

## GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY

# (UGC Autonomous)

Affiliated to Jawaharlal Nehru Technological University-Hyderabad

# ANNUAL REPORT 2020-21



## About Geethanjali

Geethanjali College of Engineering & Technology has been structured to take head on the changing trends of technology. The idea of setting up the college emerged when no other college could cater to the needs of a student in his/her endeavour to acquire wholesome education. The very strength of Geethanjali lies in its principles of providing the right learning environment for the student who does not have to compromise throughout the learning process of becoming global citizen.

The college recognizes that the rapidly changing technological landscape would require young technocrats with an understanding of evolving technologies, but also with a global perspective. A major goal of Geethanjali is to impart a uniquely broad and interdisciplinary Engineering education of the highest academic quality. This is achieved through an integrated curriculum that consists of a highly diverse set of technical courses, interdisciplinary research projects, day-to-day interaction with industry, and preparation in entrepreneurship and personality development courses.

At Geethanjali learning pushes all boundaries of conventional thought in pursuit of understanding science in relation to the society. Every concept a Geethanjalite acquires carries the inbuilt awareness of how it can be applied to render human life better.

Over the years since it was established, there has been dynamic progress at Geethanjali in all academic and research activities, and a parallel improvement in facilities and infrastructure, to keep it on par with the best institutions in India. The campus epitomizes the Geethanjali motto, **"Striving towards perfection"** in providing the best of infrastructure and ambience. Geethanjali keeps a keen eye on the current trends and innovations happening in the industry and offers learning methods, which are designed to meet the evolving requirements of the industry.

## Vision and Mission

## Vision

• Geethanjali visualizes dissemination of knowledge and skills to students, who would eventually contribute to well-being of the people of the nation and global community.

#### Mission

- To impart adequate fundamental knowledge in all basic sciences and engineering, technical and Inter-personal skills to students.
- To bring out creativity in students that would promote innovation, research and entrepreneurship.
- To Preserve and promote cultural heritage, humanistic and spiritual values promoting peace and harmony in society.



Mr. G. R. Ravinder Reddy Chairman

## Chairman's message

The global economic order, the rapid rate of technological advancement, the information revolution, all have opened new series of challenges as well as opportunities. The ability to innovate and the capacity to adapt to latest technologies are going to be the forte in the new century. India's cherished vision to become super power can only be attained by its large high quality human power. The educational institutions especially those imparting technical education have to take the responsibility of developing and nurturing the world class engineers, technologists and managers.

A no-compromise approach has shaped Geethanjali into a finest centre of study for the students of Telangana. Spacious class rooms that are embedded with audio-video facilities, round the clock high speed internet connectivity, well stocked library with national and international journals, state-of-the-art laboratories, vast sports out-field make Geethanjali a force to reckon with.

Geethanjali College of Engineering and Technology is poised to take up this responsibility of providing the student community with world-class technical education in a perfect academic ambience. At Geethanjali, we provide a holistic education that helps shape not just an individual but also a society.



**Dr. Udaya Kumar Susarla** Principal

## **Message from Principal**

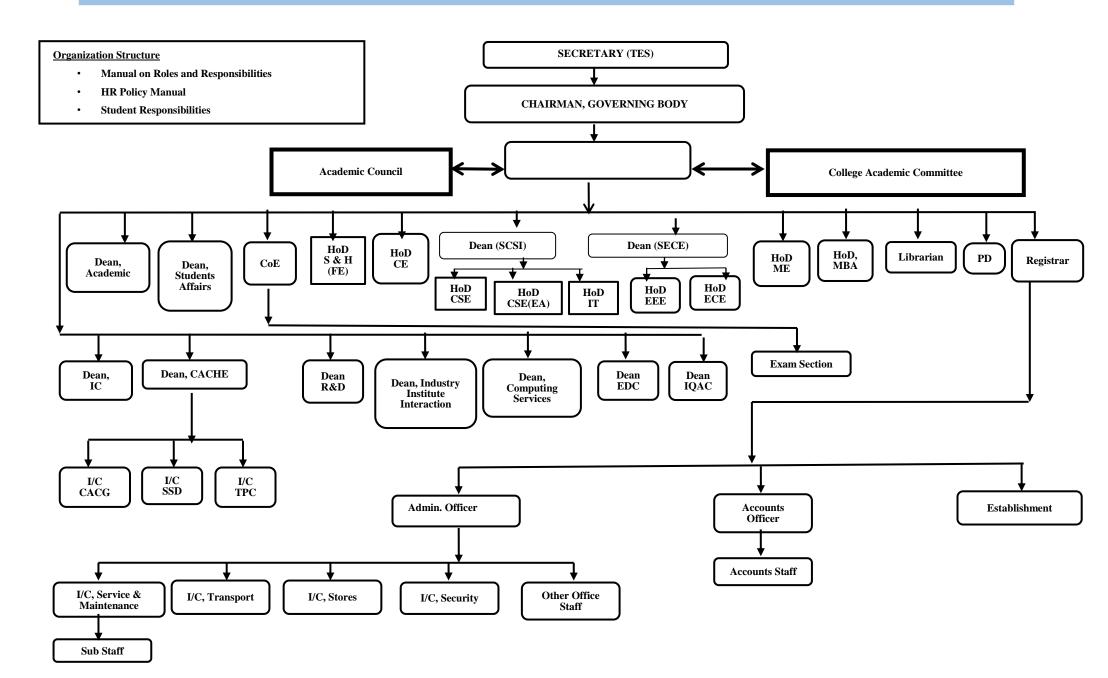
We love learning about all the amazing things being done in Geethanjali College of Engineering and Technology's (GCET's) community. Hardly a day passes that we do not hear about the outstanding achievements of our students, alumni, faculty or staff. The 2020-21 *Annual Report* collects many of these accomplishments from the past year, and reflects the hard work and dedication of all the people who are building GCET's future. Their drive and achievements energize the college as we continue to focus on five priority areas: students, faculty and staff campus life and learning, research and innovation, community engagement, our work culture, and transforming our physical and virtual campus we have experienced due to the pandemic Covid-19.

As we are slowly coming out of the pandemic, rather learnt to live with the pandemic, it is time of both transition and endurance for all of us. We are implementing a collective vision that recognizes how the needs of our community are fast changing: just as our neighbourhood, our country and our world are changing. At the same time, we draw strength from knowing that our fundamental values have evolved over the last 16 years of the existence of the college and are well anchored in our community. We love learning and discovery as we believe both evolve continuously. We embrace challenge, and are committed to excellence. We explore new ways of looking at the world, and search for sustainable approaches to how we live and work. We took oath to act on our deep responsibility to use our knowledge to serve that world.

