JNTUA COLLEGE OF ENGINEERING ANANTAPUR (AUTONOMOUS):ANANTHAPURAMU

EXTERNAL ACADEMIC AUDIT FOR ACADEMIC YEAR 2019-2020

PART-A General Information

1. Name of the Department: Chemical Engineering

2. Year of establishment: 1989

3.Programs offered (approved by AICTE)

a.UG Programmes: B.Tech Chemical Engineering

b.PG Programmes: M.Tech (Nanotechnology, Environmental Engineering)

4. Accreditation status: 2019-2022

5.Details of the faculty:

S.No	Name	Qualification	Designation	Specialization	Experience (in years)
1.	Dr. D. Subba Rao	PhD	Professor	Biochemical Engineering, Reaction Engineering	26
2.	Dr. S.V Satyanarayana	PhD	Professor	Membrane separations, Pervaporation	26, , , ,
3.	Dr. T. Balanarsaiah	PhD	Professor	Fluidization	15
4.	Mr. M. Kalyan Kumar	M.Tech	Assistant Professor	Environmental Engineering	20
5.	Dr. S Sharada	PhD	Associate Professor	Microreactors	17
6.	Dr. B. Dilip Kumar	PhD	Associate Professor	Nanotechnology, Electrochemistry	15
7.	Mrs. A. Meenakshi	M.Tech			15
8.	Mr .K Subba Rao	M.Tech	Assistant Professor (Ad - hoc)	Environmental Engineering	15
9.	Dr. P. Uma Maheshwari	PhD	Assistant Professor (Ad - hoc)	Membrane separations, Pervaporation	10
10.	Mr. M. Murali Naik	M.Tech	Assistant Professor (Ad - hoc)	Adsorption	11
11.	Mr. A. Raja Sekhar Babu	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	8

12.	Mr. K. Peddintaiah	M.Tech	Assistant Professor (Ad - hoc)	Micro Reactors	6
13.	Ms.G. Neha Mallika	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	3
14.	Ms. D. Sowjanya	M.Tech	Assistant Professor (Ad - hoc)	Reaction Engineering	4
15.	Mr. V. Ramanjaneyulu	M.Tech	Assistant Professor (Ad - hoc)	Environmental engineering	3
16.	H. Rehana Anjum	M.Tech	Assistant Professor (Ad - hoc)	Membrane separations, waste water treatment	1
17.	Ms. Ch Maneesha	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	1

6. Details of non-teaching staff:

S.No	Name	Qualification	Designation
1	Mr. P. Gangadhar Reddy	X Class	Record Assistant
2	Mrs. K. Jayamma	5 th class	Gardener
3	Mr. B. Md Ansar	X Class	Junior Lab Assistant
4	Mr. A. Sunil Kumar	X Class	Record Assistant
5	Mr. S. Sreenivasulu	ITI	Senior Instructor
6	Mrs. G. Parvathi	X Class	Record Assistant
7	Mr. M. Nagaraju	8 th Class	Junior Instructor
8	Mrs Saritha	UG	Record Assistant
9	Mr. K Narendra	12 th Class	Attender

7. Admission status: no.of students admitted

Programme	Sanctioned	Admitted
UG(B.Tech - CHEM)	60	58
PG	25	18

8. Physical resources available:

S.No	Particulars	
1	Number of classrooms	04
2	Number of faculty rooms	14
3	Number of staff rooms	02
4	Available ICT tools in classrooms	02

v) Number of laboratories

S.No	Name of the Laboratory	Equipment Available
1	Chemical Engineering Workshop	1. Flow meters: Rotameter, Venturi meter
		Orifice meter
		2. Thermocouple
		3. pH, conductivity and dissolved oxygen
		4. Gas Chromatography
		5. Spectrophotometer (UV-VIS)6. X-Ray Diffractometer
		7. Heat exchanger
		8. Dryer
		9. Distillation
		PID Controller (Level/Flow control)
2	Basic Thermodynamics Lab	1. Simple dilation unit
ī die		2. VLĒ unit
		3. LLE unit
3	Mechanical Operations Lab	1. Jaw Crusher
		2. Disc Grinder
		3. Roll Crusher
	diameter and the court in the contract of the	4. Hammer Mill
	CONTRACTOR CONTRACTOR CONTRACTOR	5. Ball Mill
		6. Sieve shaker
		7. Cyclone Separator
		8. Vibrating Screens
		9. Ribbon Blender
		10. Rotary Drum Filter Press
	575 (**),	11. Plate and Frame Filter Press
	Contraction of the Contraction	Sedimentation apparatus
	Momentum Transfer Lab	1. Reynolds Apparatus
4	Momentum Transfer Lab	2. Centrifugal Pump Test Rig
		3. Orifice and Mouthpiece Apparatus
	and the transfer water from all	4. Fluidized Bed
	and the second second second second second	. [- 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
		5. Drag Studies Apparatus
		6. Flow Through Annulus
	A STATE OF THE STA	7. Bernoulli's Theorem Apparatus
		8. Pitot Tube Apparatus
	The first and the second section of the section	9. Discharge Over Notches Apparatus
		Orifice, Venturi & Rotameter Trainer
5	Energy & Environmental engineering Lab	1. P ^H meter
	& Environmental engineering Lab	내 교육으로 오늘한 내지 아이는 이 이번 그리고 있는 사람들이 한 바라지 않게 되었다. 이번 중에 없어서 가지를 보고 있다. 나는 아이는 아이는 아이는 아이는 아이는 아이는 아이는 아이는 아이는 사람들이 없다.
14		2. Colorimeter
	CHOMAS FOR SERVICE THE STATE OF SERVICE SERVICES	3. TDS meter, Aerobic
		4. Anaerobic reactor 25L capacity
		5. BOD incubator
		6. High accuracy analytical balance (5 digit
	[미글:26]: 그렇다는 내가 그라고 있었다. 나이 아니는 그리고 바랍니다.	7. Desiccators

		8. RO system with domestic 2"x12"
		Membrane module
		9. UV-Vis spectrophotometer
	기업: 그리아스 등 하지 않았다. 교육을 받	10. High volume air sampler
		11. Bomb calorimeter
		12. Fuel cell test kit
		13. Microscope
		Flash Point/Fire Point
6	Chemical Technology Lab	1. Viscometer
		2. pH meter
		3. Heating Mantle
		Electrical Weighing balance
7	Process Heat Transfer Lab	1. Heat Transfer through composite Wall 2. Thermal conductivity of Metal Rod 3. Heat Transfer in Natural Convection 4. Heat Transfer in Forced Convection 5. Shell and Tube Heat Exchanger 6. Double Pipe Heat Exchanger 7. Heat Transfer through Helical Coils 8. Stefan Boltzmann Apparatus 9. Single Effect Evaporator 10. Critical Heat Flux Apparatus
8	Mass Transfer Lab	1. Simple Distillation Unit
		2. Vacuum Oven
		3. Forced Draft Tray Dryer
		4. Solid -Air diffusion Apparatus
	and the same of	5. Packed Bed Distillation Unit
	The state of the s	6. Packed Bed Absorber
		7. VLE Unit
	a large and property of the control of	8. Steam Distillation Unit
	in the state of th	9. Surface evaporation Apparatus
		10. Stefan's tube apparatus
9	Chemical Reaction Engineering	1. Batch Reactor
	Lab	2. Tubular Reactor
	The property of the state of th	3. Photochemical Reactor
		4. Plug flow Reactor
		5. Stirred Tank Reactor
		6. Hot air Oven
		7. Combined Reactor
		8. RTD Studies in Packed Bed Reactor
		9. Cascade CSTR Apparatus
		Plug Flow Reactor

10	Instrumentation and Process	1. PID Controller
	Control Lab	2. U-Tube manometer
		3. Single tank system
		4. Two tank interacting system
		5. Two tank non-interacting system
		6. Bimetallic thermometer
		7. Measurement of level by Air Purge method
		8. Measurement of level by Capacitance method
		9. First order system (Mercury in Glass
		thermometer)
	1	Second order system (Mercury
		thermometer in thermal well)
11	Process Simulation Lab	50 Computers with MATLAB and Turbo
		C Software
12	Research Laboratory	UV- Spectrophotometer, Micro-oven,
	내가 보는 가득하는 것은 그를 모르는 나는 사람	Sonicator, Wet mixer and Grinder, Fume
	를 하고 있다면서 보면 함께 함께 되었다. 그 사람이 있다. 	Hood, BOD analyzer, Water Sampler Kit
		Air Samplers, Muffle furnace, Orbital
		shaker, Gas Chromatography, Atomic
		Absorption spectrometry, High
		Performance Liquid Chromatography,
		Potentiostat, Centrifuge, UV-Laminar
	된다. 하이 있습니다. 그리는 한 번째 보고 있다고 하고 주요	Chamber, Microwave oven, Hot air oven

vi) Department library:

S.No	Particulars	Quantity
1 (0) (2) (3)	Number of Titles	558
2	Number of volumes	723

1. Curriculam:

Is the curriculum updated(yes/no)

:YES

2.teaching and learning process during academic year from 2019-20:

a. Student to Faculty Ratio(SFR):

	2019-20
Sanctioned intake B.Tech	180
Sanctioned intake lateral entry B.Tech	18
Sanctioned intake M.Tech (EE + NT)	50
Total number of students	298
Total number of faculty	15
SFR	19.86

b. Percentage of faculty using ICT for effective teaching and learning mechanism year wise:

No. of faculty on rolls	Number faculty using ICT tools	Available ICT tools and resources	Number of ICT enabled rooms	e-resources and techniques used
15	15	PC with internet, LCD Projector,	03	NPTEL video courses, MIT Open
	is to see we mets	Access to e- resources	ilianismu Markite (1997) et	courseware, IUCEE video lectures

C. Students' academic performance(outgoing batch result analysis):

Total no of Students		No. of students cleared the program with backlogs in stipulated period of study
61	28	56

d. status of student mentoring system and action taken:

Mentoring system is available to monitor the academic and personal activities of the students

e. achievement of students:

Name of the Student	Achievements and Recognitions
Boddandi Chandaneshwar	Gold Medal
Kumar(15001A0839)	

Achievements in co-curriculum activities

S.No	Student Name	Roll No	Event Name	Participation
1	Sai Jyothi	18001A0845	Chemosphere – Vajra, SVUCE, Tirupathi	Participated
2	Achish	18001A0819	Chemosphere – Vajra, SVUCE, Tirupathi	Participated
3	D Yamuna Reddy	18001A0821	Chemosphere – Vajra, SVUCE, Tirupathi	Participated
4	M Thrisha Reddy	18001A0841	Chemosphere – Vajra, SVUCE, Tirupathi	Participated
5	Neelima Aare	18001A0805	Chemosphere – Vajra, SVUCE, Tirupathi	Participated
6	Vidyadhar Reddy	19005A0802	Chemosphere – Vajra, SVUCE, Tirupathi	Participated

g. student remedial classes for slow learners and GATE/CAT, etc classes for advanced learners:

GATE classes were conducted for about 240 hrs with TEQIP funds

h. are the faculty members maintaining the course files?(course files shall consists of class timetable copy, syllabus copy along with outcomes, lesson plan, sessional and end examination question papers, assignments, quiz, sessional marks, result analysis, CO attainment, mapping of CO and PO, class notes, hard copies PPTs): YES

i. Company wise details of the students placed (on-campus and off-campus) and details of the students qualified in various competitive examination (attach proofs)

placement details

S. No	Name of the Student Placed	Roll No	Year of passin g	REFERENCE NUMBER	Name of the Employer
1	Hemasree C G	16001A0805	2020	Cognizant/2020/01	Cognizant
2	G.Sai Raj Gupta	16001A0835	2020	Cognizant/2020/02	Cognizant
3	Chandra Sharathkrishna	16001A0839	2020	Cognizant/2020/03	Cognizant

