

Annual Report 2020-21





College of Food Processing Technology and Bioenergy Anand Agricultural University Anand-388 110

Annual Report

2020-21



Compiled by

Er. T. H. Bhatt (Assistant Professor), FE Dept. Er. P. B. Moradiya (RA), FE Dept.

College of Food Processing Technology and Bioenergy Anand Agricultural University Anand-388 110

Email: deanfpt@aau.in Website: www.aau.in/college-menu/706

College Annual Report

Volume: 8

Year: 2020-21



College of Food Processing Technology and Bioenergy **Anand Agricultural University**



Anand

Principal

Email: deanfpt@aau.in

Message

The College of Food Processing Technology and Bioenergy, AAU, Anand is one of the prestigious institutions in the country, which imparts education in the field of Food Processing. The institution is making a steady progress to achieve its vision and mission. The graduates and post graduates of the college have contributed significantly in the sectors such as food plant operations, plant management, food processing, food packaging, food product development, quality testing, equipment manufacturing, marketing, etc. They are providing technical, professional and managerial inputs to their organizations.

The college has pioneered food processing technology education and research in the Gujarat state. Since its inception keeping pace with the technological advancement and other developments, it has upgraded its infrastructure, academic programmes and redesigned the curriculum from time to time.

I feel delighted to forward the Annual Report of College of Food Processing Technology and Bioenergy for the year 2020-21. The brief details about the college, staff and fund utilization, academic programmes, departments, seminars, workshops and trainings, various programmes organized and attended by the staff, publications/faculty achievements, students' welfare activities, training and placement, etc. are comprehended and depicted in the report. Most of the details have been presented in tabular manner which are self-explanatory. Also, photographs are presented to share glimpses of different programmes organized during the year 2019-20. The report will also help the College and University to take necessary measures for the further development to strengthen the education, help the processors and related industries in the state and country.

I appreciate the efforts made by all college teaching & research staff members and administrative staff for supporting in publishing of such informative document.

Anand (R.F. Sutar)

CONTENTS

Chapter	Particulars	Page No.
I	ABOUT THE COLLEGE	1
	Our Vision, mission, goal and mandates	1
	Organizational chart of the college	2
II	STAFF POSITION AND FUND UTILIZATION	3
	> Total Manpower available with the college	3
	Sanctioned Grant and Utilization	4
III	ACADEMIC PROGRAMMES	7
	Degree Programmes offered	7
	Student evaluation	8
	Class schedules of odd semester students	10
	Class schedules of even semester students	14
	Academic achievement	20
	Strength of students	23
	Scholarship awarded	23
	M.Tech./ Ph.D. theses completed	24
	Board of Studies	25
IV	HIGHLIGHTS OF THE DEPARTMENTS	26
	Post-Harvest Engineering and Technology	26
	Food Processing Technology	27
	Food Engineering	28
	Food Quality Assurance	30
	Food Business Management	31
	Bioenergy	32
	Administrative and Supporting Staff	33
	Extension Activities	34
V	SEMINARS, WORKSHOPS AND TRAININGS	35
	Training / Workshop/Meeting/ Seminar/Symposium/	35
	Conference/ Convention organized by the college	
VI	PUBLICATIONS/ ACHIEVEMENT BY FACULTY	38
VII	STUDENTS' WELFARE ACTIVITIES	40
	Hostel Facilities	40
	Mess management	40
	Activities carried out under NSS	40
	Prevention of Ragging in the college	41
	Students' Discipline Committee	42
	Care Taker Committee	42
	Committee members of the Women Cell	42
	> Computer cell	42
VIII	TRAINING AND PLACEMENT	43
IX	PASSED OUT UNDERGRADUATE STUDENTS	45
_	PASSED OUT POST GRADUATE STUDENTS	46
X	RECOMMENDATIONS APPROVED 2020-21	47

I. ABOUT THE COLLEGE

The efficient use of resources is the growing concern for all involved in food production, processing, distribution and retailing. The unique features of the raw materials of the food processing industries such as seasonality, perishability and variability in conjunction with sophistication required for processing to maintain high quality standards, necessitates special attention towards focused availability of qualified technical manpower, effective technologies and efficient machinery. The food industries in the country need modernization to face the challenges of the globalization.

Considering the huge demand of the specialized human resource for the fast growing sectors of food industry, the Anand Agricultural University has established a full-fledged College of Food Processing Technology & Bio-Energy in the year of 2008-09 vide Government of Gujarat, Department of Agriculture & Cooperation Notification No - ACV- 122008 - 404 - C.2 dated 29-05-2008. It develops students with high-tech scientific knowledge and technical skills to handle various food resources from farm-to-factory-to-consumers. Efficient production, processing and packaging of various value added processed food products of very high quality are the main aspects being taught to the students. The college produces competent food technologists/engineers to establish, operate and manage various sectors of food processing industries.

Vision

Providing excellent food processing professionals to the industry.

Mission

The primary mission of the college is to produce highly skilled, competent and motivated technical manpower for food processing and allied industries. The technocrats so produced will also be competent to handle all the aspects of research institutes, quality testing laboratories and other related agencies. Also, the college is concerned with the exploitation of novel techniques and technologies to maximize the use of food resources.

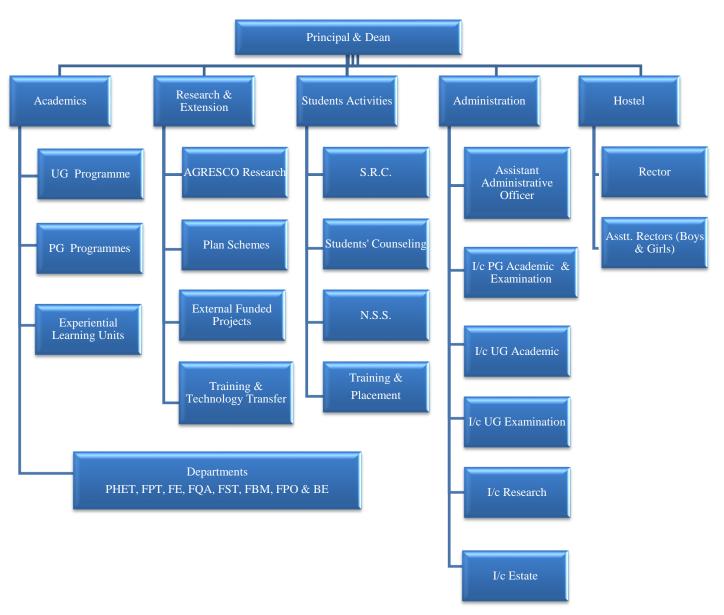
Goal

The goal of the college is to promote the integration of teaching, research and extension in food processing and bio energy by serving as a premier educational and research institute in the field of food processing technology in the State of Gujarat as well in India.

Mandates

- Education and training in the field of food processing technology and bio-energy so as to produce highly skilled and competent manpower for food processing industries and other agencies.
- Basic, applied and adoptive research and development in the area of agro-processing, food technology, food engineering, food quality assurance, bio-energy and other relevant subjects.
- Transfer of technologies and consultancy in different aspects related to food processing industry.

Organizational Chart of the College of Food Processing Technology and Bio Energy



II. STAFF POSITION AND FUND UTILIZATION

Table 1 Total Manpower available with the college as on 31.03.2021

Sr. No.	Name of post	Pay Scale (Rs.)	В.Н.	Sanctioned	Filled	Vacant
1	Principal	37400-67000 (10000 AGP)	12950	1	0	1
2	Professor	37400-67000 (10000 AGP)	12950	3	3	0
		27.400 (7000	12950	4	4	0
3	Associate Professor	37400-67000 (9000 AGP)	5073	1	1	0
	110103301	(5000 7101)	6502-3	1	1	0
		15,000,00100	12950	19	17	2
4	Assistant Professor	15600-39100 (6000 AGP)	6502-3	4	0	4
	Tiolessor	(0000 AGI)	12075	1	1	0
	Senior Research		12950	2	2	0
5	Assistant/ Assistant	39900-126600	5073	2	1	1
	Instructor		6502-3	1	0	1
6	Laboratory Technician	29200-92300	12950	2	2	0
7	Mechanic	25500-81100	12950	1	1	0
8	Assistant Administrative Officer	44900-142400	12950	1	1	0
9	Head Clerk	35400-112400	5073	1	0	1
10	Senior Clerk	25500-81100	12950	1	1	0
10	Schiol Clerk	23300 01100	5073	1	1	0
11	Junior Clerk	19900-63200	12950	1	1	0
- 11	Jumor Cicik	17700 03200	5073	1	0	1
12	Driver	19900-63200	5073	1	0	1
13	Research Associate	38000+HRA	12993-21	1	1	0
14	Research Associate	38000+HRA	12960	2	2	0
	Associate		12969	1	1	0
	Laboratory					
15	Attendant / Peon /	14800-47100	12075	1	0	1
-	Helper / Lab Boy		5073	4	2	2
			6502-3	1	0	1
			TOTAL	59	43	16

Table 2 Budget heads wise sanctioned grant and utilization (2020-21)

CNI	G 1	D 1 . II 1		Sanction	ed Grant			Expend	diture		F	und Utiliz	ation %		,
SN	Scheme	Budget Head	Pay&Allow	Rec	Non Rec	Total	Pay & Allow	Rec	Non Rec	Total	Pay & Allow	Rec	Non Rec	Total	Income
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(ivx)	(vx)	(xvi)
		ī	T	1	1	Plan	1	1	T	•	T		T		
1	Development of various biogas plants to use vegetative wastes	12075	7,44,000	3,14,000	0	10,58,000	6,43,877	3,04,403	0	9,48,280	86.54	96.94	0.00	89.63	
2	Establishment of College of Food Processing Technology & Bio-Energy	12950	407,80,000	52,53,000	4,50,000	464,83,000	406,66,497	52,20,899	0	458,87,396	99.72	99.39	0.00	98.72	
3	Post Harvest management of some important crops of middle Gujarat	12960	14,12,000	12,83,000	1,95,000	28,90,000	13,88,200	12,12,860	195000	27,96,060	98.31	94.53	100.00	96.75	
4	Development of irradiation technology for agricultural, animal dairy and food products	12969	6,50,000	7,32,000	0	13,82,000	6,49,825	6,20,763	0	12,70,588	99.97	84.80	0.00	91.94	
5	Establishment of students training centre for food processing	12969-01	0	10,00,000	0	10,00,000	0	9,73,950	0	9,73,950	0.00	97.40	0.00	97.40	
6	Strengthening of students training cum coaching centre	12969-02	0	9,00,000	1,99,000	10,99,000	0	8,23,281	1,98,390	10,21,671	0.00	91.48	99.69	92.96	
7	Establishment of department of food safety and testing at Anand	12987-11	0	22,80,000	0	22,80,000	0	19,46,778	0	19,46,778	0.00	85.39	0.00	85.39	
8	Establishment of instructional processing facilities for students	12987-14	0	6,18,000	0	6,18,000	0	5,85,025	0	5,85,025	0.00	94.66	0.00	94.66	
9	Development of food decontamination technology for safety and quality of fresh and minimally processed fruits and vegetables	12993-21	7,18,000	7,13,000	0	14,31,000	7,17,200	6,39,569	0	13,56,769	99.89	89.70	0.00	94.81	
10	Training programme on food processing technology	12988-04	0	15,00,000	0	15,00,000	0	11,58,496	0	11,58,496	0.00	77.23	0.00	77.23	
11	Upgrading of the students facilities at different campuses	12865	0	50,000	90000	1,40,000	0	46,607	44500	91,107	0.00	93.21	49.44	65.08	
12	Modernizing the students facilities at different campuses	12967	0	80,000	25000	1,05,000	0	79,956	21780	1,01,736	0.00	99.95	87.12	96.89	
13	Scheme for establishing the office of the director of student welfare, counselling and placement cell	12967-2	0	50,000	0	50,000	0	46,158	0	46,158	0.00	92.32	0.00	92.32	
14	Award of fellowship to under graduate students in various faculties of AAU.	12967-01	0	72,000	0	72,000	0	72,000	0	72,000	0.00	100.00	0.00	100.00	
15	Award of fellowship to post graduate students in various faculties of AAU.	12703	0	49,500	0	49,500	0	49,500	0	49,500	0.00	100.00	0.00	100.00	
16	Addition of the facilities for organizing Rural Agricultural Work Experience (RAWE)	12930	0	75,000	0	75,000	0	75,000	0	75,000	0.00	100.00	0.00	100.00	
17	Strengthening of Polytechnic in Food Science & Home Economics	12957	5776000	15,47,000	455000	77,78,000	5718713	15,46,629	384975	76,50,317	99.01	99.98	84.61	98.36	
	Total		500,80,000	165,16,500	14,14,000	680,10,500	497,84,312	154,01,874	8,44,645	660,30,831	99.41	93.25	59.73	97.09	<u> </u>

						Non Pla	n								
1	Establishment Agril Product Process Engineering, Dairy Science College	5073-00	58,50,000	25,000	0	58,75,000	57,38,511	22,964	0	57,61,475	98.09	91.86	0.00	98.07	
2	Esta. of Polytechnic in Home Science & Economics, FPT&BE	5229-00	27,00,000	4,50,000	0	31,50,000	25,30,377	4,37,098	0	29,67,475	93.72	97.13	0.00	94.21	
3	Department of Agricultural Product Process Engineering	6502-03	22,60,000	10,000	0	22,70,000	21,88,539	9,091	0	21,97,630	96.84	90.91	0.00	96.81	
4	Strengthening of Existing School Of Baking	7228-01	4,30,000	26,000	0	4,56,000	0	25,960	0	25,960	0.00	99.85	0.00	5.69	
	Total		112,40,000	5,11,000	0	117,51,000	104,57,427	4,95,113	0	109,52,540	93.04	96.89	0.00	93.21	
		1	1	1	1	ICAR	ı	•	•	1					
1	Strength and Development of Aus	15211-00	0	0	7,32,000	7,32,000	0	0	3,90,549	3,90,549	0.00	0.00	53.35	53.35	
2	Strength and Development of Aus	15221-00	0	0	3,91,000	3,91,000	0	0	49,500	49,500	0.00	0.00	12.66	12.66	
3	Rural Entrepreneurship Awareness and Development	15657-00	0	3,75,000	0	3,75,000	0	3,75,000	0	3,75,000	0.00	100.00	0.00	100.00	
4	National Talent Scholarship	15658-00	0	2,10,000	0	2,10,000	0	2,10,000	0	2,10,000	0.00	100.00	0.00	100.00	
5		15659-00	0	74,130	0	74,130	0	74,130	0	74,130	0.00	100.00	0.00	100.00	
6	Strengthening of UG/Pg Teaching	15912-00	0	2,00,000	0	2,00,000	0	1,75,893	0	1,75,893	0.00	87.95	0.00	87.95	
7	Student and Faculty Amenities	15921-00	0	2,00,000	0	2,00,000	0	1,01,910	0	1,01,910	0.00	50.96	0.00	50.96	
8	ICAR Emeritus Professor Scheme	2044-16	2,00,000	1,00,000	0	3,00,000	2,00,000	0	0	2,00,000	100.00	0.00	0.00	66.67	
	Total		200000	1159130	1123000	2482130	200000	936933	440049	1576982	100.00	80.83	39.19	63.53	
						Other age	ncy								
1	National Service Scheme	18273-00	0	77,250	0	77,250	0	64,939	0	64,939	0.00	84.06	0.00	84.06	
2	ICAR Junior Research Fellowship for post graduate students	18311-07	0	9,40,807	0	9,40,807	0	9,22,774	0	9,22,774	0.00	98.08	0.00	98.08	
3	Inspire Fellowship under INSPIRE Programme	18311-7C	0	3,73,800	0	3,73,800	0	3,73,799	0	3,73,799	0.00	100.00	0.00	100.00	
4	ICAR Senior Reserch Felloship for Ph.D Students	18457-35	0	864891	0	8,64,891	0	853984	0	8,53,984	0.00	98.74	0.00	98.74	
5	Bhutan Student Hostel Fees	18557-67	0	10,52,304	0	10,52,304	0	2,05,000	0	2,05,000	0.00	19.48	0.00	19.48	
6	Swadeshi Science Movement	18557-68	0	72,976	0	72,976	0	2,309	0	2,309	0.00	3.16	0.00	3.16	
7	Minimal Processing Unit to Enhance Quality of Fruits & Vegetables	18557-79	0	0	154,29,000	154,29,000	0	0	142,00,000	142,00,000	0.00	0.00	92.03	92.03	
8		18557-98	0	33,00,000	100,00,000	133,00,000	0	18,80,086	88,36,501	107,16,587	0.00	56.97	88.37	80.58	
	Total		0	6682028	25429000	32111028	0	4302891	23036501	27339392	0.00	64.39	90.59	85.14	

Table 3 Summary of sanctioned grant and utilization (2020-21)

		Sanctioned Grant				Exper	nditure		Fur	nd Utiliz	zation %			
SN	Scheme	Pay & Allow	Rec	Non Rec	Total	Pay & Allow	Rec	Non Rec	Total	Pay & Allow	Rec	Non Rec	Total	Income
<i>(i)</i>	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xii)	(xiii)	(ivx)	(vx)	(xi)
1	Plan	500,80,000	165,16,500	14,14,000	680,10,500	497,84,312	154,01,874	8,44,645	660,30,831	99.41	93.25	59.73	97.09	
2	Non Plan	112,40,000	5,11,000	-	117,51,000	104,57,427	4,95,113	-	109,52,540	93.04	96.89	0.00	93.21	
3	ICAR	2,00,000	11,59,130	11,23,000	24,82,130	2,00,000	9,36,933	4,40,049	15,76,982	100.00	80.83	39.19	63.53	
4	Other agency	0	66,82,028	254,29,000	321,11,028	-	43,02,891	230,36,501	273,39,392	0.00	64.39	90.59	85.14	
	Total	615,20,000	248,68,658	279,66,000	1143,54,658	604,41,739	211,36,811	243,21,195	1058,99,745	98.25	84.99	86.97	92.61	
9	% of total	53.80	21.75	24.46	100.00	57.07	19.96	22.97	100.00					

Fund utilization		%
Pay and Allowances	:	98.25
Recurring Contingencies	:	84.99
Non-Recurring Contingencies	:	86.97
Overall	:	92.61

III. ACADEMIC PROGRAMMES

The details regarding the degree programmes offered, academic achievement, category wise students' strength during the year, scholarships awarded to the students, B.Tech. training, M.Tech and Ph.D. theses submitted as well as the details regarding subjects offered during B.Tech., M.Tech. and Ph.D. (FPT/FT) programmes for the academic year 2020-21are included in this section.