# List of Governing Body Members

S. No	Name of the GB Member/ Qualification	Member designation	Parent organization
1	Mr. G.R. Ravinder Reddy B.Tech. (Civil Engineering) M.Tech. (Geotechnical Engineering)	Chairman	Geethanjali College of Engineering and Technology (GCET)
2	Dr. G. Sridevi, BDS	Member nominated by Society (TES)	Teja Educational Society
3	Mr. N. Sanjeeva Reddy	Member nominated by Society (TES)	Teja Educational Society
4	Ms. N. Ramana Devi	Member nominated by Society (TES)	Teja Educational Society
5	Ms. G. Madhumitha, B.Tech(ECE), MS	Member nominated by Society (TES)	Teja Educational Society
6	Dr. S. T. Rajmohan B.E. (Mechanical) M.A (English) MBA Ph.D (Business Mgmt)	Faculty nominated by Principal	Geethanjali College of Engineering and Technology
7	Prof. K. Somasekhara Rao B.E (Electro. &Comm.) M. Tech. (Adv. Elect.)	Faculty nominated by Principal	Geethanjali College of Engineering and Technology
8	Dr. P. Vijai Bhaskar B.Tech. (ECE) M. Tech. (DS&CE) Ph.D (ECE)	Faculty nominated by Principal	Geethanjali College of Engineering and Technology
9	Mr. Vishwanath Ekbote	Director, Link well Tele Systems	Educationist / Industrialist
10	Mr. Seshu Kumar Gudepu	General Manager, WIPRO	Educationist / Industrialist
11	Mr. Kumar Mynampati	Associate Vice President, Infosys	Educationist / Industrialist
12	Prof. Shyam Sundar Patnaik	Director, NITTTR (MHRD, Govt. of India) Formerly Vice Chancellor, Biju Patnaik University of Technology, Odisha	UGC Nominee
13	Telangana State Government Nominee	-	-
14	Dr. M. Anji Reddy	Professor of Environmental Science & Tech, Centre for Environment, IST, JNTUH	JNTUH Nominee
15	Dr. S. Udaya Kumar B.E (ECE) ME (ECE) M.Tech. (Honours.) Information Engineering Ph.D (Computer Science)	Member Secretary Principal (Ex-officio)	Geethanjali College of Engineering and Technology

## Organogram of Geethanjali College of Engineering and Technology



## Awards and achievements of the college

- 1. NIRF Ranked in the band of 251-300 in 2021.
- 2. Obtained ARIIA ranking "Excellent" for Innovation achievements
- 3. Obtained Star Rating (4.0) by Institution's Innovation Council
- 4. Accreditation by NBA for B. Tech CSE, ECE and IT July 2012.
- Re-Accreditation for B. Tech CSE, ECE and Accreditation of B. Tech EEE by NBA in July 2015, Reaccreditation of all three programs in July 2018.
- 4. Accreditation of B. Tech ME in October 2018 and extended till June 2022.
- Applied for Re-accreditation of B. Tech CSE, EEE, and ECE programs under Tier I and got approval for one year (up to June 2022)
- 6. Accredited by NAAC with "A" Grade (3.36 / 4.0) in June 2017
- 7. Autonomous under UGC 2(f) and 12 (b) status in 2016
- 8. Mentoring Institute Status by NAAC
- 9. Permanent Affiliation to JNTUH, Hyderabad
- 10. Sixty -Six (66) faculty members with PhD qualification
- 11. Recognized as R & D Center (SIRO) by DSIR in 2011, extended till March 2023.
- 12. Four research projects (DST (2), UGC (1), MTRDC (1)) executed
- 13. Research project (sanctioned by DRDO) for 45.81 Lakhs, under execution
- 14. Six Research Projects under TEQIP III in association with JNTUH, Hyderabad
- 15. NBA Training Center under Osmania University Nodal Center
- 16. Engineering Educators of the year award jointly by Bradford University, UK and Education Matters
- 17. Virtusa Center of Excellence
- Obtained 7<sup>th</sup> Best Engineering College rank in Telangana and 122<sup>nd</sup> Rank in All India by OUTLOOK Survey
- Obtained 13<sup>th</sup> Best Engineering College rank in Telangana and 90<sup>th</sup> Rank in All India by Times of India Survey
- 20. Obtained 24<sup>th</sup> Best Engineering College rank in Telangana and 175<sup>th</sup> Rank in All India by The Week Magazine Survey
- 21. Obtained 180<sup>h</sup> Best Engineering College Rank in All India by India Today Survey
- 22. Participated in Careers 360 Survey and obtained a score of 4.6 out of 5.
- 23. Participated in GHRDC Survey and obtained a score of 751.42 out of 1700.
- 24. MoU with Wipro

- 25. Institution Innovation Council Awards by MHRD
- 26. Centre for Advancement of Career and Human Excellence (CACHE) Department for students' overall development.
- 27. Tech Mahindra's Adoption of the College through its Campus Connect Program
- 28. Solution Provider for Zenopsys, Bangalore
- 29. MoU with Data 64 solutions
- 30. MoU with Dark Horse Consulting
- 31. MoU with Bees Consulting and IICT, Hyderabad: executed "Swasth Bharath" project
- 32. MoU with University of Illinois, Spring Field
- 33. MoU with Oracle Academy
- 34. MoU with IBM
- 35. MoU with Redpine Signals
- 36. MoU with Smart Bridge
- 37. Some more MoUs with other organizations

## **Programs offered**

		D	<b>X</b> 7 0	А	Accreditation Status					
S. No	Name of the Program	Program Code	Year of Est.	NBA		NAAC				
	ingrum	Coue	150	From	То	From	То			
1	B. Tech-CE	A01	2014	Appl (Visit Pe		09-06- 2017	08-06- 2022			
2	B. Tech-EEE	A02	2006	2018-19	30-06- 2021	-do-	-do-			
3	B. Tech-ME	A03	2011	-do-	-do-	-do-	-do-			
4	B. Tech-ECE	A04	2005	-do-	-do-	-do-	-do-			
5	B. Tech-CSE	A05	2005	-do-	-do-	-do-	-do-			
7	B. Tech-IT	A12	2019	-	-	-do-	-do-			
8	B. Tech- CSE(AIML)	A66	2020	-	-	-do-	-do-			
9	B. Tech- CSE(DS)	A67	2020	-	-	-do-	-do-			
10	B. Tech- CSE(CS)	A62	2020	-	-	-do-	-do-			
11	B. Tech- CSE(IOT)	A69	2020	-	-	-do-	-do-			
12	M. Tech (CSE)	D58	2011	-	-	-do-	-do-			
13	MBA	E00	2006	-	-	-do-	-do-			

# New Programs added

S. No	Name of the Program introduced in 2020-21	Intake
1	B. Tech-CSE(AIML)	60
2	B. Tech-CSE(CS)	60
3	B. Tech-CSE(DS)	60
4	B. Tech-CSE(IoT)	60