	4	P Vamsi Krishna	16001A0859	2020	Divi/2020/01	Divi's Laboratories Ltd
	5	C Pavani	16001A0844	2020	Divi/2020/02	Divi's Laboratories Ltd
	6	Y Prashanthi	16001A0813	2020	Divi/2020/03	Divi's Laboratories Ltd
	7	K.Subramanya m	16001A0808	2020	Divi/2020/04	Divi's Laboratories Ltd
}	8	Y.Jayashankar Varma	16001A0812	2020	Divi/2020/05	Divi's Laboratories Ltd
	9	G Harika	16001A0814	2020	Divi/2020/06	Divi's Laboratories Ltd
	10	C.Madesh	16001A0823	2020	Divi/2020/07	Divi's Laboratories Ltd
	11	M.Ravindra Reddy	16001A0827	2020	Virchow022022	Virchow Laboratories Ltd
)	12	Gundala Sreekanth	16001A0831	2020	Divi/2020/08	Divi's Laboratories Ltd
	13	Gundlapalli Adithya Chandrahas	16001A0832	2020	Divi/2020/09	Divi's Laboratories Ltd
	14	K Priyanka	16001A0811	2020	Divi/2020/10	Divi's Laboratories Ltd
	15	R Likitha	16001A0818	2020	Divi/2020/11	Divi's Laboratories Ltd
	16	Palegar Raghavendra	16001A0840	2020	Divi/2020/12	Divi's Laboratories Ltd

17	Janapathi Yamuna	16001A0830	2020	Divi/2020/13	Divi's Laboratories Ltd
18	P.Narendra Babu	16001A0853	2020	Divi/2020/14	Divi's Laboratories Ltd
19	S Jayasree	16001A0825	2020	Divi/2020/15	Divi's Laboratories Ltd
20	R S Sowmya	16001A0826	2020	Divi/2020/16	Divi's Laboratories Ltd
21	Yerragudi Mithil Kumar Reddy	17005A0801	2020	Divi/2020/17	Divi's Laboratories Ltd
22	P Anil Kumar	17005A0828	2020	Divi/2020/18	Divi's Laboratories Ltd
23	Venugopal Reddy Sanagala	17005A0804	2020	Divi/2020/19	Divi's Laboratories Ltd
24	Aggidi Ashok	17005A0806	2020	Divi/2020/20	Divi's Laboratories Ltd
25	Kamala Ushashree	16001A0804	2020	Infosys/2020/01	INFOSYS
26	S Ishrath Jahan	16001A0809	2020	TCS/2020/01	TCS
27	Sane Anjali	16001A0833	2020	TCS/2020/02	TCS
28	Chandra Sekhar Vadde	16001A0807	2020	J36440-2/2021	Dr. Reddy's Laboratories Ltd
29.	Areesh Shaik	16001A0846	2020	3U3GYW-2/2021	Dr. Reddy's Laboratories Ltd
30.	Kandregula Suresh	16001A0836	2020	72354	Dr. Reddy's Laboratories Ltd

31.	Yamini Vijaya Sai Kumari Buduri	17005A0809	2020	SPA/PA/338	SciTech Patent Art
32.	Aravind Chitikireddy	17005A0803	2020	ESI/HR/ESIIPL205/ 0001	Emerson Energy Solutions
33.	Nazia Taraanam	16001A0841	2020	13778663	Cognizant
34.	Sunil Chunduru	16001A0854	2020	1346258 ESI/HR/ESIIPL196/ 0001	Emerson Energy Solutions
35.	Sunil Kumar Reddy	16001A0856	2020	STOCKONE012022	STOCKONE Technologies pvt ltd
36.	Venkata Sai Prasad Manchala	16001A0820	2020	HRD/3T/100202296 5/ 21-22	Infosys
37	A Harini Tejasvi	16001A0801	2020	DFC/2020/01	Deccan Fine Chemicals Pvt Ltd
38	A Swathi	16001A0803	2020	DFC/2020/02	Deccan Fine Chemicals Pvt Ltd
39	S Mahaboob Basha	16001A0810	2020	DFC/2020/03	Deccan Fine Chemicals Pvt Ltd
40	V Krishna Veni	16001A0816	2020	DFC/2020/04	Deccan Fine Chemicals Pvt Ltd
41	V Diwakar Naik	16001A0822	2020	DFC/2020/05	Deccan Fine Chemicals Pvt Ltd
42	Sandeep vanteddu	16001A0858	2020	1024995	SKI ENGINEERIN G
43	Kurrapothula Govardhan	16001A0837	2020	1380643	Emerson Energy Solution

44	Shaik Munaf	17005A0807	2020	DIVI/Chem/042020	Divis Laboratories Ltd	
45	Y Tejaswi	16001A0857	2020	Hetero/2020/01	Hetero Labs	
46	V Anusha	16001A0852	2020	Hetero/2020/02	Hetero Labs	
47	U Narasimha	16001A0849	2020	Hetero/2020/03	Hetero Labs	
48	M Niranjan	16001A0847	2020	Hetero/2020/04	Hetero Labs	
49	R Aruna 16001A0845		2020	Hetero/2020/05	Hetero Labs	
50	A Vikranth Kumar	16001A0829	2020	Hetero/2020/06	Hetero Labs	
51	Medapuram Dhanyatha	16001A0834	2020	Hetero/2020/07	Hetero Labs	
52	Tamatam Bavana Reddy	16001A0838	2020	Hetero/2020/08	Hetero Labs	
53	Gorantta Renuka	16001A0843	2020	Hetero/2020/09	Hetero Labs	
54	G Pooja	16001A0815	2020	HRD/3T/100203115 2/21-22	Infosys	
55	Kaluguri Ashasree	16001A0802	2020	HRD/3T/100293885 0/ 21-22	Infosys	

Higher education details

S. No.	Name of the Student	Roll No	Institute Name
- 1 - 1	Mekhala Meghana	16001A0855	IIT Madras
2.	Chandra Sarath Krishna	16001A0839	University of Calgary
3.	K Asha Sree	16001A0802	JNTUACEA, Anantapur
4.	Shaik Firoz	16001A0815	JNTUACEA, Anantapur

j. CO and PO attainment: sample copy

CO-PO attainment of Chemical Reaction Engineering Laboratory

Chemical Reaction Engineering
III Year II Semester
2017 - 2021
Dr. T Bala Narasajah, Ms. G Neho Mallih

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Co	urse Outcomes:		COL	1000	COS	CO4	COS	TEOMINGO	COL	COS	COS	C04	COS
	Roll No./	Internal	-	-			1	Todayire	42.77		12175		12172
. Per	Question	Marks	1		1			•					
	no. (Max. Ivlarks	40	6	45	ES	45	- 0	60	12	12	12	12	12
1	1600140855	2.0	5.6	5.6	5.6	5.6	5.6	-43	8.6	6.6	8.6	8.6	8.6
2	17001A0801	37	7.4	7.4	7.4	7.4	7.4	47	9.4	9.4	9.4	5.4	5.4
3:	17001A0803	33	6.6	6.6	6.6	6.6	6.6	44	8.6	8.8	6.8	\$.8	5.5
4	17001.40804	27	5.4	5.4	5.4	6.4	5.4	42	8.4	8.4	6.4	8.4	5.4
5	17001A0805	37	7.4	7.4	7.4	7.4	7.4	52	10.4	10.4	10.4	10.4	10.4
6	17001A0806 17001A0807	37	7.4	7.4	7.4	7.4	7.4	46	9.6	9.6	5.6	3.6	9.6
-	17001A0808	31	6.2	6.2	6.2	6.2	6.2	43	8.6	6.6	6.6	6.6	8.6
9	17001A0808	34	6.8	6.8	6.8	6.8	6.8	44	5.2	9.2	5.2	9.2	3.2
10	17001A0810	32	5.6	5.6	6.4	6.4	6.4	46	5.2	5.4	9.4	3.4	9.2
11	1799149611	30			5.8	5.8	5.8				10.4	10.4	10.4
12	1700140812	35	- 6	-6-	6 7	6 7	6 7	52	10.4	10.4		3	3
13	1700140813	34						45	9.6	5.6	5.6	3.6	5.8
14	1700140614	34	6.8	6.8	6.3	6.8	6.8	47		10.2		10.2	10.2
15	17001A0816	28	5.6	6.4	6.4	6.4	6.4	51	10.2	10.2	10.2	5	3
10	17001A0816	31		6.2	6.2	5.6	5.6	45	3	5	3	5	3
17	1700140818	25	6.2			6.2	6.2	45		6.8		8.6	0.0
18	17001A0818	34	6.8	68	68	6.8	5	44 51	10.2	10.2	10.2	10.2	10.2
19	17001A0620	37	7.4				6.8		10.4	10.2	10.2	10.2	10.4
20	17001A0821	32	6.4	7.4	7.4	7.4	7.4	52	3.6	5.6	3.6	3.6	3.6
21	17001A0623	31			6.4	6.4	6.4	48	3.6	3.6	9.6	3.6	9.6
22	17001A0824	35	6.2	6.2	6.2	6.2	6.2	50	10	10	3.6	10	10
23	17001A0825	2.6	5.6	56	5.6	5.6	5.6	50	10	10	10	10	10
24	17001A0826	32	6.4	6.4	6.4		6.4	44	6.6	6.6	8.8	8.8	8.8
25	17001A0827	29				6.4				9.4	5.4	5.4	3.4
26	17001A0623	30	5.8	5.8	5.8	<u> 5.8</u>	5.8 6	47	9.4	5.5	8.6	3.5	5.8
27	17001A0830	30	- 6	6	6	- 6	6	45	5	3	5	3	5.5
28	17001A0531	36	7.2	7.2	7.2	7.2	7.2	52	10.4	10.4	10.4	10.4	10.4
23	17001A0832	34	7.2	7.2	7.2	7.2	7.2	50	10.4	10	10.4	10	10.4
30	17001A0833	25	5		5	5	5	45	3	3	5	5	3
31	17001A0834	36	7.2	7.2	7.2	7.2	7.2	48	5.6	5.6	3.6	3.6	5.6
32	17001A0835	37	7.4	7.4	7.4	7.4	7.4	46	5.2	9.2	5.2	9.2	3.2
33	17001A0836	25	7	7	7	7	7	50	10	10	10	10	10
34	17001A0837	34	7.2	7.2	7.2	7.2	7.2	49	5.6	9.8	3.8	3.8	3.8
35	17001A0838	36	7.2	7.2	7.2	7.2	7.2	44	9.8	9.6	9.8	9.6	3.8
36	17001A0839	24	4.8	4.8	4.8	4.8	4.8	42	8.4	5.4	E 4	8.4	8.4
37	17001A0840	24	5.8	5.8	5.8	5.8	5.8	-41	8.2	8.2	6.2	8.2	8.2
38	17001A0841	35	7	7	7	7	7	4+	3.6	9.8	3.8	3.8	3.8
39	17001A0842	3 6	7.2	7.2	7.2	7.2	7.2	45	9.2	9.2	9.2	9.2	9.2
40	17001A0843	>>	6.6	6.6	6.6	6.6	6.6	51"	10.2	10.2	10.2	10.2	10.2
41	17001A0844	37	7.4	7.4	7.4	7.4	7.4	47	9.4	9.4	5.4	9.4	9.4
42	17001A0845	34	7.6	7.6	7.6	7.6	7.6	47	9.4	9.4	3.4	9.4	5.4
43	17001A0846	37	7.4	7.4	7.4	7.4	7.4	48	9.6	9.6	9.6	9.6	9.6
44	17001A0847	26	5.6	5.6	5.6	5.6	5.6	45	.9	9	8	5	3
45	17001A0848	36	7.2	7.2	7.2	7.2	7.2	49	9.6	9.8	9.8	9.8	9.8
46	17001A0849	24.	5.2	5.2	5.2	5.2	5.2	4)	8.6	8.6	8.6	8.6	8.6
47	17001A0850	28	5.6	5.6	5.6	5.6	5.6	44	9.2	9.2	9.2	9.2	9.2
18	17001A0651	>>	66	6.6	6.6	6.6	6.6	48	9.6	9.6	9.6	3.6	5.6
19	17001A0852	3-2	6.4	6.4	6.4	€.4	€.4	45	9	3	5	3	3
50	18005A0601	21	6.2	6.2	6.2	6.2	6.2	43	8,6	6.6	8.6	8.6	6.6
5.9	18005A0802	27	5.4	5.4	5.4	5.4	5.4	44	6.6	8.6	5.8	6.6	8.6
2	16005A0603	20	6	6	6	6	6	3+	7.6	7.6	7.6	7.6	7.6
3	18005A0804	22	6.4	6.4	6.4	6.4	6.4	41	8.2	6.2	6.2	6.2	8.2
4	18005A0807	24	5.2	5.2	5.2	5.2	5.2	34	7.6	7.6	7.6	7.6	7.6
5	18005A0808	22	4.4	4.4	4.4	4.4	4.4	40	8	8	8	8	6
<u>6</u>	16005A0809	29	5.8	5.8	5.8	5.8	5.8	41	8.2	8.2	8.2	6.2	8.2
7	18005A0610	30	6	6	6	6	€	41	8.2	8.2	6.2	6.2	8.2
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C04	2.43	1,13	2.17	1.72	2.45	2.24	2.51	0.50	2.79
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k. best projects/Industry projects:

S.No	Project title	area	Type of project

1. content beyond the curriculum:

Guest lectures from industry experts are conducted regularly. Often faculty members cover certain important topics which are useful as per the industry requirement

m. whether the employers, alumni and program exit surveys are considered for the attainment calculations or not? If yes, attach proofs

Alumni Survey

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Exit Survey

INTUA COLLEGE OF ENGINEERING (AUTONOMOUS), ANANTHAFTRAMU PEPARAMENT OF CHEMICAL ENGINEERING

CRADE ATTENTION SCREEN

	Batch: 2018 - 2022
Lucian P. Varnus	

You'd patering 2022

After graduation, I am here:

Vision & Mission

Vision:

To become a globally recognized Chamical Engineering program coupled with exercisers in education, training, research and community in Chamical Engineering and to serve as a valuable amount for industry and society.

