Associate Professor, Dept. of Farm Machinery and Power Engineering, Dr.NTR CAE, Bapatla.
3. Member : Dr L. Edukondalu, Associate Professor, Dept .of Processing and Food Engineering, Dr.NTR CAE, Bapatla.
4. Member : Er K. Krupavathi, Assistant Professor, Dept of Soil and Water Engineering, Dr.NTR CAE, Bapatla.
5. Member : Ms S. Archana, Third Year Student, Dr.NTR CAE, Bapatla.
6. Member : Mr G. Naga Tata Rao, Second Year Student, Dr.NTR CAE, Bapatla.

#### **Anti Ragging Squad – II**

1. Chairman : Dr G. Ravi Babu, Professor and Head, Dept .of Irrigation and Drainage Engineering, Dr.NTR CAE, Bapatla.
2. Member : Dr K.V.S.Rami Reddy , Associate Professor, Dept. of Farm Machinery and Power Engineering, Dr.NTR CAE, Bapatla.
3. Member : Dr B.Sreenivasula Reddy, Asst. Professor, Dept .of Processing and Food Engineering, Dr.NTR CAE, Bapatla.
4. Member : Er N. Vinoda, Assistant Professor, Dept. of Farm Machinery and Power Engineering, Dr.NTR CAE, Bapatla.
5. Member : Er B. Raj Kiran, Assistant Professor, Dept. of Farm Machinery and Power Engineering, Dr.NTR CAE, Bapatla.
6. Member : Ms Bhargavi Karri, Third Year Student, Dr.NTR CAE, Bapatla.
7. Member : Mr Shashwat Maurya, Second Year Student, Dr.NTR CAE, Bapatla

#### **List of Members of Disciplinary Committee during 2016-2020**

<b>Sl. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Position</b>
1	Dr B.V.S. Prasad	Professor and Head	Chairman
2	Dr G. Ravi Babu	Professor and Head	Member
3	Dr H.V. Hema Kumar	Professor and Head	Member
4	Dr K.V.S. Rami Reddy	Associate Professor and Head	Member
5	Dr. R. Ganesh Babu	Assistant Professor	Member
6	Dr K. Krupavathi	Assistant Professor	Member

#### **6.5.1.5 Biological Waste Disposal Facility**

College is not producing any chemical, biological, radioactive, universal and recyclable wastes in the Departments. However, the waste produced out of greenery like dry leaves, twigs, etc. are incorporated in the soil. There is no separate disposable facility available.

#### **6.5.1.6 Institutional Ethics Committee for Experiments on Animals**

This College does not participate in animals related research and do not conduct experiments on animals.

#### **6.5.1.7 Committee for Prevention of Sexual Harassment of Women at Work Places**

College is having a Women Protection Cell to maintain decorum in work places. Members of the Women Protection Cell are

1. Dr A. Mani, Professor
2. Dr M. Venkata Suneela, Assistant Professor
3. Smt. T. Anjamma, Office Subordinate

### **6.5.2 Faculty**

Dr N.T.R. College of Agricultural Engineering, Bapatla is having dedicated faculty to teach all the courses of B.Tech. (Agricultural Engineering), M.Tech. (Agricultural Engineering) and Ph.D. (Agricultural Engineering) and handle the research projects of students smoothly.

#### **6.5.2.1 Faculty Strength**

Faculty of the College to handle B.Tech. (Agricultural Engineering) degree programme are also responsible for running the M.Tech. (Agricultural Engineering) and programmes Ph.D. (Agricultural Engineering).

### Sanctioned and In-Position Faculty at Dr NTRCAE, Bapatla

Sl. No.	Position	Sanctioned Faculty	Faculty in Place	Vacant Positions	Faculty Recommended by ICAR
1	Associate Dean	1	1	0	1
2	Professor	5	4	1	7
3	Associate Professor	7	2	5	13
4	Assistant Professor	13	10	3	24
Total		26	17	9	45

### 6.5.2.2 Faculty Profile (Department-wise)

#### Sanctioned and In-Position Faculty Department-wise at Dr NTRCAE, Bapatla

Sl. No.	Department	Assistant Professor		Associate Professor		Professor		Total	
	Faculty / Department	SS	IP	SS	IP	SS	IP	SS	IP
		10+1 <sup>^</sup> +2 =13		5+2= 7		1+5= 6		26	17
1	Associate Dean	-	-	-	-	1	1	1	1
2	Farm Machinery and Power Engineering	3	3	2	1	1	-	6	4
3	Processing and Food Engineering	3	3	2	-	1	1	6	4
4	Irrigation and Drainage Engineering	2	2	1	-	1	1	4	3
5	Soil and Water Conservation Engineering	2	2	1	-	1	1	4	3
6	Renewable Energy Engineering	1	1	-	-	1	-	2	1
7	Basic Engineering and Applied Sciences	2*	1	1**	-	-	-	3	1
	<b>Total number of posts</b>	<b>13</b>	<b>12</b>	<b>7</b>	<b>1</b>	<b>6</b>	<b>4</b>	<b>26</b>	<b>17</b>
<sup>^</sup> Asst. Professor Post of Agricultural College, Bapatla redeployed with stocks *Assistant Professor in Electrical, Electronics & Instrumentation and Agronomy/Soil Sciences ** Associate Professor in Mathematics SS - Sanctioned Strength IP - In Position Out of 9 vacant posts of faculty, 4 Teaching Associates (2 full-time and 2 part-time) are engaged.									

### 6.5.2.3 Credentials of the Faculty

Faculty at Dr NTR College of Agricultural Engineering, Bapatla are well qualified. Apart from Associate Dean, out of 16 faculty, eight are with Ph.D. qualification, one with Ph.D.+PDF qualification and the rest seven with minimum qualification of M.Tech. in Agricultural Engineering.

### Faculty Educational Qualifications at Dr NTRCAE, Bapatla

Department	Ph.D.	M.Tech.	Post -Doc
Farm Machinery and Power Engineering	1	3	-
Processing and Food Engineering	1	2	1
Irrigation and Drainage Engineering	3	-	-
Soil and Water Conservation Engineering	1	2	-
Renewable Energy Engineering	1	-	-
Basic Engineering and Applied Sciences	1	-	-
<b>Total</b>	<b>8</b>	<b>7</b>	<b>1</b>

### Department-wise Academic and Experience Credential of the Faculty

Sl. No.	Name	Designation	Highest	Experience (Years)		
			Qualification	Teaching	Research	Extension
Farm Machinery and Power Engineering						
1	Dr B. Hari Babu	Assoc. Prof.	Ph.D.	13	-	-
2	Er B. Raj Kiran	Asst. Prof.	M.Tech.	7	-	-
3	Er G. Veeraprasad	Asst. Prof.	M.Tech.	2	5	-
4	Er D. Vijay Kumar	Asst. Prof.	M.Tech.	7	-	-
Processing and Food Engineering						
5	Dr B.V.S. Prasad	Professor	Ph.D., PDF	20	6	-
6	Dr B. Sreenivasula Reddy	Asst. Prof.	Ph.D.	12	1	-
7	Er K. Lavanya	Asst. Prof.	M.Tech.	9	-	-
8	Er N. Vinoda	Asst. Prof.	M.Tech.	7	2	-
Irrigation and Drainage Engineering						
9	Dr A. Mani	Professor	Ph.D.	21	-	-
10	Dr K. Krupavathi	Asst. Prof.	Ph.D.	9		
11	Dr R. Ganesh Babu	Asst. Prof.	Ph.D.	9	-	-
Soil and Water Conservation Engineering						
12	Dr H.V. Hema Kumar	Professor	Ph.D.	19	2	-
13	Er K.N. Raja Kumar	Asst. Prof.	M.Tech.	7		
14	Er I. Bhaskar Rao	Asst. Prof.	M.Tech.	7	-	-
Renewable Energy Engineering						
15	Dr M. Madhava	Assoc. Prof.	Ph.D.	15	3	-
Basic Engineering and Applied Sciences						
16	Dr D. Bhaskara Rao	Professor	Ph.D.	33	2	-

### Training programmes/Short course/Workshops/Conferences Organized

Year	Title of the Training programme/ Short course/ Workshop/Conference	Period		Venue	Organized by	Source of Funding	No. of Participants
		From	To				
2018	National Conference on “Digital and Engineering Technologies for Precision Agriculture and Value Addition & Farm Engineering Expo-2018”	26-2-2018	28-2-2018	Dr NTRCAE, Bapatla	Dr NTRCAE, Bapatla	ANGRAU & AP Agros	About 190 Scientists and students and about 5000 farmers attended
2019	National Conference on “Strategic Approaches for Developing World Class Agricultural Universities”	19-3-2019	20-3-2019	Dr. NTR CAE, Bapatla	Dr. NTR CAE, Bapatla	ANGRAU	About 102 Scientists and students attended
2019	Brain Storing Workshop on “Syllabus Review and Process of Conduct of Examinations for Polytechnics of Agricultural Engineering”	14-06-2019	14-06-2019	Dr NTRCAE, Bapatla	Dr NTRCAE, Bapatla	ANGRAU	About 54 Teachers of ANGRAU and Private Polytechnics of Agril Engg
2019	Workshop on “Finalization of Course Contents and Development of Study Material for Polytechnics of Agricultural Engineering”	08-08-2019	08-08-2019	Dr NTRCAE, Bapatla	Dr NTRCAE, Bapatla	ANGRAU	About 47 Teachers of ANGRAU and Private Polytechnics of Agril Engg





**Plenary Session of National Conference on “Digital and Engineering Technologies for Precision Agriculture and Value Addition & Farm Engineering Expo-2018”**



**Guest of Honour Speech by Dr. Edward William Bresnyan, Jr., Senior Agriculture Economist and Team Leader, NAHEP Project, World Bank during National Conference on “Strategic Approaches for Developing World Class Agricultural Universities”**



### Total Number of Publications Year-wise

Year	Number of Publications					
	Research Papers	Books	Manuals	Study Materials	Conference Papers	Total
2015	10	-	-	-	2	12
2016	17	-	-	-	2	19
2017	11	2	3	-	-	16
2018	33	-	-	-	46	79
2019	6	-	4	17	4	31
2020	5	-	-	-	-	5
<b>Total</b>	<b>82</b>	<b>2</b>	<b>7</b>	<b>17</b>	<b>54</b>	<b>162</b>

### List of Research Papers Published by Faculty

Sl. No.	Authors	Year	Title of the paper	Name of the Journal	Vol. and page numbers
1	Srigiri D., <b>Hari Babu B.</b> , Hemanth Reddy. A., Reddy. S.A and Sri Rama Satish P.	2015	Case study on Direct Sowing of Paddy in Selected <i>Mandals</i> of Guntur District	International Journal of Agricultural Science and Research	5(6) :9-14
2	<b>Hari Babu. B.</b> , Jaya Prakash R., Anil Kumar D and Prasad P.	2015	Ergonomical evaluation of manual and power weeders in dry land condition	International Journal of Agricultural Engineering	8(2) :101-106
3	Anand Babu. D., <b>Hari Babu. B.</b> , Aum Sarma and John Wesley. B.	2015	Modification and Evaluation of 8 Row Self Propelled Paddy Transplanter ( Yanji) to suit SRI Cultivation	The Andhra Agricultural Journal	62(4): 923-930
4	<b>Madhava. M.</b> , Ravindra Babu. D., Vengaiah, P.C. and <b>Hari Babu. B.</b>	2015	Optimization of Process Parameters for production of palmurah jiggery	Journal of Agricultural Engineering	52(1): 14-19
5	<b>Ganeshbabu, R., Bhaskararao, I and Rajakumar, K.N.</b>	2015	Response of Okra to Different Levels of Drip Irrigation on Growth, Yield and Water Use Efficiency	International Journal of Agricultural Engineering	8(1): 47-53
6	<b>Ganeshbabu, R., Ravibabu, G and Hemakumar, H.V.</b>	2015	Estimation of crop water Requirement, Effective Rainfall and Irrigation water requirement for vegetable crops using CROPWAT	International Journal of Agricultural Engineering	8(1): 15-20

7	Apparao Ch., Ravibabu G., Sambaiah A. and Edukondalu L.	2015	Performance evaluation of developed automated drip irrigation system	The Andhra Agricultural Journal	62(4): 931- 936
8	Nagadeepthi P., Edukondalu L., Kumar, S. and Lakshmi J.	2015	Studies on the development of microwave baked potato chips to optimize process parameters	The Andhra Agricultural Journal	62 (4): 937- 943
9	Naveen Kumar, M., Edukondalu, L., SaiSupraja, Ch., Jyothi, Ch. and MaheendraReddy, J.	2015	Mathematical modeling of the thin layer drying of tender palm shoots ( <i>Borassus flabellifer</i> L.)	International Journal of Food Fermentation Technology	5(2): 237- 246
10	Kusuma G, Sahitya K, Nagakomali V, <b>Raj kiran, B.</b> , Satyanarayana Ch.V.V.	2015	Design and fabrication of prototype telescopic raising platform for harvesting oil palm fresh fruit bunches	Indian journal of science and technology	8 (17), 1 -5
11	Surekha, D., Edukondalu, L., Smith, D.D and <b>Rajakumar, K.N.</b>	2016	Physical properties of two banana cultivars grown in Andhra Pradesh	The Andhra Agricultural Journal	63 (1): 199- 203
12	Srigiri. D., Anil Kumar. D., Gopi Chand. V., <b>Hari Babu, B.</b> and Basavaraj	2016	Cost Scenario in Traditional and Direct Method Cultivation of Paddy	Progressive Research- An International Journal	11( II): 1217-1219
13	<b>Hari Babu. B.</b> , Anil Kumar. D and Srigiri. D.	2016	Determination of Stiffness and Damping coefficient of Tractor Front tyres in Non-Rolling Conditions	International Journal of Agricultural Science and Research	6(2): 43-52
14	Srigiri.D, <b>Veera Prasad, G., Raj Kiran, B.&amp;</b> Edukondalu, L.	2016	Performance evaluation of manually operated push type multi crop planter	Indian journal of science and technology	8 (29): 1624-1626
15	Srigiri D, <b>Veera Prasad, G., Raj Kiran, B.&amp;</b> Edukondalu, L.	2016	Development of single row manually operated multi-crop Planter	Indian journal of science and technology	8 (30): 1632-1634
16	M. Naveen Kumar, L. Edukondalu, B. Krishnakanth and	2016	Role of physical dimensions on milling	International Journal of Agricultural	8(33):1690- 1692

	M. Dileepchand		characteristics of 17 Indian paddy varieties	Sciences	
17	M. Naveen Kumar, L. Edukondalu, M. Ambedkar and Y. Srinivas	2016	A comparative study on drying kinetics of tomato pulp and tomato foam	International Journal of Agricultural Sciences	8(33):1693-1696
18	Samreen, Ch.V.V. Satyanarayana, L. Edukondalu and M. Sandhya	2016	A comparative study of thermally treated and untreated sugarcane juice.	The Andhra Agricultural Journal	63(2):415-421
19	N.V. Gowtham Deekshithulu, G. Ravi Babu, <b>R. Ganesh Babu</b> and M. Sivarama Krishna	2016	Performance evaluation of developed low cost microcontroller based automated drip irrigation system	The Andhra Agricultural Journal	63(3):694-700
20	P. Vijaya Deepthi, Sivala Kumar, L. Edukondalu and J. Lakshmi	2016	Optimization of Process parameters for Extruded Sorghum Products	The Andhra Agricultural Journal	63 (3): 680-687
21	P. Vijaya Deepthi, Sivala Kumar, P. Srinivasa Rao, L. Edukondalu and J. Lakshmi	2016	Storage Studies on Extruded Sorghum Products	International Journal of Agricultural Science and Research	6 (6) : 37-44
22	Kishan,K., <b>Hema Kumar, H.V.</b> , Ravi Babu, G. and <b>K. Lavanya</b>	2016	Estimation of crop water requirement of TS channel command of Krishna Western Delta using CROPWAT model	The Andhra Agricultural Journal	63(2): 396-402
23	Rakesh, G., <b>Bhaskararao, I.</b> , Ravibabu, <b>G.</b> and Polappa, N.	2016	Impact assessment of watershed works on socio-economical development in Mutukula watershed, Prakasam district.	The Andhra Agricultural Journal	63(4): 927-935
24	<b>Boreddy, S.R.</b> , H. Thippareddi, G. Froning, and J. Subbiah	2016	Novel Radiofrequency Assisted Thermal Processing Improves the Gelling Properties of Standard Egg White Powder	Journal of Food Science	81(3):E665-E671
25	<b>Boreddy, S. R.</b> , and Subbiah, J.	2016	Temperature and moisture dependent dielectric properties of egg white powder	Journal of Food Engineering	168:60-67