Table 4 Eligibility criteria for admission in various degree programmes

Name of the graduate programme	Category wise minimum % requirement of marks in theory subjects in Physics, Chemistry and Mathematics of HSSCE examination								
B.Tech. (Food	General	SC	ST	SEBC					
Technology)	40	35	35	40					
	theory and 40 9	% GUJCET	e merit basis of						
B.Tech. (Food Processing Technology) D-to-D	Admission is considered on the merit basis of 60% of OGPA/percentages achieved in polytechnic and 40 % of entrance test								
M.Tech. (Food Technology)	A candidate (4 Years Bachelor's degree in B.Tech.(FPT) / B.Tech. (Agril. Engg.) is considered on the merit basis of 50% of OGPA (percentage basis) of the last degree and 50 % of common state level entrance examination (a candidate shall have to obtain at least 50% of marks in common entrance examination so as to become eligible for merit list). A candidate who opts for admission on payment basis will be eligible for admission on payment seats by obtaining at least 45% of marks								
Ph.D. (Food Technology)	in common entrance examination. A candidate (M.Tech. in respective discipline) is considered on the merit basis of 6.0 out of 10 points or 60% of OGPA for reserved categories and 6.5 out of 10 points or 65% of OGPA for other candidates and 50 % of common state level entrance examination (a candidate shall have to obtain at least 50% of marks in common entrance examination so as to become eligible for merit list). A candidate who opts for admission on payment basis will be eligible for admission on payment seats by obtaining at least 45% of marks in common entrance examination.								

Table 5(a) Students intake and admitted in different graduation programmes (2020-21)

		Admi Capa	No of students	
Degree	Name of the College	Gen/SC/ ST/ OBC	ICAR	Admitted
B.Tech. (FT)	Food Processing Technology & Bio-Energy, Anand	50	08	43
B.Tech. (FT) D-to-D	Food Processing Technology & Bio-Energy, Anand	5	0	5
M.Tech. (FPT)	Food Processing Technology & Bio-Energy, Anand	14	0	09
M.Tech. (FPE)	Food Processing Technology & Bio-Energy, Anand	08	0	0
M.Tech. (FSQ)	Food Processing Technology & Bio-Energy, Anand	10	0	0
Ph.D. (FT)	Food Processing Technology & Bio-Energy, Anand	05	0	01

Table 5(b) Students admitted in different post-graduation programmes (2020-21)

Sr.	Cubicat	Crasislization	M. To	ech.	Ph.I).	Total
No.	Subject	Specialization	Regular	ICAR	Regular	ICAR	Total
1	Б. 1	Food Processing Technology	5	4	0	1	10
2	Food Technology	Food Process Engineering	0	0	0	0	0
3	recimology	Food Safety and Quality Assurance	0	0	0	0	0
		Total	5	4	0	1	10

Table 6(a) Student evaluation as per V Dean' Committee Recommendations

Examination	UG	PG
Internal (percentage)	50	50
External (percentage)	50	50
Other (percentage)	-	-

Table 6(b) Frequency of student evaluation

	UG	PG
Mid-term theory test (UG) and one hourly tests (PG)	1	2
Internal Practical	1	-
Semester End Practical	1	1
Semester End Theory	1	1
Others (Assignments/Presentations)	-	2

Table 6(c) Examination and weightage for UG

- External theory (50%)
- Internal Theory + Practical (50%)
 - Courses with Theory and Practical
 Mid-term Exam (30%) + Assignment (5%) in practical oriented courses +
 Practical (15%)
 - Courses with only Theory
 Mid-term Exam (40%) + Assignment (10%)
 - Courses with only Practical: (100%) Internal

Table 6(d) Examination and weightage for PG

- Self-study (Assignments & Presentation) Theory (20 marks)
- Internal tests

Theory (30 marks) and Practical (40 marks)

- Semester-end Examination
 - Theory (50 marks) and Practical (60 marks)
- Total marks

Theory (100 marks) and Practical (100 marks)

Table 7 Passed Out (Graduates and Post Graduates) of AAU in 2020

Sr. No.	Degree	First Class with Distinction	First Class	Second Class	Pass Class	Total	
1	B.Tech.(FPT)	0	01	02	0	03	
2.	B.Tech(FT)	02	18	17	0	37	
					UG Total	40	
3.	M.Tech. FT (FPT)	02	05	0	0	07	
4.	Ph. D. FT (FPT)	03	0	0	0	03	
PG (M.Tech. & Ph.D.) Total							
	Total Passed out						

Table 8 Class schedules of odd semester (2020-21)

College of Food Processing Technology & Bio-Energy, AAU, Anand Tentative Class Schedule for First Semester B.Tech (FT) w.e.f.: 02/11/2020

Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday (1st, 3rd & 5th)
9:00 – 10:00	FPE-112 (L) MM	FBM-111 (L) PSP	AN AN		FQA-112 (L) AMP	ENG-111 (L)
10:00-11:00	FPE-111 (L) AN	MATH-111 (L) NDP	MATH-111 (L) NDP	FQA-111(L)	ESD 111 (L) SSK	NC
11:00- 12:00	н	y ·		FPE-113 (L) NVS	FQA-111 (L) RD	
12:00 - 13:30			LUNCH B	REAK	7	
13:30– 15:30	FQA-112(P) II AMP	ESD (P) II SSK	ENG-111 (P) (I) NC	FPE-113 (P) II NVS	FPE-112(P) I MM	NIGG
15.50 15.50	FPE 111 (P) I AN	FPE-112(P) I MM	FPE-113 (P) II NVS	FBM-111 (P)I PSP	FPE 111 (P) II AN	NSS
15:35 – 17:35	ENG-111 (P) (II) NC	ESD (P) I SSK	FQA-112(P) I AMP	FBM-111 (P)II PSP	FQA-111(P) I RD	SDC Activities
15.55 - 17.55	FPE-113 (P) I NVS	FPE-112(P) II MM	FQA-111(P) II RD	FPE-113 (P) I NVS	FPE-112(P) II MM	SRC Activities

Details of Courses and Course Teachers

S. No.	Course No.	Title of the Course	Credits	Teacher's Name
1	FQA 111	General Microbiology	3 (2+1)	R.Dhingani
2	FQA 112	Food Chemistry of Macronutrients	3 (2+1)	A.M.Patel
3	ENG 111	English Language	2 (1+1)	Nischal Chavda
4	MATH 111	Engineering Mathematics-I	2 (2+0)	Nitin D. Patel
5	ESD 111	Environmental Sciences & Disaster Management	2 (1+1)	S. S. Kapdi
6	FPE 111	Basic Electrical Engineering	3 (2+1)	A.Nakiya
7	FPE 112	Workshop Technology	3 (1+2)	Mahesh Makwana
8	FPE 113	Engineering Drawing and Graphics	3 (1+2)	Nirav Shah
9	FBM 111	Computer Programming and Data Structures	2 (1+1)	P.S. Parsania
	PED111	NSS	1 (0+1)*	K.V.Vala
- 100		Total	23(13+10)	
		* Non-Credit Course		0 11

No. AAU/FPTBE/UGAcad//SS4/20

Date: 29 / 10/2020 Principal & Dean

Copy f.w.r.s. to:

1 Registrar, AAU, Anand

2 Chairman, SRC, FPTBE, AAU, Anand

3 HoD: FPT/FPE/FQA/BE/PHT/FBM/FST/FPO

Copy for information & necessary action to:

4 All concerned Teachers

5 Student's notice board

6 Academic (P.G.)/Exam Branch,/T&P, FPTBE, AAU, Anand

College of Food Processing Technology & Bio-Energy, AAU, Anand Tentative Class Schedule for Third Semester B.Tech (FT) Academic Year: 2020-21

Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday (1 st , 3 rd & 5 th)
9:00 - 10:00	FQA-231(L) KSD	FQA-231(L) KSD	FPE-231 (L) (MM)	FPE-231 (L) (MM)	FQA 232 (L) (BHJ)	FQA 232 (L)
10:00 - 11:00	FPT-232 (L) (SHA-SB)	FPT-232 (L) (SHA-SB)	FPE-232 (L) (KVV)	FPE-232 (L) (KVV)	FPT 231 (L) - (GPT)	(BHJ)
11:00 - 12:00	STAT 231 (L) (ANK)			FPE 233 (L) (AN)	FPE 233 (L) (AN)	
12:00- 13:30			LUNCH	BREAK		
13:30- 15:30	FQA-231(P) I (KSD)	FPT-232 (P) I (SB-SVA)	FQA 232 (P) II BHJ	FPE-231(P) II (MM)		NSS
13:30- 13:30	, ,	FQA-231(P) II (KSD)	FPE-231(P) I (MM)	FQA 232 (P) I BHJ		1433
15:35 – 17:35	STAT 231-(P)	(FPE-232 (P) I (KVV)	FPE-232 (P) II (KVV)	FPT 231 (P) II GPT	
15.55 17.55	I&II (ANK)	SRC Activities	FPE 233 (P) II (AN)	FPT 231 (P) I GPT	FPE 233 (P) I (AN)	, A

Details of Courses and Course Teachers

S. No.	Course No.	Title of the Course	Credits	Teacher's Name
1	FQA 231	Food Biochemistry and Nutrition	3 (2+1)	K.S.Damle
2	FQA 232	Industrial Microbiology	3 (2+1)	B.H.Joshi
3	FPE 231	Heat and Mass Transfer in Food Processing	3(2+1)	Mahesh Makwana
4	FPE 232	Food Refrigeration and Cold Chain	3 (2+1)	K.V.Vala
5	FPE 233	Fundamentals of Food Engineering	3 (2+1)	A.Nema
6	FPT 231	Processing Technology of Liquid Milk	2 (1+1)	Govind P.T.
7	FPT 232	Processing Technology of Cereals	3 (2+1)	S.H.Akbari(T) S.Bhise(T&P) S.V.Anadani(P)
8	STAT 231	Statistical Methods and Numerical Analysis	2 (1+1)	A.N.Khokhar
9	PED 231	NSS	1 (0+1)*	K.V.Vala
		Total	22(14+8)	
-		* Non-Credit Course		

Principal & Dean

Date: 9/9/-2020 No. AAU/FPTBE/UGAcad/ 1060 -62

Copy f.w.r.s. to:

1 Registrar, AAU, Anand

2 Chairman, SRC, FPTBE, AAU, Anand

3 HoD: FPT FPE FQA BE PHE / FBM/FST/FPO

Copy for information & necessary action to:

- 4 All concerned Teachers 5 Student's notice board (UG)
- 6 Academic (P.G.) Exam Branch T&P, FPTBE, AAU, Anand

College of Food Processing Technology & Bio-Energy, AAU, Anand Tentative Class Schedule of Fifth Semester B.Tech (FT) Academic Year:2020-21

		<u>OI</u>	FICE ORDE	ER		50 B 1	
Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday (1st, 3rd & 5th)	
9:00-10:00	FPT-352 (L) (HPS)	FPT-352 (L) (HPS)	FBM-352 (L) DBP	FBM-351 (L) PSP	FPE-351 (L) KVV	EDE 251 (L)	
10:00-11:00	FPE-352-(L) (KVV)	FPE-352-(L) (KVV)	FPT-351 (L) (AVR)	FPT-353 (L) (SB-DP)	FPT-353 (L) (SB-DP)	FPE-351 (L) KVV	
11:00-12:00	FBM-352 (L) DBP		FQA-351 (L) HGB		FPT-351 (L) (AVR)		
12:00-13:30			LUNCH	RREAK			
13:30-15:30	FPE-352(P) II	FPT-352(P) II (NS) FPE-352(P) I	FPT-351(P) 1 (AVR) FBM-351 (P)	FPT-351(P) II (AVR) FPT-352(P) I	FBM-351 (P) II PSP FPT- 353(P) I	SRC Activities	
15:35-17:35	(KVV) FQA-351 (P) I HGB	FQA-351 (P) II HGB	FPE-351 (P)	(NS) FPE-351 (P) I JPR	(DP-SB) FQA-351 (P) LHGB		
15.55-17.55		FBM-351 (P) I PSP	FBM-351 (P) I PSP	FQA-351 (P) II HGB	FPT- 353(P) II (DP-SB)		

Details of Courses and Course Teachers

S. No	Course No.	Title of the course	Credits	Teacher's Name
1	FOA 351	Instrumental Techniques in Food Analysis	3 (1+2)	H.G.Bhatt
2	FPE 351	Food Storage Engineering	3 (2+1)	K.V.Vala(Γ) J.P.Rathod (P)
3	FPE 352	Food Process Equipment Design	3 (2+1)	K.V.Vala
4	FPT 351	Design & Formulation of Foods	3 (2+1)	Amee Ravani
5	FPT 352	Processing Technology of Fruits and Vegetables	3 (2+1)	H.P.Sharma (T) Nilesh Sardar(P)
6	FPT 353	Bakery, Confectionery and Snack Products	3 (2+1)	Devesh Patel Suresh Bhise
7	FBM 351	ICT Applications in Food Industry	3 (1+2)	P.S. Parsania
'		Marketing Management and International Trade	2 (2+0)	Deval Patel
8	FBM 352	Total	23 (14+9)	

Date: 9 / 9 /2020 Principal & Dean No. AAU/FPTBE/UGAcad/ 1057 -59 /20

Copy f.w.r.s. to:

1 Registrar, AAU, Anand

2 Chairman, SRC, FPTBE, AAU, Anand

3 HoD: FPT / FPE / FQA / BE / PHE / FBM/FPO/FST

Copy for information & necessary action to:

4 All concerned Teachers

5 Student's notice board(UG)

6 Academic (P.G.) / Exam Branch/T&P, FPTBE, AAU, Anand.

- L

College of Food Processing Technology & Bio-Energy, AAU, Anand Tentative Class Schedule for Seventh Semester B. Tech (FPT) Academic Year: 2020-21