- To provide students with broad curriculum is the basic sciences, process systems and
 design, and operations and modern exponential and comparing techniques to make their
 competent and practicing chemical engineers without compromising professional enlies
 and model analysis.
- To develop infra-structure that promotes internationally recognized research, creativity and
- to correspond international may provide a manufacture of the administration, advancements, to foster edical leadership and activates those support the administration, advancements, governance, and regulation of chemical engineering education and the engineering
- To undertake collaborative projectakensultatory works which provide apportunities for long term interaction with academia, indexest and other recently consideration.

SI, No	Question	Highly Satisfies[3]	Mederately Satisfied [2]	Safis Ged [1]
-	An ability to apply the knowledge of Mathematics, Science, Engineering and fundamentals for understanding and solving of compiles Engineering problems in Channels Engineering		V	
:	Be complete of designing and conducting experiences and be able to analyze and interpret duta		7	
	An ability in design systems, components, and processes to most designed acres applicable in Chemical Engineering within resolute constraints such an ensuratio, environment, sorral, poliusal, related and safety, manufacterability and Sactionability.		V	
4	As staley to faccion effectively as individual, as a member or hades in discressfied trans and multidisciplinary area.			V
5	Ability to identify, formable, and solve Chemical Exporting relief problems.			V
5	As solutionaling of professional and otheral responsibility to			THE REAL PROPERTY.

Part Service	the chemical engineering profession and to society at large	action of the second second of		
7	An ability to communicate effectively by conveying technical material through both formal written medium and through end presentations		V	Age many recent for a membrane
\$	To attain broad education necessary to understand the impact of chemical engineering related solutions in a global, economic, coveronmental and societal context.			V.
ģ	An ability to recognize the need for continuous professional sleveloniness through lifelong learning			
10	Ability to possess knowledge of contemporary chemical engineering related issues			
11	An ability to use the techniques, skills, and modern engineering tools necessary for chemical engineering practice.		1	
12	Ability to design, analyze and control physical and chemical processes (Project Management and Finance)		N.21-79	~
13	Ability to model, simulate and optimize Chemical Engineering problems			1
14	Capability to design or develop effective and efficient chemical processes incorporating economics, environmental, social, health, safety and sustainability.	V		
15	Competence to practice or apply Chemical Engineering principles, communication and other skills in a wide range of industrial academic and professional employment areas			V
16	PEO 1. To prepare the students for successful careers in industry and/or to excel in pursuit of higher studies	\checkmark	4	
17	PEO 2. To provide students with the necessary Chemical Engineering skills required for the workforce including knowledge of Chemical and Allied Engineering techniques and the ability to utilize science, mathematics, and engineering principles to analyze and solve problems, which are more essential to societal needs.	✓		
18	PEO 3. To provide students with professional skills necessary to be effective and succeed in the modern workforce including the ability to function in teams, the ability to communicate effectively, and high standards of ethics and professionalism			\ \

n. whether the student satisfactory survey is conducted or not? If yes attach proofs sample course end survey

3. faculty research and innovation

a. details of the faculty publications

s.no	Name of faculty	designation	Total no of publications
1	Dr. D. Subba Rao	Professor	7
2	Dr. S. V. Satyanarayana	Professor	16
3	Dr. T. Bala Narsaiah	Professor	4
4	Mr. M. Kalyan Kumar	Assistant Professor	6
5	Dr. S. Sharada	Assistant Professor	2
6	Dr. B. Dilip Kumar	Assistant Professor	3
7	Mr. M. Murali Naik	Assistant Professor(Ad-hoc)	1

b. details of research projects:

Project Title	Duration	Funding Agency	Amount (in lakhs)
Development of highly stable mixed matrix membranes (MMM) for dehydration of hydrazine hydrate via Pervaporation for rocket fuel applications.	2018-2021	DST-SERB- EMR Govt, of India	32.78
Spatial distribution of uranium and associated water quality parameters in groundwater /drinking water of Rayalaseema region of Andhra Pradesh	2016-2020 * extended for 2 years	BRNS Govt, of India	26.94
Nanoparticle Enhanced Phase Change Material Microcapsules/Fibers for Advanced Energy Storage and Allied Applications"	2018-2021	DST-SERB EMR Govt, of India	37.83
Physicochemical Studies of TiO ₂ /Fe ₂ O ₃ /ZnO Heterostructure Assemblies for Electrochemical Water Splitting/Dye Degradation Applications	2017-2019	UGC, Govt. of India	1.2

1 degradation applications	Physicochemical studies of Type - I/II heterostructure assemblies for electrochemical water splitting/dye degradation applications	2017-2019	IEI, R&D grant in aid, Govt, of India	0.7
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c. details of the faculty who attended workshops/STTPs/FDPs

S.no	Name of Faculty	Number of Workshops/FDPs attended
1	Dr. D. Subba Rao	5
2	Dr. S.V Satyanarayana	5
3	Dr. T. Bala Narsaiah	5
4	Mr. M. Kalyan Kumar	5
5	Dr. S Sharada	5
6	Dr. B. Dilip Kumar	5
7	Mrs. A. Meenakshi	
8	Mr. K Subba Rao	3
9	Ms. P. Uma Maheshwari	3
10	Mr. M. Murali Naik	197 mg 1984 mg 5 1971 mg 1984
1	Mr. A. Raja Sekhar Babu	3
2	Mr. K. Peddintaiah	5
3	Ms. G. Neha Mallika	3
4	Ms. D. Sowjanya	5
5	Mr. V. Ramanjaneyulu	3
6	H. Rehana Anjum	5
7	Ms. Ch Maneesha	3

d. details of faculty who organized conferences/workshops/STTPs/FDPs

S. No.	Faculty Name	Organized (FDP/Seminars/webinars)
		1.Coordinator, AICTE-Two-week faculty development programme on "Mathematical Modeling& Simulation for Scientists & Engineers" at JNTUA College of Engineering, Anantapur from 24-02-2020 to 07-03-2020
1.	Dr. T. Bala	2.Coordinator, Two-day program on "Waste Management "during 13-14 Nov,2019, Department of Chemical Engineering, JNTUACEA, Anantapur
	Narsaiah	3.TEQIP workshop on "Energy Conversion and Storage" at Indian Institute of Technology Hyderabad during 2-7 Dec, 2019
		4.Orientation workshop on "Accrediting Unaccredited Institutions in South Eastern Region" organized by UGC, SERO, Hyderabad & NAAC, Bangalore on 1st October,2018 at Dr. B.R. Ambedkar open University. Hyderabad
2.	Mr. M. Kalyan Kumar	Conducted Five Days National Level TEQIP III funded Short Term Online Course 'Faculty Development Program for Educators of Environmental Studies during 21-25 September 2020 at Department of Chemical Engineering, JNTUA CE Ananthapuramu.
3.	Dr. S Sharada	Organized online Six days Faculty Development programme on "laboratory and workshop Learning Skills in Conducting Practical Classes" from 15-20 February 2021 organized by Department of Chemical Engg. JNTUACEA and Directorate of Faculty development & IQAC, JNTUA, Ananthapuramu, Andhra Pradesh.
		Organized One week Faculty Development Program on "Renewable & Clean Energy Conversion Technologies" Twinning Program in Collaboration with UCET, Bikaner, Rajasthan from 4 th to 8 th January 2021.
4.	Dr. B. Dilip Kumar	Organized Two-day Workshop on "Materials for Energy Conversion & Storage Devices", organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur under TEQIP-III during 27-28 December 2019
		Organized Three-day Work shop on "Experimental Approaches & Instrumental Aspects in Analytical Chemistry", organized by Dept. of Chemical Engineering, JNTUA College of Engineering, Anantapur under TEQIP-III in association with Kanopy Techno Solutions, SIDBI Incubation centre, IIT Kanpur (UP) during 6-8th February 2019

e. details of patents published/ awarded and product development, if any

1.	Click Chemistry based Approach to Improve the Photostability of Dyes for Long Term Stability Dye Sensitized Photoelectrochemical Water splitting	Arun Prakash Upadhyay, Dilip Kumar Behara , Sri Sivakumar, Raj Ganesh S Pala	National	Indian Patent Granted with Patent No: 342773 on Granted (2020)
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f. details of faculty awards/recognition

1.	Dr. T. Bala Narsaiah Dr. T. Bala Narsaiah Dr. T. Bala Narsaiah Received "State Teacher Award" in University level from Hon'ble Chief Minister Sri.Y.S. Jagan Mohan Reddy, Government of Andhra Pradesh on 05.09.2019 at Amaravathi, Vijayawada		JNTUA, Anantapur	State Award
2.	Dr. B. Dilip Kumar	District Best NSS Program Officer Award for Anantapur District from NSS Cell, JNT University Anantapur, Anantapuramu on 16-	JNTUA, Anantapur	District/State Award

4. other information

a. are the minutes of meeting of the departmental committee maintained YES/NO:

YES

- b. number of MoUs/collaborations signed with organizations/institutions:02
- c. details of new facilities added:.....
- d. details of newsletters/magazines etc., published:02

5. SWOC ANALYSIS

a. Strengths:

- Excellent programs with emphasis on corecompetency development
- Traditional and blended mode of Teaching & Laboratory experiments
- Excellent undergraduate student placement
- Department owe reputed faculty
- Strong alumni support
- Sponsored and consultancy projects
- Publications and Patents

b. Weakness:

- Lack of access to journals
- Lack of budget allocation for research and maintenance of labs
- Limited floor space
- Lack of skilled non-teaching support staff
- Generally mediocre post graduate and researchscholar base compared to UG student base

LIAV MARKET

- Inadequate infrastructural facility for researchactivity
- Insufficient pool of bright and motivated Research Scholars

c. Opportunities:

- Excellent potential for undertaking Industry-academia collaborative research
- Interdisciplinary research in the new andemerging areas
- Setting up challenging research frontiers
- Newer research areas being opened up by thedepartment faculty

d. Challenges

- Non-availability of new faculty for sustaininghigh end research
- Inadequate infrastructural facility such asspace, equipment, etc.
- Faculty attrition

Prof. R. Padma Suvarna Co-ordinator, IQAC JNTUA CE, Ananthapuramu 6. Suggestions/Recommendations of the Committee

The department has to focus on the following areas.

- Solisticated anstruments should establish for advanced research
- Internal revenue generation and the form it consultors
- Encourage students to perticipate is more number of co-curriculus and Extracurriculus achinha

Signature of EAA Member -1

Name: K. NAGABHUSHAN RAJU

Designation: PROFESSOR

Address: Dept of Inshumentation S'K University Mobile Number: 9866590987

E-mail BHUSHANKN Regnail-com

Dr. K. Nagabhushan Raju Professor M. Tech., Ph. D

Department of Instrumentation Sri Krishnadevaraya University SHAHTAPUP - 515003. A PINDIA Signature of EAA Member -2

Name: MURALIDHAR RAO.

Designation:

PROFESSO

Address: Dept to Biotechnolog.

Mobile Number: 9 au 0699873

E-mail

Co-Ordinator Department of Biotechnology Sri Krishnadevaraya University, ANANTAPUR - 515 003. A.P.