# Syllabi/Curriculum revised in 2020-21

Programme Code	Programme Name	Revision carried out in 2020-21us during the year, percentage of content added or replaced
A01	B. Tech-CE	17%
A02	B. Tech-EEE	15%
A03	B. Tech-ME	16%
A04	B. Tech-ECE	4%
A05	B. Tech-CSE	24%
A12	B. Tech-IT	15%
D58	M. Tech-CSE	15%
E00	MBA	5%

\*B. Tech (CSE-Emerging Areas) introduced in AY:2020-21

# FDPs organized by GCET

S No	Department	2020-21
1	CE	01
2	CSE	04
3	EEE	03
4	ECE	06
5	ME	06
6	Management Studies	04
7	Freshman Engineering (Sciences & Humanities)	04

S No	Department	2020-21
1	CE	140
2	CSE	155
3	EEE	58
4	ECE	84
5	ME	125
6	IT	15
7	Management Studies	19
8	Freshman Engineering (Sciences & Humanities)	716

## FDPs attended by our faculty

# SDPs /Student Workshops/Technical Events/ Hackathons Organized

Department	2020-21
CE	12
CSE	10
EEE	09
ECE	15
IT	02
ME	02
Management Studies	06
Freshman Engineering (S & H)	36

# Student Intake and Admitted

S. No.	Program	Sanctioned Intake	Total No. of Students Admitted			Vac.
			Μ	F	Т	
1	B. Tech-CE	60	51	4	55	05
2	B. Tech-EEE	60	26	12	38	22
3	B. Tech-ME	60	44	0	44	16
4	B. Tech-ECE	240	150	89	239	01
5	B. Tech-CSE	240	129	111	240	00
6	B. Tech-IT	60	34	26	60	00
7	B. Tech- CSE(AIML)	60	40	20	60	00
8	B. Tech- CSE(DS)	60	44	16	60	00
9	B. Tech- CSE(CS)	60	38	22	60	00
10	B. Tech- CSE(IoT)	60	39	21	60	00
11	M. Tech-CSE	18	1	2	03	15
12	MBA	60	18	39	57	03

S. No	Name of the program	I Year	II Year	III Year	IV Year
1	CE	55	91	117	119
2	EEE	38	86	107	108
3	ME	44	80	115	117
4	ECE	239	240	239	237
5	CSE	240	240	239	239
6	IT	60	60	-	-
7	I-B. Tech-CSE(AIML)	60	-	-	-
8	I-B. Tech-CSE(DS)	60	-	-	-
9	I-B. Tech-CSE(CS)	60	-	-	-
10	I-B. Tech-CSE(IoT)	60	-	-	-
11	M. Tech-CSE	03	06	-	-
12	MBA	57	59	-	-

# Students' strength in UG and PG (Year wise)

# Number of teaching staff (2020-21)

	Facul	ty with d	esignation	Total	Number of	Faculty with
Dept	Prof	Assoc. Prof	Asst. Prof	Faculty in the Dept	faculty with PhD in the Dept	experience of 10 years +
CE	5	4	19	28	3	11
CSE	7	11	43	61	11	29
CSE (AIML)	3	-	1	04	3	4
CSE (DS)	1	-	3	04	1	3
CSE (CS)	-	-	4	04	-	-
CSE (IoT)	-	-	3	03	-	1
EEE	3	5	20	28	5	15
ECE	8	18	26	52	12	36
ME	4	4	21	29	4	17
IT	1	-	7	8	1	7
Freshman Engineering	7	15	24	46	21	38
M. Tech(CSE)	-	2	1	03	2	3
Management Studies	4	2	11	17	3	10
Total in all Departments	43	61	182	287	66	174

S. No	Name of the Prog./ Dept.	Name of the Prog./ Dept.No of faculty recruited		
1	CE	03	06	
2	EEE	04	05	
3	ME	-	03	
4	ECE	02	04	
5	CSE	24	07	
6	FED	02	01	
7	MBA	02	01	
8	M. Tech	_	01	

# Faculty recruited and relieved in AY: 2020-21

# Number of non-teaching staff

Admin	Library	Technical	Drivers	Attenders	Aayas / Cleaners	Gardeners
45	08	40	40	27	29	13

# **Research and Development activities**

## (a) Research Publications

Department	No. of Publications
CSE	26
ECE	27
EEE	3
CE	4
ME	10
IT	03
Management Studies	6
FE	52
Total	128

# (b) Sponsored Research Projects Carried Out

**Research projects including TEQUIP (Collaborative)** 

Name of the PI/ Co-PI	Department of the Principal Investigator / Co- Investigator	Name of the Funding Agency	Туре	Funds provided (INR in lakhs)	Month and Year of receiving the grant	Duration of the Project	Project title and Ref No.
PI: Udaya Kumar Susarla, Co-PI: OVPR Siva Kumar	ECE Department	DRDO	Government	Rs. 45.81 Lakh	20-07- 2018	3.5 Years	Development of Novel Carbon Nanotube/Polymer Nano composite Materials for EMI Applications <b>Ref.no.</b> EIRP/ER/1504754/M/01/17 19
Dr. Anil Kumar Puppala	EEE Department	JNTUH	Government	Rs.2.50 Lakh	22-Jul-19	1 year	Introducing pulsatile flow through BLDC motor control for ventricular assist devices <b>Ref.no. JNTUH/TEQIP-</b> III/CRS/2019/EEE/05
Dr M A Bharathi	EEE Department	JNTUH	Government	Rs.2.70 Lakh	22-Jul-19	1 year	Deep learning based smart assisting for blind people <b>Ref.no. JNTUH/TEQIP-</b> <b>III/CRS/2019/EEE/07</b>
Dr P Sudhakar (CO-PI)	EEE Department	JNTUH	Government	Rs. 2.99 Lakh	22-Jul-19	1 year	Speech Enabled IVR based On Line Market for Farmer <b>Ref.no. JNTUH/TEQIP-</b> <b>III/CRS/2019/ECE/07</b>

Name of the PI/Co-PI	Department of the Principal Investigator /Co- Investigator	Name of the Funding Agency	Туре	Funds provided (INR in lakhs)	Month and Year of receiving the grant	Duratio n of the Project	Project title and Ref No.
Dr K Shashikala	FE Department	JNTUH	Government	Rs. 2.50 Lakh	25-Sep-19	1 year	Synthesis and anticancer activity of novel quinoxaline- 2-carbohydrazide n-oxide derivatives <b>Ref.no. JNTUH/TEQIP-</b> <b>III/CRS/2019/Chemistry/04</b>
Dr N. Subhadra	FE Department	JNTUH	Government	Rs. 2 Lakh	25-Sep-19	1 year	Peristaltic Transport of Nano fluids Ref.no. JNTUH/TEQIP- III/CRS/2019/Mathematics/ 04
Dr. Ch. Ramesh Babu	CSE Department	JNTUH	Government	Rs. 2.95 Lakh	22-Jul-19	1 year	Machine Learning Approach for Plant Disease Identification using Leaf Images <b>Ref.no. JNTUH/TEQIP-</b> III/CRS/2019/CSE/07