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday (1 st , 3 rd & 5 th)
FPT 471(L) (RBM-GPT)	FBM 471 (L) (DBP)	FBM 471 (L) (DBP)	FPE-472(L) (PSP)	FPT-473 (L) (HP)	FPT 471(L)
FPE -471(L) (AKS-NVS)	FPE 473 (L) (GPT)	FPE 473 (L) (GPT)	FPT 472 (L) (SB-DP)	FPT 472 (L) (SB-DP)	(RBM-GPT)
FBM 471 (L) (DBP)	FPT-473 (L) (HP)	FPE 473 (L) (GPT)	FPE 471 (L) (AKS-NVS)	FPT 473 (L) (HP)	
		LUNCH	BREAK		
FPT 472 (L) (SB-DP) (14:30-15:30)	FPE-471(P) (AKS-NVS)	FPE 473 (P) (GPT)	FPT 473(P) (HP)	FPE 472(P) (PSP)	SRC Activities
FPT 471(P) (RBM-GPT)				FPT-472(P) (SB-DP)	
	FPT 471(L) (RBM-GPT) FPE -471(L) (AKS-NVS) FBM 471 (L) (DBP) FPT 472 (L) (SB-DP) (14:30-15:30)	FPT 471(L) (RBM-GPT) (DBP) FPE -471(L) (GPT) FBM 471 (L) (GPT) FBM 471 (L) (FPT-473 (L) (HP) FPT 472 (L) (SB-DP) (AKS-NVS) FPT 471(P) (AKS-NVS)	FPT 471(L) (RBM-GPT) (DBP) (DBP) (DBP) FPE -471(L) (GPT) (GPT) (FPE 473 (L) (GPT) FBM 471 (L) (FPT 473 (L) (GPT) FBM 471 (L) (FPT 473 (L) (GPT) LUNCH FPT 472 (L) (SB-DP) (AKS-NVS) (GPT) FPT 471(P) (FPE 473 (P) (GPT)	FPT 471(L) (BBM-GPT) (BBM 471 (L) (BBM-GPT) (BBM 471 (L) (BBP) (BBM 471 (L) (BBM 471 (L) (BBP) (BBM 471 (L)	FPT 471(L) (BBM-GPT) (BBM 471 (L) (BBP) (BBM 471 (L) (BBM-GPT) (BBM 471 (L) (BBP) (BBP) (BSP) (B

Details of Courses and Course Teachers

S. No.	Course No.	Title of the Course	Credits	Teacher's Name
1	FPE 471	Food Plant Design & Layout	(2+1)	A.K.Sharma N.V.Shah
2	FPE 472	IT Applications in Food Industry	(1+1)	P.S.Parsania
3	FPT 471	Food Packaging Technology & Equipment	(2+1)	Govind P.T R.B.Modi.
4	FPT 472	Bakery & Confectionary Products	(3+1)	Suresh Bhise Devesh Patel
5	FPT 473	Functional Foods & Nutraceuticals	(3+1)	H.Pandey
6	FPE 473	Dairy Engineering	(3+1)	Govind P.T.
7	FBM 471	Marketing Management & International Trade	(3+0)	Deval Patel
100		Total	17+6	

No. AAU/FPTBE/UGAcad/

Date: 9 / 9/-2020

Principal & Dean

Copy f.w.r.s. to:

1 Registrar, AAU, Anand

2 Chairman, SRC, FPTBE, AAU

3 HoD: FPT / FPE / FQA / BE / PHE / FBM/FPO/FST

Copy for information & necessary action to:

4 All concerned Teachers

5 Student's notice board

6 Academic (PG) / Exam Branch/T&P, FPTBE, AAU, Anand.

College of Food Processing Technology & Bio-Energy, AAU, Anand Tentative Class Schedule for Second Semester B.Tech (FT) w.e.f.:30/03/2021

			OFFICE O	KDEK		
Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday (1st, 3rd & 5th
9:00 - 10:00	FPE 123(L) AN	FQA 122(L) AMP	FPE 121(L) MM	FQA 122(L) AMP	FPE 121(L) MM	FPE 123(L) AN
10:00 - 11:00	FPE 122(L) NVS	MATH 121(L) NDP	FPE 122(L) NVS	FQA 121(L) JKM	FQA 121(L) JKM	7.1
11:00 ~ 12:00	FPE-124 (L) THB	MATH 121(L) NDP	FPE-124 (L) THB	FPT 121(L) AVR	FPT 121(L) AVR	
12:00 - 13:30			LUNCH	I BREAK		
13:30- 15:30	FQA 122 (P) I AMP	FPE-124 (P) I THB	FPE 122(P) I NVS	FPE 123 (P) I	FPE 123 (P) II AN	NSS
15.05	FPE-124 (P) II THB		FPE 121 (P) II MM	FPT 121(P) II AVR		
15:35 – 17:35	FPE 121 (P) I MM	FQA 121 (P) II JKM	FQA 121 (P) I JKM	FPT 121(P) I AVR	SRC Activities	
	FPE 122(P) II NVS		FQA 122 (P) II AMP			

Details of Courses and Course Teachers

_		Courses	Credits	Course Teachers
1	FQA 121	Food Microbiology	3 (2+1)	Dr.J.K.Momin
2	FQA 122	Food Chemistry of Micronutrients	3 (2+1)	Sh.A.M.Patel
3	FPE 121	Food Thermodynamics	3(2+1)	Er.Mahesh Makwana
4	FPE 122	Fluid Mechanics	3 (2+1)	Er.Nirav Shah
5	FPE 123	Post-Harvest Engineering	3 (2+1)	Dr.A.Nema
6	FPE 124	Basic Electronics Engineering	3 (2+1)	Er.T.H.Bhatt
7	FPT 121	Fundamentals of Food Processing	3 (2+1)	Dr.Amee Ravani
8	MATH 121	Engineering Mathematics-II	2 (2+0)	Dr.N.D.Patel
	PED 121	NCC/NSS/Physical Education	1 (0+1)*	Dr.K.V.Vala
		Total	23 (16+7)	Dist. V. Vala
		* Non-Credit Course	(10.7)	Venue: Lecture Hall-I

Principal & Dean

No. AAU/FPTBE/UGAcad 2598-99 /21

Date: 06 | Q3 | 202)

Copy f.w.r.s. to:

1 Registrar, AAU, Anand

2 Chairman, SRC, FPTBE, AAU, Anand

3 HoD: FPT/FPE/FQA/BE/PHT/FBM/FPO/FST

Copy for information & necessary action to:

4 All concerned Teachers

5 Student's notice board

6 Academic (P.G.)/Exam Branch/T&P, FPTBE, AAU, Anand

College of Food Processing Technology & Bio-Energy, AAU, Anand <u>OFFICE ORDER</u>

Tentative Class Schedule for Fourth Semester B. Tech. (FT) w.e.f.: 25/02/2021 Time / Day Monday Saturday Tuesday Wednesday Thursday Friday (1st, 3rd & 5th) FPT 242 FQA 242 (L) FQA 241 (L) FPT 242 FQA 241 (L) 9:00 - 10:00RBM (L) JKM RD RBM (L) RD FPT 244 (L) FPT 241 (L) FPT 241 (L) FPT 243 (L) FPT 244 (L) **GPT-KVV** FPT 243 (L) 10:00 - 11:00 SHA/HPS GPT-KVV HP HP SHA/HPS FPE 241 (L) FPE 241 (L) FBM 241 (L) FBM 241 (L) 11:00 - 12:00 AKS AKS DP 12:00 - 13:30 LUNCH BREAK FQA 242 (P) FQA 241 (P) I FQA 242 (P) FQA 241 (P) I JKM RD II JKM II RD 13:30-15:30 FPT 243 (P) NSS FPE 241 (P) II FPE 241 (P) I FPT 241 (P) I FPT 241 (P) II II SHA-AKS AKS HP-NS HP-NS HPS-SA FPT 242 RBM FPT 242 SRC Activities (P) I RBM (P) II 15:35 - 17:35 FPT 244 (P) II FPT 244 (P) I FPT 243 (P) I GPT-KVV GPT-KVV SHA-HPS-SA

S. No.		Details of Courses and Course Te Semester-IV	Credits	Name of course Teachers	
1	FQA 241	Food Biotechnology	3 (2+1)	Sh. R.Dhingani	
2	FQA 242	Food Plant Sanitation	2 (1+1)	Dr. J.K.Momin	
3	FPE 241	Food Plant Utilities & Services	3 (2+1)	Dr. A.k.Sharma	
4	FPT 241	Unit Operations in Food Processing	3 (2+1)	Dr.H.Pandey(T&P) Er.Nilesh Sardar(P)	
5	FPT 242	Processing Technology of Dairy Products	3 (2+1)	Dr. R.B.Modi	
6	FPT 243	Processing Technology of Legumes and Oilseeds	3 (2+1)	Dr. S.H.Akbari(T&P) Dr. H.P.Sharma (T&P) Ms.Swati Anadani(P)	
7	FPT 244	Processing of Spices and Plantation Crops	3 (2+1)	Dr. Goving P.T. Dr.K.V.Vala	
8	FBM 241	Business Management and Economics	2 (2+0)	Dr. D.B.Patel	
Ceta	PED 241	NCC/NSS/Physical Education	1 (0+1)*	Dr. K.V.Vala	
		Total	22 (15+7)	Venue: Lecture Hall-	

*indicates non-credit course

No. AAU/FPTBE/UGAcad/2305 /21

Copy f.w.r.s. to:

1 Registrar, AAU, Anand

2 Chairman, SRC, FPTBE, AAU, Anand

3 HoD: FPT/FPE/FQA/BE/PHT/FBM/FPO/FST

4 Central Library, AAU, Anand

Copy for information & necessary action to:

5 All concerned Teachers

6 Student's notice board

7 Academic (P.G.)/Exam Branch/T&P, FPTBE, AAU, Anand

Principal & Dean

Date: 10/2/2021

College of Food Processing Technology & Bio-Energy, AAU, Anand **OFFICE ORDER**

Tentative Class Schedule for Fourth Semester B.Tech.(FT) w.e.f.: 25/03/2021

1011	tative Class Se	nedule for 1	1 D. I ccii.(I I	11101111 2010012		
Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						(1st, 3rd & 5th)
9:00 – 10:00	FPT 242 RBM (L)	FQA 242 (L) JKM	FQA 241 (L) RD	FPT 242 RBM (L)	FQA 241 (L) RD	FPT 244 (L
10:00 - 11:00	FPT 243 (L) SHA/KVV	FPT 244 (L) GPT-KVV	FPT 241 (L) HP	FPT 241 (L) HP	FPT 243 (L) SHA/KVV	GPT-KVV
11:00 - 12:00		FPE 241 (L) AKS	FPE 241 (L) AKS	FBM 241 (L) DP	FBM 241 (L) DP	
12:00 - 13:30			LUNCH	BREAK		
	FQA 242 (P) I JKM	FQA 241 (P) I RD	FQA 242 (P) II JKM	FQA 241 (P) II RD		
13:30– 15:30	FPT 243 (P) II SHA-KVV- SA	FPE 241 (P) II AKS	FPE 241 (P) I AKS	FPT 241 (P) I HP-NS	FPT 241 (P) II HP-NS	NSS
	SRC Activities	FPT 242 RBM (P) I	FPT 242 RBM (P) II			
15:35 – 17:35		FPT 244 (P) II GPT-KVV	FPT 244 (P) I GPT-KVV		FPT 243 (P) I SHA-KVV-SA	

S. No.		Details of Courses and Course T Semester-IV	Credits	Name of course Teachers	
1	FQA 241	Food Biotechnology	3 (2+1)	Sh. R.Dhingani	
2	FQA 242	Food Plant Sanitation	2 (1+1)	Dr. J.K.Momin	
3	FPE 241	Food Plant Utilities & Services	3 (2+1)	Dr. A.k.Sharma	
4	FPT 241	Unit Operations in Food Processing	3 (2+1)	Dr.H.Pandey(T&P) Er.Nilesh Sardar(P)	
5	FPT 242	Processing Technology of Dairy Products	3 (2+1)	Dr. R.B.Modi	
6	FPT 243	Processing Technology of Legumes and Oilseeds	3 (2+1)	Dr. S.H.Akbari(T&P) Dr. K.V.Vala (T&P) Ms.Swati Anadani(P)	
7	FPT 244	Processing of Spices and Plantation Crops	3 (2+1)	Dr. Goving P.T. Dr.K.V.Vala	
8	FBM 241	Business Management and Economics	2 (2+0)	Dr. D.B.Patel	
ð	PED 241	NCC/NSS/Physical Education	1 (0+1)*	Dr. K.V.Vala	
	PED 241	Total	22 (15+7)	Venue: Lecture Hall- III	

*indicates non-credit course

No. AAU/FPTBE/UGAcad

Copy f.w.r.s. to:

1 Registrar, AAU, Anand
2 Chairman, SRC, FPTBE, AAU, Anand
3 HoD: FPT/FPE/FQA/BE/PHT/FBM/FPO/FST

4 Central Library, AAU, Anand

Copy for information & necessary action to:

5 All concerned Teachers
6 Student's notice board
7 Academic (P.G.)/Exam Branch/T&P, FPTBE, AAU, Anand

College of Food Processing Technology & BioEnergy, AAU, Anand OFFICE ORDER

Tentative Class Schedule for Sixth Semester B.Tech(FT) w.e.f.: 25/03/2021

Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday (1 st , 3 rd & 5 th)
9:00 - 10:00	FBM 361 (L) DP	FQA 362 (L) SD	FPT 361 (L) HP/GPT	FPT 361 (L) HP/GPT	FQA 362 (L) SD	FPT 364(L)
10:00 11:00	FPT 362 (L) HP	FPE 361(L) THB	FPE 362 (L) SSK	FPE 361(L) THB	FPT 362 (L) HP	RBM
11:00 - 12:00	FPT 364(L) RBM	FQA 361 (L) KSD	FPT 363 (L) SB	FPT 363 (L) SB		Visit to Centra Library
12:00 - 13:30				BREAK	FPT 361 (P) I	
13:30 - 15:30	FPT 364(P) II RBM	FQA 361 (P) I KSD	FQA 361 (P) II KSD	FPT 361 (P) II HP-GPT-JPR FPT 364(P) I	HP-GPT-JPR FPE 362 (P) II	SRC Activities
15:50 – 15:50	FPE 362 (P) I SSK	FPT 362 (P) II HP-NS	FPT 362 (P) I HP-NS	RBM FBM 361 (P)II	SSK FPT 363 (P) II	
	FPT 363 (P) I			DP DP	SB	
15:35 – 17:35	SB	FBM 361 (P)I DP	FPE 361 (P)II THB		FPE 361 (P)I THB	

Details	of Course	s and	Course	Teachers
2000				
				Cua

		Details of Courses and Course Te Semester-VI	Credits	Name of course Teachers
	70 1 261	Food Additives and Preservatives	2 (1+1)	Sh. K.S.Damle
1	FQA 361	Food Additives and Preservatives	2 (2+0)	Dr. S.Dutta
2	FQA 362	Food Quality, Safety Standards and Certification	3 (2+1)	Er.Tanmay Bhatt
3	FPE 361	Instrumentation and Process Control in Food Industry	2(1+1)	Dr.S.S.Kapdi
4	FPE 362	Applications of Renewable Energy in Food Processing	2(111)	Dr.H.Pandey (T&P)
		The A. D. H. D. Heats	3 (2+1)	Dr.Govid P.T.(T&P)
5	FPT 361	Processing of Meat, Fish & Poultry Products	3 (2.1)	Sh.J.P.Rathod (P)
				Dr.H.Pandey(T&P)
6	FPT 362	Processing Technology of Beverages	3 (2+1)	Er.Nilesh Sardar (P)
0	FF1 302		3 (2+1)	Dr.Suresh Bhise
7	FPT 363	Sensory Evaluation of Food Products	3 (2+1)	DrR.B.Modi
8	FPT 364	Food Packaging Technology and Equipment	2 (1+1)	Dr.D.B.Patel
9	FBM 361	Entrepreneurship Development		Venue: Lecture
		Total	23 (15+8)	Hall-IV_
			_	Λ (

No. AAU/FPTBE/UGAcad/2789 /2021

Copy f.w.r.s. to:

1 Registrar, AAU, Anand 2 Chairman, SRC, FPTBE, AAU, Anand

3 HoD: FPT/FPE/FQA/BE/PHT/FBM/FPO/FST

Copy for information & necessary action to:

4 All concerned Teachers

5 Student's notice board

6 Academic (P.G.)/Exam Branch/T&P, FPTBE, AAU, Anand

College of Food Processing Technology & Bio-Energy, AAU, Anand

OFFICE ORDER

Tentative Schedule for the Eighth Semester B.Tech.(FPT) (4th Deans') during Academic Year 2020-21.

e Credits		Teachers
2*(0+2)	19/02/2021 to 05/03/2021	Dr.A.Nema Dr.Amee Ravani
t 23(0+23)	08/03/21 to 28/06/2021	Dr.Govind P.T. Dr.Suresh Bhise
ts 23		
	23(0+23)	23(0+23) 08/03/21 to 28/06/2021

Principal & Dean

No. AAU/FPTBE/UGAcad/ 2373

/21

Date: 15/2/2021

Copy f.w.r.s. to:

- 1 Registrar, AAU, Anand
- 2 Chairman, SRC, FPTBE, AAU, Anand
- 3 HoD: FPT/FPE/FQA/BE/PHT/FBM/FPO/FST

Copy for information & necessary action to:

- 4 All concerned Teachers
- 5 Student's notice board
- 6 Academic (P.G.)/Exam Branch/T&P, FPTBE, AAU, Anand

College of Food Processing Technology & Bio-Energy, AAU, Anand

OFFICE ORDER

Tentative Schedule for the Eighth Semester B.Tech.(FT) during Academic Year 2020-21.