JNTUA COLLEGE OF ENGINEERING ANANTAPUR (AUTONOMOUS):ANANTHAPURAMU

EXTERNAL ACADEMIC AUDIT FOR ACADEMIC YEAR 2020-2021

PART-A General Information

1.Name of the Department: Chemical Engineering

2. Year of establishment: 1989

3.Programs offered (approved by AICTE)

a.UG Programmes: B.Tech Chemical Engineering

b.PG Programmes: M.Tech (Nanotechnology, Environmental Engineering)

4. Accreditation status: 2019-2022

5.Details of the faculty:

S.No	Name	Qualification	Designation	Specialization	Experience (in years)
1	Dr. S.V Satyanarayana	PhD	Professor	Membrane separations, Pervaporation	27
2.	Dr. T. Balanarsaiah	PhD	Professor	Fluidization	16
3.	Mr. M. Kalyan Kumar	M.Tech	Assistant Professor	Environmental Engineering	21
4.	Dr. S Sharada	PhD	Associate Professor	Microreactors	18
5.	Dr. B. Dilip Kumar	PhD	Associate Professor	Nanotechnology, Electrochemistry	16
6.	Mr .K Subba Rao	M.Tech	Assistant Professor (Ad - hoc)	Environmental Engineering	16
7	Dr. P. Uma Maheshwari	PhD	Assistant Professor (Ad - hoc)	Membrane separations, Pervaporation	11
8.	Mr. M. Murali Naik	M.Tech	Assistant Professor (Ad - hoc)	Adsorption	12
9.	Mr. A. Raja Sekhar Babu	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	9
10.	Mr. K. Peddintaiah	M.Tech	Assistant Professor (Ad - hoc)	Micro Reactors	7
11.	Ms.G. Neha Mallika	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	4

12.	Ms. D. Sowjanya	M.Tech	Assistant Professor (Ad - hoc)	Reaction Engineering	5
13.	Mr. V. Ramanjaneyulu	M.Tech	Assistant Professor (Ad - hoc)	Environmental engineering	2
14.	H. Rehana Anjum	M.Tech	Assistant Professor (Ad - hoc)	Membrane separations, waste water treatment	2
15.	Ms. Ch Maneesha	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	2

6. Details of non-teaching staff:

o. Dea		Ossilification	Designation
S.No	Name	Qualification	Record Assistant
1	Mr. P. Gangadhar Reddy	X Class	Gardener
2	Mrs. K. Jayamma	5 th class	Junior Lab Assistant
3	Mr. B. Md Ansar	X Class	Record Assistant
4	Mr. A. Sunil Kumar	X Class	Senior Instructor
5	Mr. S. Sreenivasulu	ITI	Record Assistant
6	Mrs. G. Parvathi	X Class	
7	Mr. M. Nagaraju	8 th Class	Junior Instructor
8	Mrs Saritha	UG	Record Assistant
9	Mr. K Narendra	12 th Class	Attender

7. Admission status: no.of students admitted

/. I Idillibbiologi		
D	Sanctioned	Admitted
Programme CLIEM)	60	58
UG(B.Tech - CHEM)	25	18
PG	23	

8. Physical resources available:

S.No	Particulars	2.1
1	Number of classrooms	04
2	Number of faculty rooms	14
3	Number of staff rooms	02
4	Available ICT tools in classrooms	02