26	Padma, M., <b>Reddy, B. S.</b> , and <b>Madhava, M.</b>	2016	Evaluation of the quality parameters of the turmeric rhizomes dried on different floors and conditions	International Journal of Agricultural Sciences	12(2): 302-308
27	M. Padma, <b>B. Sreenivasula Reddy</b> and <b>M. Madhava</b>	2016	Some studies on curing and drying characteristics of turmeric rhizomes	International Journal of Processing and Post-Harvest Technology	7(1): 151-156
28	<b>Krupavathi, K.</b> , Ravibabu, <b>G.</b> , <b>Ganeshbabu, R.</b> and Madhusudhanreddy, K.	2017	Comparison of measured discharges of designed trapezoidal modified broad crested weirs and estimated discharge by WINFLUME software.	The Andhra Agricultural Journal	64(1): 197-203
29	<b>Madhava, M.</b> , Anand,D., and Edukondalu, L.	2017	Shelf life extension of papaya fruit by shrink wrapping	The Andhra Agricultural Journal	64(1):187-193
30	Anil Kumar, K., Satyanarayana, Ch. V. V., Edukondalu, L and Lakshmipathy, R	2017	Studies on processing and storage of tender coconut water	The Andhra Agricultural Journal	64 (3): 683-689
31	Gowtham Deekshithulu, N.V., Ravi Babu, G., <b>Hema Kumar, H.V.</b> and <b>Ganesh Babu, R.</b>	2017	Design of Computer Aided Drip Irrigation System Software	International Journal of Current Microbiology and Applied Sciences	6(12): 108-118
32	<b>Hema Kumar, H.V.</b> , Selva Thirumal, Muthu Swamy, I. and Punitha, P.	2017	Drainage Investigations for the design of water table management systems in AE and RI, Kumulur, Trichy District, Tamil Nadu	Current journal of applied sciences and technology	24(1):1-9
33	Kalyana Srinivas, D., Chandra Mouli, G., Ravi Babu, G. and <b>Ganesh Babu, R.</b>	2017	Crop Water Requirement and Effect of Planting Date on Yield of Gladiolus Under Polyhouse, Shade Net and Open Conditions	The Andhra Agricultural Journal	64 (3):656-664
34	Madhusudhan, R.K.,	2017	Estimation of	The Andhra	64(2):421-

	Satyanarayana, T.V., Ravi Babu, G., Raghu Babu, M. and Suresh Babu, A.V.		irrigation potential utilization for Kanpur canal system using remote sensing and GIS	Agricultural Journal	425
35	Samreen, Satyanarayana, Ch.V.V., Edukondalu, L., Vengaiah, P.C. and Sandhya, M.	2017	Membrane processing of sugarcane juice	The Andhra Agricultural Journal	64(2):432-441
36	Samreen, Satyanarayana, Ch.V.V., Edukondalu, L. and Sandhya, M.	2017	Microbial and sensory quality evaluation of membrane processed sugarcane juice	International Journal of Current Microbiology and applied sciences	6(3):601-608
37	Suresh, D., Edukondalu, L., Smith, D.D. and <b>Raja Kumar, K.N.</b>	2017	Quality evaluation of shrink wrapped bananas	International Journal of Current Microbiology and Applied Sciences	6(10): 2076-2084
38	Vinay, B.J.V.S., Edukondalu, L., Sivala kumar and <b>Veera Prasad, G.</b>	2017	Development and evaluation of a grader for round fruits and vegetables	The Andhra Agricultural Journal	64 (4): 891-895
39	Gowtham Deekshithulu, N.V., Ravi Babu, G., <b>Ganesh Babu, R.</b> and Siva Ramakrishna, M.	2018	Development of Software for the Microcontroller Based Automated Drip Irrigation System using Soil Moisture Sensor	International Journal of Current Microbiology and Applied Sciences	7(1): 1385-1393
40	Udaybhaskar, A., Ramireddy, K.V.S., Ashok Kumar, A. and <b>Bitra, V.S.P.</b>	2018	Development and performance evaluation of low HP tractor operated wiper sprayer	International Journal of Current Microbiology and Applied Sciences	7(11): 3484-3495
41	Lavanya P, <b>Bhaskara Rao, D.</b> , Edukondalu L and Sandeep Raja D.	2018	Studies on physical characteristics of briquettes prepared from maize cobs.	The Andhra Agricultural Journal	65 (2): 393-397
42	Rajasekhar M, Edukondalu L, Smith D.D. and <b>Veera Prasad G.</b>	2018	Changes in engineering properties of finger millet (PPR-2700, Vakula) on hydrothermal	The Andhra Agricultural Journal	65 (2), 420-429

			treatment		
43	Siva Shankar A, Satyanarayana Ch V V, Edukondalu, Lakshmipathy R and Sajid Alavi	2018	Effect of processing variables on soy-millet extrudates for complementary food	The Andhra Agricultural Journal	65 (2): 436-440
44	Rajasekhar M, Edukondalu L, Smith D. D. and <b>Veeraprasad G.</b>	2018	Development of value added products from milled (decorticated) finger millet and analysis of cooking quality and sensory evaluation.	Journal of Pharmacognosy and phytochemistry	7 (5), 2573-2577
45	Rajasekhar M, Edukondalu L, Smith D. D. and <b>Veeraprasad G.</b>	2018	Influence of hydrothermal treatment on proximate composition of milled finger millet (Eleusine coracana)	International journal of chemical studies	6(5): 2305-2310
46	Lavanya P, <b>Bhaskara Rao D</b> , Edukondalu L and Sandeep Raja D.	2018	Development of briquettes from cotton stalks with the high-pressure briquetting machine	International journal of chemical studies	6 (5), 2311-2315
47	Siva Shankar A, Satyanarayana Ch V V, Sajid Alavi, Edukondalu L, Michael Joseph and Lakshmipathy R.	2018	Study on Cereal-Legume Based Complementary Foods for Infants	International Journal of Current Microbiology and Applied Sciences	7 (8), 3310-3317
48	Rajasekhar M, Edukondalu L, Smith D.D. and <b>Veeraprasad G.</b>	2018	Effect of Hydrothermal Treatment on Milling Characteristics of Finger Millet	International Journal of Current Microbiology and Applied Sciences	7 (10), 1804-1811
49	G Karthik, I Srinivas, V Ravikant Adake, L Edukondalu Anamika Jha.	2018	Development and Performance Evaluation of Manually Operated two Row Paddy Transplanter	The Andhra Agricultural Journal	Special issue, vol. 65: 69-76
50	<b>B Raj Kiran</b> and E V Thomas	2018	Development of Main Control Unit and Stepper Motor Interface for Regulating the Speed of Inner Rotor of Self Propelled	The Andhra Agricultural Journal	Special issue, vol. 65: 103-111

			Puddler		
51	A Ashok Kumar, G Hemanth Kumar, M Harshavardhan, E Pavan Kumar and M V Ramana	2018	Ergo-characteristics of manual operated sprayers and weeders	The Andhra Agricultural Journal	Special issue, vol. 65: 119-126
52	B Sunitha and C Ramana	2018	Evaluation of crop parameters of Sugarcane planters available in Andhra Pradesh	The Andhra Agricultural Journal	Special issue, vol. 65: 127-132
53	B Laxman, <b>S Joseph Reddy</b> , K Madhusudhana Reddy, and <b>G Veera Prasad</b>	2018	Performance evaluation of tractor drawn aqua planter for Groundnut	The Andhra Agricultural Journal	Special issue, vol. 65: 160-166
54	G Kishore Kumar, <b>B Raj Kiran</b> and Ch Murali Krishna	2018	Performance evaluation of power weeder under dry and wet land conditions	The Andhra Agricultural Journal	Special issue, vol. 65: 172-174
55	D Vaishnavi, A C Rathinakumari, G Senthil Kumaran, <b>B V S Prasad</b> , S A Venu and L Edukondalu.	2018	Physical and Engineering Properties of Vegetable Seeds Relevant for Development of Protray Vacuum Seeder for Vegetable Nursery	The Andhra Agricultural Journal	Special issue, vol. 65: 179-182
56	A Srinivasa Rao, C Ramana and M V Ramana	2018	Solar-cum-Wind Hybrid System: A case study at College of Agricultural Engineering, Madakasira	The Andhra Agricultural Journal	Special issue, vol. 65: 200-203
57	B Vennela, Aumsarma, M Raghu Babu, <b>G Veeraprasad</b> and M Vijaykumar	2018	Study and performance evaluation of different sugarcane ratoon implements	The Andhra Agricultural Journal	Special issue, vol. 65: 204-208
58	N V Gowtham Deekshithulu, G Ravi Babu, <b>R Ganesh Babu</b> and M Siva Ramakrishna	2018	Performance evaluation of low cost micro controller used in automated drip irrigation system for Watermelon crop	The Andhra Agricultural Journal	Special issue, vol. 65: 219-225
59	G. Ravi Babu, S. Senthilvel and M.	2018	Development of decision support	The Andhra Agricultural	Special issue, vol.



	Raghu Babu		system for sustainable water productivity in the Thungabhadra side (TS) channel command area	Journal	65: 260-270
60	K Sahithya, G Ravi Babu, <b>A Mani</b> and Ch Sujani Rao	2018	Mismatch between supplies and demands of canal water in the command area of Bapatla 279-285 channel	The Andhra Agricultural Journal	Special issue, vol. 65: 279-285
61	K Sai Manogna, A Mani, G.Ravi Babu and V Radha Krishna Murthy	2018	Spatial analysis of water quality of Guntur channel command area	The Andhra Agricultural Journal	Special issue, vol. 65: 299-305
62	P Indraja, <b>H V Hema Kumar</b> , A Mani and L Edukondalu.	2018	Mapping of Soil Salinity Using Remote Sensing and GIS	The Andhra Agricultural Journal	Special issue, vol. 65: 306-312
63	<b>K Krupavathi</b> , M Raghu Babu, <b>A Mani</b> , P R K Parasad and L Edukondalu.	2018	Use of Landsat-8 OLI Imagery Multi-Temporal Vegetation Indices for Crop Classification in the Irrigated Areas of Krishna Central Delta.	The Andhra Agricultural Journal	Special issue, vol. 65: 313-319
64	<b>I Bhaskara Rao</b> , T V Satyanarayana and M Raghu Babu	2018	Applications of Artificial Intelligence (AI) technologies in Agriculture	The Andhra Agricultural Journal	Special issue, vol. 65: 330-334
65	N Bidyarani Chanu, <b>A Mani</b> , M Raghu Babu and <b>M Venkata Suneela</b>	2018	Spatial and temporal variation of soil erosion in Krishna lower sub basin of Andhra Pradesh	The Andhra Agricultural Journal	Special issue, vol. 65: 335-343
66	M Madhava, Sivala Kumar, D D Smith, <b>D Bhaskara Rao</b> and <b>H V Hema Kumar</b>	2018	Economic analysis of hybrid greenhouse dryer for drying of Paddy	The Andhra Agricultural Journal	Special issue, vol. 65: 337-342
67	N Hari, <b>A Mani</b> , <b>H V Hema Kumar</b> and L Edukondalu	2018	Morphometric Analysis of Gundlakamma River Sub Basin Using GIS and Remote Sensing	The Andhra Agricultural Journal	Special issue, vol. 65: 344-351
68	<b>K Lavanya, D</b>	2018	Production Process	The Andhra	Special



	<b>Bhaskara Rao, L</b> Edukondalu, R Lakshmipathy and V Srinivasa Rao		of Polyurethane Foam (PUF) Panels for Ripening Chamber	Agricultural Journal	issue, vol. 65: 430- 436
69	K Nagamani, P V K Jagannadha Rao, D D Smith and G Ravi Babu	2018	Effect of packing material and storage on microbial attributes of Sugarcane juice	The Andhra Agricultural Journal	Special issue, vol. 65: 454- 457
70	<b>N Vinoda, Venkata S P Bitra, L</b> Edukondalu, V Srinivasa Rao and Vimala Beera.	2018	Methods to Accelerate Mass Transfer Rates in Potato Slices During Osmotic Dehydration: A Review	The Andhra Agricultural Journal	Special issue, vol. 65: 447- 453
71	Samreen, Ch V V Satyanarayana and L Edukondalu.	2018	Membrane Processing of Pomegranate and Pineapple Juices	The Andhra Agricultural Journal	Special issue, vol. 65: 477- 482
72	Chen, Jiajia, Soon Kiat Lau, <b>Sreenivasula Reddy, B</b> and Subbaiah, J.	2019	Modeling of radio frequency heating of egg white power continuously moving on a conveyor belt	Journal of Food Engineering	262:109- 120.
73	D. Kalpana, L. Edukondalu, Sivalakumar, Ch.V.V. Satyanarayana, R. Lakshmipathy and <b>M. Madhava</b>	2019	Isolation and characterization of cellulose fibre from turmeric ( <i>Curcuma longa</i> L.).	Journal of Pharmacognosy and Phytochemistry	8(3): 4001- 4003
74	<b>B. Sreenivasula Reddy, J.</b> Devin, Rose and J. Subbiah.	2019	Radiofrequency- assisted thermal processing of soft wheat flour	Journal of Food Science	84(9): 2528-2536
75	Chen, Jiajia, Soon Kiat Lau, <b>B. Sreenivasula Reddy</b> and J. Subbiah.	2019	Modeling of radio frequency heating of egg white power continuously moving on a conveyor belt	Journal of Food Engineering	262:109- 120
76	<b>R. Ganeshbabu, G.</b> Ravi babu, <b>A. Mani,</b> P. Prasuna rani and V. Srinivasa rao.	2019	Assessment of groundwater resources in Nagarjuna sagar right canal command	International Journal of Agriculture Sciences	11(18): 9032-9037
77	<b>R. Ganeshbabu, G.</b> Ravi babu, <b>A. Mani,</b> P. Prasuna rani and V. Srinivasa rao.	2019	Calibration and validation of the developed groundwater model	International Journal of Agriculture Sciences	11(19): 9113-9117

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78	N Hari, <b>A Mani</b> <b>H V Hema Kumar</b> V Srinivasa Rao L Edukondalu	2020	Simulation of water resources in Gundlakamma sub-basin using SWAT model	The Andhra Agricultural Journal	66(3): 530-533
79	Xinyao Wei, Soon Kiat Lau, <b>Sreenivasula Reddy Boreddy</b> and Jeyamkondan Subbiah.	2020	A microbial challenge study for validating continuous radio-frequency assisted thermal processing pasteurization of egg white powder	Food Microbiology	85: 103306
80	Subarna Ghosh and <b>Venkata S.P. Bitra</b>	2020	Phorbol ester degradation using chemical treatment in jatropha kernel meal	International Journal of Chemical Studies	8(3): 159-163
81	Subarna Ghosh and <b>Venkata S.P. Bitra</b>	2020	Phorbol ester degradation using biological treatment in jatropha kernel meal	International Journal of Current Microbiology and Applied Sciences	9(5): 1449-1457
82	Yedida, H.V., <b>Bitra, V.S.P.</b> , Burla, S.V.S., Gudala, V., Kondeti, S., Vuppula, R.K. and Jaddu, S.	2020	Hydration behavior of chia seed and spray drying of chia mucilage	Journal of Food Processing and Preservation	44(6): e14456