S. No.	Course No.	Title of the Course	Credits	Duration	Name of Teachers
1	FPO 481	Student READY - Industrial Tour	2 (0+2)	19/02/2021 to 05/03/2021	Dr.A.Nema Dr.Amee Ravani
2	FPO 482	Student READY - Internship/In-Plant Training	20 (0+20)	08/03/2021 to 28/06/2021	Dr.Govind P.T. Dr.Suresh Bhise
	¥.	Total Credits	22		

Principal & Dean

No. AAU/FPTBE/UGAcad/ 2374,

/21

Date: 15/2/2021

Copy f.w.r.s. to:

- 1 Registrar, AAU, Anand
- 2 Chairman, SRC, FPTBE, AAU, Anand
- 3 HoD: FPT/FPE/FQA/BE/PHT/FBM/FPO/FST

Copy for information & necessary action to:

- 4 All concerned Teachers
- 5 Student's notice board
- 6 Academic (P.G.)/Exam Branch/T&P, FPTBE, AAU, Anand

Academic Achievements

Table 10 Year wise students passed out

Year	Ph.D.	M.Tech.	B.Tech.	Total
2005	-	5	-	5
2006	-	1	-	1
2007	-	1	-	1
2008	-	2	-	2
2009	1	6	-	7
2010	-	5	-	5
2011	-	6	-	6
2012	-	7	-	7
2013	-	13	21	34
2014	1	13	25	39
2015	1	8	34	43
2016	-	9	32	41
2017	-	7	33	40
2018	9	10	34	53
2019	6	8	38	52
2020	3	12	40	55
Total	21	113	257	391

Table 11 Semester- wise results of students of B.Tech/ M.Tech/ PhD (FPT)

The semester wise results of students admitted in various years of B.Tech/ M.Tech/ Ph.D. (FPT) are given below:

Degree	Semester	Dist.	First	Second	Pass	Fail	Total	Students
(Admission Year)			Class	Class	Class			Dropped
Ph.D. (2013-14)	I	-	1	1	-	-	02*	-
	II	-	-	2	-	-	02*	-
	III	-	2	ı	ı	-	02*	-
	IV	-	2	-	-	-	02*	-
	V	-	2	1	ı	-	02*	1
	VI	-	2	-	-	-	02*	-
	VII	-	-	-	-	2	02*	-
	VIII	-	2	-	-	-	02*	-
	IX	-	-	1	1	2	02*	1
Ph.D. (2014-15)	I	2	2	ı	ı	-	04*	ı
	II	1	3	ı	ı	-	04*	ı
	III	1	3	ı	ı	-	04*	ı
	IV	1	3	ı	ı	-	04*	ı
	V	1	3	-	-	-	04*	-
	VI	2	2	1	ı	-	04*	1
	VII	2	2	-	-	-	04*	-
Ph.D. (2015-16)	I	3	2	ı	ı	-	05*	ı
	II	2	3	ı	ı	-	05*	ı
	III	2	3	ı	ı	-	05*	ı
	IV	2	2	1	1	-	04*	1
	V	2	1	-	-	1	04*	-
	VII	2	2	-	1	-	04*	ı
	VIII	1	-	-	1	-	01*	
Ph.D. (2017-18)	I	2	-	-	1	-	02	ı
	II	2	-	-	-	-	02	
	III	2	-	1	ı	-	02	

Ph.D. (2018-19)	I							
	II							
	III							
Ph.D. (2019-20)	I	1	-	-	-	-	01	-
	II	1	-	-	-	-	01	-
	III	1	-	-	-	-	01	-
Ph.D. (2020-21)	I	1	-	-	-	-	01	-
	II	1	-	-	-	-	01	-
	III	1	-	-	-	-	01	-
M.Tech. (2013-14)	I	1	6	2	-	-	09	-
	II	1	5	3	-	-	09	-
	III	1	6	2	-	-	09	-
	IV	1	6	2	-	-	08	1
M.Tech. (2014-15)	I	2	7	-	-	1	10	-
	II	1	8	-	-	1	10	-
	III	1	8	-	-	-	09	1
	IV	1	8	-	-	-	09	-
M.Tech. (2015-16)	I	1	5	3	-	-	09*	-
	II	1	4	3	-	-	08*	1
	III	1	5	2	-	-	08*	-
	IV	1	5	2	-	-	08*	-
	V	-	1	-	-	-	01*	-
M. Tech. (2016-17)	I	1	6	1	-	1	09	-
	II	1	6	1	-	1	09	-
	III	0	8	1	-	-	09	-
	IV	0	8	1	-	-	08	-
M. Tech. (2017-18)	I	2	4	6	-	1	13	-
	II	1	8	4	-	-	13	-
	III	4	7	2	-	-	13	-
M. Tech. (2018-19)	I	2	4	6	-	1	13	
	II	1	8	4	-	-	13	
	III	4	7	2	-	-	13	
M. Tech. (2019-20)	I	1	6	-	-	-	07	-
	II	2	5	-	-	-	07	-
	III	2	5	-	-	-	07	-

B. Tech.(2009-10)	I	6	6	10	3	1	26	-
	II	5	6	6	3	6	26	2
	III	5	8	5	2	4	24	1
	IV	4	9	6	3	1	23	-
	V	6	8	4	5	0	23	-
	VI	6	9	7	1	0	23	2
	VII	6	9	6	0	0	21	-
	VIII	21	0	0	0	0	21	-
B. Tech.(2010-11)	I	4	6	14	7	4	35	1
	II	0	8	6	11	11	36	6
	III	3	7	10	8	4	32	6
	IV	3	5	17	2	0	27	-
	V	3	11	12	1	0	27	-
	VI	6	8	9	1	0	25	1
	VII	2	11	08	4	1	26	1
	VIII	24	1	0	0	0	25	-
B. Tech.(2011-12)	I	6	7	5	4	7	29	6
	II	4	6	10	11	1	32	4
	III	4	6	14	6	6	36	3

	IV	3	10	11	4	4	32	1
	V	2	11	17	2	2	34	1
	VI	5	12	16	0	0	33	-
	VII	1	11	20	2	0	34	_
	VIII	32	2	-	-	-	34	_
B.Tech. (2012-13)	I	1	8	11	4	14	38	5
	II	3	9	6	6	13	37	11
	III	3	9	9	3	6	30	-
	IV	7	10	8	5	3	33	1
	V	3	10	10	5	3	31	-
	VI	5	10	16	1	0	32	-
	VII	8	11	11	1	1	32	-
	VIII	22	7	03	0	0	32	-
B.Tech. (2013-14)	I	7	8	11	13	5	44	3
	II	4	6	8	6	14	38	8
	III	7	6	14	4	7	38	4
	IV	11	14	9	0	0	34	-
	V	7	13	13	1	1	35	-
	VI	10	16	8	1	0	35	2
	VII	7	15	11	0	0	33	-
	VIII	8	12	13	0	0	33	-
B.Tech. (2014-15)	I	5	5	7	7	9	33	4
	II	5	11	4	6	4	30	-
	III	4	10	12	5	8	39	1
	IV	6	6	16	5	5	38	4
	V	9	15	10	0	2	36	2
	VI	11	17	3	1	0	32	-
	VII	8	15	7	3	1	34	-
	VIII	34	0	0	0	0	0	-
B. Tech.(2015-16)	I	7	8	5	8	6	34	3
	II	6	9	10	3	3	31	3
	III	5	16	12	0	1	34	-
	IV	2	11	8	16	2	39	-
	V	10	18	5	6	0	39	-
	VI	7	20	12	5	2	39	-
D Took (2016 17)	VII I	4 8	15 12	13		5	39	- A
B.Tech. (2016-17)	I	10	5	13 6	1 11	2	39 34	4 1
	III	10	6	10	10	2	38	1
	IV	11	12	13	10	0	37	-
	V	14	10	11	2	0	37	
B.Tech. (2017-18)	I	0	0	0	2	0	2	-
D.10011. (2017-10)	II	0	0	0	2	0	2	
	III	0	0	0	3	0	3	
B.Tech. F.T. (2017-18)	I	3	10	18	3	0	34	
B.Tech. F.T. (2017-18)	II	2	9	15	8	1	35	
B.Tech. F.T. (2017-18)	III	2	10	15	11	1	39	_
B.Tech. F.T. (2017-18)	I	3	7	17	13	7	47	0
B.Tech.(FPT)	I	01	02	0	03	0	0	
B.Tech (FT)	I	18	17	0	37	0	02	
D. IECH (I'I)	1	10	1/	U	31	U	UZ	

Students Strength

Table 12(A) Category wise strength of UG students –Odd semester (2020-21)

Category	First semester		Third semester		Fifth semester			enth ester	Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
General	13	5	18	19	8	27	10	10	20	16
SC	1	2	3	2	0	2	1	0	1	1
ST	7	1	8	2	2	4	1	4	5	3
SEBC	2	4	6	7	2	9	8	4	12	6
ICAR	4	1	5	3	1	4	3	2	5	1
EWS	3	1	4	3	1	4	0	0	0	0
Other Board	1	1	2	1	1	2	1	1	2	1
FOREIGN	1	0	1	0	0	0	1	1	2	1
Total	32	15	47	37	15	52	25	22	47	29
	Total									

Table 12(B) Category wise strength of UG students –Even semester (2020-21)

Category	Second semester		Fourth semester		Sixth semester		Eighth semester		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
General	13	5	18	18	8	26	10	10	20	16
SC	1	2	3	2	0	2	1	0	1	1
ST	7	1	8	2	2	4	1	4	5	3
SEBC	2	4	6	7	2	9	9	4	13	6
ICAR	4	1	5	3	1	4	3	2	5	1
EWS	3	1	4	3	1	4	0	0	0	0
Other Board	1	1	2	1	1	2	1	1	2	1
FOREIGN	1	0	1	0	0	0	1	1	2	1
Total	32	15	47	36	15	51	26	22	48	29
	Total									

Table 13 Strength of Ph.D. and M.Tech. Students (2020-21)

Sr No.	Degree (Specialization)	No. of students registered				
		Fresh		In-service		
		Boys	Girls	Boys	Girls	
1	Ph.D. (FPT)	1	0	0	0	
2	M.Tech (FT).	4	5	0	0	

Table 14 Scholarship awarded to the students (2020-21)

Sr. No.	Types of Scholarship/Financial Aids	Number of Recipient	Amount (Rs.)		
1	National Talent Scholarship (2000/p.m./student)				
2	University Scholarship (UG) (500/p.m./student)				
3	AAU Fellowship (PG) (1500/p.m./student for MTech) 2000/p.m./student for PhD)	DD#6			
4	SEBC Post Metric Scholarship (UG & PG)	DBTS			
5	SC Post Metric Scholarship				
6	ST Post Metric Scholarship				

Table 15 Post-graduate theses completed (2020-21)

Sr. No.	Thesis Title	Degree	Name of Student	Major Guide
1	Production of edible oyster mushroom (<i>Pleurotus ostreatus</i>) using groundnut shell and meal	M. Tech FT (FPT)	MOLAKATHALA J REDDY	Dr. B. H. Joshi
2	Technology for Production of Ready to Serve (RTS) Green Tomato Beverage	M. Tech FT (FPT)	PATEL ARPIT HARESHBHAI	Dr. S. H. Akbari
3	Technology for Production of Pomegranate Molasses	M. Tech FT (FPT)	DHOLU UTTAMKUMAR	Dr. S. H. Akbari
4	Production technology of nectar from aonla fruit (Indian gooseberry) using stevia as natural sweetener	M. Tech FT (FPT)	SARVADE SHILA KAILAS	Dr. R. R. Gajera
5	Development of Carbonated Ready-to-Serve Beverage from Aonla Fruit	M. Tech FT (FPE)	NIAMCHA LOWANG	Dr. R. R. Gajera
6	Optimization of Ultrasonic Pre-treatment for Drying of Brahmi for Development of Tisane	M. Tech FT (FQA) ICAR	PAVITRA HAGDE	Dr. K. B. Kamaliya
7	Development of production technology for beetroot based blended juice	M. Tech FT (FPT)	THEBA TABBU	Dr. A. V. Ravani
8	Development of Cactus Fruit based Tisane	M. Tech FT (FPT)	BHALARA YASH (PH)	Dr. Samit Datta
9	Development of the flaxseed based spred	M. Tech FT (FPT)	KADAM ROHIT SUDHIR	Dr. Samit Datta
10	Study on drying characteristics of custard apple pulp using different dryers	M. Tech FT (FPE)	SHALINI SINGH	Dr. A K Sharma
11	Development of Technology for Extraction and Encapsulation of Bioactive Compound	Ph. D. FT (FPT)	BUTTI PRABHAKAR	Dr. R V Prasad
12	Development of Drying Technology for Jamun Seed Powder and Grits and its Utilization	Ph. D. FT (FPT)	MANISH TIWARI	Dr. R. F. Sutar
13	Extraction, Characterization & Encapsulation of Bioactive Compounds from Garden Cress GA-1 Seed Deoiled Meal	Ph. D. FT (FPT)	NEHA KHARKWAL	Dr. R V Prasad

Table 16 Members of Board of Studies, Food Processing Technology & Bio-Energy

- (1) The Dean, Faculty of Food Processing Technology & Bio-Energy (Chairman)
- (2) The Head of the Department in the Faculty (Member)
 - 1. Dr. R. F. Sutar, Head, Dept. of Post-Harvest Engineering and Technology
 - 2. Dr. S. S. Kapdi, Head, Dept. of Bio-Energy
 - 3. Dr. R. V. Prasad, Head, Dept. of Food Quality Assurance
 - 4. Er. H. Pandey, Head, Dept. of Food Processing Technology
 - 5. Dr. A. K. Sharma, Head, Dept. of Food Engineering
 - 6. Dr. H. G. Bhatt, Head, Dept. of Food Safety and Testing
 - 7. Dr. Samit Dutta, Dept. of Food Business Management
- (3) The Director of Research and Dean, Post-graduate Studies, AAU, Anand (Member)
- (4) The Director of Extension Education, AAU, Anand (Member)
- (5) Principal, SMC College of Dairy Science, AAU, Anand (Member)
- (6) Associate Professors and its equivalent from each department (Member)
 - 1. Dr. S. H. Akbari, Agri. Process Engineering
 - 2. Dr. B. H. Joshi, Bio-technology
- (7) Assistant Professors and its equivalent from each department (Member)
 - 1. Er. V. B. Bhalodia, Agri. Process Engineering
 - 2. Dr. R. R. Gajera, Food Processing Technology
 - 3. Mr. J. K. Momin, Dairy Microbiology
- (8) The Assistant Registrar (Academic) (Secretary)

IV. HIGHLIGHTS OF THE DEPARTMENTS

The teaching and research activities (university schemes) carried out by the different departments/sections of the college during the year 2020-21 are reported in this section. Also, the names and qualifications of the staff working in different departments as well as other schemes have been included hereunder.

(A) Department of Post-Harvest Engineering and Technology

The courses related to Post harvest Engineering, cereals, pulses, oilseeds, fruits and vegetables are the major focus for teaching to the under-graduate & post-graduate academic programmes in the College of Food Processing Technology & Bio-Energy. Research is undertaken in majority of the area of post-harvest and agro-processing technology, for use by farmers and industry.