# (c) Consultancy Carried out

Name of the Staff member	Dept.	Name of the Funding Agency	Type (Government/ Non- Government)	Funds provided (INR in lakhs)	Month and Year of receiving the grant	Duration of the Project	Project title and Ref No.
Dr. R. S. Raju	ECE	VEM Technologies Pvt. Ltd.	Non-Government	Rs.10,000/ visit	Apr-19 onwards	2 years	Development of specific microwave tube for defence application

Name of full-time teachers with PhD	Qualificati on / and Year of obtaining PhD	Whether recognis ed as a research guide for PhD?	Year of recogniti on as a Research Guide	Is the teacher still serving the institution? If not, when did he/she leave the institution?	Name of the scholar	Month and Year of registrati on of the scholar	PhD Scholar's Title of the Thesis
Dr. P. Rama Mohan	Ph.D-1997	No	No	No	No	No	No
Dr. K. R. C. Reddy	Ph.D-2012	No	No	No	No	No	No
Dr. S. S. Phani	Ph. D-2018	No	No	No	No	No	No
Dr. Prasanna Kumar	Ph.D-2009	No	No	No	No	No	No
Dr. V. V. Praveen Kumar	Ph.D-2019	No	No	No	No	No	No
Dr. P. Harsha Praneeth	Ph.D -2020	No	No	No	No	No	No
Dr. D. Radhika	Ph.D-2017	No	No	Yes	No	No	No
Dr. M. Aruna Bharathi	Ph.D -2015	No	No	Yes	No	No	No
Dr. Anil Kumar Puppala	Ph.D -2007	No	No	Yes	No	No	No
Dr. Harish Pulluri	Ph.D -2017	No	No	31-01-2021	No	No	No
Dr. Madhuri Bayya	Ph.D -2018	No	No	Yes	No	No	No
Dr. T SivaPrasad	Ph.D-1996	No	No	30-06-2020	No	No	No
Dr. S Shyam Kumar	Ph.D -2018	No	No	Yes, working as a Professor, HOD	NA	NA	NA
Dr. Subhash Kamal	Ph.D -2009	No	NA	31st May, 2021	NA	NA	NA

(d) No. of faculty acting as PhD guides since from inception

Dr. M. Devaiah	Ph.D -2013	Yes (SRM Chennai)	2020	Yes, working as a Professor	J. Nithin Kumar	Aug-20	Evalution of Polymer Matrix composites of Phenolicpharmalidhyderaienf orced with flyash and synthetic carbon	
Dr. S Sapthagiri	Ph.D -2018	No	NA	Yes, working as a Professor	NA	NA	NA	
	Ph.D-2006		2007		Mr. K. Ravindra Babu	04-08- 2008	A New Framework for Scalable Secure Block Cipher Using Colour substitution and Permutation on Character Image Diagram	
		Yes			Ms. V. Aruna	04-08- 2008	Advanced Hill Ciphers using Involutory Matrix	
Dr.S.Udaya Kumar				Yes, Working as Principal	Working as	Ms. G.Lokeswari	12-07- 2009	Some Block Ciphers in Cryptography involving Interlacing Decomposition, Module Multiplication and its inverse
					Ms. N. Swapna	16-11- 2012	Combining Visual Cryptography and Elliptical curve cryptography for robust encryption	
Dr. S. Suryanarayana	Ph.D -2015	No	NA	Yes	NA	NA	NA	
Dr. R.Suryanarayana Raju	Ph.D-1987	Yes	2013	2021	NA	NA	NA	

			2012	Yes	Ms. K. Radha	2012	Spectrum sensing for cognitive radio in multiuses environment
Dr. P. Srihari	Ph.D-2007	Yes			Ms.K. Deepthi	2012	Investigation using Fuzzy logic control to track max power point for solar photo votaire cell
	Pn.D-2007				Mr.K. Jamal	2013	Implementation of built in self test using low power test pattern generators in test per clock
					N. Shribala	2013	Investigations on performance of cognitive radio
Dr. P. Vijay Bhaskar	Ph. D - 2018	No	NA	Yes	NA	NA	NA
					Mr. Praveen Kitti	Apr-17	Fractal Antennas
Dr. B. L. Prakash	PHD-2017	Yes	2017	Yes	Mrs.Ch. Kranthi Rekha	Apr-17	Bio-Medical Image Processing
Dr. V. Satya Srinivas	PHD-2014	No	NA	Yes	NA	NA	NA
Dr. P. Sudhakar	PHD-2019	No	NA	Yes	NA	NA	NA
Dr. S.Spandana	PHD-2019	No	NA	Yes	NA	NA	NA
Dr. Vallisree	PHD-2019	No	NA	Yes	NA	NA	NA
Dr. S. Saritha	PHD-2014	No	NA	Yes	NA	NA	NA
Dr. R.V. Durga	PHD-2019	No	NA	Yes	NA	NA	NA
Dr. N. Ravi Shankar	Ph.D-2012	Yes	2012	Yes	PadmaJoshi	2013	Information Security
Dr. B. V. Swathi	Ph.D-2010	Yes	2012	Yes	G.Praveen Kumar	2012	Data Mining
Dr. K. Kamakshaiah	Ph.D2018	Yes	2021	Yes	A.Harini Krishna	2021	Machine Learning
Dr. A. Sree Lakshmi	Ph.D-2020	No	No	Yes	No	No	No

Dr. K. Srinivas	Ph.D-2015	No	No	Yes	No	No	No
Dr. Ch. Ramesh Babu	Ph.D-2016	No	No	21/6/2021	No	No	No
Dr. R.K. Mohanty	Ph.D-2011	NO	NO	30/06/2021	No	No	No
Dr. L. Venkateswarlu	Ph.D-2019	NO	NO	YES	No	No	No
Dr. G. Soma Sekhar	Ph.D-2018	NO	NO	YES	No	No	No
Dr. Puja Prasad	Ph.D-2017	NO	NO	YES	No	No	No
Dr. A. Hari Prasad Reddy	Ph.D-2019	NO	NO	YES	No	No	No
Dr N. Rajesh Sri Vastava	Ph.D-2020	NO	NO	NO	No	No	No
Dr. D. Rakesh	Ph.D-2021	NO	NO	YES	No	No	No
Dr. S T Raj Mohan	Ph.D (Busi. Mgt.)	No	Nil	Yes	No	No	No
Dr. J. Pardha Saradhi	Ph.D (Busi. Mgt.)	No	Nil	Yes	No	No	No
Dr. A. Sita Madhavi	Ph.D (Busi. Mgt.)	No	Nil	Yes	No	No	No