v) Number of laboratories

S.No	Name of the Laboratory	Equipment Available
1	Chemical Engineering Workshop	 Flow meters: Rotameter, Venturi meter, Orifice meter Thermocouple pH, conductivity and dissolved oxygen Gas Chromatography

		~~~ TTG\
		5. Spectrophotometer (UV-VIS)
		6. X-Ray Diffractometer
		7. Heat exchanger 8. Dryer
		9. Distillation
		PID Controller (Level/Flow control)
2	Basic Thermodynamics Lab	Simple dilation unit
2	Basic Thermodynamics Basic	2. VLE unit
		3. LLE unit
3	Mechanical Operations Lab	1. Jaw Crusher
		2. Disc Grinder
		3. Roll Crusher
		4. Hammer Mill
		5. Ball Mill
		6. Sieve shaker
		7. Cyclone Separator
		8. Vibrating Screens
		9. Ribbon Blender
		10. Rotary Drum Filter Press
		11. Plate and Frame Filter Press
		Sedimentation apparatus
4	Momentum Transfer Lab	1. Reynolds Apparatus
1	1120220	2. Centrifugal Pump Test Rig
		3. Orifice and Mouthpiece Apparatus
		4. Fluidized Bed
		5. Drag Studies Apparatus
		6. Flow Through Annulus
		7. Bernoulli's Theorem Apparatus
		8. Pitot Tube Apparatus
		9. Discharge Over Notches Apparatus
		Orifice, Venturi & Rotameter Trainer
5	Energy	
	& Environmental engineering Lab	1. P ^H meter
		2. Colorimeter
		3. TDS meter, Aerobic
		4. Anaerobic reactor 25L capacity
		5. BOD incubator
		6. High accuracy analytical balance (5 digit)
		7. Desiccators
		8. RO system with domestic 2"x12"
		Membrane module
		9. UV-Vis spectrophotometer
		10. High volume air sampler
		11. Bomb calorimeter

		10 5 1 11 11
		12. Fuel cell test kit
		13. Microscope
6	Chemical Tachnala I 1	Flash Point/Fire Point
	Chemical Technology Lab	1. Viscometer
		2. pH meter
		3. Heating Mantle
7	Drosses Hart T. C. I. I.	Electrical Weighing balance
1	Process Heat Transfer Lab	<ol> <li>Heat Transfer through composite Wall</li> <li>Thermal conductivity of Metal Rod</li> </ol>
		3. Heat Transfer in Natural Convection
		4. Heat Transfer in Forced Convection
		5. Shell and Tube Heat Exchanger
		6. Double Pipe Heat Exchanger
		7. Heat Transfer through Helical Coils
		8. Stefan Boltzmann Apparatus
		9. Single Effect Evaporator
		10. Critical Heat Flux Apparatus
8	Mass Transfer Lab	1. Simple Distillation Unit
		2. Vacuum Oven
		3. Forced Draft Tray Dryer
		4. Solid -Air diffusion Apparatus
		5. Packed Bed Distillation Unit
		6. Packed Bed Absorber
		7. VLE Unit
		8. Steam Distillation Unit
		9. Surface evaporation Apparatus
		10. Stefan's tube apparatus
		70, Stezuar State Stephenson
9	Chemical Reaction Engineering	1. Batch Reactor
	Lab	2. Tubular Reactor
		3. Photochemical Reactor
		4. Plug flow Reactor
		5. Stirred Tank Reactor
		6. Hot air Oven
		7. Combined Reactor
		8. RTD Studies in Packed Bed Reactor
		9. Cascade CSTR Apparatus
		Plug Flow Reactor
10	Instrumentation and Process	1. PID Controller
	Control Lab	2. U-Tube manometer
		3. Single tank system
		4. Two tank interacting system
		5. Two tank non-interacting system
		6. Bimetallic thermometer

		<ol> <li>Measurement of level by Air Purge method</li> <li>Measurement of level by Capacitance method</li> <li>First order system (Mercury in Glass thermometer)</li> <li>Second order system (Mercury thermometer in thermal well)</li> <li>Computers with MATLAB and Turbo</li> </ol>
11	Process Simulation Lab	C Software UV- Spectrophotometer, Micro-oven,
12	Research Laboratory	Sonicator, Wet mixer and Grinder, Fume Hood, BOD analyzer, Water Sampler Kit, Air Samplers, Muffle furnace, Orbital shaker, Gas Chromatography, Atomic Absorption spectrometry, High Performance Liquid Chromatography, Potentiostat, Centrifuge, UV-Laminar Chamber, Microwave oven, Hot air oven

#### Department library: vi)

vi) Departin	nent notary.	
•		Quantity
S.No	Particulars	558
1	Number of Titles	723
2	Number of volumes	723

#### Part-B

#### 1.Curriculam:

Is the curriculum updated(yes/no)

:YES

### 2.teaching and learning process during academic year from 2020-21:

#### a. Student to Faculty Ratio(SFR):

	2020-21
Sanctioned intake B.Tech	180
Sanctioned intake lateral entry B.Tech	18
Sanctioned intake M.Tech (EE + NT)	50
Total number of students	298
Total number of faculty	15
SFR	20

# b. Percentage of faculty using ICT for effective teaching and learning mechanism year wise:

No. of faculty on rolls	Number faculty using ICT tools	Available ICT tools and	Number of ICT enabled rooms	e-resources and techniques used
15	15	PC with internet, LCD Projector, Access to e-resources	03	NPTEL video courses, MIT Open courseware, IUCEE video lectures

# C. Students' academic performance(outgoing batch result analysis):

Total no of Students	program without backlogs in	No. of students cleared the program with backlogs in stipulated period of study
58	44	36

# d. Status of student mentoring system and action taken:

Mentoring system is available to monitor the academic and personal activities of the students

# e. Achievement of students:

Name of the Student Bathala Veera Vamsi Kumar	Achievements and Recognitions Gold Medal
(17001A0836)	

g. Student remedial classes for slow learners and GATE/CAT, etc classes for advanced learners:

#### Remedial classes conducted for slow learners

- h. Are the faculty members maintaining the course files?(course files shall consists of class timetable copy, syllabus copy along with outcomes, lesson plan, sessional and end examination question papers, assignments, quiz, sessional marks, result analysis, CO attainment, mapping of CO and PO, class notes, hard copies PPTs): YES
- i. Company wise details of the students placed (on-campus and off-campus) and details of the students qualified in various competitive examination (attach proofs)

#### Placement Details

S. No	. Name of the Student Placed	University Serial number	Year of passing	ON/OFF campus placement	Name of the Employer	
1	B Sai Mukesh Reddy	17001A0820	2021	ON	Accenture	
2	Kotta Sai Chandana	17001A0826	2021	ON	Accenture	
3	Guggilla Likhitha	17001A0805	2021	ON	COGNIZANT	
4	Chinnakondu Vinay Kiran Reddy	17001A0834	2021	ON	COGNIZANT	
5	Bachu Badri Venkata Prasanna	17001A0845	2021	ON	Deccan Fine Chemicals Pvt Ltd	
6	Depuru Sairaj Kousik	17001A0803	2021	ON	Divi's Laboratori Ltd	
7	Ayyagarla Palli Mahaboob Shabaz	17001A0804	2021	ON	Divi's Laboratories Ltd	
3	Ayyagarla Palli Mahaboob Shabaz	17001A0804	2021	ON	Divi's Laboratories Ltd	
	Kuruba Lakshmi Harsha Vardhan	17001A0806	2021	ON	Divi's Laboratories Ltd	
)	Cherukuru Sasi Kiran	17001A0818	2021	ON	Divi's Laboratories Ltd	
;	Shaik Suhale	17001A0829	2021	ON	Divi's Laboratories Ltd	
I	Rayam Venkata Ramanaiah	17001A0835	2021		Divi's Laboratories Ltd	
E	Budamakuntla Abhinay	17001A0839	2021		Divi's Laboratories Ltd	

14	Meka Veera Raja Sudheer	17001A0841	2021	ON	Divi's Laboratories Ltd
15	A D Gunasekar	17001A0848	2021	ON	Divi's Laboratories Ltd
16	Chinthaginjala Srinivas	17001A0851	2021	ON	Divi's Laboratories Ltd
17	Chinnakotti Jayasankar	18005A0801	2021	ON	Divi's Laboratories Ltd
18	Rampamkotha Mabushareef	18005A0802	2021	ON	Divi's Laboratories Ltd
19	Shaik Mohammad Musthafa	18005A0803	2021	ON	Divi's Laboratories Ltd
20	Vanapalli Sai Diwakar	18005A0804	2021	ON	Divi's Laboratorie
21	Gangireddy Mahendra Reddy	18005A0809	2021	ON	Divi's Laboratories Ltd
22	Narapareddy Nikhila	17001A0801	2021	ON	Emerson Energy Solution
23	Yalavarthi Abhishek	17001A0808	2021	ON	Emerson Energy Solution
24	Ramadoddy Sreelatha	17001A0812	2021	ON	Emerson Energy Solution
25	Epuru Lakshmi Lalasa	17001A0819	2021	ON	Emerson Energy Solution
26	Guggilla Likhitha	17001A0805	2021	ON	INFOSYS
27	Epuru Lakshmi Lalasa	17001A0819	2021	ON	INFOSYS
28	Gurugubelli Sudhier	17001A0831	2021	ON	INFOSYS
29	Epuru Lakshmi Lalasa	17001A0819	2021	ON	TCS
30	Chinnakondu Vinay Kiran Reddy	17001A0834	2021	ON	TCS
31.	Ramavath Kumar Naik	17001A0817	2021	OFF	Infosys
32.	DNS Sekhar Padavala	18005A0810	2021	OFF	Symed Labs Limited
33.	Dedeepya B	17001A0833	2021	OFF	Infosys
34	Karanam Harshitha	17001A0824	2021	OFF	Accenture

35	Sake Kamalini	17001A0830	2021	OFF	Hetero Labs
36	R Indhumathi	17001A0837	2021	OFF	Hetero Labs
37	Kunigiri pavan Kumar	17001A0814	2021	OFF	Hetero Labs
38	Jalagiri Surendra Babu	17001A0849	2021	OFF	Hetero Labs
39	Ch V V Satyanarayana	18005A0812	2021	OFF	Hetero Labs

# Higher Education Details

S. No.	Name of the Student	University Serial number	Passing year	Institute Name	Course name
1	M Sai Mukesh Reddy	17001A0820	2021	IIT Guwahati	Chemical Engineering
2	B Meenakshi	17001A0821	2021	Andhra University	Industrial Pollution Control
3	Yedamalla Jaya Sagar	17001A0823	2021	NIT Tirchy	Control
4	Kalluri Gowri Sankar Reddy	17001A0825	2021	NIT Tirchy	
5	Bathala Veera Vamsi Kumar	17001A0836	2021	IIT Chennai	Chemical
6	Meka Veera Raja Sudheer	17001A0841	2021	IIT BHU	Engineering Chemical
7	D B Prem Kumar	17001A0842	2021	IITDM Kancheepur am	Engineering
9	Muppirala Subramanya Venkata Ramanan	17001A0844	2021	IIT Indore	Metallugy Engineering & Material Science
7	Kondareddy Nitish Reddy	17001A0852	2021	IIT Guwahati	Chemical Engineering

# j. CO and PO attainment: sample copy

CO-PO attainment of Chemical Reaction Engineering Laboratory

Course Name :	Chemical Reaction Engineering
Course Code :	Laboratory
Semester :	III Your II Semester
Batch :	2017 - 2021
Academic Year:	2019 - 2020
Facility Name	Dr. T. Bala Maragnist, Mr. G. Meha Mall

				End Marks of Internal lab dack						F	nd tob E	y vm	
Co	urse Outcomes:		COL	CO2		CO4	CO5	TEOMNICO	COI	C02	CO3	CO4	COS
- 1	Boll No /	Internal	100	COE	003	004		Looning					
No.	Guestion	Moths											
, 1	no./Max. Marks	4.0	8	8	8	8	6	60	12	12	12	12	15
2	16001A0855	2.0	5.6	5.6	5.6	5,6	5.6	42	8.6	8.6	3.4		5.6
3	17001A0801	27	7.4	7.4	7.4	7.4	7.4	47	9.4	9.4	8.8	9.4	3.4
4	17001A0803	2.2	6.6	6.6	6.6	9.9	9.8	44	8.8	5.5	8.4	8.4	-
_	17001A0804	2.7	5.4	5.4	5.4	5.4	5.4	42	8.4	8.4	10.4	19.4	8.4
5	17001A0605	37	7.4	7.4	7.4	7.4	7.4	52	10.4	10.4	3.6	3.6	10.4
6	17001A0806	37	7.4	7.4	7.4	7.4	7.4	46	3.6	3.6		1	
7	17001A0807	31	6.2	6.2	6.2	6.2	6.2	42	86	8.6	9.8	3.2	9.6
8	17001A0808	24	6.8	8.9	8.8	8.8	6.8	44	92	3.2	32	9.2	32
_5	17001A0803	32	6.4	6.4	6.4	6.4	6.4	46	9.2	9.2	34	3.4	9.4
10	17001A0810	2.5	5.8	5.8	5.8	5.8	5.8	47	3.4	9 A		10.4	10.4
11	17001A0811	30	6	€	6	e .	6	52	10.4	10.4	10.4		
12	17001A0812	25	7	7	7	7	7	45	3	5	9	3	9
13	17001A0813	2.4	6.8	6.8	8.9	6.8	8.8	49	9.5	9.5	3.5	3.5	5.8
14	17001A0814	2.2	6.4	6.4	6.4	6.4	6.4	51	19.2	10.2	10.2	10.2	10.2
15	17001A0816	2.0	5.6	5.6	5.6	5.6	5.6	45	9	3	3	9	9
16	17001A0817	2.1	6.2	6.2	6.2	6.2	6.2	45	Э	3	9	9	э
17	17001.40818	25	5	5	5	5	5	44	8.8	5.3	8.8	8.8	8.8
18	17001A0819	24	8.9	6.8	6.8	6.8	8.3	51	10.2	10.2	10.2	10.2	10.2
13	17001A0820	27	7.4	7.4	7.4	7.4	7.4	52	10.4	10.4	10.4	10.4	10.4
50	1700140621	7.2	6.4	6.4	6.4	6.4	6.4	48	3.6	9.6	9.6	9.6	3.5
21	17001A0823	3.1	6.2	6.2	6.2	6.2	6.2	43	96	9.5	3.6	3.6	96
22	1700150824	2.5	7	7	7	7	7	50	10	10	10	10	10
23	1700140825	2.6	5.6	5.6	5.6	5.6	5.6	50	10	10	10	10	10
24	17001A0826	32	6.4	6.4	6.4	6.4	6.4	44	8.8	8.8	3.8	8.8	8.8
25	17001A0827	24	5.8	5.8	5.8	5.8	5.8	47	3.4	3.4	9.4	3.4	3.4
26	17001A0829	3.0	6	6	6	ε	ε	44	8.8	8.8	8.8	8.8	8.8
27	1700140830	3.0	6	6	8	6	ε	45	3	. 9	3	Э	3
28	17001A0831	36	7.2	7.2	7.2	7.2	7.2	52	10.4	10.4	10.4	10.4	10.4
23	17001A0832	34	7.2	7.2	7.2	7.2	7.2	50	10	10	10	10	10
30	17001A0833	25	5	5	5	5	5	45	.5	3	9	9	9
31	17001A0834	34	7.2	7.2	7.2	7.2	7.2	43	3.6	5.6	3.6	9.5	3.6
32	17001A0835	37	7.4	7.4	7.4	7.4	7.4	46	3.2	9.2	3.2	9.2	9.2
33	17001A0836	35	7	7	7	7	7	50	10	10	10	10	10
34	17001A0837	36	7.2	7.2	7.2	7.2	7.2	45	3.6	3.6	3.8	3.8	3.€
35	17001A.0838	3€	7.2	7.2	7.2	7.2	7.2	45	3.8	9.8	3.8	3.6	3.8
36	17001A.0839	24	4.8	4.8	4.8	4.8	4.8	42	8.4	8.4	8.4	8.4	8.4
37	17001A.0840	29	5.8	5.8	5.8	5.8	5.8	41	8.2	2.3	8.2	8.2	8.2
38	17001A0841	35	7	7	7	7	7	49	9.8	8.6	3.6	3.6	8.6
39	17001A0842	36	7.2	7.2	7.2	7.2	7.2	46	9.2	3.2	9.2	3.2	9.2
40	17001A0843	33	3.3	6.6	9.3	6.6	8.6	51	10.2	10.2	10.2	10.2	10.2
41	17001A0844	37	7.4			7.4	7.4	47	9.4	9,4	9.4	3.4	9.4
42	17001A0845	34	7.6	7.6		7.6	7.6	47	9.4	3.4	9.4	3.4	3.4
43	17001A0846	37	7.4	7.4	7.4	7.4	7.4	48	9.6	3.6	9.6	9.6	3.6
44	17001A0847	2#	5.6	5.6	5.6	5.6	5.6	. 45	9	3	3	3	9
45	17001A0848	36	7.2	7.2	7.2	7.2	7.2	49	3.6	3.6	9.8	3.6	3.8
46	170014.0849	26	5.2	5.2	5.2	5.2	5.2	43	8.6	8.6	8.6	8.6	8.6
47	17001A0850	28	5.6		5.6	5.€	5.6	46	9.2	9.2	9.2	3.2	3.2
48	17001A0851	33	3.3	6.6	6.6	6.6	9.8	48	3.6	9.6	9.6	9.6	3.6
49	17001A0852	32	6.4	6.4	8.4	6.4	6.4	45	9	3	9	3	3