Table 17 Semester wise distribution of Subjects in UG & PG Food Processing Technology/Food

Technology programmes

	Technology programmes									
Sr. No.	Course No.	Subjects	UG/PG	Semester	Credits					
1	PHE 231	Post Harvest Engineering	UG	Third	4 (3+1)					
2	FPE 233	Food Process Engineering-I	UG	Third	2+1					
3	FPT 242	Processing Technology of Food Grains	UG	Fourth	4 (3+1)					
4	FPE 352	Bio Process Engineering	Fifth	2+1						
	As per ICAR 5th Dean Committees' recommendations									
5	FPE 123	Post-Harvest Engineering	UG	Second	3 (2+1)					
6	FPE 233	Fundamentals of Food Engineering	UG	Third	3 (2+1)					
7	FPT 243	Processing Technology of Legumes and Oilseeds	UG	Fourth	3 (2+1)					
8	FPT 244	Processing of Spices and Plantation Crops	UG	Fourth	3 (2+1)					
9	FPE 512	Post-harvest Management and Storage Engineering	PG	First	3 (2+1)					
10	FPE 504	Thermal Process Engineering	PG	First	3 (2+1)					
11		Engineering, Textural & Rheological Characteristics of Food Materials	PG	Second	3 (2+1)					

Table 18 Research schemes undertaken

	ubic to research schemes under turen								
Sr.	Title (B.H.)	Principal	Co Investigators	Pe	eriod				
No.		Investigator		From	То				
Fundin	ng Agency: Govt. of Gujarat (Plan-Research))							
1	Post Harvest Management of	Dr. R.F. Sutar,	Scientists and	April	-				
	some important crops of	HoD-PHET	Research Staff,	2012	continue-				
	middle Gujarat, Anand		FPT&BE						
	(12960-00)								

Table 19 Faculty and Staff in the department

Sr No.	Name	Designation	Qualification	Specialization	PG Recog.	Remark
1.	Dr. R. F. Sutar	Professor & Head	Ph.D.	Agricultural Processing & Food Engineering	PG Guide	
2.	Dr. S. H. Akbari	Associate Professor	Ph.D.	Agricultural Processing & Food Engineering	PG Guide	Additional Charge of HOD, FPO Dept.
3.	Dr. A. Nema	Assistant Professor	Ph.D.	PHP & Food Engg.	PG Guide	Transferred From FE Dept. on May 01, 2018

4.	Er. (Mrs) Swati Anadani	Senior Research Assistant	M. Tech.	Agril. Processing & Food Engineering	Transferred from FPT Dept. on May 01, 2018
6.	Er. Vishal D. Kukadiya	Research Associate	M. Tech	Process and Food Engineering	Since April 6, 17
7.	Dr. Bhaumik B. Patel	Research Associate	Ph.D.	Food Processing Technology	Since February 21, 19

(B) Department of Food Processing Technology

The courses related to technology for food grains, fruits & vegetables, milk and milk products, bakery and confectionery, packaging etc are the major focus for teaching to the under-graduate & post-graduate academic programmes in the College of Food Processing Technology & Bio-Energy. Allied courses like functional foods and nutraceuticals and design and formulation of foods are also covered. Research is undertaken in majority of the area of technology for use by industry.

Table 20 Semester wise distribution of Subjects in UG & PG Food Processing Technology/Food Technology programmes

Sr. No.	Course No	Subjects	UG / PG	Semester	Credits			
1	FPT 231	Food Processing Technology - I	UG	Third	3 (2+1)			
2	FPT 241	Food Processing Technology - II	UG	Fourth	3 (2+1)			
3	FPT 243	Design & Formulation of Foods	UG	Fourth	3 (2+1)			
4	FPT 351	Processing Technology of Fruits & Vegetables	UG	Fifth	4 (3+1)			
5	FPT 352	Processing Technology of Milk and Milk Products	UG	Fifth	4 (3+1)			
6	FPT 471	Food Packaging Technology & Equipment	UG	Seventh	3 (2+1)			
7	FPT 473	Functional Foods & Nutraceuticals	UG	Seventh	4 (3+1)			
8	FPE 473	Dairy Engineering	UG	Seventh	4 (3+1)			
9	FPT 361	Processing Technology of Meat, Fish & Poultry	UG	Sixth	4 (3+1)			
11	FPT 472	Bakery and Confectionery Products	UG	Seventh	4 (3+1)			
	As per ICAR 5 th Dean Committees' recommendations							
12	FPE 505	Advances in Dairy Engineering	PG	First	3(2+1)			
13	FPT-503	Brewing Technology	PG	First	3(2+1)			
14	FPT 121	Fundamental of Food Processing	UG	Second	3 (2+1)			
15	FPT 231	Processing Technology of Liquid Milk	UG	Third	2 (1+1)			
16	FPT 232	Processing Technology of Cereals	UG	Third	3 (2+1)			
17	FPT 241	Unit Operations in Food Processing	UG	Fourth	3 (2+1)			
18	FPT 242	Processing Technology of Dairy Products	UG	Fourth	3 (2+1)			
19	FPT 502	Advances in Food Processing Technology	PG	First	3(2+1)			
20	FPT 513	Protein Technology	PG	First	3(3+0)			
21	FPT 501	Advances in Food Packaging Technology	PG	Second	3(2+1)			
22	FPT 510	Lipid Technology	PG	Second	3(3+0)			
23	FPT 515	Technology for RTE/RTC Food Products	PG	Second	3(2+1)			
24	FPT 517	Technology of Frozen Foods	PG	Second	2(2+0)			

Table 21 Research schemes undertaken

I ubic	Table 21 Research schemes under taken									
Sr.	Title (B.H.)	Principal	Co Investigators	P	eriod					
No.		Investigator		From	То					
Fundi	ng Agency: Govt. of Gujarat (Plan-Education									
1	Establishment of students training centre for food processing (12969-01)	Er. H. Pandey, HoD-FPT	Scientists and Research Staff, FPT&BE	April 2012	-continue-					
2	Establishment of instructional processing facilities for student. (2034)	Er. H. Pandey, HoD-FPT	Scientists and Research Staff, FPT&BE	April - 2017	-continue-					

Table 22 Faculty and Staff in the department

Sr	Name Name	Designation	Qualification	Specialization	PG Recog.	Remarks
No.						
1.	Er. H. Pandey	Associate Professor & Head	Ph.D.	Agricultural Engineering (PFE)	PG Guide	Ph.D. completed in 2018
2.	Er. (Mrs) Amee Ravani	Assistant Professor	Ph.D.	Food Processing Technology	PG Guide	Ph.D. completed in 2018
3.	Er. H. P. Sharma	Assistant Professor	Ph.D.	Agricultural Engineering (APFE)	PG Guide	Ph.D. completed in 2018
4.	Er. G. P. Tagalpallewar	Assistant Professor	M.Tech.	Food Processing Technology	PG Guide	PhD (In service) 2015 registration
5.	Er. R. B. Modi	Assistant Professor	M.Tech.	Dairy Technology	PG Guide	PhD (In service) 2015 registration
6.	Er. N. R. Sardar	Senior Research Assistant	M.Tech.	Food Processing Technology	-	M.Tech. completed in 2018 PhD (In service) 2018 registration
7.	Er. (Mrs.) Swati Anadani	Senior Research Assistant	M.Tech.	Agricultural Processing & Food Engineering	-	Transferred to PHET Dept. on May 01, 2018. PhD (In service) 2017 registration

(C) Department of Food Engineering

The courses related to engineering subjects such as food process engineering, mechanical engineering, electrical engineering, instrumentation and process control are the major focus for teaching to the undergraduate & post-graduate academic programmes in the College of Food Processing Technology & Bio-Energy. Allied courses like plant design, utilities and services and food irradiation are also covered. Research is undertaken in majority of the area of process and food engineering for use by industry.

Table 23 Semester wise distribution of Subjects in UG & PG Food Processing Technology/Food

Technology programmes

Sr. No.	Course No	Subjects	UG / PG	Semester	Credits		
1	FPE 231	Fluid Mechanics	UG	Third	3 (2+1)		
2	FPE 232	Engineering Drawing and Graphics	UG	Third	3 (1+2)		
3	FPE 241	Food Process Engineering – II	UG	Fourth	3 (2+1)		
4	FPE 242	Material Science and Engineering	UG	Fourth	3 (2+1)		
5	FPE 243	Food Refrigeration and Air Conditioning	UG	Fourth	4 (3+1)		
6	FPE 351	Process Equipment Design	UG	Fifth	3 (2+1)		
7	FPT 362	Processing Technology of Spices and Plantation Crops	UG	Sixth	(2+1)		
8	PHE 241	Engineering Properties of Biological Materials	UG	Fourth	3(2+1)		
9	PHE 351	Storage Structures & Environment Control	UG	Fifth	2+1		
10	FPE 353	Food Plant Utilities & Services	UG	Fifth	3 (2+1)		
11	FPE 361	Process Control in Food Industry	UG	Sixth	3 (2+1)		
12	FPE 471	Food Plant Design and Layout	UG	Seven	3 (2+1)		
As per ICAR 5 th Dean Committees' recommendations							
13	FPE 111	Basic Electrical Engineering	UG	First	3 (2+1)		
14	FPE 112	Workshop Technology	UG	First	3 (1+2)		
15	FPE 113	Engineering Drawing and Graphics	UG	First	3 (1+2)		

16	FPE 121	Food Thermodynamics	UG	Second	3 (2+1)
17	FPE 122	Fluid Mechanics	UG	Second	3 (2+1)
18	FPE 124	Basic Electronics Engineering	UG	Second	3 (2+1)
19	FPE 231	Heat and Mass Transfer in Food Processing	UG	Third	3(2+1)
20	FPE 232	Food Refrigeration and Cold Chain	UG	Third	3 (2+1)
21	FPE 241	Food Plant Utilities & Services	UG	Fourth	3(2+1)
22	FPE 502	Advances in Food Process Engineering	PG	First	3 (2+1)
23	I HPH MIII	Computer Aided Design of Food Plant, Machinery and Equipment	PG	Second	3(1+2)
24	PGS 506	Disaster Management	PG	Second	1(1+0)

Table 24 Research schemes undertaken

1 40.10 2 1 110,5041 011 5011041105 611001 0411011						
Sr.	Title (B.H.)	Principal	Co	Period		
No.		Investigator	Investigators	From	То	
Funding Agency: Govt. of Gujarat (Plan-Research)						
1	Development of Irradiation	Dr. A.K.	Scientists and	April	-continue-	
	Technology for Agricultural,	Sharma, HoD-	Research	2012		
	Animal & Food Products (12969-	FE	Staff,			
	00)		FPT&BE			

Table 25 Faculty and Staff in the department

Sr No.	Name	Designation	Qualification	Specialization	PG Recog.	Remarks
1.	Dr. A.K. Sharma	Professor & Head	Ph.D., CEA&M by NPC-BEE, GoI and RP/RSO by AERB, GoI	Food Engg Tech & Energy Auditing	PG Guide	
2.	Er. N.V. Shah	Assistant Professor	M.E.	Civil Engineering	-	Ph.D. (In service) 2017 registration
3.	Er. M. A. Makwana	Assistant Professor	M.Tech.	CAD/CAM (Mechanical Engg)	-	Ph.D. (In service) 2017 registration
4.	Er. A.N. Nakiya	Assistant Professor	M.Tech.	PEMD (Electrical Engg)	-	Ph.D. (In service) 2018 registration
5.	Er. T.H. Bhatt	Assistant Professor	M.E.	Microprocessor System & Applications	-	Ph.D. (In service) 2017 registration
6.	Dr. A. Nema	Assistant Professor	Ph.D.	PHP & Food Engg	PG Guide	Transferred to PHET Dept. on May 01, 2018 to PHET
7.	Dr. K.V. Vala	Assistant Professor	Ph.D.	Agricultural Processing & Food Engg		Transferred from Bioenergy Dept. on May 01, 2018. Ph.D. completed in 2018
8.	Er. J. P. Rathod	Senior Research Assistant	B.Tech.	Ag Engg	-	M. Tech (In service) 2015 registration. Transferred to Bioenergy Dept. on May 01, 2018

9.	Mr. K. J. Gajjar	Assistant Instructor	I.T.I.	Machinist	ı	
10.	Mr. A. P. Parmar	Mechanic	I.T.I.	Fitter	-	
11.	Mr. R. M. Barot	Craft teacher	Diploma	Electrical Engineering	1	
12.	Er. P. B. Moradiya	Research Associate	M.Tech.	Processing and Food Engineering	ı	Since February 22, 2019

(D) Department of Food Quality Assurance

The courses related to food science and laboratory analysis for quality assurance are the major focus for teaching to the under-graduate & post-graduate academic programmes in the College of Food Processing Technology & Bio-Energy. A state of art Food Testing Laboratory also established for analysis of food products.

Table 26 Semester wise distribution of Subjects in UG & PG Food Processing Technology/Food

Technology programmes

Sr. No.	Course No	Subjects	UG / PG	Semester	Credits
1	FQA 231	Food Biochemistry and Human Nutrition	UG	Third	3 (2+1)
2	FQA 351	Food Plant Sanitation	UG	Fifth	3 (2+1)
3	FQA 361	Food Regulations & Quality Assurance	UG	Sixth	3 (2+1)
		As per ICAR 5 th Dean Committees' recom	mendations		
4	FQA 111	General Microbiology	UG	First	3 (2+1)
5	FQA 112	Food Chemistry of Macronutrients	UG	First	3 (2+1)
6	FQA 121	Food Microbiology	UG	Second	3 (2+1)
7	FQA 122	Food Chemistry of Micronutrients	UG	Second	3 (2+1)
8	FQA 231	Food Biochemistry and Nutrition	UG	Third	3(2+1)
9	FQA 241	Food Biotechnology	UG	Fourth	3 (2+1)
10	FQA 242	Food Plant Sanitation	UG	Fourth	2(1+1)
11	FQA 232	Industrial Microbiology	UG	Third	3(2+1)
12	FQA 511	Advances in Fermentation Technology	PG	First	4 (2+2)
13	FQA 504	Advances in Food Chemistry and Nutrition	PG	First	3 (2+1)
14	FQA 501	Advances in Analytical Techniques	PG	Second	3 (1+2)
15	FQA 503	Food Safety and Risk Analysis	PG	Second	3 (2+1)
16	FQA-516	Advances in Food Biotechnology	PG	Second	3(2+1)
17	FQA-512	Advances in Food Microbiology	PG	Third / Fifth	3(2+1)

Table 27 Research schemes undertaken

Sr.	Title (B.H.)	Principal	Со	F	Period
No.		Investigator	Investigators	From	То
Fundir	ng Agency: Govt. of Gujarat (Plan-Research)				
1	Development of food	Dr. R.V.	Dr. B.H. Joshi	April	-continue-
	decontamination technology for	Prasad, HoD-		2012	
	safety and quality of fresh and	FQA			
	minimally processed fruits and				
	vegetables, Anand (12993-21)				
Fundir	ng Agency: Govt. of Gujarat (Plan-Education)				
2	Establishment of department of	Dr. H.G. Bhatt	Dr. R.V.	May	-continue-
	food safety and testing (12987-		Prasad	2015	
	11)				
Fundir	ng Agency: ICAR, New Delhi				
3	Development of non-thermal	Dr. R.V.	Dr. R.F. Sutar,	April	March
	plasma (NTP) decontamination	Prasad, HoD-	Dr. B.H. Joshi	2016	2018
	technology for fruits and	FQA			
	vegetable (2036)				

Table 28 Faculty and Staff in the department

Sr	Name	Designation	Qualification	Specialization	PG Recog.	Remarks
No.						
1.	Dr. R.V. Prasad	Professor & Head	Ph.D.	Dairy Microbiology	PG Guide	
2.	Dr. H.G. Bhatt	Associate Professor	Ph.D.	Material Science	PG Guide	HoD –FST Dept
3.	Dr. Bhavesh H. Joshi	Associate Professor	Ph.D.	Microbiology	PG Guide	PG Coordinator
4.	Dr. Devesh H. Patel	Assistant Professor	Ph.D.	Dairy Chemistry	-	
5.	Mr. Kedar S. Damle	Assistant Professor	M.Sc.	Organic Chemistry	-	
6.	Er. Jafarali K. Momin	Assistant Professor	M.Sc.	Dairy Microbiology	-	Ph.D. (In service) 2014 registration
7.	Mr. Rashmin Dhingani	Assistant Professor	M.Sc.	Biotechnology	-	Ph.D. (In service) 2018 registration
8.	Er. Akashamrut M. Patel	Assistant Professor	M.Tech.	Dairy Chemistry	-	Ph.D. (In service) registration
9.	Mr. Hitesh S. Christian	Laboratory Technician	M.Sc.	Biochemistry	-	
10.	Mrs. Nimita P. Runajkar	Laboratory Technician	B.Sc.	Microbiology	-	
11.	Dr. Hetal Bhatt	Research Associate	M.Tech.	Food Processing technology		Joined on 21st Feb, 2019

(E) Department of Food Business Management

The department mainly focuses on courses such as Project Management, Entrepreneurship Development, Marketing Management & International Trade, Operation Research, Computer Programming & Data Structures, IT Applications in Food Industry, Engineering Mathematics and Language & Communication Skills.