# (e) Book chapters published

Sl. No.	Name of the Teacher	Title of the Book published	Title of the Chapter published	National / International	Year and month of publication	ISBN of the Book/Conference Proceeding	Affiliating Institute of the teacher at the time of publication	Name of the Publisher
1	Dr. A. Hari Prasad Reddy	"Intelligent Search method for Enhancing High- Level Concept Image Retrieval"	-	International	2021	978-16-67178394	Geethanjali College of Engg. and Technology	Lulu Publication
2	Dr. P. Srihari	Random Variables in Machine Learning	-	-	Nov-21	-	-	CRC Press, Taylor-Francis
3	Dr. P. Srihari	Weight based Codes-A Binary Error Control Coding Scheme-A Machine Learning Approach	-	-	Nov-21	-	-	CRC Press, Taylor-Francis
4	Dr. S. Vallisree	Performance Analysis of HIT- CZTS Tandem Solar Cell Towards Minimizing Current Losses	-	-	Sep-21	-	-	Springer

5	Dr. P. Sudhakar	Optimisation of Cloud Seeding Criteria Using a Suite of Ground- Based Instruments	-	-	Apr-21	-	-	Springer
6	Dr. P. Sudhakar	COVID-19 Social Distancing with Speech-Enabled Online Market- Place for Farmers	-	-	Mar-21	-	-	Springer
7	Ms. G. Sree Lakshmi	A Framework for Decimal Floating Point Multiplier Using Vinculum Multipliers	-	-	Mar-21	-	-	New Insights into Physical Science Vol.13 (Book Publisher International)
8	Dr. M. Aruna Bharathi	Innovative Teaching Practices For 4g Students	Methodology of Teaching Engineering Students Towards Improvisation of TL Process.	International	Geethanjali college of Engineering and technology	IOR International Press	-	-
9	Dr. M. Devaiah	Design, Aerodynamic Analysis and Fabrication of Agriculture Drone	NA	National	May-20	ISBN: 978-620-2- 66888-0	GCET	LAP Publishing House

Facilities	Existing up to 2019-20	Newly added in 2020-21		
Campus Area	10 Acres	2 Acres		
Class Rooms	66	2		
Laboratories	76	10		
Seminar Halls	4	0		
Class Rooms with LCD facilities	6	0		
Seminar Halls with ICT facilities	4	0		
Video centre	0	0		
Value of the equipment purchased during 2020-21 (Rs. In Lakhs)	1786.19	38.78		
Class Rooms with Wi-Fi or LAN	12	0		
Others (Elevators)	3	0		

# Infrastructure augmentation

# Major Books/Journals added in Library

Library service	• Existing		·	added in 20-21	Total		
type	No.	Cost	No.	Cost	No.	Cost	
Text Books	37,591	1,07,17,659	747	4,73,000	38,338	1,11,90,659	
E- Books	8,030	27,7460	1,384	57,820	9,414	3,35,280	
Journals	1,434	39,46,306	196	5,57,000	1,630	45,03,306	
E- Journals	23,453	1,02,42,643	1,109	5,74,180	24,562	1,08,16,823	

Programme Code	Programme Name	Number of students who appeared in the final year examinations	Number of students who passed in the final year examinations	Pass Percentage (%)
A01	B. Tech-CE	144	124	86.1
A02	B. Tech-EEE	138	131	94.9
A03	B. Tech-ME	127	121	95.2
A04	B. Tech-ECE	280	270	96.4
A05	B. Tech-CSE	264	244	92.4
E00	MBA	54	42	77.7

## Students results-outgoing batch-2021(Final Semester)

## Student internships (Details of students undertaking field work/projects/ internships/student projects

Programme	Programme	List of students undertaking field projects /
B. Tech- CE	A01	127
B. Tech- EEE	A02	120
B. Tech- ME	A03	129
B. Tech- ECE	A04	264
B. Tech- CSE	A05	265
B. Tech- IT	A12	64
MBA	E00	54

Summary of Placement details (Number of outgoing students who got placement offers during the year)

Placement Details summary for the AY 2020-21					
S. No	S. No Department No. of placements with multiple Remarks				
1	CE	32	25		
2	CSE	395	185		
3	ECE	302	194		
4	EEE	106	90		
5	ME	67	63		
	Total	902	557		

Highest salary package: Rs.10 LPA

Lowest salary package: Rs. 1.80 LPA

S. No.	Name of the Department	No of students gone for Higher
	-	Education
1	CE	03
2	EEE	03
3	ME	23
4	ECE	28
5	CSE	27

# No. of students going for higher education

## Students involvement in NSS activities

Name of the Activity	Organising Unit/ Agency/ Collaborating Agency	Name of the Scheme	Month and Year of the activity	Number of students who participated in such activities
International Day of Yoga -2020	GCET-NSS	NSS	Jun-20	10
Role of Youth in Nation Building During COVID-19	GCET-NSS	NSS	Sep-20	175

## NSS Activities held in 2020-21

S. No	Date	Locality in which event organized	Activity Organized/ Conducted	Impact of the activity conducted
1.	21/06/20	Online- session	International Day of Yoga - 2020	Our student had organized yoga programs and benefitted from yoga which is a growing trend of people around the world embracing Yoga to stay healthy and rejuvenated and to fight social isolation and depression has been witnessed during the pandemic. Yoga is also playing a significant role in the psycho-social care and rehabilitation of COVID-19 patients in quarantine and isolation.
2.	26/09/20	Online- session	Role of Youth in Nation Building During COVID-19	Our student had identified their responsibility in uncertain situations. Pandemics happen in waves. Now third wave is going on As in the case of any infectious disease, vaccination is the

	only way to reduce infection and control
	this pandemic.

# **Faculty achievements**

Department	Patents	Qualified in NET/SET/SLET/ NPTEL/MOOCs	Invited Talks/Chaired in Conferences	Obtained PhD while working in college
CE		1	2	
CSE	8	1	2	2
EEE	4	3	2	
ECE	10		19	
IT	1			
ME	1			
MBA		2		
FED		116	22	1

# **Student achievements**

Department	Hackathons /Project Exhibitions	IEEE Coding/ other coding competitions	Paper/ Poster Presentations
CE	1		1
CSE	1	16	0
EEE	12	2	
ECE	1	7	0
IT	1	1	
ME	3		2
FED	24		5

# Student participation in MOOCs/NPTEL Courses

S. No	Name of the Dept	No of students registered	No of students qualified
1	CE	00	00
2	EEE	01	01
3	ME	00	00
4	ECE	78	00
5	CSE	02	02
6	FED	02	02
7	MBA	78	56

## **Events Organized**

#### (a) Graduation Day report

Geethanjali College of Engineering and Technology, Cheeryal, Hyderabad organized the Twelfth and Thirteenth Graduation Day (GCET) on Saturday, October 09,2021 at 5.00pm. Outcome: The graduates received their degree certificates by taking a pledge, they promised to work for a better world, where their knowledge in Science and Technology will be used in socially responsible ways. Cash prizes and Medals are presented to the meritorious students of all branches. The flow of event was as follows:

Graduation was conducted on 9.10.2021 for the batches 2020 and 2021 passed out students. It was conducted in the open area lawn with a rain proof tent accommodation. **897 Alumni** participated in this program. The chief guest on the occasion was **Mr. Srinivas Ram Sagar** who is currently working as **Vice President, Software Engineering, United Health Group.** Considering the pandemic situation certain guidelines were followed during the conduction of the event. All Professors including Chief Guest, Chairman and Principal went on to the stage by a procession. The main event started at 5 PM and concluded at 8.30 pm. Live telecast was done.