50	18005A.0801	31	6.2	6.2	6.2	6.2	6.2	43	3.6	3.6	8.6	8.6	8.6
51	18005A0802	27	5.4	5.4	5.4	5.4	5.4	44	8.8	8.8	8.8	8.8	8.8
52		30	6	8	6	6	8	39	7.8	7.8	7.8	7.8	7.8
53		32	6.4	6.4	6.4	6.4	6.4	41	8.2	8.2	8.2	8.2	8.2
54		24	5.2	5.2	5.2	5.2	5.2	3*	7.6	7.6	7.6	7.6	7.6
55	180054.0808	22	4.4				4.4	40	8	8	s	8	8
26		29	5.8	5.8	5.8	5.8	5.8	41	8.2	8.2	8.2	8.2	8.2
57		30	6	6	6	€	6	41	8.2	8.2	8.2	8.2	8.2
56		35	7	7	7	7	7	43	8.6	8.6	8.6	8.6	8.6
	18005A0813	24	5.2	5.2	5.2	5.2	5.2	43	8.6				
55	1800540815		1 3.2		6.2		3.2	7,	0.0	8.6	8.6	8.6	8.6

					Direct CO Attainment		ladirect CO Attei	*****	Tatel Ga atteinment
	lets- sel letel	of z	Etter ne) letel	ef Exter	Final Direct Attainment Value	142 af Finel Direct atteinment velve	Courses + 44 Secury (1887)	Endrarrer	toy of Eipel Direct etteinment volue + 20% of Caurse Endserves
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502	2.#3	1.13	2.17	1.72	2.85	2.21	2.41	♦.5♦	2.7\$
C03	2.\$3	1.13	2.17	1.72	2.15	2.21	2.56	0.51	2.40
004	2.83	1.13	2.87	1.72	2.15	2.21	2.51	0.50	2.79
005	2.83	1.13	2.#7	1.72	2.65	2.28	2.41	0.50	2.71

	1.6.1	F 02	FOI	P.04	F.05	F 0 5	F-07	POS	P09	P010	P011	P 0 12	P501	PS 92	P501
61	3	2	1	2 2		1		2	1 2	2	1	2	5	1	
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190	2.78	1.85	1.85	1.85	0.00	0.93	1.85	0.93	1.85	0.93	0.00	1.85	1.85	0.93	1.85
:02	2.78	278	2.78	1.85	0.00	0.93	0.93	0.93	0.93	0.93	0.00	1.85	1.85	1.85	0.93
.03	1.85	2.80	2.80	1,86	0.00	0.93	1.86	0.93	0.93	0.93	0.00	0.33	1.86	0.93	1.86
-04	2.79	186	2.79	0.93	0.00	0.93	0.93	0.93	1.86	0.93	0.00	2.79	0.93	1.86	1.86
è5	185	2.78	0.93	0.93	0.00	0.93	1.85	0.93	1.85	0.93	0.00	1.85	1.85	1.85	0.93
	2.41	2.41	2.23	1.48	0.00	0.93	1.48	0.93	1.48	0.93	0.00	1.86	1.67	1.48	1.49

PO & PSO Attainment Level															
	POI	P-02	P63	P64	P85	P84	P87	P8#	P89	P818	P011	P012	PS01	PS@2	PS03
	2.41	2.41	2.23	1.48	0.00	0.93	1.48	0.93	1.48	0.93	0.00	1.86	1.67	1.48	1.49

#### k. Best projects/Industry projects:

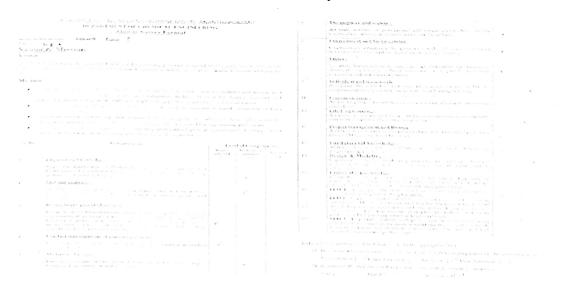
S.No	Project title	area	Type of project
1	Crude oil refining	Petroleum	Model making

#### 1. Content beyond the curriculum:

Guest lectures from industry experts are conducted regularly. Often faculty members cover certain important topics which are useful as per the industry requirement

m. Whether the employers, alumni and program exit surveys are considered for the attainment calculations or not? If yes, attach proofs: YES

#### Alumni Survey



Rejesh Spipuropu Ecothodi Porm 20-04-2021

Davis (destruction Letture 1978 350/422

Straight By Walliams and

Proper refect one aption for every date/piten if you have a scope to evaluate

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### Exit Survey

# INTEA COLLEGE OF ENGINEERING AUTONOMOUS, ANANTHAFERANCE DEPARTMENT OF CHEMICAL ENGINEERING

Batch 2016 2022

Sadding ( Mayers

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#### Vision & Mission

#### Fision

To home a globally integrated Chemical Engineering program coupled with enterforce in relaction, mining, research and constitution in Chemical Engineering and to serve as a valuable researce for relation and sectors.

#### Viscon:

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4	ं कार्य के जिल्ला दीवर का व कोलोड़ी, का स्टब्स्ट क् च्येट व केन्द्रार्थ के स्टब्स को ट्योक्स क्रिया क्या			V
j	While is directly formulate and point Chemical Experiences			V
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	the chemical engineering profession and to society at large	The same of the same of the same	Parket Street Street Street Street	
	i An ability to communicate effectively by conveying technical in partial (wough both formal written medium and flinguigh end a presentation).		V	
1	To attain broad education necessary to understand the impact of chemical engineering related solutions in a global economic environmental and societal context.			V
9	An ability to recognize the need for continuous professional development through lifelong learning		1	
10	Ability to possess knowledge of contemporary chemical enumerance related issues			
passage and the same of the sa	An ability to use the techniques, skills, and modern engineering tools necessary for chemical engineering practice		V	no.
1	Ability to design, analyze and control physical and chemical processes (Project Management and Finance)			V
11	Ability to model, simulate and optimize Chemical Engineering problems	Control of the Contro		V
and Min	Capability to design or develop effective and efficient citemical processes incorporating economics, environmental, social, itealit, safety and sustainability.		100 mm 1	
area.	Competence to practice or apply Chemical Engineering principles, communication and other skills in a wide tange of industrial academic and professional employment areas			
16	PEO 1. To prepare the students for successful careers in industry and/or to excel in pursuit of higher studies	V	AND THE STATE OF T	
d or the second	PEO 2. To provide students with the necessary Chemical Engineering skills required for the workforce including knowledge of Chemical and Allied Engineering techniques and the ability to utilize science, mathematics, and engineering principles to analyze and solve problems, which are more essential to societal needs.	<i>\( \)</i>		
	PEO 3. To provide students with professional skills necessary to be effective and succeed in the medern workforce including the ability to function in teams, the ability to communicate effectively, and high standards of			and a representation of the second of the se
	ethics and professionalism	denti ilike eti ilike ili ili ili		-

# 3. Faculty research and innovation

# a. Details of the faculty publications

s.no	Name of faculty	designation	Total no of publications
1	Dr. S. V. Satyanarayana	Professor	12
2	Mr. M. Kalyan Kumar	Assistant Professor	5
3	Dr. S. Sharada	Assistant Professor	3
4	Dr. B. Dilip Kumar	Assistant Professor	5
5	Mr. M. Murali Naik	Assistant Professor(Ad-hoc)	2
6	Mrs P Uma Maheswari	Assistant Professor(Ad-hoc)	2

b. Details of research projects:

Project Title	Duration	Funding Agency	Amount (in lakhs)
Development of highly stable mixed matrix membranes (MMM) for dehydration of hydrazine hydrate via Pervaporation for rocket fuel applications.	2018-2021	DST-SERB- EMR Govt, of India	32.78
Spatial distribution of uranium and associated water quality parameters in groundwater /drinking water of Rayalaseema region of Andhra Pradesh	2016-2020 * extended for 2 years	BRNS Govt, of India	26.94
Nanoparticle Enhanced Phase Change Material Microcapsules/Fibers for Advanced Energy Storage and Allied Applications"	2018-2021	DST-SERB EMR Govt, of India	37.83
Physicochemical Studies of TiO2/Fe2O3/ZnO Heterostructure Assemblies for Electrochemical Water Splitting/Dye Degradation Applications	2017-2019	UGC, Govt. of India	1.2
Physicochemical studies of Type - I/II heterostructure assemblies for electrochemical water splitting/dye degradation applications	2017 2010	IEI, R&D grant in aid, Govt, of India	0.7

# c. Details of the faculty who attended workshops/STTPs/FDPs

S.no	Name of Faculty	Number of Workshops/FDPs attended
1	Dr. S.V Satyanarayana	5
2	Dr. T. Balanarsaiah	5
3	Mr. M. Kalyan Kumar	5
4	Dr. S Sharada	5
5	Dr. B. Dilip Kumar	5
6	Mr. K Subba Rao	3
7	Ms. P. Uma Maheshwari	3
8	Mr. M. Murali Naik	5
9	Mr. A. Raja Sekhar Babu	3
10	Mr. K. Peddintaiah	5
11	Ms. G. Neha Mallika	3
12	Ms. D. Sowjanya	5
13	Mr. V. Ramanjaneyulu	3
14	H. Rehana Anjum	5
15	Ms. Ch Maneesha	3

# d. Details of faculty who organized conferences/workshops/STTPs/FDPs

S. No.	Faculty Name	Organized (FDP/Seminars/webinars)		
1.	Mr. M. Kalyan Kumar	Conducted Five Days National Level TEQIP III funded Short Term Online Course 'Faculty Development Program for Educators of Environmental Studies during 21-25 September 2020 at Department of Chemical Engineering, JNTUA CE Ananthapuramu.		
2.	Dr. S Sharada	Organized online Six days Faculty Development programme on "laboratory and workshop Learning Skills in Conducting Practical Classes" from 15-20 February 2021 organized by Department of Chemical Engg. JNTUACEA and Directorate of Faculty development & IQAC, JNTUA, Ananthapuramu, Andhra Pradesh.		
3.	Dr. B. Dilip Kumar	Organized One week Faculty Development Program on "Renewable & Clean Energy Conversion Technologies" Twinning Program in Collaboration with UCET, Bikaner, Rajasthan from 4 th to 8 th January 2021.		

e. Details of patents published/ awarded and product development, if any

S.No.	Name of the Invention	Names of the inventors	National/Int ernational	Published/ Granted Year
1.	Antipsoriatic Effects of Clobetasol Loaded Nano Structured Lipid Carriers On Imiquimod Induced Psoriasi	Kudumala Ramesh Reddy,  Suggala Venkata Satyanarayana, Veeram Jayasankar Reddy, Palagati Sucharitha	National	Application No. 202141009486 A, Published (2021)
2.	Clobetasol Loaded Solid Lipid Nanoparticles on Imiquimod Induced Psoriasis	Suggala Venkata SatyanarayanaVeeramJ	National	Application No. 202141009425 A, Published (2021)

f. Details of faculty awards/ recognition : NIL

#### 4. Other information

- a. Are the minutes of meeting of the departmental committee maintained YES/NO:YES
  - b. Number of MoUs/collaborations signed with organizations/institutions: NIL
  - c. Details of new facilities added:
  - d. Details of newsletters/magazines etc., published: 02

#### **SWOC ANALYSIS**

#### a. Strengths:

- Excellent programs with emphasis on corecompetency development
- Traditional and blended mode of Teaching & Laboratory experiments
- Excellent undergraduate student placement
- Department owe reputed faculty
- Strong alumni support
- Sponsored and consultancy projects
- Publications and Patents

#### b. Weakness:

- Lack of access to journals
- Lack of budget allocation for research and maintenance of labs
- Limited floor space
- Lack of skilled non-teaching support staff
- Generally mediocre post graduate and researchscholar base compared to UG student base
- Inadequate infrastructural facility for researchactivity
- Insufficient pool of bright and motivated Research Scholars

## c. Opportunities:

- Excellent potential for undertaking Industry-academia collaborative research
- Interdisciplinary research in the new andemerging areas
- Setting up challenging research frontiers
- Newer research areas being opened up by thedepartment faculty

## d. Challenges

- Non-availability of new faculty for sustaininghigh end research
- Inadequate infrastructural facility such asspace, equipment, etc.
- Faculty attrition

Prof. R. Padma Suvarna Co-ordinator, IQAC INTUA CE, Ananthapuramis

has to focus on the following 6. Suggestions/Recommendations of the Committee The department parrameters 1. More number of funded Tresearch projects different funding agencies 2. Have to encourage students to participate in rece number of co-consider and Extraconsider ackreties. Sophisticules should be established Name: K. NAGABHUSHAN RAJU Designation: professor Address: Dept of Enstrumentation, St. University Mobile Number: 98665 90987 E-mail bhushankny @ gmail.com. Dr. K. Nagabhushan Raju M. Tech., Ph. D Professor Department of Instrumentation

Sri Krishnadevaraya University ANAHTAPUR - 51F083, A P HITH Signature of EAA Member -2

MURALIDHAR RAD

Designation: PROFESSOR

Address: nept of Britechnology

Notice Number of Britechnology

Mobile Number: 9440699873

E-mail

Co-Ordinator Department of Biotechnology Sri Krishnadevaraya University, ANANTAPUR - 515 003 A P

# JNTUA COLLEGE OF ENGINEERING ANANTAPUR (AUTONOMOUS):ANANTHAPURAMU EXTERNAL ACADEMIC AUDIT FOR ACADEMIC YEAR 2021-2022

#### PART-A General Information

1. Name of the Department: Chemical Engineering

2. Year of establishment: 1989

3.Programs offered (approved by AICTE)

a.UG Programmes: B.Tech Chemical Engineering

b.PG Programmes: M.Tech (Nanotechnology, Environmental Engineering)

4. Accreditation status: 2019-2022

5.Details of the faculty:

S.No	Name	Qualification	Designation	Specialization	Experience (in years)
1	Dr. S.V Satyanarayana	PhD	Professor	Membrane separations, Pervaporation	28
2.	Dr. T. Balanarsaiah	PhD	Professor	Fluidization	17
3.	Mr. M. Kalyan Kumar	M.Tech	Assistant Professor	Environmental Engineering	22