The department is also looking after the Training & Placement and Under Graduate academic activities of the college along with implementation of special projects as assigned by the college/university.

Table 29 Semester wise distribution of Subjects in UG & PG Food Processing Technology/Food

Technology programmes

Sr. No.	Course No	Subjects	UG/PG	Semester	Credits
1	PRMI361	Project Management & Entrepreneurship Development	UG	Sixth	3 (2+1)
2	FBM 471	Marketing Management & International Trade	UG	Seventh	3 (3+1)
3	FPE 472	IT Applications in Food Industry	UG	Seventh	1 (0+1)
4	STAT 361	Statistics & Optimization	UG	Sixth	3(2+1)
		As per ICAR 5 th Dean Committees' recom	nmendations		
5	MATH 111	Engineering Mathematics-I	UG	First	2 (2+0)
6	MATH 121	Engineering Mathematics-II	UG	Second	2 (2+0)
7	ENG 111	English Language	UG	First	2 (1+1)
8	FBM 241	Business Management and Economics	UG	Sixth	2 (2+0)
9	FBM 111	Computer Programming and Data Structures	UG	FIRST	2(1+1)
10	FQA 509	Advances in Food Additives & Preservatives	PG	First	3 (2+1)
11	FPT 518	Traditional and Value-added Food Products	PG	First	3 (2+1)
12	FPT 999	Masters Seminar	PG	Forth	1 (1+0)
13	STAT 231	Statistical Methods and Numerical Analysis	UG	Third	2(1+1)

14		PGS- 503	Intellectual Property and its management in	PG	Second	1(1+0)
14	•		Agriculture			
1.5		PGS- 505	Agricultural Research, Research ethics and	PG	Second	
13	'		Rural Development Programs			1(1+0)
16	5	FPT-982	Operational Research	PG	Third + Fifth	3(3+0)

Table 30 Faculty and Staff in the department

Sr	Name	Designation	Qualification	Specialization	PG	Remarks
No.				_	Recog.	
1.	Dr. S. Dutta	Associate Professor & Head	Ph.D.	Management	PG Guide	
2.	Mr. P. S. Parsania	Assistant Professor	M.Sc.	Information technology	-	Ph.D. (In service) 2014 registration
3.	Mr. N. M. Chavda	Assistant Professor	M.Phil.	English	-	Ph.D. (In service) 2015 registration
4.	Dr. D. B. Patel	Assistant Professor	Ph.D.	Marketing	-	Ph.D. completed in 2019

(F) Department of Bioenergy

The department mainly focuses on Environmental, Bioengry, Solar energy, Wind energy and Non-conventional energy sources, system and management courses of the under-graduate & post-graduate academic programmes in the College of Food Processing Technology & Bio-Energy.

Table 31 Semester wise distribution of Subjects in UG & PG Food Processing Technology/Food Technology programmes

Sr. No.	Course No.	Subjects	UG / PG	Semester	Credits
1	Env 231	Environment Science	UG	Third	2 (1+1)
2	BE 361	Bio energy	UG	Sixth	4 (3+1)
		As per ICAR 5 th Dean Committees' recommendations			
3	ESD 111	Environmental Sciences & Disaster Management	UG	First	2 (1+1)

Table 32 Faculty and Staff in the department

Sr	Name	Designation	Qualification	Specialization	PG Recog.	Remarks
No.						
1	Dr. S.S. Kapdi	Professor & Head	Ph.D.	Renewable Energy	PG Guide	
2	Dr. K.V. Vala	Assistant Professor	Ph.D.	Agricultural Processing & Food Engg	-	Transferred to FE Dept. on May 01, 2018. Ph.D. completed in 2018
3	Er. J.P. Rathod	Senior Research Assistant	B.Tech.	Ag Engg	-	M. Tech (In service) 2015 registration. Transferred From FE Dept. on May 01, 2018

(G) Department of Food Plant Operations

The department mainly focuses on hands on experience through 10 experiential learning namely extrusion, frying, IQF, Juice processing, retort, fruits and vegetables handling, drying, oilseed processing and dhal milling.

Table 33 Faculty and Staff in the department

Sr	Name	Designation	Qualification	Specialization	PG Recog.	Remarks
No.						
				Agricultural		Additional
1	Dr. S. H.	Associate	Ph.D.	Processing &	PG Guide	Charge of
1	Akbari	Professor	1 11.12.	Food		HOD, FPO
				Engineering		Dept.

Table 34 Administrative and Supporting Staff of the College

Sr No.	Name	Designation	Qualification	Specialization	PG Recog.	Remarks
1.	Dr. K. B. Kathiria	Principal	Ph.D.	Plant Breeding	PG Guide	Since Sept 18, 2019 Till Sept 17, 2020
2.	Dr. R. F. Sutar	OSD	Ph.D.	Agricultural Processing & Food Engineering	PG Guide	Since Sept 18, 2019 Till Sept 17, 2020
		Principal		Eligilicethig		Since Sept 18, 2020
3.	Shri S.B. Purohit	Senior Clerk	B.A.		-	
4.	Shri M.J. Rana	Senior Clerk	M.Com		-	Since July 01, 2015
5.	Shri Ankit Patel	Junior Clerk	B.Com		-	
6.	Ms. Sonal Makwana	Junior Clerk	M.Com, M.Ed		-	Joined back on Dec 01, 16
7.	Shri R. S. Vasava	Lab Attendant	7 th Pass		-	
8.	Shri M. H. Chavda	Helper	7 th pass		-	
9.	Shri J. M. Solanki	Sweeper	3 rd Pass		-	
10.	Shri R. S. Parmar	Lab boy	Old SSC Pass		-	

Extension Activities

Table 35 Extension Activities carried out (2020-21)

Sr. No.	Name of Centre / Training	No. of Participation
1	Training Program on Food Processing Technology (Certificate course)	09
2	Training cum coaching for ICAR National Eligibility Test (NET)	133

Table 36 Extension Education Activities carried out under special training programs (2020-21)

Sr.		Name of Training
	Activity	Food Processing Technology &
No.		Food Processing Management
1	Khedut Shibir	-
2	Group Discussions	-
3	Crop Demonstration/	
3	Interactive Demonstration	-
4	Agri. Fairs / Exhibitions	-
5	Guidance to Farmers / visitors	4
6	Radio/TV Talks	-
7	Farm Literature Published/Distributed	-
8	Guidance Through Letters/ Telephone/sms	-
9	Field Visit/ Crop Diagnostic Services	-
10	Farmer Scientists Interactions	-
11	Lectures Delivered for New Technology	-
12	Crop Seminars	-
13	Personality Development	-

Note: Figures in bracket indicate numbers of participants/beneficiaries

V. SEMINAR, WORKSHOPS AND TRAININGS

Table 37 Training/Workshop/Meeting/Seminar/Symposium/Conference/Convention organized by the college during 2020-21

Title	Duration	Sponsoring Authority
Innovative AgroFood	30-05-2020 to	RKVY RAFTAAR Agri Business
Processing Technologies for	04-06-2020	Incubator, College of FPTBE project,
Entrepreneurship		under Ministry of Agriculture and
Development		Farmers' Welfare
Nutrition and Health- Eat	21-09-2020 to	RKVY RAFTAAR AgriBusiness
Right, Bite by Bite	25-09-2020	Incubator, College of FPTBE project,
,		under Ministry of Agriculture and
		Farmers' Welfare
Nurturing Entrepreneurship	16-01-2021	RKVY RAFTAAR AgriBusiness
in Food and Agro-		Incubator, College of FPTBE project,
processing (NEFA- 2021)		under Ministry of Agriculture and
		Farmers' Welfare

Table~38~Training~/Workshop/Meeting/Seminar/Symposium/Conference/Convention/Council~Meeting/QRT~Meeting~attended~by~the~Faculty

Sr.	Name of	Participated (detail Name of Event/Program,	Duration	
No.	Teacher/ Scientist	Institute, Place)	From	То
1	Er. M.A. Makwana	LifeSkills for Engineers (Level 1)-a six-week online course by Commonwealth Educational Media Centre for Asia (CEMCA) and the University of Hyderabad.	15-03- 2021	13-05- 2021
2	Er. M.A. Makwana	Robotics controller on Arduino platform using Tinkercad by The Robotic Society, V.V.nagar Chapter, BVM Engineering College (One day Workshop)	12-12- 2020	12-12- 2020
3	Dr. B.H. Joshi	e-Short Term Training Program on Dairy Business Management, during and post COVID-19 organized by Department of Dairy Technology, Parul University, Vadodara, Gujarat	01-06- 2020	07-06- 2020
4	Dr. B.H. Joshi	National Level eFaculty Development Programme on "Comprehensive Quality Initiatives for Higher Education in Pandemic Era" organized by Internal Quality Assurance Cell of Uka Tarsadia University (UTU), Bardoli, Gujarat.	26 -05- 2020	30-05- 2020
5	Dr. B.H. Joshi	E - International conference on Role of fermentedd foods in pandemic era organised by Guru Nanak Khalsa College and Swedish South Indian Network for Fermented Foods in Association with Lund University Sweden and AAU, Anand	25-06- 2021	25-06- 2021
6	Dr. Amee Ravani	E-National conference on Texture and Rheology, organised by IIFPT, Thanjavur	18-02- 2021	19-02- 2021
7	Dr. Amee Ravani	National Women's Food Science & Technology Conference, 2021 organised by IIFPT, MOFPI, Thanjavur	08-02- 2021	08-03- 2021
8	Dr. H. Pandey	Nurturing Innovation and Startup Ecosystem (NISE) organised by i-Hub	08-09- 2020	23-10- 2020
9	Dr. H. Pandey	Smart Handling and Processing Systems of Horticultural Produce	09-05- 2020	14-05- 2020
10	Dr. H. Pandey	Advances in Smart Food Processing Technologies	04-06- 2020	15-06- 2020
11	Dr. H. Pandey	"Indian Agricultural Education System and Entrepreneurship Scope in 21st Century"	05-08- 2020	14-08- 2020
12	Dr. R.V. Prasad	Expert lecture delivered at Distinguished Lecture Series 2020-21 CAAST, NAU under NAHEP- CAAST sub project on Food Safety Management System and Traceability	15-07- 2020	15-07- 2020
13	Dr. H. Pandey	Delivered a lecture on Entrepreneurial Opportunities in Agro Food Processing Sectors for Agricultural Engineers under NAHEP project at GBPUAT, Pantagar	15-06- 2020	15-06-2020

14	Dr. A. K. Sharma	Expert lecture "Application of Gamma Irradiation Technology in Food Processing" delivered in Online International Students and Faculty Development	29-06-	01-07-
		Programme organised by Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior, Madhya Pradesh	2020	2020
15	Dr. A. K. Sharma	Expert lecture "Irradiation Technology for Processing and Value addition" delivered in National Webinar on Entrepreneurship Development in Food Processing Sector organised by Navsari Agricultural University, Navsari, Gujarat	30-01- 2021	30-01- 2021
16	Dr. R. F. Sutar	Delivered a lecture on 'Value-Addition in Milk, Fruits & Vegetables: A Success Mantra for Agripreneurs' in the online training organised by NAHEP-CAAST, AAU, Anand.	18-01- 2021	22-01- 2021
17	Dr. R. F. Sutar	Delivered a lecture on "Recent trends for Cryogenic grinding of spices" under capacity building programmes of ICAR funded NAHEP-CAAST project, entitled "Establishment of Secondary Agriculture Unit for Skill Development in Students and Farmers" at Navsari Agricultural University, Navsari.	29-1-2021	29-1-2021
18	Dr. S. R. Bhise	Participated in two Days national seminar on "Impact of COVID-19 on Dairy & Food Processing Sector" organized at Centre for Agricultural Market Intelligence, Anand Agricultural University, Anand	16-06- 2020	17-06- 2020
19	Dr. R. F. Sutar	Delivered a lecture on "Entrepreneurship opportunities in processing & value addition" in the webinar organised by The Department of Post Harvest Technology of College of Horticulture, SDAU, Jagudan, Mehsana, Gujarat-384 460.	02-09- 2020	02-09- 2020
20	Dr S. R. Bhise	Participated in two Week National e-Training on "Indian Agricultural Education System and Entrepreneurship Scope in 21st Century" organized by National Agricultural Higher Education Project (IG), Faculty of Agricultural Engineering, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola-444104 (M.S.), India during August	05-08- 2020	14-08- 2020
21	Dr S. R. Bhise	Participated in 10 days Webinar on "Role of Nanotechnology in Food and Agriculture" Organized by Centre for Nanotechnology, College of Agricultural Engineering, UAS, Raichur, Karnataka, India from 20th to 29th August, 2020.	20-08- 2020	29-08- 2020
22	Dr S. R. Bhise	Participated in 5 days International Webinar Series on "Nutrition And Health - Eat Right, Bite By Bite" Organised by RKVY-RAFTAAR Agri-Business Incubator College of Food Processing Technology and Bio Energy, Anand Agricultural University, Anand, Gujarat (India)	21-09- 2020	25-09- 2020
23	Dr S. R. Bhise	Participated in two days National Webinar on "Post COVID-19 Agribusiness: Challenges and Opportunities "organized by the Junagadh Agricultural University, Junagadh during June 13-14, 2020.	13-06- 2020	14-06- 2020

24	Dr S. R. Bhise	Participated in three days Online Webinar Series on Technology available for commercialization, Levering and Idea and Importance of IPR for Startups organized by Agri. & Food Business Incubator, Anand Agricultural University, Anand, Gujarat on 25th- 27 th February, 2021.	25-02- 2021	27-02- 2021
25	Dr S. R. Bhise	Participated four days in the International e-Conference on "Novel Nutrition Approach and Emerging Opportunities to Sustain in Pandemic Scenario" organised by the Department of Nutrition and Dietetics, Mount Carmel College, Autonomous, Bengaluru in association with IITB Remote Centre, Women's Polytechnic College, Puducherry from 15th -18th June, 2020	15-06- 2020	18-06- 2020
26	Dr. Samit Dutta	Participated in a two days webinar on "Agricultural Market reforms and Market intelligence" org. by Centre for Agricultural Market Intelligence (NAHEP-CAAST), AAU, Anand	07-07- 2020	08-07- 2020
27	Dr. Samit Dutta	Participated in webinar on "eNAM: Challenges and Prospects" org. by Centre for Agricultural Market Intelligence (NAHEP-CAAST), AAU, Anand	10-06- 2020	10-06- 2020
28	Dr. Samit Dutta	Participated in the Startup Sathi Webinar Series on "Limited Resources, Unlimited Ambition" organized by i-HUB SSIP, Education Dept., Govt. Gujarat	09-06- 2020	09-06- 2020
29	Dr. Samit Dutta	Participated in the Startup Sathi Webinar Series on "Opportunities for startups in these challenging times" organized by i-HUB SSIP, Education Dept., Govt. Gujarat	07-06- 2020	07-06- 2020
30	Dr. Samit Dutta	Participated in the Webinar Series on "Innovative Agro-Food Processing Technologies for Entrepreneurship Development" org. by RKVY RAFTAAR-Agri Business Incubator (Ministry of Agriculture Cooperation and Farmers' Welfare), Agri. & Food Business Incubator, AAU, Anand	30-05- 2020	04-06- 2020
31	Er. Arvind N. Nakiya	A eight week agMOOCs online course on' Fundamentals of Agricultural Extension' Organized by Banaras Hindu University, Varanasi, Uttar Pradesh.	21-04- 2020	16-06- 2020
32	Er. Arvind	Massive Open online course on "COVID 19: The	11-05-	15-05-
22	N. Nakiya Dr. R. F.	pandemic" Organized by R K University, Rajkot.	2020	2020
33	Sutar	Delivered a lecture on "Post Harvest Management of Fruits and Perishible Crops – Entrepreneurship Opportunities" in the Two Week National e-Training organized by NAHEP, Dr. PDKV, Akola.	05-08- 2020	14-08- 2020

VI. PUBLICATIONS / ACHIEVEMENT BY FACULTY

This section includes the publications made by the staff during the year 2020-21. The research papers published and presented have been listed hereunder.