Few Photographs of the event are given below:







## **Graduation Day**

## (b) Orientation Day

#### **Report on Student Induction Program Conducted for B. Tech I year Students**

List of activities conducted: The following activities are conducted for the I B. Tech students from 19<sup>th</sup> November 2020 to 19<sup>th</sup> December 2020.

- 1. Lectures and Workshops by Eminent People
- 2. Creative Arts and Culture
- 3. Physical Activity
- 4. Mentoring and Universal Human Values
- 5. Literary Activity
- 6. Diagnostic Test
- 7. Proficiency Modules
- 8. Familiarization with College, Dept./Branch
- 9. Visits in Local Area
- 10. Extra-Curricular Activities in College
- 11. Interaction with Peer Group and Alumni
- 12. Feedback and Report on the Program

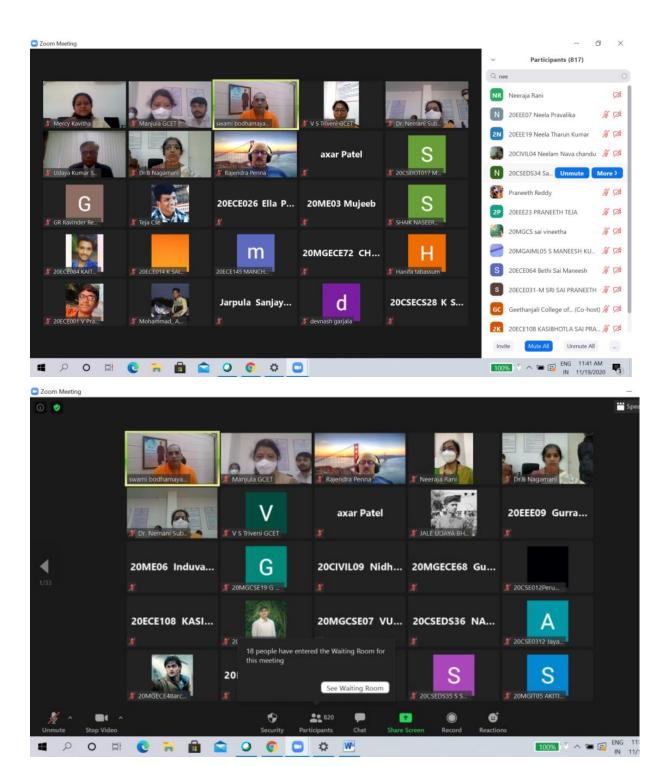
About 850+ students and all the faculty members of Freshman Engineering Department took part in the event.

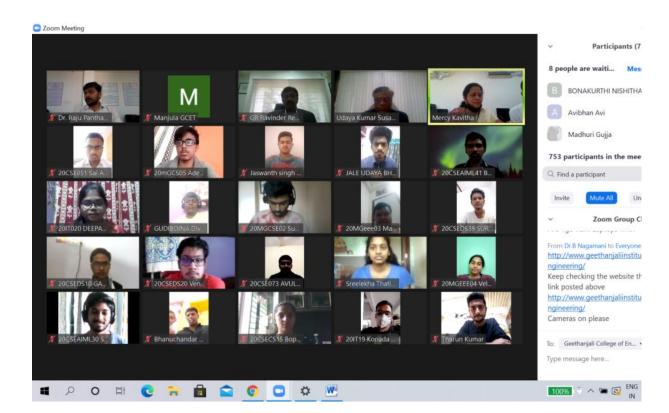
#### Few Photographs and vent reports are given below:

Lectures and Workshops by Eminent People: Veterans from various fields have shared their expertise on varied topics. The knowledge shared by the experienced resources persons is undoubtedly a great source of inspiration to mould themselves into responsible students and engineers.

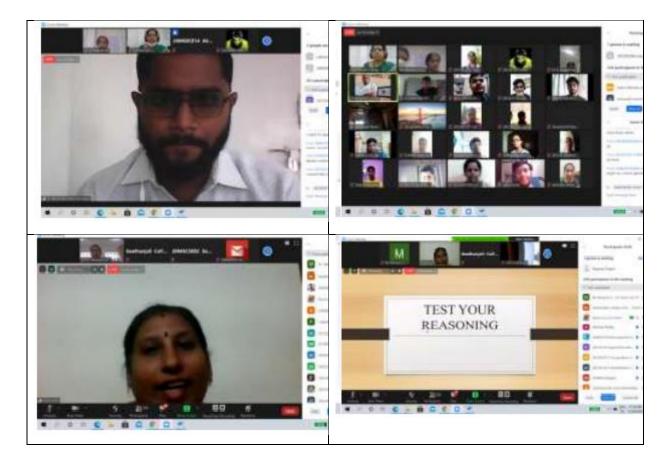
S.	Name of the Resource	Designation	Торіс
No.	Person Mr. Rajendra Kumar Penna	Entropyon over IT Solutions and	The need to Equip with
1	Mr. Kajendra Kumar Penna	Entrepreneur, IT Solutions and IT Products, USA	The need to Equip with 21 <sup>st</sup> Century Skills
2	Ms. G. Harini	Free Lancer	Proficiency in Problem
			Solving
3	Mr. K. Suryanarayana	Retd. Employee, TCS and HAL	Career guidance and Goal
			Setting
4	Mr. PrasanthDurgam	Free Lancer	3C's for Employability
			Skills
5	Mr. K. Pavan Kumar	Project Leader, L&T	Skill Development as per
		Technologies LTD	Industry Requirements
6	Mr. Narendra Rahul	Founder and CEO, Parna	Entrepreneurial Skills
		Technologies and Managing	
		Director of Mrida API Forms	
7	SwamyBalachandraSunku	Charted Accountant, Founder	Complete Personality
		Abhaya Foundation	
8	Dr. Balarama Durai	Professor NPTEL, Adjunct	Design Thinking
		Faculty, IISC Bangalore, IIT	
		Madras, IIT Gandhinagar	
9	Dr. Udaya Kumar Susarla	Principal-GCET	Professional Career
			Development
10	Dr. B. Nagamani	Assoc. Professor – FE - GCET	Importance of Online
			Courses
11	Dr. G. Neeraja Rani	HoD-FE- GCET	Introduction Semester I
			and Courses