#### List of Books Published

Sl. No.	Authors	Year	Title of the Book	Name of the Publisher
1	Ravi Babu, G., <b>Ganesh Babu, R., Krupavathi, K.</b> and <b>Raja Kumar, K.N.</b>	2017	Irrigation Engineering	VGS Polytechnic Series, VGS Book links, Vijayawada
2	<b>B. Sreenivasula Reddy</b>	2020	Food Engineering	ICAR, New Delhi

#### List of Laboratory Manuals Prepared

Sl. No.	Authors	Year	Course Number	Title of course
1	<b>K. Krupavathi, R. Ganesh Babu,</b> G. Ravi Babu and <b>A. Mani</b>	2017	AEBE 161	Surveying and Leveling

2	<b>K. Krupavathi, and A. Mani</b>	2017	AEBE 164	Fluid Mechanics and Open Channel Hydraulics
3	<b>G. Ravi Babu , H.V. Hema Kumar, R. Ganesh Babu and A. Mani</b>	2017	AEBE 262	Soil Mechanics
4	<b>B. Hari Babu and B.V.S. Prasad</b>	2019	FMPE 311	Farm Machinery and Equipment - I
5	<b>B. Raj Kiran and B.V.S. Prasad</b>	2019	AEBE 166	Workshop Technology and Practice
6	<b>K. Lavanya, N. Vinoda and B.V.S. Prasad</b>	2019	PFEN 322	Post Harvest Engineering of Cereals, Pulses and Oilseeds
7	<b>M. Madhava, L. Edukondalu and B. Sreenivasula Reddy</b>	2019	PFEN 324	Dairy and Food Engineering

#### **List of Study Materials Prepared for Diploma in Agricultural Engineering**

<b>Sl. No.</b>	<b>Authors</b>	<b>Year</b>	<b>Course Number</b>	<b>Credit hours</b>	<b>Title of course</b>
1	A. Ashok Kumar	2019	DAE212	3 (2+1)	Agricultural Machinery
2	K VS Rami Reddy	2019	DAE312	2 (0+2)	Operation and Maintenance of Farm Machinery
3	<b>N. Vinoda and K. Lavanya</b>	2019	DAE221	3 (1+2)	Engineering Properties and Processing of Seeds
4	L. Edukondalu	2019	DAE222	3 (1+2)	Agricultural Process Engineering – I
5	<b>K.N. Raja Kumar</b>	2019	DAE331	2 (1+1)	Hydrology and Management of Watersheds
6	<b>B. Raj Kiran</b>	2019	DAE141	3 (1+2)	Workshop Technology – I
7	<b>J. Kumara Raja</b>	2019	DAE 143	2 (1+1)	Computer Applications
8	<b>K. Krupavathi</b>	2019	DAE144	2 (1+1)	Principles of Fluid Mechanics
9	<b>B. Raj Kiran</b>	2019	DAE145	3 (1+2)	Workshop Technology – II
10	<b>N. Seshagiri Rao</b>	2019	DAE 146	2 (1+1)	Applied Electronics and Instrumentation
11	<b>R. Ganesh Babu</b>	2019	DAE 147	3 (1+2)	Surveying and leveling – I
12	<b>B Hari Babu</b>	2019	DAE 241	2 (1+1)	Engineering Mechanics & Materials Testing
13	G. Ravi Babu	2019	DAE 242	3 (1+2)	Surveying and Leveling – II
14	<b>H.V. Hema Kumar</b>	2019	DAE 244	2 (1+1)	Strength of Materials
15	L. Edukondalu and <b>B. Raj kiran</b>	2019	DAE245	2 (1+1)	Principles of Electrical Engineering & Farm Electricity
16	<b>H.V.Hema Kumar</b>	2019	DAE341	2 (1+1)	Estimating and Costing of Farm Buildings and Structures
17	<b>N. Seshagiri Rao</b>	2019	DAE152	2 (1+1)	Engineering Physics

### List of Conference Papers Presented by Faculty

Sl. No.	Authors	Year	Title of the paper	Conference Details	Paper Number/Page Numbers
1	L.R.V. Prasad, <b>B. Raj Kiran</b> , Samreen, N.V.G. Dekshitulu and M.V.N. Chaitanya	2015	Development and Evaluation of roto drill cum Herbicide applicator	49 <sup>th</sup> Annual Convection of ISAE and Symposium on Engineering Solutions for Sustainable Agriculture and Food Processing	
2	L. Edukondalu, P. Naga Deepthi Yadav, Sivala Kumar and J. Lakkshmi	2015	Production of microwave baked potato chips	-do-	
3	B.J.V. Sai Vinay, L. Edukondalu, Sivala Kumar and <b>G. Veera Prasad</b>	2017	Development and evaluation of low cost grader for round fruits and vegetables	51 <sup>st</sup> Annual Convention of ISAE and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture"	
4	Samreen, Ch.V.V. Satyanarana, L. Edukondalu, Vimala Beera and V. Srinivasa Rao	2017	Membrane processing of pineapple juice	-do-	
5	Samreen, Satyanarayana, Ch.V.V. and Edukondalu, L.	2018	Membrane processing of pomegranate juice	52 <sup>nd</sup> annual convention of ISAE and National Symposium on "Doubling farmers income through technological interventions" held at AAU, Anand, Gujarat during 8 <sup>th</sup> to 10 <sup>th</sup> January, 2018	
6	Vinay, B.J.V.S.,	2018	Effect of surface	-do-	

	Edukondalu, L., Sivala Kumar and <b>Veera Prasad, G.</b>		material and speed of the rotary disc on efficiency of a low cost grader suitable for round fruits and vegetables		
7	A. Ashok Kumar, V.K. Tewari and Brajesh Nare	2018	Digital Draft Force Indicator for Tillage Research	National Conference on “Digital and Engineering Technologies for Precision Agriculture and Value Addition” held during 26- 27 February, 2018 at College of Agricultural Engineering, ANGRAU, Bapatla, A.P, India	FM-01
8	A. Ashok Kumar and V.K. Tewari	2018	Digital Drive Wheel Torque Meter for Agricultural 2WD Tractors	-do-	FM-02
9	Vennela B. and Rami Reddy K.V.S.	2018	Development of Solar Operated Low Volume Boom Sprayer	-do-	FM-06
10	Leena Mounica S., Pavani J., Mushaira Thasleem S., Ashok Kumar A., <b>Raj Kiran B.</b> , Carolin Ratina Kumari A. and Senthil Kumaran G.	2018	Design and Development of Animal Drawn Onion Digger	-do-	FM-11
11	A. Ashok Kumar, V. K. Tewari and Chanchal Gupta	2018	Digital Wheel Slip Meter for 2WD Agricultural Tractors	-do-	FM-12
12	A Ashok Kumar, G Hemanth Kumar, M Harshavardhan, E Pavan Kumar and M V Ramana	2018	Ergo- characteristics of manual operated sprayers and weeders	-do-	FM-14
13	B Laxman, <b>S Joseph Reddy, K</b> Madhusudhana	2018	Performance evaluation of tractor drawn aqua	-do-	FM-19

	Reddy, and <b>G Veera Prasad</b>		planter for Groundnut		
14	G Karthik, I Srinivas, V Ravikant Adake, L Edukondalu Anamika Jha.	2018	Development and Performance Evaluation of Manually Operated two Row Paddy Transplanter	-do-	FM-45
15	A Srinivasa Rao, C Ramana and M V Ramana	2018	Solar-cum-Wind Hybrid System: A case study at College of Agricultural Engineering, Madakasira	-do-	FM-50
16	N. L. Kalyan Chakravarthi, V. Vinai Kumar, M. Krishna Naik, M. Siva Raju, K.V.S. Rami Reddy and <b>G. Veeraprasad</b>	2018	Design, and Development of Tractor Drawn Row Crop Fertilizer Applicator	-do-	FM-51
17	B. Sunitha and C. Ramana	2018	Evaluation of Crop Parameters of Sugarcane Planters Available in Andhra Pradesh	-do-	FM-58
18	D Vaishnavi, A C Rathinakumari, G Senthil Kumaran, <b>Venkata S.P. Bitra</b> , S A Venu and L Edukondalu.	2018	Physical and Engineering Properties of Vegetable Seeds Relevant for Development of Protray Vacuum Seeder for Vegetable Nursery	-do-	FM-60
19	C. Navyasree, V. Ashwini, C. Hima Bindu, Arudra Srinivasa Rao and C. Ramana	2018	Design and Evaluation of Solar Photo Voltaic Audible Bird Scarer	-do-	FM-65
20	D.V.Sunitha, B.Jithender, K.V.S. Rami Reddy	2018	Study on Effect of Rotary Ploughing on Soil Physical Parameters In Black and Sandy Soils	-do-	FM-68
21	G. Kishore Kumar, <b>B. Raj Kiran</b> and Ch. Murali Krishna	2018	Evaluation and Cost Economics of Different Weeders	-do-	FM-70

			Under Dryland Conditions		
22	G Kishore Kumar, <b>B Raj Kiran</b> and Ch Murali Krishna	2018	Performance evaluation of power weeder under dry and wet land conditions	-do-	FM-71
23	B Vennela, Aumsarma, M Raghu Babu, <b>G Veeraprasad</b> and M Vijaykumar	2018	Study and performance evaluation of different sugarcane ratoon implements	-do-	FM-77
24	<b>B Raj Kiran</b> and E V Thomas	2018	Development of Main Control Unit and Stepper Motor Interface for Regulating the Speed of Inner Rotor of Self Propelled Puddler	-do-	FM-83
25	D.Srigiri, <b>G.Veera Prasad, B.Raj Kiran</b> , L.Edukondalu	2018	Development and Evaluation of Multi Crop Precision Planter	-do-	FM-84
26	Shaik Kolimi Baba Fakruddin, C.Ramana, <b>D. Vijay Kumar</b> , L. Edukondalu	2018	Optimization of Blades for Bund Trimming and Plastering Equipment for Rice Fields	-do-	FM-85
27	Karthik. G, Srinivas. I, Ravikant adake. V, Edukondalu. L, Anamika Jha	2018	Ergo-Economical Analysis of Mechanical and Manual Paddy Transplanting	-do-	FM-90
28	N V Gowtham Deekshithulu, G Ravi Babu, <b>R Ganesh Babu</b> and M Siva Ramakrishna	2018	Performance evaluation of low cost microcontroller used in automated drip irrigation system for Watermelon crop	-do-	SW-04
29	G. Ravi Babu, S. Senthilvel and M. Raghu Babu	2018	Development of decision support system for sustainable water productivity in the Thungabhadra side (TS) channel command area	-do-	SW-15

30	K Sahithya, G Ravi Babu, <b>A Mani</b> and Ch Sujani Rao	2018	Mismatch between supplies and demands of canal water in the command area of Bapatla 279-285 channel	-do-	SW-18
31	P. Akhila Shiney, Y. Naga Lakshmi, A. Pradeep Reddy, N. Sree Vani Swetha and <b>R. Ganesh Babu</b>	2018	Impact Assessment of Climate Change on Crop Water Requirement Using CROPWAT in Bapatla Mandal	-do-	SW-21
32	K Sai Manogna, A Mani, G.Ravi Babu and V Radha Krishna Murthy	2018	Spatial analysis of water quality of Guntur channel command area	-do-	SW-23
33	Hari N, Mani A , Hema Kumar H V and Edukondalu L	2018	Morphometric Analysis of Gundlakamma River Sub Basin Using GIS and Remote Sensing	-do-	SW-24
34	P Indraja, <b>H V Hema Kumar</b> , A Mani and L Edukondalu.	2018	Mapping of Soil Salinity Using Remote Sensing and GIS	-do-	SW-26
35	<b>K Krupavathi</b> , M Raghu Babu, <b>A Mani</b> , P R K Parasad and L Edukondalu.	2018	Use of Landsat-8 OLI Imagery Multi-Temporal Vegetation Indices for Crop Classification in the Irrigated Areas of Krishna Central Delta.	-do-	SW-30
36	N Bidyarani Chanu, <b>A Mani</b> , M Raghu Babu and <b>M Venkata Suneela</b>	2018	Assessing the Effect of Land Use Land Cover on Soil Erosion in Krishna Lower Sub Basin	-do-	SW-35
37	<b>I Bhaskara Rao</b> , T V Satyanarayana and M Raghu Babu	2018	Applications of Artificial Intelligence (AI) technologies in Agriculture	-do-	SW-37
38	Ajay A., Smith D.D., Pranathi M., Premchand K.,	2018	Development of Ohmic Heating Cell for Pasteurization	-do-	FE-10



	Venkateswarlu B. and <b>Venkata S.P. Bitra</b>		of Mango Pulp		
39	<b>Venkata S.P. Bitra</b> , N. Anusha, M. Ravi Naik and S. Sudheer Kumar	2018	Digital Image Processing for Color Measurement During Ripening of Banana and Guava	-do-	FE-16
40	M Madhava, Sivala Kumar, D D Smith, <b>D Bhaskara Rao</b> and <b>H V Hema Kumar</b>	2018	Economic analysis of hybrid greenhouse dryer for drying of Paddy	-do-	FE-19
41	<b>M. Madhava</b> , Sivala Kumar, D.D. Smith, <b>D. Bhaskara Rao</b> and <b>H.V. Hema Kumar</b>	2018	Mathematical Modeling of Rough Rice Drying in Hybrid Greenhouse Dryer	-do-	FE-20
42	V. Shoban Naik, V. Nagendram, Ch. Someswara Rao, M.V. Ramana and C. Ramana	2018	Energy Analysis in Various Rice Milling Operations	-do-	FE-27
43	<b>K. Lavanya</b> , A.K. Agarwal, S. Patel	2018	Studies on Parboiling Characteristics of Paddy	-do-	FE-29
44	<b>K Lavanya</b> , <b>D Bhaskara Rao</b> , L Edukondalu, R Lakshmipathy and V Srinivasa Rao	2018	Production Process of Polyurethane Foam (PUF) Panels for Ripening Chamber	-do-	FE-30
45	<b>N Vinoda</b> , <b>Venkata S P Bitra</b> , L Edukondalu, V Srinivasa Rao and Vimala Beera.	2018	Methods to Accelerate Mass Transfer Rates in Potato Slices During Osmotic Dehydration: A Review	-do-	FE-31
46	Y.H.V. Siva Koteswara Rao, <b>N.Vinoda</b> , <b>K. Lavanya</b> , Hima Bindu K, J. Tejaswini	2018	Effect of Aloe Vera Gel Coating on Quality and Self-life of Banana	-do-	FE-32
47	Farzana Begum, Ch.V.V. Satyanarayana, L. Edukondalu and <b>G. Veeraprasad</b>	2018	Physical and Engineering Properties of Gherkins	-do-	FE-34

48	M.Padma, P.V.K.Jagannadarao, K.Aparna, L. Edukondalu, G. Ravi Babu	2018	Preparation of Non-Dairy Milk from Biological Materials - A Review	-do-	FE-37
49	K Nagamani, P V K Jagannadha Rao, D D Smith and G Ravi Babu	2018	Effect of packing material and storage on microbial attributes of Sugarcane juice	-do-	FE-48
50	<b>Venkata S.P. Bitra</b>	2018	Advances in farm mechanization and post harvest management for improving profitability of Indian Agriculture	Lead paper in Theme – 04: Farm Mechanization and Post Harvest Technologies to Enhance Farm Profitability – During National Conference for Post Graduate Students on “Techno- Strategic Interventions for Profitable Agriculture” held during 26- 27 March, 2018 at Agricultural College, ANGRAU, Bapatla, Andhra Pradesh, India	164-180
51	<b>Sreenivasula Reddy Boreddy and Venkata S.P. Bitra</b>	2019	World-class (agricultural) university in overall perspective of India	National Conference on “Strategic Approaches for Developing World-Class Agricultural Universities” held during 19- 20 March, 2019 at Dr. N.T.R. College of Agricultural Engineering,	WCAU/FLP/4

				ANGRAU, Bapatla, Andhra Pradesh, India	
52	<b>Venkata S.P. Bitra, Sreenivasula Reddy Boreddy</b> , and Divyasree Arepally	2019	Role of patents in strengthening the agricultural universities in India	-do-	WCAU/FLP/7
53	<b>A. Mani</b>	2019	Building institutions for excellence in water resources	-do-	WCAU/FLP/8
54	Brahmini B., Edukondalu, L., <b>Venkata S.P. Bitra</b> and <b>Veeraprasad, G.</b>	2019	Effect of slice thickness and heating plate temperature on physico-chemical properties of freeze dried mushroom slices	53 <sup>rd</sup> Annual Convention of ISAE and International Symposium on “Engineering Technologies for Precision and Climate Smart Agriculture” held during 28-30 January, 2019 at Institute of Agricultural Sciences, BHU, Varanasi, U.P., India	

#### 6.5.2.4 Technical and Supporting Staff

##### Sanctioned and In-Position Office Staff at Dr NTRCAE, Bapatla

Sl. No.	Sanctioned Post / Category	Sanctioned Strength	In-Position	Vacant Positions	Office Staff Recommended by ICAR
1	Administrative Officer	1	1	-	1
2	Superintendent	1*	1	-	12 Clerks
3	Senior Assistant	2	1	1	
4	JACT	2**	-	2	
5	Record Assistant	1	1	-	
6	Office Subordinate	2	2	-	
7	Watchman	1	1	-	
8	PA/Steno	-	-	-	8
9	Messenger/Peon	-	-	-	8
<b>Total</b>		<b>10</b>	<b>7</b>	<b>3<sup>^</sup></b>	<b>29</b>

\* The post was Re-deployed of Superintendent

\*\* One post was Re-deployed of JACT (1 + 1 = 2)

<sup>^</sup>Three vacant positions of Office Staff are supported by out-sourcing employees.

