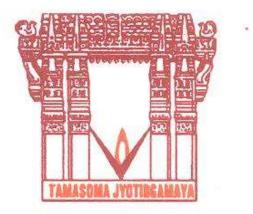
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY



Internal Quality Assurance Cell (IQAC) Submission of Annual Quality Assurance Report (AQAR) 2017-18



NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An autonomous Institute of University Grants Commission P.O. Box NO. 1075, Opp. NLSIU, Nagarbhavi, Bangalore – 560072 India

The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

	Part – A	
I. Details of the Institution		
1.1 Name of the Institution	VALLURIPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	
1.2 Address Line 1	Vignana Jyothi Nagar, Bachupally	
Address Line 2	Nizampet (S.O.)	
City/Town	Hyderabad	
State	Telangana	
Pin Code	500 090	
Institution e-mail address	postbox@vnrvjiet.in principal@vnrvjiet.ac.in	
Contact Nos.	040 – 23042758/59 Fax: 040-23042760	
Name of the Head of the Institu	ation: Dr. C.D. Naidu	
Tel. No. with STD Code:	040 - 23041516	

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Mobile:	+919391008138
Name of the IQAC Co-ordinator:	Dr. Poonam Upadhyay
Mobile:	+91 9885280251
IQAC e-mail address:	iqac@vnrvjiet.in
1.3 NAAC Track ID (For ex. MH)	COGN 18879) 14570
1.4 NAAC Executive Committee (For Example EC/32/A&A/143 This EC no. is available in the of your institution's Accreditat	dated 3-5-2004. right corner- bottom
1.5 Website address:	www.vnrvjiet.ac.in
Web-link of the AQAR:	p://www.vnrvjiet.ac.in/iqac/aqar(2017-2018).pdf
For ex. http://www	.ladykeanecollege.edu.in/AQAR201213.doc

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditatio n	Validity Period
1	1 st Cycle	А	3.21	2013	5 Years
2	2 nd Cycle	A++	3.73	2018	5 Years
3	3 rd Cycle				
4	4 th Cycle				

1.7 Date of Establishment of IQAC :

DD/MM/YYYY 18/02/2013

1.8 AQAR for the year (for example 2010-11)

2017-18

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((*for example AQAR 2010-11submitted to NAAC on 12-10-2011*)

- i. AQAR 2012-13 submitted to NAAC on 23-12-2013
- ii. AQAR 2013-14 Submitted to NAAC on 18-09-2014
- iii. AQAR 2014-15 Submitted to NAAC on 21-08-2015
- iv. AQAR 2015-16 Submitted to NAAC on 17-09-2016
- v. AQAR 2016-17 Submitted to NAAC on 29-08-2017

1.10 Institutional Status	
University	State Central Deemed Private
Affiliated College	Yes 🖌 No
Constituent College	Yes No 🗸
Autonomous college of UGC	Yes 🖌 No
Regulatory Agency approved In	nstitution Yes 🖌 No
(eg. AICTE, BCI, MCI, PCI, NO	CI)
Type of Institution Co-educati	on 🖌 Men 🗌 Women
Urban	✓ Rural Tribal
Financial Status Grant-	in-aid ☐ UGC 2(f) ✓ UGC 12B ✓
Grant-in-ai	d + Self Financing Totally Self-financing 🖌
1.10 Type of Faculty/Programme	
Arts Science	Commerce Law PEI (Phys Edu)
TEI (Edu) Engineerir	ng ✓ Health Science Management
Others (Specify)	

1.11 Name of the Affiliating University (for the Colleges)

Jawaharlal Nehru Technological University Hyderabad (JNTUH), Telangana.