4.	Dr. S Sharada	PhD	Associate Professor	Microreactors	19
5.	Dr. B. Dilip Kumar	PhD	Associate Professor	Nanotechnology, Electrochemistry	17
6.	Mr .K Subba Rao	M.Tech	Assistant Professor (Ad - hoc)	Environmental Engineering	17
7	Dr. P. Uma Maheshwari	PhD	Assistant Professor (Ad - hoc)	Membrane separations, Pervaporation	12
8.	Mr. M. Murali Naik	M.Tech	Assistant Professor (Ad - hoc)	Adsorption	13
9.	Mr. A. Raja Sekhar Babu	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	10
10.	Mr. K. Peddintaiah	M.Tech	Assistant Professor (Ad - hoc)	Micro Reactors	8
11:	Ms.G. Neha Mallika	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	5

12.	Ms. D. Sowjanya	M.Tech	Assistant Professor (Ad - hoe)	Reaction Engineering	6
13.	Mr. V. Ramanjaneyulu	M.Tech	Assistant Professor (Ad - hoe)	Environmental engineering	5
14.	H. Rehana Anjum	M.Tech	Assistant Professor (Ad - hoc)	Membrane separations, waste water treatment	3
15.	Ms. Ch Maneesha	M.Tech	Assistant Professor (Ad - hoc)	Nanotechnology	3

### 6. Details of non-teaching staff:

S.No	Name	Qualification	Designation
1	Mr. P. Gangadhar Reddy	X Class	Record Assistant
2	Mrs. K. Jayamma	5 th class	Gardener
3	Mr. B. Md Ansar	X Class	Junior Lab Assistant
4	Mr. A. Sunil Kumar	X Class	Record Assistant
5	Mr. S. Sreenivasulu	ITI	Senior Instructor
6	Mrs. G. Parvathi	X Class	Record Assistant
7	Mr. M. Nagaraju	8 th Class	Junior Instructor
8	Mrs Saritha	UG	Record Assistant
9	Mr. K Narendra	12 th Class	Attender

## 7. Admission status: no.of students admitted

Programme	Sanctioned	Admitted
UG(B.Tech - CHEM)	60	58
PG	25	18

## 8.Physical resources available:

CN	Particulars	
S.No	Number of classrooms	04
2	Number of faculty rooms	14
3	Number of staff rooms	02
1	Available ICT tools in classrooms	02

## v) Number of laboratories

. [	CNIC	Name of the Laboratory	Equipment Available
1	S.No	Chemical Engineering Workshop	1. Flow meters: Rotameter, Venturi meter,
2	1.	Chemical Engineering	Orifice meter
			2. Thermocouple
			3. pH, conductivity and dissolved oxygen
4			4. Gas Chromatography

	Yes W	<ol> <li>Spectrophotometer (UV-VIS)</li> <li>X-Ray Diffractometer</li> <li>Heat exchanger</li> <li>Dryer</li> <li>Distillation</li> <li>PID Controller (Level/Flow control)</li> </ol>
2	Basic Thermodynamics Lab	Simple dilation unit     VLE unit     LLE unit
3	Mechanical Operations Lab	<ol> <li>Jaw Crusher</li> <li>Disc Grinder</li> <li>Roll Crusher</li> <li>Hammer Mill</li> <li>Ball Mill</li> <li>Sieve shaker</li> <li>Cyclone Separator</li> <li>Vibrating Screens</li> <li>Ribbon Blender</li> <li>Rotary Drum Filter Press</li> <li>Plate and Frame Filter Press</li> <li>Sedimentation apparatus</li> </ol>
4	Momentum Transfer Lab	<ol> <li>Reynolds Apparatus</li> <li>Centrifugal Pump Test Rig</li> <li>Orifice and Mouthpiece Apparatus</li> <li>Fluidized Bed</li> <li>Drag Studies Apparatus</li> <li>Flow Through Annulus</li> <li>Bernoulli's Theorem Apparatus</li> <li>Pitot Tube Apparatus</li> <li>Discharge Over Notches Apparatus</li> <li>Orifice, Venturi &amp; Rotameter Trainer</li> </ol>
5	Energy & Environmental engineering Lab	<ol> <li>P^H meter</li> <li>Colorimeter</li> <li>TDS meter, Aerobic</li> <li>Anaerobic reactor 25L capacity</li> <li>BOD incubator</li> <li>High accuracy analytical balance (5 digit)</li> <li>Desiccators</li> <li>RO system with domestic 2"x12"         Membrane module     </li> <li>UV-Vis spectrophotometer</li> <li>High volume air sampler</li> <li>Bomb calorimeter</li> </ol>

		12. Fuel cell test kit 13. Microscope
		Flash Point/Fire Point
6	Chemical Technology Lab	1. Viscometer
	Chemical Technology Lab	2. pH meter
		3. Heating Mantle
7	Process Heat Transfer Lab	Electrical Weighing balance  1. Heat Transfer through composite Wal 2. Thermal conductivity of Metal Rod 3. Heat Transfer in Natural Convection 4. Heat Transfer in Forced Convection 5. Shell and Tube Heat Exchanger 6. Double Pipe Heat Exchanger 7. Heat Transfer through Helical Coils 8. Stefan Boltzmann Apparatus 9. Single Effect Evaporator
8	Mass Transfer Lab	Critical Heat Flux Apparatus     Simple Distillation Unit
		2. Vacuum Oven
		3. Forced Draft Tray Dryer
		4. Solid -Air diffusion Apparatus
		5. Packed Bed Distillation Unit
		6. Packed Bed Absorber
		7. VLE Unit
		8. Steam Distillation Unit
		9. Surface evaporation Apparatus 10. Stefan's tube apparatus
9	Chemical Reaction Engineering Lab	Batch Reactor     Tubular Reactor
		3. Photochemical Reactor
	The second state of the property of the second second	4. Plug flow Reactor
		5. Stirred Tank Reactor
		6. Hot air Oven
		7. Combined Reactor
		8. RTD Studies in Packed Bed Reactor
		9. Cascade CSTR Apparatus
		Plug Flow Reactor
10	Instrumentation and Process	1. PID Controller
	Control Lab	2. U-Tube manometer
		3. Single tank system
		4. Two tank interacting system
	and the second s	5. Two tank non-interacting system
		6. Bimetallic thermometer

		7. Measurement of level by Air Purge method
		8. Measurement of level by Capacitance method
	The state of the s	9. First order system (Mercury in Glass thermometer)
		Second order system (Mercury thermometer in thermal well)
11	Process Simulation Lab	50 Computers with MATLAB and Turbo C Software
12	Research Laboratory	UV- Spectrophotometer, Micro-oven, Sonicator, Wet mixer and Grinder, Fume Hood, BOD analyzer, Water Sampler Kit, Air Samplers, Muffle furnace, Orbital shaker, Gas Chromatography, Atomic Absorption spectrometry, High
		Performance Liquid Chromatography, Potentiostat, Centrifuge, UV-Laminar Chamber, Microwave oven, Hot air oven

## vi) Department library:

S.No	Particulars	Quantity
I I straction	Number of Titles	558
2	Number of volumes	723

#### 1. Curriculam:

Is the curriculum updated(yes/no)

:YES

#### 2. Teaching and learning process during academic year from 2021-22:

#### a. Student to Faculty Ratio(SFR):

	2021-22
Sanctioned intake B.Tech	180
Sanctioned intake lateral entry B.Tech	18
Sanctioned intake M.Tech (EE + NT)	50
Total number of students	298
Total number of faculty	14
SFR	21.28

#### b. Percentage of faculty using ICT for effective teaching and learning mechanism year wise:

No. of faculty on rolls	Number faculty using ICT tools	Available ICT tools and resources	Number of ICT enabled rooms	e-resources and techniques used
14	14	PC with internet, LCD Projector,	03	NPTEL video courses, MIT
		Access to e- resources		courseware, IUCEE video lectures

#### C. Students' academic performance(outgoing batch result analysis):

Total no of Students	No. of students cleared the	No. of students cleared the
	program without backlogs in stipulated period of study	program with backlogs in stipulated period of study
	46	55

#### d. Status of student mentoring system and action taken:

Mentoring system is available to monitor the academic and personal activities of the students

#### e. Achievement of students:

Name of the Student	Achievements and Recognitions
Makam Naga Sravani(18001A0827)	Gold Medal

#### Achievements in co-curriculum activities

S.No	Student Name	Roll No	Event Name	Participation
Control of the contro				1 diticipation

STREET STREET				Fusion 2K22
	Muppala			Paper
	Madhuri	20001A0845	FUSION2K22	presentation
2			District level	Participated
			Neighbourhood	
	Naragolla		Youth parliment	
	Yashwanthsai	19001A0836	2022	
3	Ithigowni		Avishkaar 2022	Participated
<b>新区型基本企业的</b>	Yaswanthi	20001A0819		

g. Student remedial classes for slow learners and GATE/CAT, etc classes for advanced learners:

#### Remedial classes conducted for slow learners

- h. Are the faculty members maintaining the course files?(course files shall consists of class timetable copy, syllabus copy along with outcomes, lesson plan, sessional and end examination question papers, assignments, quiz, sessional marks, result analysis, CO attainment, mapping of CO and PO, class notes, hard copies PPTs): YES
- i. Company wise details of the students placed (on-campus and off-campus) and details of the students qualified in various competitive examination (attach proofs)

#### Placement Details

S. No.	Name of the Student Placed	University Serial number	Year of passing	ON/OFF campus placement	Name of the Employer		
1	Makam Naga Sravani	18001A0827	2022	ON	TCS		
2	Challa Madhu Kiran	18001A0828	2022	ON	TCS		
3	Kareddula Yomakeswara	18001A0848	2022	ON	TCS		
4	Thummala Sowmya	18001A0804	2022	ON	Cognizant		
5	G Swetha	18001A0812	2022	ON	Cognizant		
6	Annavarapu Devi	18001A0840	2022	ON	Cognizant		
7	Charugundla Likitha	18001A0850	2022	ON	Cognizant		
8	Challa Madhu Kiran	18001A0828	2022	ON	Wipro		
9	B Tejasri	18001A0835	2022	ON	Wipro		
10	Mungara Thrisha	18001A0841	2022	ON	Wipro		
11	G Sai Jyothi Jeythisha	18001A0845	2022	ON	Wipro		

12	Busireddy Susmitha Reddy	18001A0857	2022	ON	Wipro	
13	Mungara Thrisha	18001A0841	2022	ON	Infosys	
14	Vummadi setty Meghana	18001A0803	2022	ON	Virtusa	
15	M Sai Upendra Reddy	18001A0825	2022	ON	Deccan Fine Chemicals	
16	Kaattabadi Shabaaz Ahmed	18001A0823	2022	ON	Deccan Fine Chemicals	
17	Nellaturu Raghava Praveen	18001A0837	2022	ON	Deccan Fine Chemicals	
18	Bondhala Surya Kiran Kumar	18001A0816	2022	ON	Deccan Fine Chemicals	
19	Mopuni Naga Ganesh	18001A0809	2022	ON	Hetero Labs limite	
20	Sabhavati Eswar Naik	18001A0814	2022	ON	Hetero Labs limite	
21	Muramreddy Vidyadhar Reddy	18001A0802	2022	ON	Hetero Labs limite	
22	Nellaturu Raghava Praveen	18001A0837	2022	ON	Hetero Labs limite	
23	Rangappa Yuvaraj	18001A0802	2022	ON	Hetero Labs limite	
24	B Vijay Kumar	18001A0822	2022	ON	Hetero Labs limited	
25	Muddarajappa Gari Manjunath	18001A0846	2022	ON	Hetero Labs limited	
26	Thondu Prudhvi Teja	18001A0849	2022	ON	Hetero Labs limited	
27	Kunapa Rishi Kumar Raju	18001A0844	2022	ON	Hetero Labs limite	
28	B Surya Kiran Kumar	18001A0816	2022	ON	Hetero Labs limited	
29	D Dheeraj	18001A0829	2022	ON	Hetero Labs limited	
30.	K Venugopal Achari	18001A0804	2022	ON	Hetero Labs limited	
31.	N Naveen Kumar	18001A0807	2022	ON	Hetero Labs limited	
32.	Allamudi Pradeep	19005A0801	2022	ON	Hetero Labs limited	
33.	Palem Tharun	18001A0808	2022	ON	Hetero Labs limited	
34.	G Swetha	18001A0812	2022	ON	Hetero Labs limited	
35.	K Kavya	18001A0815	2022	ON	Hetero Labs limited	

200	Kattabadi Shabaaz	18001A0823		ON	Hetero Labs limited
36.	Ahmed		2022	ille service co	

## Higher Education Details

S. No.	Name of the Student	University Serial number	Passing year	Institute Name	Course Name
1	K Shabaaz Ahmed	18001A0823	2022	NIT Warangal	Systems & Control Engineering
2	G V Sree Vanya	18001A0843	2022	Sungkyunkwan University, South Korea	Advanced Material Science & Engineering

### j. CO and PO attainment: sample copy

## CO-PO attainment of Chemical Reaction Engineering Laboratory

	Chemical Reaction Engineering
Course Plane	Laboratory
Course Code :	
Semester:	III Year II Semester
tratch :	2017 - 2021
codemic Year	2019 - 2020
Familia Manager	Cir. T Bala Narasaiah, Ms. G Neha Malli

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No (MAL) Mills   10	.No			1	,		2 20							
1   16001A0655					43		8	- 4	60	12				
2   17001A06001   37   7.4   7.4   7.4   7.4   7.4   7.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3.4   3							5.6	5.6	43	8.€.	8.6			
3   HOCHAGON   13   15   15   15   15   15   15   15									47	5.4	3.4			
4 HOGIAGGGG									44	8.8	6.8	6.8		
TOOIAGOOG									42	6 4	8.4	8.4		
TOTAL   TOTA										10.4	10.4	10.4	10.4	
\$\begin{array}{c c c c c c c c c c c c c c c c c c c											9.6	56	3.6	5.6
8 117001A0500 34 6.8 6.8 6.8 6.8 6.8 46 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2											8.6	8.6	8.6	8.6
NOTIFICATION   1												5.2	9.2	5.2
11   11001A0515													5.2	5.2
11 11001A00812 31 7 7 7 7 7 7 7 7 19 3 3 3 5 3 5 3 1 1001A00812 31 7 7 8 8 68 68 68 68 49 3.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0														
11 17001A0615 37 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			29			5.8								
100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100			30											
1	12	17001A0812	35	7	7	7	7	7			~			
1	13	17001A0813	24	6.8	6.8	6.8	6.8	6.8	49					
10   17001A00516	14	17001A0614	32	6.4	6.4	6.4	6.4	6.4	51	10.2	10.2			
16									45	9	9			
11   17001A0618									45	3	9	5	э	
10   17001A0619									1 44	6.8	8.5	6.6	6.0	8.6
17001A0620   37												10.2	10.2	10.2
17001A0633													10.4	10.4
221 TRODINGESS														2.6