**Sanctioned and In-Position Laboratory Staff at Dr NTRCAE, Bapatla**

Sl. No.	Sanctioned Post / Category	Sanctioned Strength	In-Position	Vacant Positions	Laboratory Staff Recommended by ICAR
1	Workshop Supervisor	1	-	1	27 Workshop Staff, Computer Operator, Driver, Technicians
2	Technician (Mech.Gr.I)	3	-	3	
3	Technician (Mech.Gr.II)	2	-	2	
4	Draughtsman Grade III	1	-	1	
5	Carpenter Grade II	1	-	1	
6	Welder	1	-	1	
7	Blacksmith	1	-	1	
8	Turner	1	-	1	
9	Driver	1	-	1	
10	Workshop Helper	2	-	2	
11	Luskar	2	-	2	
12	Laboratory Assistant	-	-	-	14
<b>Total</b>		<b>16</b>	<b>0</b>	<b>16*</b>	<b>41</b>

\*Sixteen posts of Laboratory Staff are filled with out-sourcing employees.

**Department-wise Distribution of Technical, Laboratory and Farm Staff**

Sl.No.	Sanctioned Post	Number of Posts	Vacant Positions
<b>Farm Machinery and Power Engineering</b>			
1	Workshop Supervisor	1	1
2	Technician (Mech.Gr.I)	3	3
3	Technician (Mech.Gr.II)	1	1
4	Carpenter Grade II	1	1
5	Turner	1	1
6	Driver	1	1
7	Workshop Helper	1	1
<b>Processing and Food Engineering</b>			
8	Technician (Mech.Gr.II)	1	1
9	Blacksmith	1	1
<b>Irrigation and Drainage Engineering</b>			
10	Workshop Helper	1	1
11	Luskar	1	1
<b>Soil and Water Conservation Engineering</b>			
12	Draughtsman Grade III	1	1
13	Welder	1	1
14	Luskar	1	1
<b>Total</b>		<b>16</b>	<b>16*</b>

\*Out of sixteen posts, thirteen posts of Technical Staff are filled with out-sourcing employees.

Apart from these technical/laboratory/field staff, College is supported with 26 Time-Scale employees and 22 contact staff additionally in all these Departments. Moreover, College Hostels are supported by 4 contact staff and 9 piece-meal workers.

### 6.5.3 Learning Resources

UG and PG students are trained on various computer software, namely, AutoCAD, ProE, SURFER, CRIWAR, CROPWAT, SURDEV, MODFLOW, DRAINMOD, SALTMOD, WINFLUME, RS&GIS, etc. during practical classes. Educational videos are played to the students for better understanding of the subject in various courses.

#### 6.5.3.1 College Library (Digital)

Library and information services play a vital role in supporting high quality education and learning environment amongst students, faculty members and post-graduate scholars. This College is having a separate block for Library. The Library has a good collection of 11725 subject matter books, 470 gift books, 287 NAHEP-IDP books and 361 project reports. Apart from these books, there are 97 books and 147 books exclusively for SC and ST students. To facilitate the students writing competitive examinations, library is enriched with GRE, GMAT, TOEFL, CAT, general studies, computer books with CDs and different dictionaries (Telugu to English and English to English), handbooks, annual reports, world atlas, etc. Apart from them, there are a wide variety of Telugu and English daily news papers, popular weekly and monthly magazines like *Rythunestham*, *Annadata*, etc. and competitive magazines. They are being kept for students general reading.



**Main Library Building**



**Magazine Section**



**Library Facilities**



**Digital Library**

The issues and returns of the library books are strictly on library card basis. The College Library is equipped with 2 good Xerox machines and 2 computers along with printers. Apart from them, 32 computers with internet facility is being maintaining under digital library. Internet facility is available for the students and staff during the library timings to access of e-journals, abstracts, e-books and research papers for academic and research purpose using e-Resources in Agriculture (CeRA). Staff and students attended orientation and user awareness training programme on “Consortium for e-Resources in Agriculture (CeRA)” conducted at Agricultural College, Bapatla on 19-09-2018.

Location of library: College premises

Present staff position: One Assistant Professor is acting as In-charge of Library with three Library Assistants

Seating capacity: 40 seats for reading purpose and 30 seats for E-resources

Working hours: 9:00 AM to 12:00 Noon and 2:00 PM to 5:00 PM

Availability of Internet and Wi-Fi: Yes

Number of books: 12953

Number of daily News papers: 8

Journals: 15 (International journals - 10 and National - 5)

**Details of college library, Dr. NTR College of Agricultural Engineering, Bapatla**

Sl. No.	Particulars	Total Number
1	General Books	11725
2	IDP Books (Tittles 109)	287
3	Gift Books	477
4	Book Bank Scheme	367
5	SC/ST Books	97
6	Project Reports (B.Tech.)	361
7	M.Tech. Theses	102
8	Ph.D. Theses	21

9	Back Volumes	469
10	Foreign Periodicals	10
11	Indian Periodicals	5
12	News Papers	8
13	Computers with Internet facility	32
14	Xerox Machines + Printers	2+2
15	Library Software (Koha)	
16	E-Resources (Online Journals) facility available	
17	Online UPS facility available	

**List of the journals in College Library, Dr. NTR College of Agricultural Engineering,  
Bapatla**

Sl. No.	Name of the Journal
<b>Foreign Journals</b>	
1	Food Processing
2	Transactions of the ASABE
3	Journal of Irrigation and Drainage Engineering(ASCE)
4	Computer Electronics in Agricultural
5	Canadian Bio-systems Engineering
6	Agricultural Mechanization in Asia, Africa, Latin America
7	Journal of food science Technology
8	Food Technology
9	Journal of Soil and water conservation(SWCS)
10	Progress in Agricultural Engineering Sciences
<b>Indian Journals</b>	
1	Journal of Eco-friendly Agriculture
2	Agricultural Engineering Today
3	Indian journal of Agricultural Sciences
4	The Andhra Agricultural Sciences
5	International journal of Agricultural Engineering

**6.5.3.2 Laboratories, Instructional Farms, Workshops, Dairy Plant, Veterinary Clinic, Hatchery, Ponds, etc.**

Each department of the College is having dedicated laboratories. Department-wise distribution of laboratories is furnished here under:

**A. Department of Farm Machinery and Power Engineering**

1. Farm Power Laboratory
2. Farm Machinery Laboratory
3. Advanced Workshop
4. Soil Dynamics Laboratory
5. Ergonomics Laboratory

**B. Processing and Food Engineering**

1. Instrumentation Laboratory
2. Process Engineering Laboratory
3. Food Analysis Laboratory
4. Food Microbiology Laboratory
5. Environmental Control Laboratory



- C. Irrigation and Drainage Engineering
  - 1. Irrigation Filed Laboratory
  - 2. Field Solar Pump Laboratory
  - 3. Wells and Pumps Laboratory
- D. Soil and Water Conservation Engineering
  - 1. Watershed
  - 2. Surveying and Leveling Laboratory
  - 3. Soil and Water Conservation Laboratory
- E. Renewable Energy Engineering
  - 1. Renewable Energy Laboratory
- F. Basic Engineering and Applied Sciences
  - 1. Workshop with equipment of all manufacturing processes
  - 2. Thermodynamics Laboratory
  - 3. Central Computer Center
  - 4. Soil Mechanics Laboratory
  - 5. Engineering Drawing Laboratory
  - 6. Theory of Machines Laboratory
  - 7. Strength of Materials Laboratory
  - 8. Engineering Physics Laboratory
  - 9. Applied Electronics Laboratory
  - 10. Electrical Engineering Laboratory
  - 11. Hydraulics and Fluid Mechanics Laboratory

Agricultural College, Bapatla is having a farm for academic instruction. The courses related to Agriculture are being handled by the Faculty of Agriculture and the College Farm is serving the curriculum requirement. Apart from Irrigation Field Laboratory of this College, agricultural land available in the Campus is being effectively utilized for field experiments pertaining to Departments of Farm Machinery and Power Engineering, Irrigation and Drainage Engineering and Soil and Water Conservation Engineering. Very good Workshop is available with ultra modern facilities in the College to cater the needs of all the Departments.







**Engineering Workshop**

Watershed model along with a farm pond is established in the College for students' experimentation.



**Irrigation Field Laboratory**



**Watershed**

### **6.5.3.3 Student READY/In-Plant Training/Internship/Experiential Programmes**

ICAR has granted ELP unit on hydroponics for the first time during 2019-20. Structure and equipment are being established.

B.Tech. (Agricultural Engineering) degree programme is supported by following hands-on training courses additionally:

1. SRDY 281 Skill Development Training – I (4 weeks)
2. SRDY 381 Skill Development Training – II (4 weeks)
3. SRDY 481 Industrial Attachment/Internship (10 weeks)
4. SRDY 482 Experiential Learning (10 weeks)
5. SRDY 483 Educational Tour (2 weeks)
6. SRDY 484 Project Work and Report Writing (20 weeks)

SRDY 281, SRDY 381 and SRDY 481 are organized in ICAR Research Institutes (CIPHET, Ludhiana; IIHR, Bangalore; CIAE, Bhopal; IISWC, Ooty, Bellary, Koraput, Kota,

Vasad; NAARM, Hyderabad; CRIDA, Hyderabad; CTRI Regional Station, Kandukur; etc.), Central Government Organizations (CFMTTI, Budni; SFMTTI, Garladinne; NFMTTI, Hissar; NIPHM, Hyderabad; IIP, Hyderabad; CIPET, Vijayawada; IGSI, Hyderabad; IMD, Pune; NIH, Roorkee and Kakinada; etc.), State Government Organizations (WALAMTARI., Hyderabad; APSAC, Vijayawada; AICRP on FIM, Hyderabad; Telangana Foods, Hyderabad; DWMA, Ongole; etc.), industries (Global Green Group, Sadasivapet; Pioneer Seeds, Hyderabad; Srini Food Park Pvt. Ltd. Chittoor; Food Tropicals, Tirupati; Konark Frozen Foods, Vijayawada; Jaya Lakshmi Rice Mill, Bapatla; Karanam Technologies, Kakinada; Farm Implements (India) Pvt. Ltd, Chennai; ASPEE, Mumbai; TAFE Ltd, Chennai; Escorts, Faridabad; VST, Bangalore; Jain Irrigation Systems, Hyderabad; ITC, Guntur and Mysore; Kumar Pumps, Tenali; etc.), NGOs (WASSAN, Secunderabad; Dhan Foundation, Madurai and Punganur; Krushi Agri Development Training Centre under AC&BC, Kothagudem; etc.), etc. for training in the application of latest technologies. After training, a presentation will be given by the students and viva-voce will be conducted by panel of experts. These trainings will help the students in placements in those organizations.

SRDY 482 is conducted in the College itself in various modules, namely, farm machinery (manufacturing of garden tools, groundnut stripper, monocycle weeder-cum-furrow cleaner, tractor components, tillage implements, weeder rakes, solar power operated sprayer, manual drawn cultivator, multipurpose manual drawn implements, manual drawn multipurpose cycle weeder), mushroom cultivation, leafy vegetables cultivation, cultivation of commercial and floricultural crops, development of manual fruit harvester, production of low-cost air cooler, ANGRAU possessed foods (*ragi* malt, *ragi* biscuits, sorghum *laddu*, oat cookies, mango Jam, etc.), survey on farm mechanization in Andhra Pradesh, etc. After completion of the Experiential Learning Program, each group of the students prepare a Work Done Report with complete details of the ELP handled and present their work in the form of seminar individually in front of the Evaluation Committee. Profit arrived from each module is shared by students (75%), Department (10%) and Faculty/Manager (15%). Following are the details of ELP Units handled in the College during academic year 2019-20:

#### ELP Income Generation during 2019-20

Sl. No.	Name of the ELP Unit	Profit Generated, Rs.
1	ANGRAU Processed Foods - I	6045/-
2	<i>Gongura</i> Cultivation	3410/-
3	ANGRAU Processed Foods - II	5905/-
4	Mushroom Cultivation	3140/-
5	Cultivation of Floriculture and Commercial crops	2150/-
6	Manufacturing of garden tools and farm implements	4796/-
<b>Total</b>		<b>25,446/-</b>

During the years 2015-16, 2016-17, 2017-18 and 2018-19, AELP 300 Experiential Learning Programme (Non-Credit Course) for one month in the semester break after third year of B.Tech. (Agricultural Engineering) was conducted.

SRDY 483 is held for final year students and they cover most of the organizations in South India, namely, Indian Institute of Horticultural Research, Bangalore; University of Agricultural Sciences, Bangalore; IISWC, Ooty; TNAU, Coimbatore; CMFRI, Kochi; Kanan Devan Hills Plantations Company (P) Ltd., Munnar; CTCRI, Thiruvananthapuram; House of Kalam, Rameshwaram; IIFPT, Tanjavur; etc. After the students return back to College, they submit a detailed Tour Report to the College. Students are evaluated based on the Tour Report, seminar presentation and followed by Viva-Voce Examination in front of the Evaluation Committee.

SRDY 484 is a research project in which each group of 4-5 students conduct experiments on various researchable topics and develop new items for the benefit of the farming community. Students will prepare a Project Report and present their work in front of the Evaluation Committee and, then, Viva-Voce Examination will be held for evaluation.

M.Tech. (Agricultural Engineering) students are having Industry/Institute Training Course during Second Year First Semester for 4 weeks duration. Students are being sent to ICAR research institutes (CRIDA, Hyderabad; CIAE, Bhopal; CIAE, Regional Centre, Coimbatore; CIPHET, Ludhiana and Abhor; etc.), Central Government Organizations (Central Institute of Tool Design, Hyderabad; NRSC, Kolkata; etc.), State Government Organizations (APSAC, Vijayawada; etc.) and industries to impart hand-on training to them.

#### **6.5.3.4 Curricula Delivery Through IT (Smart Classrooms, Interactive Boards, etc.)**

All the teachers use LCP projector and deliver the curriculum through Power Point Presentation. Teachers play educational videos using multimedia for benefit of the students.

College is having Virtual Classroom established under NAHEP-IDP with all the required equipment to connect all the campuses and anywhere in the world.

There are 4 dedicated classrooms with good lighting and ventilation being used for B.Tech. (Agricultural Engineering) degree programme for conducting theory classes. These classrooms are equipped with LCD projector, chalk board, furniture, etc. First, second and third year classrooms are converted into Smart Classrooms with audio systems, etc.

Apart from them, there are 3 separate classrooms with good lighting and ventilation being used for M.Tech. (Agricultural Engineering) degree programmes in three specializations of Farm Machinery and Power Engineering, Processing and Food Engineering and Soil and Water Engineering for conducting theory classes. These classrooms are equipped with LCD projector, chalk board, furniture, etc. Soil and Water Engineering classroom is equipped with interactive board also.