1.12 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / Univ	versity UGC		
University with Potential for Excellence		UGC-CPE	✓
DST Star Scheme		UGC-CE	
UGC-Special Assistance Programme		DST-FIST	✓
UGC-Innovative PG programmes		Any other (<i>Specify</i>)	
UGC-COP Programmes			

2. IQAC Composition and Activities

2.1 No. of Teachers	14
2.2 No. of Administrative/Technical staff	09
2.3 No. of students	02
2.4 No. of Management representatives	02
2.5 No. of Alumni	01
2. 6 No. of any other stakeholder and	01
community representatives	
2.7 No. of Employers/ Industrialists	02
2.8 No. of other External Experts	01
2.9 Total No. of members	32
2.10 No. of IQAC meetings held	04
2.11 No. of meetings with various stakeholders	: No. 06 Faculty 02
Non-Teaching Staff Students 02	Alumni 01 Others 01
2.12 Has IQAC received any funding from UG If yes, mention the amount	C during the year? Yes No
2.13 Seminars and Conferences (only quality re	elated)
(i) No. of Seminars/Conferences/ Worksh	nops/Symposia organized by the IQAC
Total Nos. 01 International - N	ational - State - Institution Level 01
(11) Themes 1	SS & PREVENTION OF THE DISEASES" by burgical Specialist and Medical Director)

2.14 Significant Activities and contributions made by IQAC

IQAC has done the following activities :

- The Institute participated in NIRF 2018.
- The IQAC prepared the AQAR for 2016-17 and submitted the same in Aug. 2017.
- The IQAC submitted the NAAC SSR.
- The Institute celebrated World Intellectual Property Day-2018 on 26-4-2017 and conducted a seminar on the theme "Powering Change for Women in Innovation and Creativity."
- The IQAC celebrated "National Technology Day" and organized a seminar on 11th May, 2018.
- The IQAC conducted an Internal Audit on 19-9-2017 and 20-9-2017.
- An External Audit was conducted on 22-9-2017 and 23-9-2017.
- The first pilot project of VNR EXPRO for school children is being launched on April 3rd and 4th 2018. 250 students from Silveroaks International School, Bachupally were given an exposure to the projects done in VNR VJIET.
- The Institute conducted a 5-day **Design Thinking** Certificate Programme in association with Idea Labs, during March 09–14, 2018.
- The Institute celebrated International Day of Yoga on 21-06-2017.
- The Institute organized a Seminar on "Fitness Cleanliness & Prevention of Diseases on 14-05-2018
- The IQAC organized a Foundation Program in ICT for Education (FDP101x) from 3rd August 2017 to 7th September 2017.
- The IQAC organized a workshop on "Pedagogy for Online and Blended Teaching-Learning Process" - FDP201x on 16, 17 September 2017 and 07,08 October 2017
- The IQAC organized a workshop on "Introduction to Machine Learning" 16.12.2017 (Saturday) and 17.12.2017 (Sunday)

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality

enhancement and the outcome achieved by the end of the year \ast

Plan of Action	Achievements
Course based Projects to every	Implemented from A.Y. 2017-18 onwards
Branch Students	
Improvement in the Faculty Quality	116 Faculty are with Ph.D
Moodle training for Faculty	All faculty are trained
Establishment of Design Centre	Centre is established and a course is also included in the
	new curriculum from the A.Y. 2018-19
Sensitization of Research Schemes	Faculty are well updated and applying for the reputed
	organization
Internal and External Audit	Conducted Internal Audit on 19-09-2017 and 20-09-2017
	Conducted External Audit on 22-09-2017 and 23-09-2017
Submission of NAAC SSR for	Successfully completed with the A++ grade with the score
cycle2	of 3.73 CGPA

* Academic Calendar of the year as Annexure i.

2.15 Whether the AQAR was placed in statutory body	Yes 🖌 No
Management ✓ Syndicate	Any other body
Provide the details of the action taken	

IQAC recommended that every faculty must try to publish their research papers in high impact factor Scopus Indexed Journals and in Science Citation Index (SCI) journals of high impact factor.

This is given importance in the annual performance appraisal of faculty members

Criterion – I

<u>1. Curricular Aspects</u>

1.1 Details about Academic Programmes

	Number of	Number of	Number of	Number of value
Level of the	existing	programmes	self-financing	added / Career
Programme	Programme	added during the	e	Oriented
	S	year	programmes	programmes
PhD				
PG	09	04		
UG	08			
PG Diploma			All Programs	
Advanced Diploma			are Self -	31
Diploma			Financed	
Certificate				
Others				
Total	17	04		
Interdisciplinary				
Innovative				