Research paper published during year 2020-21 (Category Wise) (i) International journal

- Shah N. A., Prasad R. V. and Patel B. B. (2020). Optimization of Supercritical Fluid Extraction of Paprika (cv. Reshampatti) Oil, Capsaicin and Pigments. *Flavour Fragr J.*, 35(5): 469-477
- 2. Kaur A, Kaur R. and Bhise S.R. (2020) Baking and sensory quality of germinated and ungerminated flaxseed muffins prepared from wheat flour and whole wheat atta. *J Saudi Society Agric Sci* 19: 109-120 (Impact Factor: 0.643) (ISSN NO. 1658-077X) (https://doi.org/10.1016/j.jssas.2018.07.002) (Scopus rated).
- 3. Dhingani R. M., Joshi B. H., Prasad R. V. and Saiyad A. (2020). Effect of non-thermal dielectric barrier discharge plasma on decontamination of Cumin Seeds. *International Journal of Current Microbiology and Applied Sciences*, 9(10): 2029-2037.
- 4. Dhingani R. M. and Shah G. (2020). A concise review on source, production, purification and characterization of L-asparaginase and its application in food industries. *International Research Journal of Biological Sciences*, 9(4): 1-6.
- 5. Joshi B. H. and Dhingani R. M. (2020). Assessment and selection of multi-trait plant growth promoting bacteria associated with rice rhizosphere. *Journal of Pharmacognosy and Phytochemistry*, 9(2): 942-948.
- 6. Jethva K. R., Sutar R. F., Kumar N. and Vyas D. K. (2021). Effect of whey protein on sun dried protein enriched kesar mango leather. *Journal of Pharmacognosy and Phytochemistry*, 10(2): 824-830.
- 7. Sayyad F. G., Akbari S. H., Vyas D. K., Kumar N. and Sutar R. F. (2021). Mathematical modelling of hot air drying of water chestnut kernels. *Journal of Pharmacognosy and Phytochemistry*, 10(2): 275-280.

(ii) National journal

- 1. Pawar D. A., Joshi D. C. and Sharma A. K. (2021). Effect of gamma irradiation and microwave energy on milling characteristics on pigeon pea. *Journal of Agricultural Engineering* 58 (1), 29-39
- 2. Bhise S. R., Patel, D. and Datta S. (2020) Development of high fibre low sugar muffins to improve shelf life. *Agricultural Research Journal* 57 (4): 577-589, (NAAS Rating 4.71) (ISSN NO. 2395-1435).
- 3. Hans M., Bhise S.R. and Minhas K.S. (2020) Effect of storage on the phyisco-chemical, microbiological properties and color of cheese prepared from stored pre-cheese. *International Journal of Chemical Studies* 8(2): 2326-2330 (NAAS Rating 5.31) (ISSN NO. 2349-8528).
- 4. Anadani S. V., Akbari S. H., Kumar, N. and Ravani A. (2020). Processing and mechanization of Indian traditional food products. *Journal of Pharmacognosy and Phytochemistry*, 9(1): 2313-2315
- 5. Ravani A., Anadani S. V., Gajera R. R. and Prasad R. V. (2020), Physical characterization and optimization of blanching process of *Moringa Oleifera* (var. PKM-1) pods, *Chemical Science Review and Letters*, 9 (33): 184-191
- 6. Bhatt H. K., Prasad R.V., Ravani A., and Prabhakar, B. (2020). Effect of cold milling for recovery of omega-3 fatty acid rich flaxseed oil from hydraulic press, *Journal of Pharmacognosy and Phytochemistry*, 9(2): 585-590
- 7. Theba T., Ravani A. and Bhatt, H.H. (2021). Utilization of beetroot pomace for food fortification, *International Journal of Chemical Studies*, 9(1): 2653-2657

Research paper presented at Seminar / symposia etc. in 2020-21 (Category Wise)

(i) International level

1. Sharma A. K. (2020). Application of Gamma Irradiation Technology in Food Processing. Presented in online International Students and Faculty Development Programme on "Innovative Food Processing Technologies: Value Addition, Food Safety and Security" organised by Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior, Madhya Pradesh during June 29-July 01, 2020.

(ii) National level:

1. Sharma A. K. (2021). Irradiation Technology for Processing and Value addition. Presented in National Webinar "Entrepreneurship Development in Food Processing Sector" organised by Navsari Agricultural University, Navsari, Gujarat on Jan 30, 2021.

Table 39 Books/Chapter or article published in books during year 2020-21 (Category Wise) (i) Books published

Sr.	Name of Book	Book	Name of Author	Name of Publisher
No.		Chapter		
1.	Forced convection solar assisted drying of tomato		S. V. Anadani, Amee Ravani	Lambert academic publishing
2.	Book of Abstracts M.Tech. (2005- 2020)		Dr S H Akbari, Dr Bhaumik Patel Er. Tanmay H Bhatt Dr. Hetal Bhatt	College of Food Processing Technology and Bio Energy, Anand Agricultural University, Anand
3.	Book of Abstracts PhD (2005-2020)		Dr S H Akbari, Dr Bhaumik Patel	College of Food Processing Technology and Bio Energy, Anand Agricultural University, Anand

VII. STUDENTS' WELFARE ACTIVITIES

The brief details about the students' amenities, NSS and co-curricular activities carried out during the year have been reported in this section

Hostel Facility

Separate well-equipped boys and girls hostels to accommodate U.G. and PG boys and girls students exist on the campus, which provide residential facilities to the students. During the reporting period 97 boys students (UG & PG) were accommodated in the Visvesvaraya boys hostel and 54 girls students (UG & PG) were accommodated in the Maitreyee girl's hostel. Each hostel is facilitated with a T.V., Guest and Reading room, gym and sports facilities, R.O. with Water Cooler, solar / gas water heating system and vehicle parking facilities. University primary health centre is offering the health services to the students and staff. During the reporting period Dr. A. K. Sharma (Professor) and Er. A. N. Nakiya (Assistant Professor) worked as Rector and Assistant Rectors, respectively.

Table 40 Hostel Facility of the College

Sr No.	Hostel Name	Floor	Room	Student	Actual Student
				Capacity	Accommodated
1	Visveshvaraya	Ground	12	27	18
		1 st	12	36	35
		2^{nd}	12	36	36
2	Subhash	Ground	10	30	08
3	Maitreyee	Ground	07	14	14
		1 st	10	20	20
		2 nd	10	20	20

Mess management

During the reporting period in all the hostels messes were run by the private contractor. Each hostel provided with all the required items like dinning furniture, kitchen vessels, fridges, cooking gas connections, etc for running the messes. For smooth running of mess and to provide nutritious and delicious food to the students, a weekly menu was prepared by the mutual understanding of students in the presence of college authority. A canteen facility through private contractor appointed by the university is available in the vicinity of hostel area. Similarly another canteen and an Amul Parlour are situated on the campus near university bhavan for providing refreshment to the students on payment basis during the working hours.

Table 41 Activities carried out under NSS

S.No.	Activity	Date/Month	Place
1	NSS Training COVID-19. ToT, iGoT diksha (integrated Government Online Training)	15-04-2019	Online
2	Arogya setu app download to fight against COVID 19.	April-2020	Online
3	COVID-19 Pandemic General Awareness Quiz passed	May (9-5-2020)	Online
4	2 nd World Food Safety Day-2020 celebration	June 7, 2020	Online

	Motto of this year: Food safety, everyone's business		
5	Webinar on' Yognu Vastavi Swaroop'	June 19 at 15:00h	Online
6	Online meeting with State UNICEF Consultant	July 7,2020	Online
7	One day Swachhta Action Plan Online Workshop	July 30, 2020	Online
8	Plantation	August-11, 2020	At college premises
9	International Literacy Day	SEPTEMBER 8	At college
10	Online webinar on creating awareness for National Education Policy-2020 "Shikshak Parv"	September 16	Online
11	International peace Day	September 21	At college
12	NSS Special Day Celebration	September 22	At college
13	Online Workshop for NSS 50years celebration	September -28, 2020	Online

Prevention of Ragging in the College

The anti-ragging committee has been formed for prohibition of ragging in the college. The anti-ragging committee works as per the norms and directives of Hon'ble Supreme court. During the reporting period, no incident of ragging was observed in the college.

Table 42 Anti-Ragging Committee

1	Prof. S.S. Kapdi , Professor & Head , Dept. of Bioenergy	Chairman
2	Prof . R.V. Prasad. Professor & Head. Deptt. of Food Quality	Member
<u> </u>	Assurance	
3	Prof. S.I-1. Akabari, Associ ate Professor & Head. Dept. of Food	Member
3	Plant Operations	
4	Er. M.A. Makwana, Assist ant Professor & Chairman. Student's	Member
4	Representative Council	
5	Dr. A.K. Sharma, Profess01 (Food Engineering) & llostel Rector	Member
6	Er. A. N. Nakiya, Assistant Professor & Assistant Rector (Boys)	Member
7	Mrs. Amee Ravani, Assista nt Professor & Assistant Rector (Girls)	Member
,		
8	Mr . N.M . Chavda. Assistal1t Professor & Coordinator (UG	Member
Academic)		
9	Dr. K. V. Vala, Assistant Protessm & NSS Programme Officer	Member Secretary
10	Mr. Patel Arpit, Student (M.Tech FPT & R1-:. Ill Semester)	Student member
11	Ms. Theba Tabbu. Student (M.Teeh FPT & 13F. Ill Semester)	Student member

Table 43 Students' Discipline Committee 2020-21

1	Dr. R.V. Prasad, Professor & Head, Dept. of Food Quality	Chairman
	Assurance	
2	Dr. S. Dutta, Associate Professor & Head, Dept. of Food	Member
	Business Management & I/c Placement Cell	
3	Mr. G.P. Tagalpallewar, Assistant Professor, Dept. of Food	Member
	Processing Technology & Chairman Students' Representative	
	Council	
4	Er. A.N. Nakiya, Assistant Professor, Dept. of Food Engineering	Member
	& Assistant Rector (Boys)	
5	Mrs. Amee Ravani, Assistant Professor, Dept. of Food	Member
	Processing Technology & Assistant Rector (Girls)	
6	Er. K.V. Vala, Assistant Professor, Dept. of Food Engineering &	Member
	Programme Officer (NSS)	
7	Dr. H.G. Bhatt, Associate Professor & Head, Dept. of FSQA	Member
8	Dr. D.B. Patel, Assistant Professor, Dept. of Food Business	Member
	Management	
9	Dr. A.K. Sharma, Professor & Head, Dept. of Food Engineering	Member Secretary
	& Rector FPTBE Hostels	

"Care Taker Committee"

(A) Rector

- 1. Dr. A. K. Sharma (Rector Hostels)
- 2. Mr. A. N. Nakiya (Assistant Rector, Boy's Hostel)
- 3. Dr. Amee Ravani (Assistant Rector, Girl's Hostel)

(B) Faculty Members

- 1. Dr. S.S. Kapdi (Prof. & Head, Bioenergy Department)
- 2. Dr. R.V. Prasad (Prof. & Head, FQA Department)
- 3. Dr. H.G. Bhatt (Assoc. Prof. & Head, FST Department)
- 4. Dr. H. Pandey (Assoc. Prof. & Head, FPT Department)
- 5. Dr. S.H. Akbari (Assoc. Prof. & Head, FPO Department)
- 6. Dr. S. Dutta (Assoc. Prof. & Head, FBM Department)
- 7. Dr. B.H. Joshi (Assoc. Prof., FQA Department)
- 8. Dr. D.B. Patel (Assistant Prof., FBM Department)
- 9. Mr. R.B. Modi (Assistant Prof., FPT Department)
- 10. Mr. G. P. Tagalpallewar (Assistant Prof., FPT Department)
- 11. Dr. H.P. Sharma (Assistant Prof., FPT Department)
- 12. Mr. J. K. Momin (Assistant Prof., FPT Department)

Table 44 Committee members of the Women Cell

1	Smt. H.H. Chavda	Associate Professor	Chairperson
2	Smt. Amee Ravani	Assistant Professor	Member
3	Ku. Priti Thakar	Balwadi Teacher	Member
4	Smt. Sonal Makwana	Jr. Clerk	Member

Computer cell

A well-equipped computer cell having internet connectivity has been established in the college. The practical classes of U.G. & P.G. students for computer applications are conducted. Besides this, the facilities are also utilized by the students for their research data analysis, reviewing research articles, preparation of presentations, etc. Presently, the cell is having 26 computers with licensed operating system softwares like Office, Turbo C compilers, etc.

VIII. TRAINING AND PLACEMENT

The details about the In-plant trainings given to the students by different food processing and related organisations as well as the placement of outgoing students through campus interviews are given in this section. Also, the details about the year wise graduates passed out and their placements since the inception of the college are given hereunder. Dr. S. Dutta, Associate Professor, Department of Food Business Management worked as the In-charge, Training and Placement Cell. Mr. D.B. Patel assisted him in the activities.

Table 45 Details of In-plant trainings of 8th semester students during 2020-21

Sr. No.	Name of Organization	No. of Students		
1	Amul Dairy, Anand.	4		
2	Amulfed Dairy, Gandhinagar	2		
3	Ayoni Foods Pvt.Ltd., Rajkot	2		
4	Austin Foods and Beverages Pvt. Ltd., Anand	3		
5	AzafranInnovacionLtd., Ahmedabad	2		
6	CALF Laboratory-NDDB, ANAD	2		
7	ITC Life Science and Technological Center, Bengaluru	2		
8	DudhsagarDairy, Mehsana	1		
9	Global Gourmet Private Limited, Vadodara	1		
10	Green Fibre Foods (India) Pvt. Ltd., Navasari	1		
11	Hindustan coca cola beverage Pvt. Ltd.,Goblej	2		
12	Jayant Snacks and beverages, Rajkot	1		
13	Maharaja dehydration pvt. Ltd., Mahuva	1		
14	Mirtillo International, Mumbai	2		
15	Parle Products Pvt. Ltd., Bhuj			
16	Parle Biscuits Pvt. Ltd., Maharashtra	2		
17	PatanjaliAyurved Ltd.,Haridwar	2		
18	Surat District Cooperative Milk Producer Union Ltd., Surat	2		
19	Vadilal Industries Limited, Gandhinagar	1		
20	Vivan Dairy, Junagadh	2		
	Total	37		

Table 46 Number of students recruited through campus interviews (2020-21)

Sr.	Name of Organization	No. of Candidates offered Job		
No.	Name of Organization	U.G.	P.G.	
1	National Dairy Development Board, Anand (Gujarat)	2		
2	Rajguru Dehydration, Mahuva (Gujarat)	1		
3	Mahi Foods, Mahuva (Gujarat)	1		
4	BDCMPUL, Banas Dairy, Palanpur	2		
5	Heefy Foods Pvt. Ltd., Vadasar, Aahmedabad (Gujarat)	1		
6	Jubilant Food Works Limited, Indore	1		
7	Nestle India, Sanand (Gujarat)	2		
8	RPA Foods, Motaborasara (Gujarat)	1		

0	Five star Dehydration Pvt. Ltd., United Foods, Talaja	
9	(Gujarat)	 1
10	Revelation Biotech, Hyderabad	 1
11	Parle, Bhuj	 1
12	Post office	 1

Table 47 Year wise placement of graduates and post-graduates

Year	No. of	Placement			Higher	
	graduates /	Private firm	SAU	Bank /	Self	studies
	post			Semi Govt.	Employed	
	graduates			/ NGO		
	passed					
2010	5	2	-	-	-	2
2011	6	4	2	-	-	-
2012	7	5	-	-	-	-
2013	34	15	-	-	1	17
2014	38	28	-	-	1	6
2015	42	26	-	-	3	6
2016	41	28	-	-	2	7
2017	40	19	-	-	2	15
2018	43	25	-	-	2	11
2019	52	18	6	1	1	10
2020	45	17	-	2	4	18
2021	47	12	-	3	2	11