22 11001A06524														
THOM	21		31											
23   11001A00327   34   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6   5.6	22	17001A0824	35	7	7	7	7	7	50					
1700 1406327	23	17001A0825	2 0	5.6	5.6		5.6	5.6						
17001A0325	24	17001A0826	32	6.4	6.4	€.4	6.4	6.4	44					
25 11700100550 30 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	25	17001A0827	2.	5.8	5.8	5.8	5.8	5.8	47	9.4				
27	26	17001A0825	30	6	6	6	6	6	44	8.8	8.8	8.8		8.8
28		17001A0830	30	6			6	6	45	9	9	9	э	
17001A0632    36									5.2	10.4	10.4	10.4	10.4	10.4
1700 140633			34							10	10	10	10	10
\$\frac{51}{17001A0634}\$ \$\frac{76}{36}\$ \$\frac{72}{72}\$ \$\frac{72}{72}\$ \$\frac{72}{72}\$ \$\frac{72}{72}\$ \$\frac{72}{72}\$ \$\frac{72}{46}\$ \$\frac{56}{56}\$ \$\frac									45		. 9	9	9	- 3
\$\begin{array}{c c c c c c c c c c c c c c c c c c c														
1700 1A0836														5.2
17001A0657														
1700 1A0836														
1700 1A06309														
\$\frac{37}{36}\$ \frac{17001A0840}{17001A0841}\$ \frac{2}{3} \cdot \frac{8}{3} \cdot \frac{8}{5} \cdot \														
Sel 17001A0641 35 7 7 7 7 7 7 49 5.6 3.6 3.6 3.6 3.6 3.8 3.8 3.8 3.1001A0642 36 7 7 7 7 7 7 7 7 49 5.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3														
\$\begin{array}{c c c c c c c c c c c c c c c c c c c	37													
0 17001A0849	38	17001A0841	35	7	7	7	7		49					
40 17001A0840	35	17001A0842	36	7.2	7.2	7.2	7.2	7.2	44					
41 17001A0844 37 7.4 7.4 7.4 7.4 7.4 47 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4		17001A0843	>>	6.6		6.6	6.6	6.6	51	10.2	10.2	10.2	10.2	10.2
42 17001A0845		17001A0844	3.7	7.4	7.4	7.4			47	9.4	9.4	3.4	9.4	9.4
43 17001A0646									47	9.4	9.4	9.4	9.4	9.4
44 11001A0847											3.6			
45 17001A0848														
46         17001A0849         24         5.2         5.2         5.2         5.2         45         8.6         6.6         8.6         8.6           47         17001A0851         30         56         5.6         56         5.6         56         5.6         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2         3.2														
17   17001A0650   2e   56   56   56   56   56   66   66   6														
4.9 17001A0851														
9 17001A0552 22 6.4 6.4 6.4 6.4 45 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9														
50 16005A0801 31 6.2 6.2 6.2 6.2 42 6.6 8.6 8.6 6.6 8.6 51 51 16005A0802 27 5.4 5.4 5.4 5.4 5.4 5.4 6.4 6.6 6.8 6.6 6.6 6.6 5.5 52 16005A0803 20 6 6 6 6 6 6 5 6 6 20 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6														
51         15005A0802         27         5.4         5.4         5.4         5.4         5.4         5.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.														
\$\frac{52}{52}\$  \text{15005A0803}\$  \text{0}  \text{6}  \text{6}  \text{6}  \text{6}  \text{6}   \text{6}   \text{6}   \text{6}     \text{6}                                                                                                                                                                                                                                                                                                                \														
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53         18005A0804         32         6.4         6.4         6.4         6.4         6.4         6.4         6.6         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.	52												7.8	7.6
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#### k. Best projects/Industry projects:

S.No	Project title	area	Type of project
	Crude oil refining	Petroleum	Model making

#### 1. Content beyond the curriculum:

Guest lectures from industry experts are conducted regularly. Often faculty members cover certain important topics which are useful as per the industry requirement

m. Whether the employers, alumni and program exit surveys are considered for the attainment calculations or not? If yes, attach proofs

#### Alumni Survey

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#### Exit Survey

## INTER COLLEGE OF ENGINEERING (AUTONOMOLS), ANANTHATERAMU DEPARTMENT OF CHEMICAL ENGINEERING

Batch: 2018 - 2022

Sodiames P. Yanuna

Yand grateston: Do 22

After production, I are bent

#### Vision & Mission

To become a globally recognized Chemical Engineering program coupled with excellence in classifier, triangle, triscatch and consultancy in Chemical Engineering and to serve as a valuable triscence for industry and society.

- To provide students with broad currentum as the baser sciences, process systems and designs, and operations and modern exponential and comparing techniques to make them competent and practicing chemical regiment without compromising professional ethics
- To develop infra-surence that promotes internationally recognized released, creatingly and an entrepreneural culture.
- To foster ethical leadership and activities these support the administration, advancements, foretracce and adoption of element adjacening equation and the authorization to proceed the contract of the co
- To undertake collaborative projects/recordancy works which provide opportunities for long - term siteraction with academia, industry and other recomb me

SL No	Quotien	Highly Sainfield]	Mederately Satisfied [2]	Satisfied [1]
1	An artisty to apply the knowledge of Mathematics, Science, Engineering and fundamentals for understanding and solving of complex Engineering problems in Chemical Engineering		<u>√</u>	
2	he capable of designing and conducting experiences; and he able to analyze and interpret data		-	
	An ability to design systems, components, and processes to ment desired acres applicable to Chemical Expecting within mediate commonts such as commonly, on manners, social, policial, official, braids and safety, manufacturability and socializability.		V	
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1	Ability to identify, formalist, and solve Chemical Engineering triated problems			7
	An understanding of professional and orbical responsibility to			-

LY	the chemical engineering profession and to society at large			
7	An ability to communicate effectively by conveying technical material through both formal written medicus and larguigh real presentations.		~	
Š.	To attain broad education necessary to understand the impact of chemical engineering related solutions in a global, economic, covernmental and societal enterest.	317374		1
9	An ability to recognize the need for continuous professional development through lifelong learning		1	
10	Ability to persons knowledge of contemporary chemical engineering related issues			
11	An ability to use the techniques, skills, and modern engineering tools necessary for chemical engineering practice.		1	
12	Ability to design, analyze and control physical and chemical processes (Project Management and Finance)			12
13	Ability to model, simulate and optimize Chemical Engineering problems	tales)	Sev.	V
14	Capability to design or develop effective and efficient chemical processes incorporating economics, environmental, social, health, safety and sustainability.	5		
15	Competence to practice or apply Chemical Engineering principles, communication and other skills in a wide range of industrial academic and professional employment areas	5 - 3 - 3. 10	218 - 1719 1819 - 1719	w
16	PEO 1. To prepare the students for successful careers in industry and/or to excel in pursuit of higher studies	<b>V</b>	-	
17	PEO 2. To provide students with the necessary Chemical Engineering skills required for the workforce including knowledge of Chemical and Alked Engineering techniques and the ability to utilize science, mathematics, and engineering principles to analyze and solve problems, which are more essential to societal needs.	/		
\$	PEO 3. To provide students with professional skills necessary to be effective and succeed in the modern workforce including the ability to function in teams, the ability to communicate effectively, and high standards of ethics and professionalism			<b>~</b>

## 3. Faculty research and innovation

## a. Details of the faculty publications

s.no	Name of faculty	designation	Total no of publications
Din Cake a	Dr. S. V. Satyanarayana	Professor	09
2	Mr. M. Kalyan Kumar	Assistant Professor	03
3	Dr. S. Sharada	Assistant Professor	03
4	Dr. B. Dilip Kumar	Assistant Professor	04
5	Mr. M. Murali Naik	Assistant Professor(Ad-hoc)	01
6	Dr. P Uma Maheswari	Assistant Professor(Ad-hoc)	01
7	Mr K Peddintaiah	Assistant Professor(Ad-hoc)	01
8	Ms G Neha Mallika	Assistant Professor(Ad-hoc)	01

b. Details of research projects:

Project Title	Duration	Funding Agency	Amount (in lakhs)
Development of highly stable mixed matrix membranes (MMM) for dehydration of hydrazine hydrate via Pervaporation for rocket fuel applications.	2018-2021	DST-SERB- EMR Govt, of India	32.78
Spatial distribution of uranium and associated water quality parameters in groundwater /drinking water of Rayalaseema region of Andhra Pradesh	2016-2020 *extended for 2 years	BRNS Govt, of India	26.94
Nanoparticle Enhanced Phase Change Material Microcapsules/Fibers for Advanced Energy Storage and Allied Applications"	2018-2021	DST-SERB EMR Govt, of India	37.83

## c. Details of the faculty who attended workshops/STTPs/FDPs

S.no	Name of Faculty	Number of Workshops/FDPs attended
1	Dr. S.V Satyanarayana	5
2	Dr T Balanarsaiah	5
3	Mr. M. Kalyan Kumar	5
4	Dr. S Sharada	5
5	Dr. B. Dilip Kumar	5
6	Mr. K Subba Rao	3 10 10 10 10 10 10 10 10 10 10 10 10 10
7	Ms. P. Uma Maheshwari	3
8	Mr. M. Murali Naik	5
9	Mr. A. Raja Sekhar Babu	3
10	Mr. K. Peddintaiah	5
11	Ms. G. Neha Mallika	3
12	Ms. D. Sowjanya	5
13	Mr. V. Ramanjaneyulu	3
14	H. Rehana Anjum	5
ar base	Ms. Ch Maneesha	3

d. Details of faculty who organized conferences/workshops/STTPs/FDPs

Nil

e. Details of patents published/ awarded and product development, if any

Nil

- f. Details of faculty awards/ recognition
- 4. Other information
- a. Are the minutes of meeting of the departmental committee maintained YES/NO: YES
  - b. Number of MoUs/collaborations signed with organizations/institutions:00
  - c. Details of new facilities added:.....
  - d. Details of newsletters/magazines etc., published:02

#### 5. SWOC ANALYSIS

- a. Strengths:
  - Excellent programs with emphasis on corecompetency development
  - · Traditional and blended mode of Teaching & Laboratory experiments
  - Excellent undergraduate student placement
  - Department owe reputed faculty
  - Strong alumni support
  - Sponsored and consultancy projects
  - Publications and Patents

#### b. Weakness:

- · Lack of access to journals
- Lack of budget allocation for research and maintenance of labs
- Limited floor space
- Lack of skilled non-teaching support staff
- Generally mediocre post graduate and researchscholar base compared to UG student base
- Inadequate infrastructural facility for researchactivity
- Insufficient pool of bright and motivated Research Scholars

#### c. Opportunities:

- Excellent potential for undertaking Industry-academia collaborative research
- Interdisciplinary research in the new andemerging areas

- Setting up challenging research frontiers
- Newer research areas being opened up by thedepartment faculty

#### d. Challenges

- Non-availability of new faculty for sustaininghigh end research
- Inadequate infrastructural facility such asspace, equipment, etc.
- Faculty attrition

dues Prof. R. Padma Suvarna Co-ordinator, IQAC JNTUA CE, Ananthapuramu

6. Suggestions/Recommendations of the Committee

four on ou following The department has to

1. Internal revenue seneration in the form to condultation.

different agencies. Funded research projects from

Regresention should be made to the administration

50ght Hicates instruments through establish for advance

Signature of EAA Member -1

Name: L. NAGARHUSAN LAZU.

Designation: PROCESSIR.

Address: Dept to Instrumentation.

Mobile Number: 98665 90987

E-mail BHUS HANKNED for I . Com

Dr. K. Nagabhushan Raju M. Tech., Ph.

Professor

Department of Instrumentatio: Sri Krishnadevaraya Universit ANAHTAPUR . 515003 A

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Co-Ordinator Department of Biotechnology Sri Krishnadevaraya University, ANANTAPUR - 515 003. A.P.