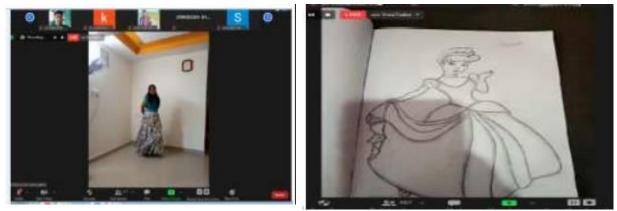
## Few Photographs of the Orientation Day Activities











**Creative Arts and Culture** 



Physical activity



# Mentoring and Human Values



**Environment Day** 

#### **Innovation and Incubation cell report**

We at GCET fervently believe that educational institutions are a mirror of future society. The foremost goal of education is to create men and women who are capable of doing new things, be creative in their thinking and add value in providing solutions to societal problems.

Towards this motive, we have established an incubation center which has been facilitating creativity and innovation among students and faculty. Its very purpose is to provide interactive and free-thinking environment, wherein students, faculty and others exchange ideas on problems facing society and providing environmentally friendly sustainable solutions to societal problems through innovative research projects working collaboratively and cooperatively with all concerned.

The philosophy of our incubation centre is to provide resources to students and faculty so that their ideas can be transformed to reality thereby generating an entrepreneurial culture among students and faculty. Ecosystem for innovation, creation and transfer of knowledge is largely constituted by the incubation centre which works in tandem with the R&D cell and entrepreneurship development cell of the college. Our Incubation centre has been working under the guidelines of Institute's Innovation Council (IIC) of Ministry of Education. We also have been in collaboration with J-HUB, a state government funded under section '8' incubation centre called, J-LABs at Jawaharlal Nehru Technological University Hyderabad (JNTUH), Kukatpally Hyderabad.

Design thinking and Entrepreneurship courses have been administered for students through faculty and also through industry experts, entrepreneurs, and community.

GCET has adopted the National innovation and Start-up policy (NISP) for encouraging and nourishing the innovation quotient and entrepreneurial abilities of the students, coming with innovative ideas and also has been improving the employability skills of students. The Centre invites ideas not only from students, faculty but also from others through its dedicated webpage.

Ideas are reviewed by a committee comprising of senior professors and accordingly seed money is made available to undertake Innovative projects and resulting IPRs are protected through patenting with financial support.

24-36Hr Hackathons, Ideathons are conducted periodically to identify potential ideas. An expert committee to guide the incubates is constituted with a mix of eminent personalities coming from different backgrounds *viz.*, serial entrepreneurs, venture capitalists, industrialists, alumni working in senior positions and enthusiastic faculty. We have currently three startups registered and incorporated with Ministry of Corporate Affairs, Government of

India, receiving incubation support from the GCET's incubation center. College also has registered with MSME, Government of India.

MoUs with various organizations were signed to strengthen the innovation activities to provide the information on entrepreneurship to the student and faculty. Our Center is motivating students to involve in the activities of the centre to come up with innovative ideas which are implemented practically for which necessary financial support and infrastructural facilities are provided.

Our eco-system is manifested by providing opportunities to students and faculty to showcase their products developed for technology transfer by forging and reinforcing connection between academic, research organizations, industry, businesses, and government.

Academic Year	No. of Projects	Final Regd. students	JHub / EXCITE Enrolled Students	Total no. of events
2020-21	115	555	9	15

Dept.	Courses
CE	1. Design of Reinforced Concrete Structures
	2. Health Monitoring and retrofitting of structures
	3. Transportation Engineering
	4. Engineering Hydrology
CSE	1. Advanced Data Structures,
	2. Object Oriented Programming through Java
	3. Web Technologies
	4. Operating Systems
	5. Computer Networks
	6. Compiler Design
EEE	1. Electric Circuits
	2. Instrumentation and Measurement Techniques
	3. Power Electronics
ECE	1. Electronic Circuit analysis and Design Lab
	2. Digital Design
	3. Antennas and Wave Propagation
	4. Microwave Engineering
	5. Signals and Systems Lab
	6. Digital Communications

## FDPs and STTPs conducted

S No	Name of the Workshop/ Seminar	Number of Participants	Date (From - To)
1	Five Week FDP on C-Programming (online mode)	41	28-09-2020 to 31-10-2020
2	English Language Skill Enhancement Training	12	09-12-2020 to 13-03-2021
3	Workshop on IoT Lab kit Installation	23	20-01-2021 to 22-01-2021
4	Training Program on IBM Analytics Tools	46	26-03-2021 to 30-03-2021
5	Webinar on "Digital Signal Processors- Hardware for Implementation of DSP algorithms" in association with RAS, SB GCET.	134	03-Apr-21
6	Timing analysis of Digital Circuits	28	31-Mar-21
7	How to Manifest Innovation & Entrepreneurship Ecosystem in the Student Community and Protection of IP for Innovations	52	26-Mar-21
8	Opportunities for Study abroad	36	24-Mar-21
9	FDP on "Project Oriented Lab" in association with IEEE SB, GCET	8	12-Mar-21
10	AICTE Training and Learning (ATAL) academy sponsored "Internet of Things(IoT)"	173	01-DEC-20 TO 05-DEC- 20
11	Ideathon	280	6 - 8 Dec 2021
12	Ideathon conducted in 2020-21	76	12-Dec-20
13	Innovation Ambassador as Mentor at other place	21	18-Jul-21
14	Webinar on "Why IP is Important?"	283	26-Apr-21
15	Webinar on "Business Model Canvas"	20	13-Jul-21
16	Nominations for Ignite (of JHuB) work shop series	86	21-Jul-21
17	Nominations to JHuB's Accelerator Program	18	21-Jul-21
18	Orientation session by Innovation Ambassadors for the entire college	194	27-Aug-21
19	Entrepreneurship day celebrations - Panel Discussion & Invited talks	50	21 - 24 Aug 21
20	Session on "Product fit for Market"	39	20-21 Jul 2021
21	Design Thinking Workshop	102	28Feb - 2nd Mar 2021
22	Webinar Design Thinking	63	01-Jun-21
23	Toycathon – Digital Nodal Center	10	01-Jun-21
24	A webinar on "Innovations & Entrepreneurship among students community"	103	01-Jun-21
25	Webinar on Business Model Canvas	36	10-Jul-21