IX. PASSED OUT STUDENTS

Table 48 Passed out under graduate students (2020-21)

Table 48 Passed out under graduate students (2020-21)						
SR. No.	Uni Reg. No	Name of the student				
1	3070917001 ARMIBEN RAJUBHAI SOLANKI					
2	3070917002	ARPIT NILESHBHAI PATEL				
3	3070917003	BHIMANI MONIKABEN RAMESHBHAI				
4	3070917004	BHUT SUMITKUMAR NAGJIBHAI				
5	3070917005	CHAKRAVARTI HEENABEN PRAVINBHAI				
6	3070917008	GAMIT NIPUNBHAI JITENDRABHAI				
7	3070917010	GORIYA KESHUR LAGDHIRBHAI				
8	3070917011	KEZANG WANGMO				
9	3070917012	MADALIYA MEET DINESHBHAI				
10	3070917013	MAKWANA JAY ANILBHAI				
11	3070917014	MECWAN SELVIN BHAVESHKUMAR				
12	3070917015	MISTRY HARDI BALVANTBHAI				
13	3070917016	PATEL ABHI DILIPKUMAR				
14	3070917017	PATEL BHAVIK PARESHBHAI				
15	3070917018	PATEL DHRUVKUMAR KIRITBHAI				
16	3070917019	PATEL DHRUVKUMAR ROHITBHAI				
17	3070917020	PATEL DIVITABEN JAYESHKUMAR				
18	3070917021	PATEL JIGAR GIRDHARBHAI				
19	3070917022	PATEL ROSHANKUMAR GOVINDBHAI				
20	3070917026	RANPURA ASHISH ASHOKBHAI				
21	3070917027	RAVAL NIRMALBHAI CHANDUBHAI				
22	3070917028	ROBIN SINGH PAHADIA				
23	3070917029	SAIYED SAHILMAHAMMAD MUSTAKALI				
24	3070917030	SANGAY WANGCHUK				
25	3070917031	70917031 SAPRA AKASHKUMAR VIPULBHAI				
26	3070917032	SATHWARA KAIVAL PRAFULKUMAR				
27	3070917033	SHINGALA RUTVIK KANTIBHAI				
28	3070917034	SOJITRA JAY RAJESHBHAI				
29	3070917035	TEJASWINI SHARMA				
30	3070917037	VADHIYA KISHANKUMAR PUNJABHAI				
31	3070917038	VALA PAYALBEN MANUBHAI				
32	3070917039	VALIYA DARSHANKUMAR PUNABHAI				
33	3070917040	YESHI YANGCHEN				
34	5070918001	GOHIL HARPALSINH BHARATSINH				
35	5070918002	GOSWAMI XEETEEJ DEEPAKBHAI				
36	5070918004	UNADKAT HARDIK HARESHBHAI				
37	37 5070918005 VACHHANI MUDRIKA MAGANLAL					
	B.Tech.(FPT)					
38	07-0252-2016	BARIA PIYUSHKUMAR MANSINH				
39	07-0259-2016	DHAMASANA KISHANKUMAR RAMESHBHAI				
40	07-0283-2016	RATHVA SHAILESHBHAI KHUMANBHAI				

Table 49 Passed out post graduate (M. Tech.) students (2020-21)

Seat No.	Uni Reg. No	PG program	Name of the student
1	2070919007	M. Tech FT (FPT)	PATEL ARPIT
2	2070919009	M. Tech FT (FPT)	THEBA TABBU
3	2070919003	M. Tech FT (FPT)	DHOLU UTTAMKUMAR
4	2070919002	M. Tech FT (FPT)	BHALARA YASH (PH)
5	2070919005	M. Tech FT (FPT)	NIAMCHA LOWANG
6	2070919004	M. Tech FT (FPT)	MOLAKATHALA J REDDY
7	2070919008	M. Tech FT (FQA)	PAVITRA HAGDE
8	2070918004	M. Tech FT (FPT)	KADAM ROHIT SUDHIR
9	2070918007	M. Tech FT (FPT)	SARVADE SHILA KAILAS
10	2070918008	M. Tech FT (FPE)	SHALINI SINGH
11	2070919007	M. Tech FT (FPT)	PATEL ARPIT
12	2070919009	M. Tech FT (FPT)	THEBA TABBU

Table 50 Passed out post graduate (Ph. D.) students (2020-21)

1	1070918001	Ph. D. FT (FPT)	BUTTI PRABHAKAR
2	1070918002	Ph. D. FT (FPT)	MANISH TIWARI
3	04-3252-2017	Ph. D. FT (FPT)	NEHA KHARKWAL

Recommendations approved 2020-21

1. Design and development of two-stage evaporative cooling system for transport of fruits and vegetables

The design of two stage evaporative cooling system developed by Anand Agricultural University, Anand for fixing on vehicle for transport of fruits and vegetables is recommended for scientific community and entrepreneurs. This system maintains 25±2°C temperature and relative humidity above 60% inside the enclosed vehicle body during transit.

2. Osmotic drying of mango slices

The entrepreneurs and fruit processors interested in production of osmotically dehydrated mango slices are advised to use processing technology developed by Anand Agricultural University. The technology involves processing steps including selection of ripe Kesar and Rajapuri mangoes, washing, peeling, slicing, steeping in sugar syrup, followed by vacuum drying up to 15%(wb) moisture content. The product so prepared is acceptable and can be stored upto 180 days in 200 gauge HDPE pouches at ambient (30°±2°C) temperature.

3. Development of Fruit Beverage with Lactose Hydrolyzed Milk Solids

The entrepreneurs and food processors interested in production of fruit beverage with lactose hydrolyzed milk solids are advised to adopt the production technology developed by Anand Agricultural University, Anand. The technology involves blending of milk:whey ratio 4:1 (80% milk, 20% whey) with addition of Beta D-galactosidase enzyme concentration 5.01 U/g of lactose, incubating it at 34°C for 203 min and then heating at 65°C for 10 min. This is followed by addition of sapota pulp 8% and sugar at 9.5% and the beverage is heated at 72°C for 15s and then packing in glass bottles. The product so prepared is having highly sensory acceptable quality. The product can be stored in glass bottles for 12 days at 7°±2°C.

4. Production Technologies for Value Added Products from Pumpkin Seeds

The entrepreneurs and food processors interested to prepare pumpkin seed spread are advised to adopt the production technology developed by Anand Agricultural University, Anand. The technology involves dehulling of whole pumpkin seed, roasting, addition of salt, hydrogenated vegetable oil, sugar, spice (cinnamon, ginger powder) mix and packing in glass jars. The product so prepared has high sensory score, good consistency, optimum adhesiveness and cohesiveness. The product can be stored up to 90 days at $30^{\circ}\pm2^{\circ}C$.

5. Technology for Development of Ready- to-Rehydrate Type of Kidney bean

The entrepreneurs and food processors interested in production of ready-to-eat and rehydrate type kidney beans are advised to adopt the production technology developed by Anand Agricultural University, Anand. The technology involves various processing steps including soaking, cooking and dehydration. The product so prepared is acceptable and can be stored upto 184 days in aluminium laminated pouches at ambient (30°±2°C) temperature.

6A. Thermally treated clarified wood apple juice

The entrepreneurs and food processors interested in production of thermally treated clarified juice from wood apple fruit are recommended to use the technology developed by Anand

Agricultural University, Anand. This technology involves clarification using centrifugation and bentonite treatment with thermal processing of wood apple juice at 85oC temperature for 4 minutes for preservation. Clarified wood apple juice (Thermally treated) can be stored safely up to 135 and 165 days at ambient (30±2oC) and refrigerated (7±2oC) temperature, respectively.

6B. Non-thermally treated clarified wood apple juice

The entrepreneurs and food processors interested in production of non-thermally treated clarified juice from wood apple fruit are recommended to use the technology developed by Anand Agricultural University, Anand. This technology involves clarification using centrifugation and bentonite treatment with gamma irradiation processing of wood apple juice at 1 kGy dose for preservation. Clarified wood apple juice (Gamma irradiated) can be stored safely up to 150 and 195 days at ambient (30±2oC) and refrigerated (7±2oC) temperature, respectively.

7. Standardization of Process Parameters for the Development of Partially Defatted Peanut.

The entrepreneurs and oilseeds processors, interested in production of partially defatted whole peanut are recommended to use the technology developed by Anand Agricultural University. Defatted peanut so produced has 31% fat and 36% protein content. The process involves roasting after defatting for removal of unpleasant odor and can be stored upto 21 days in HDPE zip pouch.

8. Effect of Low Frequency Ohmic Heating on Recovery of Carrot Juice

The entrepreneurs and food processors interested in the production of carrot juice are advised to use ohmic heating processing technology developed by Anand Agricultural University, Anand. The ohmically processed carrot juice was stable and acceptable upto 28 days of storage under refrigerated condition at $7\pm2^{\circ}$ C as compared to conventionally heated carrot juice which was stable and acceptable upto 14 days under the same refrigerated condition.

9. Production of Premium Quality Powder with Maximum Retention of Essential Oil Using Cryogenic Grinding of Cinnamon

Entrepreneurs and agro-processing units involved in grinding of spices are advised to use the technology of cryogenic grinding developed by Anand Agricultural University for superior quality cinnamon powder with higher retention of essential oil.

For higher retention of essential oil, the cryogenic grinding of cinnamon at temperature of 80° C, sieve size of 0.8 mm and feed rate of 10 kg/h is recommended.

10. Cold Milling of Flax seed for extraction of Omega-3 Rich Oil

The entrepreneurs and oil seed processors interested in production of superior quality flax seed oil are advised to use technology developed by Anand Agricultural University, Anand. The technology for production of omega-3 fatty acid rich flaxseed oil involves steps like moisture conditioning of flax seeds, followed by microwave roasting, oil extraction using hydraulic

press extractor. Flaxseed oil can be stored for 120 days in amber colour HDPE bottle at ambient temperature $(30^{\circ}\pm2^{\circ}C)$.

11. Technology for Production of Superior Quality Cinnamon Essential Oil Using Super Critical Fluid Extraction

Entrepreneurs and Agro-processing units involved in production of superior quality of cinnamon essential oil are advised to use the supercritical fluid extraction technology developed by Anand Agricultural University. This technology involves use of carbon dioxide supercritical fluid extraction at controlled pressure of 283 bar and temperature of 70 °C which yields 8.72% cinnamon essential oil. The process also yields 11.7% cinnamaldehyde and 0.19% Eugenol in the essential oil

12. Study on co-digestion of potato processing effluent with cattle dung for biogas production

Effluent of potato flakes producing industry can be used for biogas production as per the study conducted at Anand Agricultural University, Anand. After 10 days HRT period for codigestion of the effluent with cattle dung, biogas is produced which contains 59.67 % methane. The digested slurry contains 1.99% N, 1.43% P and 1.34% K. Treatment of the effluent not only gives good quality fuel in one fourth time in comparison to only cattle dung digestion but also produce the best quality manure for crop production

13. Development of high fiber cookies using tomato pomace

A satisfactory high fiber cookie can be prepared by adding 10% Tomato Pomace Powder using technology developed by Anand Agricultural University. The product duly packed in aluminum foil will have safe storage life of about two and half months. The bakery industry and entrepreneurs interested in production of high fiber cookies are advised to follow the same.

14. A Development of high fiber bakery products viz. bun, cookie, bread and cake using Madhuka Indica flowers

A satisfactory high fiber cookie can be prepared by adding 17.5% Mahuda Flower using technology developed by Anand Agricultural University. The product duly packed in aluminum foil will have safe storage life of about three months. The bakery industry and entrepreneurs interested in production of high fiber cookies are advised to follow the same.

B A satisfactory high fiber cupcake can be prepared by adding 15% Mahuda Flower using technology developed by Anand Agricultural University. The bakery industry and entrepreneurs interested in production of high fiber cookies are advised to follow the same.

C A satisfactory high fiber bread can be prepared by adding 5% Mahuda Flower using technology developed by Anand Agricultural University. The bakery industry and entrepreneurs interested in production of high fiber bread are advised to follow the same.

D A satisfactory high fiber cake can be prepared by adding 10% Mahuda Flower using technology developed by Anand Agricultural University. The bakery industry and entrepreneurs interested in production of high fiber cake are advised to follow the same.

E A satisfactory high fiber bun can be prepared by adding 7% Mahuda Flower using technology developed by Anand Agricultural University. The bakery industry and entrepreneurs interested in production of high fiber cake are advised to follow the same.

15. Development of value added product containing Green Wheat (Ponk) and Chickpea hola (Ponk)

Part A: 1. Farmers, Entrepreneurs and Agro-processing units involved in product development are advised to use the following technology for making Green Wheat (Ponk).

- The wheat earhead should be roasted in oven at 200°C for 20 minutes.
- The ponk should be dried under shadow for 30 minutes and then can be stored up to 6 months in airtight container at room temperature.

2. Farmers, Entrepreneurs and Agro-processing units involved in product development are advised to use the following technology for making Chickpea hola (Ponk).

- The chickpea pod should be roasted in oven at 200°C for 20 minutes.
- The ponk should be dried under oven at 100°C for 1 hour and then can be stored up to 4 months in airtight container at room temperature.

15 Part B: 1. Recommendation proposed for making Jadariyu:

Farmers, Entrepreneurs and Agro-processing units involved in product development are advised to use 70gm wheat ponk flour, 30gm chickpea ponk flour, 40ml milk, 50gm ghee and 40gm sugar combination to make healthy value added Jadariyu and can stored up to 15 days in airtight container at room temperature.

2. The entrepreneurs interested in the production of khakhara are advised to use following combination for making value added khakhara.

- Green wheat ponk flour @ 70% should be incorporate with 30 g wheat flour for the development of value added green wheat ponk khakhara and can be stored up to 75 days at room temperature if packed in airtight container.
- Chickpea ponk flour @ 35% should be incorporate with wheat flour for the development of value added chickpea ponk khakhara and can be stored up to 45 days at room temperature if packed in airtight container

Recommendations for Scientific Community

1. Study on decontamination of pesticides in selected Spices, vegetable and fruits using γ -irradiation, UV radiation and Ozonation Techniques

The scientific community interested in degradation of pesticide in green chili are advised to use ozonized water for 15 minutes @ 30 g/hr. This enables reduction in Ethion (93%), Profenophos (91.10%), Quinalphos (91.02%), Imidacloprid (76%) and Acetamiprid (63%).

2. Metagenomic based microbial diversity study of dairy effluent treatment plants

The samples from dairy effluent plants collected from various sources like influent, anaerobic digester, aeration tank and final treated effluent showed significant differences in the type of microbiota. The predominant phyla in dairy effluent samples are Firmicutes, Proteobacteria, Planctomycetes, Bacteroidetes, and Chloroflexi. The Streptococcus, Veillonella, Blastopirellula, and Thauera were found to be the core microbiome at the genus level.

3. Evaluation of Combined Effect of Gamma Irradiation and Edible Coating on Shelf-Life of Sapota Fruit

Scientists interested in enhancement of shelf-life of sapota fruits Cv. Kalipatti. are advised to use the combination of irradiation and edible coating technology developed by Anand Agricultural University. This technology enables the shelf life of 13 days with minimum physiological weight loss (19.85%), retention of the firmness of fruits (0.20 N) and ascorbic acid (8.82 mg/100)

4. Performance Evaluation of Feed Forward Neural Network for Detection of Boric Acid Adulteration in Wheat Flour using FTIR Spectra

Feed forward artificial neural networks (learning rate 0.02, momentum 0.9) can be successfully used to detect boric acid adulteration in wheat flour at 2% and above levels using FTIR spectra with 90% correct identification.

5 A. Decontamination Effect of DBD Plasma on Selected Microorganisms

The scientific community interested in non-thermal decontamination techniques is recommended to adopt DBD plasma treatment to decontaminate food born micro-organisms S. typhi, E.coli, E. aerogens and S. aureus. At 5 kV power for 24 minutes treatment of atmospheric cold plasma, the decontamination effect can be 2 to 3 log reduction (log CFU/g).

B. Decontamination Effect of UV-C on Selected Microorganisms

The scientific community interested in non-thermal decontamination techniques is recommended to adopt UV-C treatment to decontaminate food born micro-organisms S. typhi, E.coli, E. aerogens and S. aureus. At 3 cm distance and 60 minutes of UV-C exposure treatment, the decontamination effect can be 3 to 5 log reduction (log CFU/g)