Also, there are 3 dedicated classrooms with good lighting and ventilation being used for Ph.D. (Agricultural Engineering) degree programmes in three specializations of Farm Machinery and Power Engineering, Processing and Food Engineering and Soil and Water Engineering for conducting theory classes. These classrooms are equipped with LCD projector, chalk board, furniture, etc.

#### **6.5.4 Student Development**

College is imparting very good education to the students of B.Tech. (Agricultural Engineering) and M.Tech. (Agricultural Engineering) and Ph.D. (Agricultural Engineering) in three specializations for their overall academic development.

##### **6.5.4.1 Student Intake and Attrition**

##### **B.Tech. (Agricultural Engineering)**

B.Tech. (Agricultural Engineering) programme was started in the academic year 1983-84 in Agricultural College, Bapatla and it was elevated to College status in the year 1990 and got established its College during 1994.

B.Tech. (Agril Engg)									
Academic Year	First Year		Second Year		Third Year		Final Year		Total Students
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2014-15	37	30	36	42	41	26	42	26	280
2015-16	32	28	40	33	35	41	41	26	276
2016-17	40	33	39	31	39	32	40	35	289
2017-18	42	25	48	36	38	30	40	32	291
2018-19	42	26	47	29	47	35	38	30	294
2019-20	29	38	49	28	44	27	47	31	293
<b>Total</b>	<b>222</b>	<b>180</b>	<b>259</b>	<b>199</b>	<b>244</b>	<b>191</b>	<b>248</b>	<b>180</b>	<b>1723</b>

B.Tech. (Agril Engg)										
Particulars	2014-15		2015-16		2016-17		2017-18		2018-19	
	Enrolled	Passed	Enrolled	Passed	Enrolled	Passed	Enrolled	Passed	Enrolled	Passed
UG - Male	45	42	40	36	40	34	40	32	44	30
UG - Female	27	26	30	27	34	39	32	40	26	38
	<b>72</b>	<b>68</b>	<b>70</b>	<b>63</b>	<b>74</b>	<b>73</b>	<b>72</b>	<b>72</b>	<b>70</b>	<b>68</b>

### M.Tech. (Agricultural Engineering)

College is offering M.Tech. (Agricultural Engineering) in three Departments, namely, Farm Machinery and Power Engineering, Processing and Food Engineering, and Soil and Water Engineering since 2006-07 onwards. One student from Afghanistan has completed M.Tech (Soil and Water Engineering) programme. So far, 102 PG students were awarded their degrees. The college has 32 post graduates on roll during the academic year 2019-20.

#### Student Intake and Attrition for the College in PG Programmes

Year	Intake			Attrition			Attrition (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>M.Tech. (Farm Machinery and Power Engineering)</b>									
2015-16	5	0	5	0	0	0	0	0	0
2016-17	1	4	5	0	0	0	0	0	0
2017-18	4	0	4	2	0	2	50	0	50
2018-19	4	0	4	0	0	0	0	0	0
2019-20	4	1	5	1	0	1	20	0	20
<b>M.Tech. (Processing and Food Engineering)</b>									
2015-16	5	2	7	0	0	0	0	0	0
2016-17	2	6	8	0	1	1	0	12.5	12.5
2017-18	0	3	3	0	0	0	0	0	0
2018-19	3	5	8	1	0	1	12.5	0	12.5
2019-20	2	4	6	0	2	0	0	33.3	33.3
<b>M.Tech. (Soil and Water Engineering)</b>									
2015-16	2	4	6	0	0	0	0	0	0
2016-17	2	3	5	0	0	0	0	0	0
2017-18	1	4	5	0	0	0	0	0	0
2018-19	1	3	4	0	0	0	0	0	0
2019-20	1	2	3	1	1	2	33.3	33.3	66.6

### Ph.D. (Agricultural Engineering)

College is offering Ph.D. (Agricultural Engineering) in Departments of Farm Machinery and Power Engineering, Processing and Food Engineering, and Soil and Water Engineering since 2012-13 academic year onwards. Of late, 53 students have enrolled to Ph.D. programme. The College has 32 doctoral students on roll during the academic year 2019-20.

#### Student Intake and Attrition for the College in Ph.D. Programmes

Year	Intake			Attrition			Attrition (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Ph.D. (Farm Machinery and Power Engineering)</b>									
2015-16	1	1	2	0	0	0	0	0	0
2016-17	2	0	2	0	0	0	0	0	0
2017-18	2	0	2	0	0	0	0	0	0
2018-19	0	2	2	0	1	1	0	50	50
2019-20	2	1	3	0	0	0	0	0	0
<b>Ph.D. (Processing and Food Engineering)</b>									
2015-16	0	5	5	0	0	0	0	0	0
2016-17	2	0	2	0	0	0	0	0	0
2017-18	1	0	1	0	0	0	0	0	0
2018-19	1	0	1	0	0	0	0	0	0
2019-20	0	1	1	0	0	0	0	0	0
<b>Ph.D. (Soil and Water Engineering)</b>									
2015-16	2	1	3	0	0	0	0	0	0
2016-17	6	0	6	0	0	0	0	0	0
2017-18	2	1	3	0	0	0	0	0	0
2018-19	1	2	3	0	0	0	0	0	0
2019-20	1	1	2	0	0	0	0	0	0

### 6.5.4.2 Average Number of Students in Theory and Practical Classes

#### Student Strength in Theory and Practical Classes

Sl. No.	Name of the Degree Programme	Batch of Students in Theory Class	Batch of Students in Practical Class
1	B.Tech. (Agricultural Engineering)	72	36
2	M.Tech. (Agricultural Engineering)		
	a) Farm Machinery and Power Engineering	5	5
	b) Processing and Food Engineering	5	5
	c) Soil and Water Engineering	3	3
3	Ph.D. (Agricultural Engineering)		
	a) Farm Machinery and Power Engineering	2	2
	b) Processing and Food Engineering	2	2
	c) Soil and Water Engineering	2	2

#### **6.5.4.3 Admission Process**

Selected students to the B.Tech. (Agricultural Engineering) programme through EAMCET Counseling pay fees in cash after arrival to the College. After payment, Fee Receipt is being issued instantaneously. Whereas, the students acquired admission to M.Tech. and Ph.D. programmes pay requisite fee at University Admission Counseling Centre in cash and the Fee Receipt for the same is being issued on the spot to the student concerned.

Registration of the courses is being done in the College during Orientation Session for B.Tech. (Agricultural Engineering) programme separately and M.Tech. & Ph.D. programmes separately. Students have to fill the registration material and the registration slips will be passed on to the respective courses in-charge.

Academic Calendar is scrupulously prepared by the University for B.Tech. (Agricultural Engineering) programme separately and M.Tech. & Ph.D. programmes separately.

#### **B.Tech. (Agricultural Engineering)**

Admission into First Year B.Tech. (Agricultural Engineering) programme is being done through AP state EAMCET ranks through common counseling of the state. Intake is for 60 seats. Out of 60 seats, 60% (36) of the seats are filled by EAMCET Convener, whereas remaining 40% (24) seats are filled under farmers' quota duly following the reservation policy of the state. There are 15% additional seats over and above 60 available for students of ICAR quota nominated by ICAR, New Delhi. Those who have completed 3-year Diploma in Agricultural Engineering have facility of entering into Second Year B.Tech. (Agricultural Engineering) through AGRIENGGCET conducted by ANGRAU every year. There are 15% seats over and above 60 are reserved for these lateral entry students.

#### **M.Tech. (Agricultural Engineering)**

Admission process carried out to the M.Tech. programmes is through entrance examination (JRF) conducted by the ICAR every year (since 2018-19) as per the reservation policy of the state. Earlier ANGRAU conducted the entrance examination based on the B.Tech. (Agricultural Engineering) syllabus. Present intake is 13 students in all the three departments of M.Tech. (Agricultural Engineering) programme. Apart from regular admission, over and above, 15% of students secure admission under ICAR quota with ICAR fellowship. From the academic year 2017-18 onwards, provision is made for International students also for PG programmes.



### **Ph.D. (Agricultural Engineering)**

Admission process carried out to the Ph.D. programmes is through entrance examination (SRF) conducted by the ICAR every year (since 2018-19) and interview performance as per the reservation policy of the state. Earlier ANGRAU conducted the entrance examinations in each specialization based on the MTech. (Agricultural Engineering) syllabus. Apart from regular admission, over and above, 15% of students secure admission under ICAR quota with ICAR fellowship. There is a provision of one seat for regular students in each Department and one seat altogether for in-service faculty of ANGRAU.

#### **6.5.4.4 Conduct of Practical and Hand-on Training**

Practical classes in two batches for B.Tech. (Agricultural Engineering) are being conducted in the courses having practical component.



**Students Attending C++ Laboratory Class**



**Surveying & Leveling Practical Class**

#### **6.5.4.5 Examinations and Evaluation Process**

Examinations for all the courses are being conducted with fool proof and transparency. Most of the courses are having theory as well as practical component. Each credit of the course is evaluated for 50 marks.

### **B.Tech. (Agricultural Engineering)**

Mid-semester examinations are being held after 50% of the semester working days in half the syllabus, whereas, semester final theory examinations are conducted after completion of the semester. Mid-semester examinations and semester final theory examinations are conducted for 50 and 100 marks, respectively.

Mid-semester examination question papers are set by the courses in-charge itself and conduct the examination with the support of the Departmental faculty and staff. Question paper

has two parts (Part-A and Part-B). Part-A contains bits in the form of fill in the blanks, multiple choice questions, matching, formulae, statements, one sentence answers, etc. for 20 marks. Part-B contains 5 questions of essay type, derivations, problems solving, etc. for 30 marks. After examination is completed, the concerned course in-charge evaluates the answer scripts and show to the students for verification within 10 days.

Practical final examination is being conducted in the laboratory, workshop, computer centre, drawing hall or examination hall depending upon the nature of the course. Practical component is evaluated on 50:50 bases, i.e., 50% of the marks for internal evaluation based on record work, assignments, experimentation, slip tests, quizzes, attendance, etc. and the remaining 50% of the marks are for final practical examination. Those students who obtained more than 75% of attendance are allowed to appear for both the practical final and semester final theory examinations.

However, question papers for semester final theory examinations are also set by the concerned courses in-charge from all the campuses and sent to the University. Question paper has two parts (Part-A and Part-B). Part-A contains bits in the form of fill in the blanks, multiple choice questions, matching, formulae, statements, one sentence answers, etc. for 40 marks. Part-B contains 8 questions of essay type, derivations, problems solving, etc. for 60 marks, but, students has to attempt any 5 questions. All these question papers are moderated by senior faculty at University level. Then, one moderated question paper is selected by the Dean of Agricultural Engineering and Technology. University will get it printed and supply the sealed bundles of the question papers to the concerned Colleges one day before the start of the semester final theory examinations. They are put under lock and key by the Associate Dean of the College. On the day of examination, the concerned question paper bundles are opened 15 min prior to the scheduled start of the examination. Examinations are conducted with the help of faculty (one faculty for each 30 students) and College staff under the supervision of Hall Superintendent. Initially Part-A is held for 30 min and the Part-B for 2 hours. After examination, both Part- A and Part-B are clubbed together and all the answer scripts are sealed and put under custody. All the bundles of the answer scripts pooled to Spot Evaluation Centre in any one of the Colleges. There, answer scripts of same course from all the Colleges are jumbled/randomized and coded in front of a committee constituted for this purpose. One or two faculty from all these Colleges, who dealt the same course, are assigned the evaluation duty by Dean of Agricultural Engineering and Technology. Generally, each teacher is allowed to evaluate about 30 answer scripts in a day. After evaluation is completed, the answer scripts are

decoded by another committee and the results are sent to the corresponding colleges. The course in-charge prepares the Performance Register as per the weightage and declares the results. Those students who obtained more than 75% of attendance are permitted to appear for the semester final theory examination.

Students have to score 50% of marks to pass both semester theory examination and practical final examination. Also, they need to obtain 5.0 Grade Point to clear the course. After all the courses of B.Tech. (Agricultural Engineering) are passed, the Overall Grade Point Average (OGPA) is awarded with Class as stated below.

OGPA	Class
8.00 and above	First Class with Distinction
7.00 to 7.99	First Class
6.00 to 6.99	Second Class
5.00 to 5.99	Pass

#### **M.Tech. (Agricultural Engineering) and Ph.D. (Agricultural Engineering)**

Mid-semester examinations are being held after 50% of the semester working days in half the syllabus, whereas, semester final theory examinations are conducted after completion of the semester. Mid-semester examinations and semester final theory examinations are conducted for 30 and 100 marks, respectively. Assignments (including term papers) are evaluated for 20 marks.

Mid-semester examination question papers are set by the courses in-charge itself and conduct the examination. Question paper has two parts (Part-A and Part-B). Part-A contains bits in the form of fill in the blanks, multiple choice questions, matching, formulae, statements, one sentence answers, etc. for 15 marks. Part-B contains 3 questions of essay type, derivations, problems solving, etc. for 15 marks. After examination is completed, the concerned course in-charge evaluates the answer scripts and show to the students for verification within 10 days.

Practical final examination is being conducted in the laboratory, workshop, computer centre, drawing hall or examination hall depending upon the nature of the course. Practical component is evaluated on 50:50 bases, i.e., 50% of the marks for internal evaluation based on record work, experimentation, slip tests, quizzes, attendance, etc. and the remaining 50% of the marks are for final practical examination. Those students who obtained more than 75% of attendance are allowed to appear for both the practical final and semester final theory examinations.

Question papers for semester final theory examinations are also set by the concerned courses in-charge and sent to the University. Question paper has two parts (Part-A and Part-B). Part-A contains short answer questions for 40 marks. Out of 10 questions, student has to attempt 8 questions. Part-B contains 8 questions of essay type, derivations, problems solving, etc. for 60 marks, but, students has to attempt any 5 questions. All these question papers are moderated by senior faculty at University level. Then, moderated question paper is printed and supply the sealed bundles of the question papers to the concerned Colleges one day before the start of the semester final theory examinations. They are put under lock and key by the Associate Dean of the College. On the day of examination, the concerned question paper bundle is opened 15 min prior to the scheduled start of the examination. Examinations are conducted with the help of course in-charge and departmental staff. The examination is held for 3 hours. After examination, all the answer scripts are sealed and put under custody. All the bundles of the answer scripts are sent to University. There, answer scripts are jumbled/randomized and coded. Course in-charge, who dealt the same course, is assigned the evaluation duty by Dean of Post Graduate Studies. Generally, each teacher is allowed to evaluate about 30 answer scripts in a day. After evaluation is completed, the answer scripts are decoded by University and the results are sent to the College. The course in-charge prepares the Performance Register as per the weightage and declares the results. Those students who obtained more than 75% of attendance are permitted to appear for the semester final theory examination.

Students have to score 50% of marks to pass both semester theory examination and practical final examination. Also, they need to obtain 6.0 Grade Point to clear the course.

Comprehensive written and oral examinations are conducted after the course work is completed. Written examination in core courses only is being held for M.Tech. students and in both core and minor courses separately is being conducted for Ph.D. students. M.Tech. and Ph.D. students have to obtain 50% and 70% marks, respectively, in these written examinations. Oral examination for these students is being conducted by inviting External Examiner from other SAUs or IITs.

#### **6.5.4.6 NCC/NSS/RVC Units**

National Service Scheme (NSS) is an Indian government-sponsored public service program conducted by the Department of Youth Affairs and Sports of the Government of India. The NSS programme is an integral part of course curriculum of B.Tech. (Agricultural Engineering). The NSS programme comprises of regular activities (120 hours) and Annual

Special Camp (120 hours). The regular activities are being conducted on campus and off-campus throughout the year. The Annual Special Camps are being conducted in a rural village for 7 days and the NSS volunteers have to stay in the village during the special camp. All the NSS volunteers who have served NSS for 3 years and have performed 240 hours of work under NSS are being issued a certificate from the university with the signature of the Hon'ble Vice-Chancellor and the Programme Coordinator at University level (Dean of Student Affairs).