S. NO	Dept. Name	Course Name
1	CE	"Project Management using Primavera"
2	UE	"Advanced course on AutoCAD"
3		Solar PV Technologies & embedded system Applications
4	EEE	Design Thinking Certification
5		Python Programming
6		Siemens Industrial Automation PLC & SCADA
7	ME	Design thinking
8	IVIL	JAVA Programming
9		Networking
10		IoT and Python-IB hubs
11	ECE	Integrated Circuit and System Design using CAD Tools
12		IoT Bootcamp and Hackathon
13		Intel- IoT
14		Cyber Security
15		Data Analytics with Python and R
16		R Programming
17		Python Programming
18		PEGA Technologies
19	CSE	Cyber Security
20		Cloud Computing
21		Design Thinking
22		Python
23		R Programming

24		Design Thinking(Institute Level)
25	EIE	IoT
26		Phython Programming
27	AME	Certificate Course on Catia Mechanical Specialist
28	AME	Certificate Course on Catia
29	IT	Python Programming
30	11	Python Programming
31	H&S	Business English Certificate

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options :

Elective Option and Open Elective Option

(ii) Pattern of programmes:	
-----------------------------	--

10	
Pattern	Number of programmes
Semester	21 (08 UG and 13 PG)
Trimester	
Annual	

1.3 Feedback from stakeholders*	Alumni	✓	Parents	✓	Employers	✓	Students	\checkmark	
(On all aspects)	 						J		_
Mode of feedback : Onl	ine 🗸	Ma	nual 🗸		o-operating s	schoo	ls (for PE	I)	

*Please provide an analysis of the feedback in the Annexure

Annexure – ii : Student feedback format with sample analysis.

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

- The Curriculum changes are based on participation by and suggestions from Stakeholders.
- Internship as a credit course
- More emphasis in experiential Learning with Lab linked course
- Mandatory induction program in Ist year Ist Sem.
- Enhanced flexibility in the Open Elective and Professional Electives.
- Exclusive Design Thinking course in the curriculum.
- The curriculum was augmented with certificate courses.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Yes.

Competency Development Centre is Established

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
352	252	55	45	

2.2 No. of permanent faculty with Ph.D.

116

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Pr	ofessors	Associate F	Professors	Profe	essors	Oth	ners	То	tal
R	V	R	V	R	V	R	V	R	V
14	0	03	0	03	0	0	0	20	

2.4 No. of Guest and Visiting faculty and Temporary faculty

06	05	

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	97	144	17
Presented papers	97	23	7
Resource Persons	08	5	5

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- Open Elective System
- Teaching Learning Practice through **WIT and WIL**
- Laboratory practices through **Story Board** and **VNR Lab Protocol**
- Project Based Learning through **course projects**
- Project Demonstration in Show and Tell
- Flipped Class Room Methodology
- Advanced Communication Skills training as part of curriculum
- Testing of Higher Order Thinking Skills (HOTS)
- High Intensity training programs for placements and competitive exams
- Blended learning
- Experiential Learning
- Certificate Courses in advanced area as part of curriculum
- Hackathon a continues assessment system is introduced.