26	Webinar on "Demystifying IPR"	177	12-Feb-21
27	Webinar on Intellectual Property Rights - Drafting and Claims	111	20-Oct-20
28	Interaction with Incubation Centers - innovation ecosystem	60	17-Jul-21
29	Webinar on Legal, ethical and financial aspects for a startup	45	08-Sep-21
30	Webinar on National Innovation and Startup Policy	218	21-Jan-21
31	Nominations for Shark Tank (JNTUH) - Investor Pitching sessions	0	21-Jan-21
32	Webinar on Steps to Start Up	118	01-Dec-20
33	Virtual Tour of Technology Business Incubator	177	01-Jan-20
34	Implementation of Design Thinking at Institute Level	94	20-Oct-20
35	Toycathon – Digital Training	22	01-Dec-20
36	Application Of Cad Tools In engineering	30	6-11 July 2020
37	Composite Materials for Engineering Application	90	13-Jul-20
38	Advances in CFD and its applications	250	23 Nov 2020 to 6 Feb 2021
39	Demystifying IPR	136	Feb 12 2021
40	Webinar - Content Writing and editing process	64	Jan 9 2021

## CACG activities

#### The following activities are conducted under CACG:

#### 1. Webinar on Career opportunities for study Abroad Aspirants held on 22-12-2020.

Maanya Review in association with Geethanjali College of Engineering and Technology organized an online orientation event on 'Career opportunities for study abroad aspirants' by Ms. Shabnum Banu who is the National Admissions manager of Maanya Review. She elaborated the opportunities available in US and European countries. The students were acquainted with funding and scholarship opportunities available for students of GCET. The students had a good interaction with Ms. Shabnum.

#### 2. Webinar on National Innovation and start-up Policy on 18-08-2021

The CACG in association with the Innovation Cell of GCET organised a webinar by Dr. V. Kaushik, CEO of VIBA. He is a PhD from BITS-Pilani Hyderabad Campus. In his role in VIBA he is encouraging students to take up entrepreneurship and innovation activities. In his talk on "National innovation and Start-up Policy" he elaborated the NESP guidelines and

oriented students on policies and programs which help students to explore innovation activities. He also gave guidelines to students on how to participate in hackathons.

#### 3. Counselling Session on "Vishwa" International Internship program on 26-01-2021

Vishwaniketan's Institute of Management Entrepreneurship and Engineering Technology, Maharashtra under the aegis of Dr.Sandeep Inamdar has introduced UG fellowship for encouraging students to take up international fellowship in foreign universities. The students would be doing a 6–8-week internship in foreign universities. This will give international exposure to students in terms of projects, environment and lifestyle. Dr. Inamdar gave an orientation inviting applications for UG fellowship.

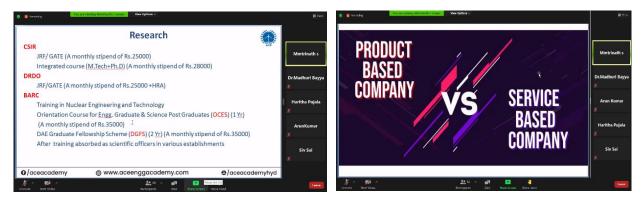
## 4. Interaction with Mr. Raaj Kurapati, Chief Financial Officer, University of Memphis, Tennessee on 29-03-2021

I20 Fever Hyderabad organised a session with Mr. RaajKurapati, Executive Vice President for Business & Finance and Chief Financial Officer for in Hotel Mercure Banjara Hills. They invited students and career guidance counsellors from various colleges in the city. Dr.Madhuri Bayya, Faculty-in-charge CACG at GCET attended the session interacted with the Dean in the online-zoom session organised at the venue. They have invited colleges to take up Master level programs and elaborated the assistance facilities in the university.

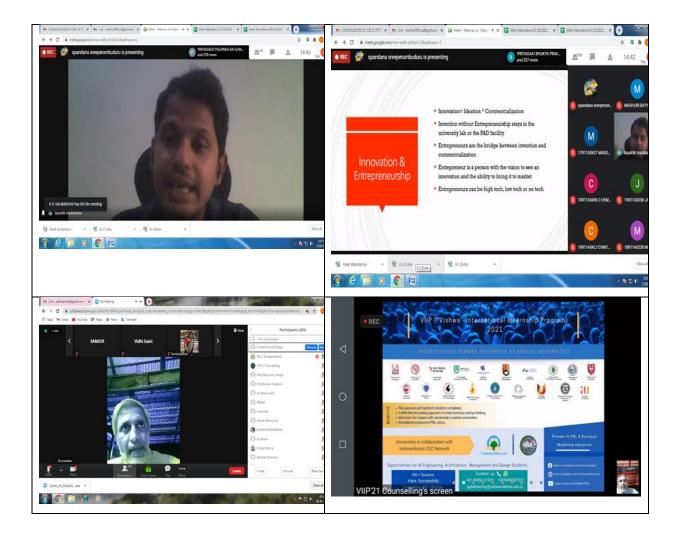
# 5. Webinar on 'Opportunities for Higher Studies, Research and Public sector initiatives for Engineering Students on 23-04-2021

ACE Engineering Academy trainer Mr. S. Mani Mohan Trinath had a session with students orienting them about opportunities in the software and core sector. He also elaborated the opportunities available for higher studies in India and abroad. The ACE academy facilitates training for GATE and GRE. He also told the students about research opportunities in India.

#### **Few Photographs**







## Accounts at a glance

S. No	Details	Budget Approved (Rs. in Lakhs)	Utilization Amount (unaudited) (Rs. in Lakhs)
PART-A (Capital Expenditure)		2020-21	2020-21
	a) Building Constructions		
1	b) Furniture & Fixtures	500.00	502.97
	c) Vehicles		
	d) Other Equipment		
2	Laboratory Equipment	175.00	125.00
3	Software	10.00	
4	Library Text Books & Journals	30.00	15.63
5	R & D	20.00	2.25
	Sub Total	735.00	645.85
PART-	B (Recurring Exp.)		
	a) Teaching Staff Salaries	1850.00	1680.00
4	b) Non-Teaching Staff Salaries	100.00	78.25
	c) Admin.& Contingency Staff	190.00	176.25
5	College Maintenance &	664.26	748.42
6	a) Vehicles Repairs & Maintenance	175.00	85.86
	b) Driver's Salaries	90.00	78.72
7	Laboratory Consumables&	26.00	13.10
	a) Seminars & Workshops	21.25	1.49
	b) Guest Lectures	13.25	5.46
8	c) Faculty Development Program	17.00	0.18
_	d) Staff Paper Publication	10.00	0.96
	e) Students Project Related	12.00	0.51
	f) Student Technical Activities	12.00	1.94
10	Training & Placement	70.00	44.39
11	Finance Interest Cost	325.00	545.72
Sub Total		3575.76	3461.25
	Total	4310.76	3919.32