Regular NSS activities like social awareness, door to door surveys, rallies, etc. are conducted in and around Bapatla and also in adopted villages. The details of NSS volunteers are shown in the below table. Two NSS units are allocated to this college and are in full functioning mode from first year of the course. NSS aimed at developing students' personality through community service was achieved at this college in undergraduate students. NSS special camp was organized every year at two places by two NSS units. The NSS volunteers actively participated in cleaning the premises of college campus every week as per the schedule. Further, the following activities are being conducted under NSS programme as furnished below. NSS volunteers learned many skills through NSS activities; some important are as follows:

- Enabled students to acquire specialized competence in communication skills
- Improved awareness on local crops related problems and needs of the farmers and in turn improved thinking and technical skills
- Acquired leadership qualities
- Students improved in attitude, behavioural aspects

**Details of NSS units during last five years**

Sl. No.	Year	No. of NSS volunteers	No. of NSS units allotted	Status of function
1	2015-16	132	1 Unit	Functioned
2	2016-17	221	2 Units	Functioned
3	2017-18	214	2 Units	Functioned
4	2018-19	231	2 Units	Functioned
5	2019-20	277	2 Units	Functioned

**Category-wise No. of NSS volunteers**

Sl. No.	Year	SC		ST		BC		General		Total	
		M	F	M	F	M	F	M	F	M	F
1	2015-16	9	11	3	1	35	35	26	12	73	59
2	2016-17	12	18	5	4	61	56	40	25	118	103
3	2017-18	15	15	8	1	58	50	39	28	120	94
4	2018-19	16	16	8	2	58	47	58	26	140	91
5	2019-20	17	19	10	4	79	68	47	33	153	124

### Details of NSS special camps

Sl. No.	Year	Place of NSS special camp held	No of NSS units participated	Period
1	2015-16	Basivireddypalem, Bapatla Manal	1 unit	10 <sup>th</sup> February to 16 <sup>nd</sup> February, 2016
2	2016-17	Pothurajukothapalem, Bapatla, mandal	2 Units	16 <sup>th</sup> February to 22 <sup>nd</sup> February, 2017
3	2017-18	Pinnuboinavaripalem, Bapatla mandal	2 Units	16 <sup>th</sup> March to 22 <sup>nd</sup> March, 2018
4	2018-19	(i) Panduranga Puram (ii) Devinutala	2 Units	08 <sup>th</sup> February to 14 <sup>th</sup> February, 2019
5	2019-20	(i) Poondla, Special (ii) Poondla, Main	2 Units	18 <sup>th</sup> February to 24 <sup>th</sup> February, 2020

### Brief activities year-wise under NSS programme on campus and off-campus

#### 2015-16

Sl.No.	Activity	Date
1	Birth anniversary of Dr B.R. Ambedkar	14-04-2015
2	Anti-ragging awareness programme	14.08.2015
3	NSS Foundation Day function and Blood donation camp	24-09-2015
4	Gandhi Jayanthi	02-10-2015
5	Campus Cleaning	02-10-2015
6	Death Anniversary of Dr B.R. Ambedkar	06-12-2015
7	Village meeting, Karlapalem	10-12-2015
8	International White Cane Day - Donated Rs.3830/- to Indian Association for the Blind	15-10-2015
9	Clean and Green Programme	13-11-2015
10	NSS special camp	10-02-2016 to 16-02-2016

#### 2016-17

1	Birth anniversary of Dr B.R. Ambedkar	14-04-2016
2	International Youth Seminar at Kothurmandal, Telangana- One NSS Volunteer participated	23-4-2016 to 27-04-2016
3	International Yoga Day	21-06-2016
4	Vanam-Manam Programme	22-07-2016
5	Swatch Bharat	22-08-2016
6	Personality development and Yoga Programme	
7	NSS Foundation Day function and Blood donation camp	24-09-2016
8	Gandhi Jayanthi	02-10-2016
9	Anti-ragging awareness programme	15-10-2016
10	National Unity Day	31-10-2016
11	Agricultural Education Day on	03-12-2016
12	Death Anniversary of Dr B.R. Ambedkar	06-12-2016
13	NSS special camp	16-02-2017 to 22-02-2017

#### 2017-18

1	Birth anniversary of Dr B.R. Ambedkar	14-04-2017
2	International Yoga Day	21-06-2017

3	Vanam-Manam Programme	01-07-2017
4	SwacchataPakwada	01-08-2017 to 15-08-2017
5	Clean and Green programme	23-08-2017
6	NSS Foundation Day function and Blood donation camp	24-09-2017
7	Anti-ragging awareness programme	16-09-2017
8	Gandhi Jayanthi	2-10-2017
9	Clean and Green programme	21-10-2017 to 28-10-2017
10	Clean and Green programme	14-10-2017 to 28-10-2017
11	National Unity Day	31-10-2017
12	Plastic waste free campus	08-11-2017
13	Death Anniversary of Dr B.R. Ambedkar	06-12-2017
14	Plantation of saplings	25-02-2018
15	NSS special camp	16-03-2018 to 22-03-2018

#### 2018-19

1	Birth anniversary of Dr. B R Ambedkar	14-04-2018
2	International Yoga Day	21-06-2018
3	Vanam-Manam Programme	05-07-2018
4	Orientation class was conducted to the NSS Volunteers	23-07-2018
5	Inaugurated Agricos Green Programme	31-07-2018
6	SwacchataPakwada	01-08-2018 to 15-08-2018
7	Anti-ragging awareness programme	21-08-2018
8	Clean and Green programme	27-08-2018
9	Vanam - Manam	01-09-2018
10	Swachhata Hi Seva	15-09-2018
11	Health and hygiene awareness Government school, Pinnibionavaripalem	22-09-2018
12	Golden Jubilee NSS Foundation Day function and Blood donation camp	24-09-2018
13	Rally on Swachhatha	29-09-2018
14	Gandhi Jayanthi	02-10-2018
15	Shramadanam	06-10-2018
16	National Unity Day	31-10-2018
17	Clean and Green programme	03-11-2018 to 17-11-2018
18	Constitution Day	26-11-2018
19	National Unity Day	31.10.2018
20	SwachtaBharath	28-12-2018 to 29-12-2018
21	Death Anniversary of Dr B.R. Ambedkar	06-12-2018
22	5K RUN in view of 6 <sup>th</sup> round of JanmabhoomiMaavuru (JBM) Programme	06-01-2019
23	Clean and Green Programme	21-01-2019
24	NSS special camp at Pandurangapuram Village Bapatlamandal and Devinuthala Village, Chirala Mandal	08-02-2019 to 14-02-2019



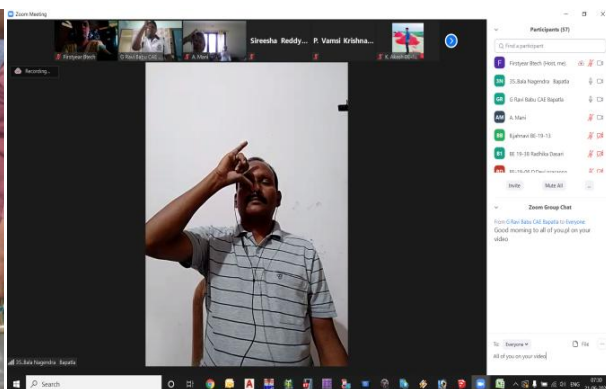
25	Clean and Green Programme	25-02-2019 26-02-2019
26	Pulse Polio Immunization programme	10-03-2019
27	Plantation of saplings	16-03-2019

#### 2019-20

1	Clean and Green programme	01-04-2019
2	Birth anniversary of Dr B.R. Ambedkar	14-04-2019
3	Plantation of saplings	24-04-2019
4	International Yoga Day	21-06-2019
5	Jal Shakthi Abhiyan	29-07-2019
6	SwachhtaPakhwada - Jal Shakthi Abhiyan (Fortnight) Activities	01-08-2019 to 15-08-2019
7	Campus cleaning Cleaned hydraulic laboratory	01-08-2019
8	Conducted rally on Swachhata at Ponnoboinavaripalem	01-08-2019
9	Door to door awareness campaign on "Better sanitation practices like using of toilets, hand washing, health and hygiene awareness etc." at Government school, Pinniboinavaripalem	06-08-2019
10	Anti-ragging awareness programme	21-08-2019
11	Golden Jubilee of NSS Foundation Day and Blood donation camp	24-09-2019
12	Plastic free awareness Programme	28-09-2019
13	Swachta hi seva	11-09-2019 to 27-10-2019
14	150 <sup>th</sup> Birth anniversary of Mahatma Gandhi	02-10-2019
15	Fit India Polg Run	02-10-2019
16	Agricos Green Programme	03-10-2019
17	National Unity Day	31-10-2019
18	Clean and Green programme	03-11-2019
19	70 <sup>th</sup> National Constitutional Day	26-11-2019
20	National Unity Day	31-10-2019
21	Death Anniversary of Dr B.R. Ambedkar	06-12-2018
22	Pulse Polio Immunization programme	19-01-2020
23	NSS special camp at Poondla special and Poondla main	18-02-2020 to 24-02-2020
24	Clean and Green Programme	13-03-2020



**Blood Donation Camp on 24-09-2019 Jal Shakti Abhiyan Rally on 29-07-2019**



**Agricos Green Programme on 3-10-2019 Online Yoga on International Yoga Day 21-06-2020**



**Anti-Ragging Awareness Programme**

**Clean and Green Programme**

#### 6.5.4.7 Language Laboratory

AEAS 175 Communication Skills and Personality Development course is being offered to first year students during first semester by the Agricultural College, Bapatla. Facilities available at that College are being utilized by our students.

#### 6.5.4.8 Cultural Centre

There is no separate Cultural Centre established in the College. But, students practice in the cultural activities in Common Halls available in the Hostels. Students of this College participate in all the intercollegiate cultural and literary events. Few students got selected for participation in inter university competitions, Youth Festival, etc.

#### Students who participated and won prizes in various cultural and literary activities at University and All India level

Name of the Student	Name of the Activity	Merit/Place	Name and Place of Event
<b>2019-20</b>			
T. Kavya Sri (IV Year)	Elocution - English	2 <sup>nd</sup> Place	Inter collegiate sports, games,

Md Ali Shaik	Elocution – Telugu	3 <sup>rd</sup> Place	cultural and literary meet,1 <sup>st</sup> Phase, Agricultural College, Badvel (30-09-2019 to 4-10-2019)
T. Kavya Sri (IV Year)	Extempore	2 <sup>nd</sup> Place	
Ch. Sirisha	Solo Folk Dance	3 <sup>rd</sup> Place	
Md Ali Shaik S. Ravi Teja R. Vamsi Krishna B. D. V. Ramana B. Brahmanada Reddy G. Vivek	Meme	3 <sup>rd</sup> Place	
2018-19			
K. Anji Babu	Extempore	2 <sup>nd</sup> Place	Inter collegiate sports, games, cultural and literary meet,1 <sup>st</sup> Phase, Agricultural College, Bapatla (03-10-2018 to 06-10-2018)
T. Kavya Sree	Elocution	3 <sup>rd</sup> Place	
T. Mahesh	Cartooning	2 <sup>nd</sup> Place	
K. Susmitha	Solo Folk Dance	1 <sup>st</sup> Place	
A. Asha Jyothi K. Pavithra A. Ramya Sri T. Vineela B. Usha Rani B. Harshika	Group Folk Dance	2 <sup>nd</sup> Place	
K.Susmitha	Solo Folk Dance	Participation	<b>All India Inter Agricultural Universities Youth Festival, SDAU, Sardarkrishi Nagar, Gujarat (03-02-2019 to 07-02-2019)</b>
2017-18			
G. Adithya (M. Tech) K. Vinod (IV Year), M Aravind (IV Year) A. Vasu. (IV Year) S. Ravi Teja (II Year) T. Nikhil Sharma (IV Year)	Mime	2 <sup>nd</sup> Place	Inter collegiate sports, games, cultural and literary meet,3 <sup>rd</sup> Phase, Agricultural College, Bapatla (27-12-2017 to 30-12-2017)
T. Nikhil Sharma (IV Year) M. Reethika (III Year), Pavan Naik (II Year) Sohela (II Year) B. Padmaja (II Year)	Group Song	2 <sup>nd</sup> Place	

G. Adithya (M. Tech) K. Vinod (IV Year) M Aravind (IV Year) A. Vasu. (IV Year) K. Raju Yadav (IV Year) T. Nikhil Sharma (IV Year) N. Naga Raju (IV Year) S. Mahitha (IV Year) P. Lavanya (IV Year) G. Adithya (M. Tech),	One Act Play	3 <sup>rd</sup> Place	
K. Susmitha. (II Year)	Solo Folk Dance	3 <sup>rd</sup> Place	
2016-17			
	Telugu debate	2 <sup>nd</sup> Place	Inter collegiate sports, games, cultural and literary meet,3 <sup>rd</sup> Phase, S.V.Agricultural College, Tirupati (17-12-2016 to 20-12-2016)
	Spot painting	2 <sup>nd</sup> Place	
	Mono action	2 <sup>nd</sup> Place	
2015-16			
S. Anusha (II Year)	Telugu Elocution	1 <sup>st</sup> Place	Inter collegiate sports, games, cultural and literary meet,2 <sup>nd</sup> Phase, Agricultural College, Bapatla
B.J.V. Sai Vinay (M. Tech II Year)	English Elocution	3 <sup>rd</sup> Place	
G. Mani Prakash Reddy (IV) S. Anusha (II)	Debate Telugu	2 <sup>nd</sup> Place	
B.J.V. Sai Vinay (M. Tech II Year)	Extempore	3 <sup>rd</sup> Place	
M. Raja Sekhar (M. Tech I Year)	Poster Making	1 <sup>st</sup> Place	
M. Raja Sekhar (M. Tech I Year)	Cartooning	1 <sup>st</sup> Place	
P. Heramb (II)	Patriotic Poem	3 <sup>rd</sup> Place	
G. Adithya (M. Tech, I Year)	Mono-action	2 <sup>nd</sup> Place	
Y. N Sinduja (IV)	Rangoli	3 <sup>rd</sup> Place	
G. Mani Prakash Reddy K. Sai Manogna Ch. N. Tulasi Krishna Akhil Shiney Samskruthi Y. N. Sinduja G. Vinoda M. Lakshmi Durga A. Balaji Reddy	One Act Play	2 <sup>nd</sup> Place	
G. Adithya N. L. Kalyan Kumar B. Udaya Bhanu Praksh A. Balaji Reddy M. Krishna Naik Jagadeesh Surya	Skit	3 <sup>rd</sup> Place	





**Cultural Program in the College**



**Cultural Program – Inter-Collegiate**

#### **6.5.4.9 Personality Development**

College is continuously striving hard to overall development of all the students. Several personality development classes are being conducted regularly apart from Yoga classes also. Special classes also being conducted for backlog students and SC-ST students. Much emphasis also being given to improving the spoken English in order to perform better in placement interviews.

#### **Training Programmes Conducted for Students**

Sl. No.	Name of the Training Programme	Duration
<b>2016-17</b>		
1	Personality development classes	12-03-2016 to 14-03-2016
<b>2017-18</b>		
2	Personality development and spoken English classes	12-03-2017 to 14-03-2017
<b>2018-19</b>		
3	GATE, SRF and JRF for Classes	29-11-2018 to 08-12-2018
4	Backlog classes	12-12-2018 to 14-12-2018
5	Personality development classes and Aptitude Reasoning	12-12-2018 to 14-12-2018
6	Spoken English classes	15-12-2018 to 16-12-2018
<b>2019-20</b>		
7	Personality development Spoken English Classes	30-12-2019 to 31-12-2019
8	Gate Coaching classes	01-01-2020 to 10-01-2020
9	Skill Development Training Programme	14-01-2020 to 27-01-2020
10	Personality development classes	29-01-2020 to 29-01-2020
11	Student developing attitude Gaining Confidence training programme	20-01-2020 to 21-01-2020
12	Verbal Non Verbal Coaching Classes	22-01-2020 to 23-01-2020
13	Student developing Learning Assessment training programme	30-01-2020 to 31-01-2020
14	Entrepreneurship Development Programme	03-02-2020 to 04-02-2020

	for Rural youth on oil milling and marketing	
15	Training on “AutoCAD and PRO-E”	10-02-2020 to 15-02-2020
16	MATLAB Software training Classes	16-02-2020 to 20-02-2020
17	Skill Development Training Programme	26-02-2020 to 29-02-2020
18	Student developing Learning Assessment training programme	03-03-2020 to 05-03-2020
19	JRF Coaching	08-03-2020 to 17-03-2020
20	Training programme on “GIS & GPS”	10-03-2020 to 16-03-2020
21	Training on “R” Programme” statistical model	17-03-2020 to 22-03-2020

Apart from them, College has conducted personality development classes in NAHEP-IDP also. M/s Smart Series, Bangalore conducted soft skill training programme for 6 days during 01<sup>st</sup> April to 6<sup>th</sup> April, 2019. Overall, around 138 students attended the programme. A five-day overall personality development training programme was conducted in the College from April 22<sup>nd</sup> to April 26<sup>th</sup>, 2019 by M/s SS Technologies, Hyderabad. There were 84 students from I Year B.Tech. (Agril Engg) and M.Tech. (Agril Engg) attended the training programme.



**Spoken English Class**



**Verbal and Non-Verbal Coaching Class**



**MATLAB Software training Class**



**Training programme on R**



**Training on Soft Skills by Mrs Y. Radha, M/s Smart Series, Bangalore**



**Training on Overall Personality Development by M/sSSS Technologies, Hyderabad**

### **6.5.5 Physical Facilities**

Physical infrastructure for healthy living of students in the campus is provided within the campus in short distance. Wardens, Officer in-charge of Student Activities, Officer in-charge of Academic Matters for UG and PG, Officer in-charge of Placement Cell, NSS Programme Officer, Library in-charge, Computer Laboratory in-charge, Medical Doctor, Compounder, Physical Director, etc. are positioned in the College to take care of the students.



### 6.5.5.1 Hostels

Boy students are provided accommodation in 2 separate hostels at one end and girl students are accommodated in two separate hostels at the other end of the campus. Boy student hostels, namely, Dr. K.L. Rao Hall of Residence and New Boys Hostel. The two boy hostels have total of 52 rooms in which 170 students are residing. Similarly, two girl hostels have total of 36 rooms where 127 girls are accommodated at present. Most of the rooms in the hostels can accommodate 4 students comfortably. The rooms have the cots equivalent to the student numbers, cupboards, reading tables, chairs, etc. Other features and facilities in the college hostels are as follows:

- Boys hostel mess is equipped with big dining tables (8Nos.), chairs (60Nos.), water cooler (1 No.), RO plant (1No.), refrigerator (1No.), LED TV with good sound system, ceiling fans(10Nos.).
- Similarly, Girls hostel mess is equipped with big dining tables (2Nos.), chairs (30Nos.), water cooler (1No.), refrigerator (1 No.), LED TV with good sound system, ceiling fans(3Nos.).
- Purified water dispensers for cool, hot and normal water are available in each hostel.
- Hostels are also having facilities such as guest room for parents, sick room for isolation purposes, etc.
- Hostels are having sufficient number of well managed bath rooms and toilets.
- Disabled friendly rest rooms are also provided in the new boys and girls hostels.
- Ramp facilities for convenience of the differently challenged students are provided in all the boys and girls hostels.
- Reading rooms are available in the new boy and girl hostels. English and Telugu newspapers, and some magazines are being provided in the hostels.
- Gymnasium with required exercise equipment is available at both the girls and boys hostels.
- Facilities for indoor games such as table tennis, caroms and chess are available.
- Courts for the net games such as basketball, shuttle, volley ball, etc. are available adjacent to the hostel.
- The ground for playing cricket and football with running tracks is available between the hostel and college building.
- CCTV cameras were installed at different strategic locations inside and outside the hostels and monitored continuously the movement of students and outsiders.
- First aid kits are made available in both the hostels.

Senior faculty member of male is appointed as warden for boys hostel and senior faculty of female is appointed as warden for girls hostel to supervise the routine boarding and lodging requirements and welfare of the students.

### Details of the Hostels

Sl. No.	Name of the Hostel	Capacity	Presently accommodated
<b>Boys</b>			
1	Dr. K.L. Rao Hall of Residence	140	132
2	New boys hostel	38	38
<b>Girls</b>			
1	Old Girls Hostel	96	89
2	New Girls Hostel	38	38



**Dr K.L. Rao Hall of Residence (Old Boys Hostel)**



**New Girls Hostel**

### 6.5.5.2 Examination Hall

Examination hall with 80 seating capacity to accommodate the students at distance is available. This hall is well ventilated with good lighting facility and fans. This hall is supported by a large room attached to it to store the examination material intact. Examination preparation process is done in this room.



**Examination Hall**

### 6.5.5.3 Sports and Recreation Facilities

Students practice the games daily in the evening by Physical Director. There is one practical class in first year B.Tech. (Agricultural Engineering) to make the students conversant with rules and regulations of Physical Education. Boys Hostel is having a well equipped Gym for improving the fitness of the students.

#### **Sports and Games Infrastructural Facilities**

Sl.No.	Name of game	Available infrastructure
1	Cricket	Pitch
2	Foot ball	Ground
3	Ball Badminton	One outdoor Court (Separate for boys and girls)
4	Indoor Gymnasium	Well-equipped Gym
5	Table Tennis	Two Table Tennis Boards (Separate for boys and girls)
6	Volley Ball	Two Volley Ball Courts (Separate for boys and girls)
7	Shuttle Badminton	Shuttle Badminton courts
8	Tennicoit	Tennicoit Court for girls
9	Caroms	4 indoor carom boards (Separate for boys and girls)
10	Chess	5 indoor Chess boards

#### **6.5.5.4 Auditorium**

Ground floor of the Library is having a Auditorium to accommodate about 150 students. College general functions are being held in the facility normally.

#### **6.5.5.5 Exhibition Hall/Museum**

One museum is established where in the academic posters, exhibits, etc. are displayed for students use.

#### **6.5.6 Research Facilities**

Departmental laboratories are well equipped to conduct B.Tech. (Agricultural Engineering), M.Tech. (Agricultural Engineering) and Ph.D. (Agricultural Engineering) practical component of all courses apart from research work being carried under SRDY 484 Project Work and Report Writing course of B.Tech. (Agricultural Engineering), Master's research of M.Tech. (Agricultural Engineering) and Doctorial research of Ph.D. (Agricultural Engineering).

##### **6.5.6.1 Postgraduate Laboratories and Equipment**

Each department of the College is having dedicated laboratories. Apart from them, College is having Post Graduate Computer Laboratory to run AutoCAD, ProE, MATLAB, Catia, Statistical Software 'R', SAS, CROPWAT, CRIWAR, SURFER, SURDEV, WINFLUME, RS&GIS etc. Department-wise distribution of laboratories is furnished here under:

A. Department of Farm Machinery and Power Engineering

1. Farm Power Laboratory
2. Farm Machinery Laboratory
3. Advanced Workshop
4. Soil Dynamics Laboratory
5. Ergonomics Laboratory

B. Department of Processing and Food Engineering

1. Instrumentation Laboratory
2. Process Engineering Laboratory
3. Food Analysis Laboratory
4. Food Microbiology Laboratory
5. Environmental Control Laboratory

C. Department of Soil and Water Engineering

1. Filed Irrigation Laboratory
2. Wells and Pumps Laboratory
3. Watershed
4. Soil and Water Conservation Laboratory

### Department of Farm Machinery and Power Engineering

Sl. No.	Name of the laboratory	Name of the Important Equipment/Instruments
1	Farm Power Laboratory	Cut models - Diesel engine (single cylinder), Tractor differential, Tractor steering, Rear axle assembly, Hydraulic brake, Master cylinder, Ignition system, Self starter, Distributor, Ignition Coil, Magneto, Synchromesh gear box, Constant mesh gear box, Steering gear box, diaphragm clutch system, multi plates clutch, Four wheel brake, cone clutch, mechanical brake system. LED Panels - Fuel injection system, Lubrication system, Gear box 8+2, Hydraulic system., Tractor cut section without wheel assemblies, etc.
2	Farm Machinery Laboratory	Knapsack sprayer, Hand compression sprayer, Mist blower, Hand operated castor thresher, Groundnut pod stripper, Axial flow thresher, Paddy reaper, Maize Sheller, Power Sprayer, Sub-soiler, Paddy thresher, ULV Sprayer, Post hole digger, 9 tyne cultivator (spring loaded), Boom sprayer, Disc plough, Battery operated cotton picker, Wheel type dibbler, Rotary mulcher, Groundnut digger shaker cum windrower, Mobile shredder, Foot operated sprayer, Rocking sprayer, Bucket scraper, Multi crop thresher (Electric motor operated), Rotavator, Rice transplanter (Riding type), Rice transplanter (walking type), Nursery raising machine, Seed cum fertilizer drill automatic, Reversible M.B. Plough, Rotary plough, Spider weeder, Multi crop ridge planter, Rotary slasher, Laser land leveler, Self propelled high clearance sprayer, Combine harvester (self propelled), Combine harvester (tractor mounted), Rigid tyne cultivator, John Deere 4 WD tractor along with hoe and bucket attachments, Mahindra 40 H.P, Escorts tractor, V.S.T Mini tractor, Power tiller
3	Advanced Workshop	Lathe machines with all accessories and attachments, Spot welding machine (pedestal type), Welding Machine with transformer (600 AMPS air cooled) and accessories, Wooden work table (3' X 8'), Bench grinder ½ HP, Lathe machines, Wood turning lathe, Shaper machine (18"), Air compressor, Iron cutting machine (14"), Hydraulic press, Shearing machine, Hydraulic hack saw machine with 2 hp motor, Hydraulic pipe bending machine, Stand drilling machine ½", Pipe bending machine ( ½" to ¼"), Hand drilling machine (6 mm), Universal milling machine, Radial drilling machine 1" capacity, Heavy



		duty sheet bending machine (4'), CNC Lathe machine, CNC Milling machine, etc.
4	Soil Dynamics Laboratory	Rectangular and circular soil bins, Force analysis instrumentation, S Type load cells (1 ton and 3 ton capacity), Digital force gauge, Digital and analogue tachometers, Cone penetrometer, Strain gauge (cantilever type), Universal load cell (750 kg), Digital transducer indicator suitable for AG make universal load cell, Variable frequency drive motor (1.5 kW), etc.
5	Ergonomics Laboratory	Motorized treadmill, Digital heart rate monitor, Digital pulse monitor with finger sensor cable, Dual digital thermometer with core/skin temperature process, Electromyography unit, Ergo meter cycle, Bourdon tube pressure gauge (digital), , Speed measurement trainer, Torque cell transducer (10 kg), Strain measurement trainer (1 kg), Digital sound level meter, Digital vibration meter, etc.



**CNC Lathe, CNC Milling Machine**



**Rectangular Soil Bin**

#### **Department of Processing and Food Engineering**

Sl. No.	Name of the laboratory	Name of the Important Equipment/Instruments
1	Instrumentation Laboratory	Unibloc moisture analyzer, Brookfield digital viscometer, PC based double beam UV-visible spectrophotometer, Freeze dryer, Electronic balance, pH meter, Digital LCD food thermometer, etc.
2	Process Engineering Laboratory	Refrigerated centrifuge, Tablet making machine, Water bath incubator shaker, Vacuum filtration assembly with a vacuum pump, Vacuum oven, Digital bomb calorimeter, Oscilloscope, Function generator, Digital LCR meter, etc.
3	Food Analysis Laboratory	Automatic nitrogen protein estimation system, Hollow fiber ultra-filtration membrane set, Automatic PC compatible solvent extraction system, Clevenger

		apparatus of oil heavier, oil lighter with heating mantles and voltage stabilizer, etc.
4	Food Microbiology Laboratory	B.O.D. incubator, Laminar flow, chamber, Deep freeze up to -40 °C, etc.
5	Environmental Control Laboratory	Environment chamber, etc.



**Freeze Dryer**



**Brookfield Digital Viscometer**

#### **Department of Soil and Water Engineering**

Sl. No.	Name of the laboratory	Name of the Important Equipment/Instruments
1	Field Irrigation Lab	Well irrigation system, Fields with drip irrigation system, Fertigation equipment, Soil moisture measuring devices, Water meter, Current meter, Mole plough, Power weeder, Rain gauges, Evaporimeter, Automatic weather station, Hydraulic flume, Soil augers, Hot air oven, etc.
2	Well and Pumps Laboratory	Cut models of different pumps, Different impellers, Pumps, Motors, Solar pumping system, etc,
3	Watershed	Watershed model, Farm pond, Soil and water conservation structures, etc.
4	Soil and Water Conservation Engineering Lab	Double ring infiltrometer, Soil moisture measuring devices, Parshall flumes, RBC flumes, Total station, GPS, Electronic theodolite, etc.





**Digital Water Level Recorder**



**Total Station**

#### 6.5.6.2 Research Contingency

ANGRAU is in its budget allocation, PG research contingency fund is allocated annually to support the M.Tech. and Ph.D. students in three PG departments, namely, Departments of Farm Machinery and Power Engineering (FMPE), Processing and Food Engineering (PFE), Soil and Water Engineering (SWE).

#### Department-wise Research Grant during Last Five Years

Year	FMPE	PFE	SWE
2015-16	5,33,000	5,33,000	5,33,000
2016-17	7,17,000	7,45,000	7,47,000
2017-18	5,85,000	5,95,000	6,85,000
2018-19	6,50,000	6,50,000	6,50,000
2019-20	5,00,000	5,00,000	5,00,000

#### 6.5.7 Outcome/Output

##### 6.5.7.1 Student Performance in National Examinations

#### Students Performance in National Examinations and Placements

Year	GATE	ICAR (JRF)	NET	Placement
2015-16	12	4	5	32
2016-17	16	6	14	25
2017-18	9	3	8	34
2018-19	13	12	6	32
2019-20	11	4	4	2 (Covid-19)

### 6.5.7.2 Students Placement Profile

Very good number of industries and organizations visit Dr NTR College of Agricultural Engineering, Bapatla and conduct personal interviews and group discussions with in the campus and/or in different cities to recruit our students.

During 2019-20, two students got placement in M/s Mahindra & Mahindra Tractors, Hyderabad. Rest of the campus placement interviews were not held due to Covid-19 situation prevailing still.

#### Student Placements during Last Five Years

Sl. No.	Organization	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Mahindra & Mahindra Tractors, Hyderabad	2			2	3	2
2	Sonalika International Tractor limited	10	6	6			
3	Crystal Protection Pvt. Ltd, Delhi	1					
4	ITC, Guntur	1					
5	Syngetna, Secunderabad	2					
6	Texmo Pumps, Tamil Nadu		9				
7	TAFE, Chennai		2				5
8	Jain Irrigation Systems Ltd, Hyderabad		4	18	6	8	
9	Dept. of Horticulture, Hyderabad			9			
10	BERI Udyog Pvt. Ltd			2			
11	Escorts Crop Solutions, Hyderabad				8		
12	Khedut Agro Pvt. Ltd, Chennai				2		
13	APMIP, Nellore				2		
14	Harvel Agua India Pvt. Ltd				1		
15	Yanmar Coromandel Pvt. Ltd, Chennai				2		
16	Dhan Foundation, Madurai				5		10
17	National Farming				4	12	
18	Landscape Irrigation, Hyderabad				2		
19	Horticultural Engineer, Hyderabad				1		
20	Teaching Associates					3	
21	Mahindra & Mahindra - Swaraj Division						4
22	Sujay Irrigation Pvt. Ltd, Bangalore						5
23	Sundaram finance Pvt. Ltd						4
24	Shaktiman Agro Pvt. Ltd						2
25	E-Commerce Pvt. Ltd, Hyderabad						2
<b>Total</b>		<b>16</b>	<b>21</b>	<b>35</b>	<b>35</b>	<b>26</b>	<b>34</b>

### 6.5.7.3 Awards/Recognitions/Certificates

#### Awards and Honors of the Faculty during Last Five Years

Sl. No.	Name	Awards and Honors
1	Dr D. Bhaskara Rao	• <b>Ugadi Puraskaralu Award - 2018</b>
2	Dr B.V.S. Prasad	• <b>Certificate of Reviewing Award</b> of the "LWT-Food Science and Technology", England since July, <b>2020</b>

		<ul style="list-style-type: none"> <li>• <b>Certificate of Reviewing Award</b> of the “Journal of Food Engineering”, England since June, 2020</li> <li>• <b>Certificate of Reviewing Award</b> of the “Journal of Food Science”, USA during <b>2019</b></li> <li>• <b>Best Research Paper Award</b> for the paper <b>Venkata S.P. Bitra</b>, N. Anusha, M. Ravi Naik and S. Sudheer Kumar. <b>2018</b>. Digital Image Processing for Color Measurement during Ripening of Banana and Guava. Paper No. FP-16. Paper presented during National Conference on “Digital and Engineering Technologies for Precision Agriculture and Value Addition” held during 26-27 February, 2018 at College of Agricultural Engineering, ANGRAU, Bapatla, A.P.</li> <li>• <b>State Best Teacher Award</b> at University Level of Andhra Pradesh, India during <b>2017</b></li> <li>• <b>Certificate of Outstanding Contribution in Reviewing Award</b> of the Journal “LWT-Food Science and Technology”, England during May, <b>2018</b></li> <li>• <b>Certificate of Outstanding Contribution in Reviewing Award</b> of the “Journal of Food Engineering”, England during April, <b>2018</b></li> <li>• <b>Certificate of Reviewing Award</b> of the Journal “Biomass &amp; Bioenergy”, England since March, <b>2018</b></li> <li>• <b>Certificate of Outstanding Contribution in Reviewing Award</b> of the Journal “Industrial Crops and Products”, The Netherlands during April, <b>2017</b></li> <li>• <b>Certificate of Reviewing Award</b> of the Journal “Industrial Crops and Products”, The Netherlands since March, <b>2017</b></li> </ul>
3	Dr A. Mani	<ul style="list-style-type: none"> <li>• <b>State Best Teacher Award</b> at University Level of Andhra Pradesh, India during <b>2018</b></li> </ul>
4	Dr M. Madhava	<ul style="list-style-type: none"> <li>• <b>Best Paper Award</b> for the research paper “Optimization of process parameters for production of palmyrah palm jiggery” in ISAE Annual Convention <b>2015</b></li> </ul>
5	Dr B. Hari Babu	<ul style="list-style-type: none"> <li>• <b>Meritorious Teacher Award</b> in the Faculty of Agricultural Engg.&amp; Technology, ANGRAU for the year 2012 received during <b>2015</b></li> <li>• <b>Best Paper Award</b> for the research paper on “Determination of Stiffness and Damping coefficient of Tractor Front tyres in Non-Rolling Conditions” published in International Journal of Agricultural Science and Research <b>2016</b></li> </ul>
6	Dr K. Krupavathi	<ul style="list-style-type: none"> <li>• <b>Teaching Excellence Award</b> by Society of Scientific Development in Agriculture and Technology in ICAAS-<b>2016</b> National Seminar</li> </ul>

#### Awards and Honors of the Students during Last Five Years

K.Susmitha	Solo Folk Dance	Participation	<b>All India Inter Agricultural Universities Youth Festival, SDAU, Sardarkrishi Nagar, Gujarat (03-02-2019 to 07-02-2019)</b>
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#### 6.5.7.4 Employability

B.Tech. (Agricultural Engineering) students are well trained academically both in theory and practical aspects to cope up with the challenges to be faced in their future in the agricultural engineering profession. These students are also trained outside the campus while they are undergoing SRDY 281 (Skill Development Training - I), SRDY 381 (Skill Development Training - II ) and SRDY 481 (Industrial Attachment/Internship) courses. SRDY 482 (Experiential Learning) course brings out their experiential skills, which in turn help them to establish their startups. SRDY 483 (Educational Tour) course is helpful in imparting organizational skills to the students along with acquaintance with different organizations and institutes. SRDY 484 (Project Work and Report Writing) course gives the research experience which is a first step for students in pursuing higher studies in India and abroad and also in their profession career. Moreover, several personality development and yoga classes are being held within the campus to improve their overall skills. Regular NSS programmes help them in inculcating good habits to become successful human beings in their career opportunities. Weekly Advisory Classes are the added advantage to the curriculum for keeping track of the students in guiding and advising meticulously for strengthening their goal setting.

#### List of Guest Lectures Organized during last Five Years

Name of the Expert	Topic	Date
<b>2014-15</b>		
Dr Md. Khalid Khan Dean, College of Agricultural Engineering & Technology, OUAT, Bhubaneswar	Heat Pump Drying of Agricultural Products	03-12-2014
Dr P. Balakrishnan, Dean of Agricultural Engineering, UAS, Raichur	Drainage Studies in Karnataka	02-01-2015
Dr B. Maheswara Babu Associate Professor, Department of Soil and Water Engineering, CAE, Raichur	Hydrological Investigation on Watershed Characteristics	22-01-2015

Dr D.C. Joshi Food Product Technology, Anand Agricultural University, Gujarat	1. Emerging Areas of Agro-Processing and Value Addition and Novel Technologies for Food Processing 2. Advances in Non-Thermal Process for Food Products and New Opportunities for Mechanization of Agro-Processing Operations	24-01-2015
Er N. Polappa Project Director, DWMA, Prakasam (Dist)	Role of Agril. Engineers in Watershed Management	27-02-2015
Er R.V.V. Naga Murali Assistant Project Director, APMIP, Prakasam (Dist)	Advance in Micro Irrigation systems	27-02-2015
Dr R. Viswanathan Professor (Agril. Processing), A D, Agricultural College & Research Institute, Tamil Nadu Agricultural University, Tirchirapalli (T.N.)	1. Processing and Value Addition of Millets. 2. Managerial Skills for Entrepreneurship in Food Processing	09-03-2015
Dr K.V. Rao, Principal Scientist, CRIDA, Hyderabad	Dry land agriculture and Watershed studies	17-03-2015
Dr Y. Yella Reddy, WALAMTARI, Hyderabad	Water Management Issues	17-03-2015
Er Y. Chinna Krishna Assistant Executive Engineer, Office of Chief Engineer (I&CAD), Inter State Water Resources, Hyderabad	Latest Techniques used in command area development and role of Agril. Engineers in I& CAD department	24-03-2015
<b>2015-16</b>		
Dr. Bhaskara Rao, Professor	Personality Development, Marketing skills and industrial trends for opting profession as Marketing Executives/Managers and Farm Mechanization – Past and Present trends and future needs including Tractor Industry	11-12-2015
Dr S.V. Kottiswaran, Professor & Principal Scientist (PFDC), TNAU, Coimbatore	Precision Farming Techniques	18-12-2015
Dr M. Suneel, Asst. Professor, Dept. of Electronics and Communication Engineering, Bapatla Engineering College, Bapatla	Electronics Measurements and Instrumentation	19-2-2016
DrV. Thirupathi, Professor, Dept. of Food and Agril. Process Engineering, TNAU, Coimbatore	1. Post Harvest Engineering of Spices 2. HACCP for Food Industries	22-2-2016 & 23-2-2016
Dr H.P. Ritzema, International Drainage Specialist, Wageningen University, The Netherlands	Drainage studies around the world Irrigation water use	23-2-2016

Dr N. Uday Kumar, Professor & Head, Dept. of Processing and Food Engg., CAE, UAS, Raichur	1. Advances in Active Packaging Technology 2. Super Critical Fluid Extraction of Bioactive Compounds from Medicinal and Aromatic Plants	25-2-2016 & 26-2-2016
M/s ATAGO INDIA INSTRUMENTS PVT. LTD., Hyderabad	Demonstration of Multipurpose refractometer (RX-5000i) to the PG students	26-2-2016
Dr K.V.G.K. Rao, Professor, Civil Engg. Department, PVP Siddhardha Institute of Technology, Vijayawada	Surface irrigation water resources in A.P.	27-2-2016
<b>2016-17</b>		
Dr M. Nemi Chandrappa Professor, Dept. of Soil and Water Engineering, CAE, Raichur	Rain water harvesting and recycling for efficient use in watershed area	2-9-2016
Dr Devand Maski, Asst. Professor, Dept. of FMP, CAE, Raichur	Management of Biomass in farmers fields	2-9-2016
Dr S. Manivannan Principal Scientist (SWCE), Central Soil and Water Conservation Research and Training Institute, Ooty, Tamilnadu	Updated soil and water conservation technological options for watershed management and Climate change impact and mitigation strategies	3-2-2017
Dr V. Thirupathi Professor, Agril. Engineering College & Research Institute, TNAU, Coimbatore	Post Harvest Technology of Spices	21-2-2017
Dr D. K. Singh Professor Dept. of Agricultural Engineering, IARI, New Delhi	Role Simulation models in irrigation, drainage and water resources management	2-3-2017
Dr A. Sarangi Principal Scientist Water Technology Centre, New Delhi	Introduction to Hydrus	2-3-2017
Dr D. K. Singh Professor Dept. of Agricultural Engineering, IARI, New Delhi	Simulation of water and nutrient movement using Hydrus	3-3-2017
Dr A. Sarangi Principal Scientist, Water Technology Centre, New Delhi	Analysis of Hydrus outputs	3-3-2017
Dr D. K. Singh Professor Dept. of Agricultural Engineering, IARI, New Delhi	Simulation of groundwater water flow using mudflow	4-3-2017



Dr A. Sarangi Principal Scientist, Water Technology Centre, New Delhi	Introduction to DSSAT	4-3-2017
Dr I. Muthuchamy, Dean Agricultural Engineering College and Research Institute, Kumuluru, Tamilnadu	Rainwater harvesting structures and Watershed management	6-3-2017
Dr B. Maheswara Babu Professor, Dept. of Soil and Water Conservation Engineering, UAS, Raichur	Use to Topo-sheets in Watershed Management and Application of plastics in Agriculture	7-3-2017
Dr B. Maheswara Babu Professor, UAS, Raichur, Karnataka	Plastic applications in Agriculture and use of toposheets in RS and GIS	8-3-2017
Dr G.R.K. Murthy Principal Scientist, NAARM, Hyderabad	1. Agricultural Engineering Way Forward 2. Technology Enhanced learning in Agricultural Engineering Education	8-3-2017 & 9-3-2017
Er N. Polappa Project Director, DWMA, Prakasam (Dist)	Soil and Water Conservation Structures in Watershed Management	10-3-2017
Er R.V.V. Naga Murali Assistant Project Director, APMIP, Prakasam (Dist)	Design and Estimation of Drip System- Case Studies	10-3-2017
Dr P. Srinivasa Rao Associate Professor, Dept. of Agricultural and Food Engineering, IIT, Kharagpur	Extrusion Cooking	31-3-2017
<b>2017-18</b>		
Dr T. K. Goswami, Professor IIT, Kharagpur	Advances in Food Processing	10-7-2017
Dr Abdul Hakkim, Head of Land Water Resources department, College of Agril. Engg., Kerala Agril. University	Precision farming	7-8-2017
Dr V.M. Duraisamy, Professor (Farm Power & Machinery), AMRC, AEC&RI, TNAU, Coimbatore	Advances in Farm Machinery and Scope for higher studies	22-9-2017
Dr B. Krishna Rao, Principal Scientist (SWE), CRIDA, Hyderabad	Planning, Design and Installation of watershed treatment technologies for sustainable agriculture in rain fed areas	29-11-2017
Dr R. Veera Raghavaiah, Dean of PG Studies ANGRAU	World Soil Day	5-12-2017
Dr N.V.S.S. Giridhar, Professor, Central of Water resources, JNTU, Hyderabad	Design of rain water harvesting structures” & Explanation of ground water resources	9-3-2018
Er N. Murali, DEE, Dept. of Water Reason Drainage Division, Chirala	Design of various irrigation structures	14-3-2018



Dr V.V. Basava Rao Professor Dept. of Chemical Technology Osmania University, Hyderabad	1. Fluidized bed combustion of agricultural waste 2. Computational fluid dynamics of fluidized grain beds	08-03-2018 & 09-03-2018
Dr A. Sirisha, Associate Professor, Dept. of Agril Engg., Vignana University, Vadlamudi	Modelling on design and evaluation of surface irrigation systems	12-3-2018
Dr K. Rama Krishna JNTU, Kakinada	1. Tea processing 2. Quality analysis of foods	12-03-2018 13-03-2018
Dr Ch. Ramesh, Professor & Head, Dept. of Instrumentations & Electronics, BEC, Bapatla	Development of moisture sensors for efficient use of irrigation water	15-3-2018
Dr K.V.G.K. Rao, Professor & Head, Dept. of Civil Engg., PP Siddhartha Institute of Technology, Vijayawada	Drainage Technologies in India” & “Studies on water management aspects in Andhra Pradesh	17-3-2018
Sri P. Syam Kumar Assistant Professor IDRBT, Hyderabad	1. Data Acquisition and Processing 2. Electronic Sensors Analysis in Food Processing	22-03-2018 & 23-03-2018
Sri K. Sambasiva Rao Associate Professor Bapatla Engineering College, Bapatla	1. Technology of Sensors in Food Processing 2. Control Systems in Food Processing	26-03-2018 & 27-03-2018
<b>2018-19</b>		
Dr V. Palanimuthu, Professor & Head, AICRP on PHT University of Agril. Sciences, GKVK Campus, Bangalore	1. Advances in post harvest processing of cereals and pulses 2. Advances in post harvest handling of fruits and vegetables	19-6-2018
Sri P. Syam Kumar, Assistant Professor, IDRBT, Hyderabad	Data acquisition and processing and electronic sensors analysis in food processing	20-7-2018
Dr C. Gopala Rao, Professor (Retd.), Hyderabad	1. Intelligent Packaging Concepts 2. Time Temperature Indications for Marketing of Food Products	6-12-2018
Dr R. K. Nema, Dean, College of Agril. Engineering, JNKVV, Jabalpur	1. Advances in Watershed Modelling Groundwater Modelling for Water Resources Planning 2. Applications of Remote Sensing and GIS in Water Resources Management	13-12-2018
Dr T. Senthil Kumar, Principal Scientist (FMP), In-charge, Farm Machinery Testing Centre, ICAR-Central Institute of Agricultural Engineering Regional centre, Coimbatore	1. Present status, Challenges and strategies of Farm Mechanization in India 2. Promotion of custom hiring centres for entrepreneurship development on farm Mechanization 3. Operation and maintenance of agricultural machinery	13-12-2018

Dr Satyanarayana Reddy, Managing Director, Infinity Green Farms, Hyderabad	Profitable farming using Hydroponics, Aeroponics and Aquaponics	19-02-2020
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Training and Placement cell at Dr NTR College of Agricultural Engineering, Bapatla is organizing trainings and other professional development activities to the students as a part of capacity building on regular basis to make them employable as per the job requirements. The overall skills of the students of the college are developed through multifaceted activities along with the course curriculum. These activities include participation of students in the technical contests, project/prototype development competitions etc. organized by various educational institutions and industrial organizations. Practical exposure is given to the students through industrial visit and educational tours. Regular interactions/guest lectures are also being organized by the experts from the industry, leading organizations in public and private sectors. Various personality development trainings and classes are being conducted to the students for improving their communication skills, body language required to face campus interviews.

#### 6.5.8 SSR of the College

Self study report of the Dr N.T.R. College of Agricultural Engineering, Bapatla is here with submitted.

#### 6.5.9 Certificate

I, the Associate Dean of the Dr NTR College of Agricultural Engineering, Bapatla, Andhra Pradesh hereby certify that the information contained in Sections 6.4 and 6.5.1 to 6.5.7.4 are furnished as per the records available in the college and degree awarding university.

  
 Signature of the Associate Dean with Date and Seal  
 Associate Dean  
 Dr NTR College of Agril. Engineering  
 BAPATLA-522 101, A.P.