2.7 Total No. of actual teaching days during this academic year

180

Bar Coding

2.8 Examination/ Evaluation Reforms initiated by the Institution

(for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

146 207 114

2.10 Average percentage of attendance of students

80

2.11 Course/Programme wise distribution of pass percentage :

Title of the	Year of	Total no. of		Div	vision		
Programme	I Semester	students appeared	Distinction %	۱%	II %	III %	Pass %
	I	118	54.28	20.33	2.54	0.00	77.11
65	II	143	46.58	17.48	9.79	0.00	74.12
CE	III	142	54.22	22.53	7.04	0.00	83.80
	IV	136	82.35	12.5	0.00	0.00	94.85
	I	120	18.33	43.33	31.67	4.17	85.83
	II	138	40.58	15.22	7.97	15.22	65.94
EEE		139	59.71	17.99	9.35	5.04	89.21
	IV	141	34.04	41.13	14.18	2.84	82.98
	I	120	49.17	20.83	4.17	0.00	74.17
NAE	II	143	47.55	20.28	1.40	0.00	69.23
ME	III	141	64.54	12.77	4.96	0.00	82.27
	IV	143	77.62	4.20	0.00	0.00	81.82
	I	240	79.58	11.67	2.50	0.00	93.75
FCF	II	213	46.01	23.94	7.04	0.00	77.00
ECE	111	281	61.92	15.30	3.20	0.00	80.43
	IV	278	79.14	9.71	5.04	0.00	93.88
	I	178	68.54	15.17	1.69	0.00	85.39
IT	II	70	54.29	17.14	2.86	0.00	74.29
	III	71	64.79	9.86	1.41	2.82	78.87
	IV	61	75.41	9.84	4.92	1.64	91.80
	I	121	28.93	23.14	11.57	0.00	63.64
EIE	II	143	38.46	12.59	5.59	0.00	56.64
LIL	III	131	61.07	20.61	6.87	0.00	88.55
	IV	129	71.32	14.73	4.65	0.00	90.70
	I	238	78.99	11.34	2.52	0.00	92.86
CSE	II	145	62.07	14.48	2.07	0.00	81.38
CJL	III	278	75.54	11.87	1.80	0.00	98.20
	IV	280	74.64	6.79	0.71	0.00	91.79
	Ι	52	15.38	15.38	5.77	3.85	40.38
AME	II	67	14.93	8.96	7.46	0.00	31.34
,E	III	67	23.88	13.43	22.39	1.49	61.19
	IV	57	59.65	33.33	1.75	0.00	94.74

Revised Guidelines of IQAC and submission of AQAR

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes :

The **IQAC** evolved its own mechanism for monitoring and evaluating the Teaching Learning process. It ensures that quality teaching and this takes place through

- a) Suggestions on methods for quality teaching/ learning, evaluating and analysing results and suggesting measures for improvements.
- b) Analysis of student's feedback and stakeholder's feedback.
- c) Monitoring of student and staff attendance on a daily basis.
- d) Preparing quality indices on Teaching/ Learning parameters to check lag and lead indicators for further improvements and corrections.
- e) Student profile analysis is done by IQAC
- f) Feedback form is obtained from students through a structured questionnaire.
- g) Feedback form is sent to the Departments for further action.
- h) Department level committee analyses and monitors the Teaching & Learning Process.
- i) Several Brain-storming sessions were conducted for improving the teaching / learning process.
- j) Several Brain-storming sessions were conducted for implementing WIT/WIL in the teaching / learning process.

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	62
UGC – Faculty Improvement Programme	16
HRD programmes	58
Orientation programmes	13
Faculty exchange programme	06
Staff training conducted by the university	13
Staff training conducted by other institutions	23
Summer / Winter schools, Workshops, etc.	128
Others	12

2.13 Initiatives undertaken towards faculty development

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	96			
Technical Staff	80			

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- IQAC provides information about various research proposals and scope for publications to the faculty members through the Institute's Research and Consultancy Centre (RCC).
- It recognises faculty members who have made significant contribution to research through RCC.
- IQAC analyses research publications, research projects and promotes quality research.
- Updating the faculty on new areas of research through Seminars and Guest Lectures
- Promotes research by recommending incentives to the faculty to publish papers in peer reviewed journals and conferences
- Faculty Research Interest groups are formed to promote research interest among faculty
- Sensitizing the staff on Research funding.
- Scopus indexed publications are compiled.
- List of UGC approved/ Scopus indexed journals are sent to Departments.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	9	3	13
Outlay in Rs. Lakhs	-	93.48	23.44	356.79

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	6	2	-
Outlay in Rs. Lakhs	3.5	10.15	7.57	-

3.4 Details on research publications

	International	National	Others
Peer Review Journals	226	10	0
Non-Peer Review Journals	0	0	0
e-Journals	0	0	0
Conference proceedings	101	9	6

3.5 Details on Impact factor of publications:

Range 0 - 7	.21 Average	4.672	h-index		Nos. in SCOPUS	92
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3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned (in lakhs)	Received (in lakhs)
	2	DST- Device	Rs.	-
	Years	Development	12,00,000	
Major projects		Program,		
	3	AICTE-RPS	Rs. 4,27,176	Rs. 4,20,768
	Years			
	17-18	UGC &	Rs. 1,35,000	Rs. 45,000/-
Minor Projects		Department of		
		Atomic Energy		
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the				
University/ College				
Students research				
projects				
(other than compulsory				
by the University)				
Any other(Specify)				
Tatal			Rs.	Rs.
Total			17,62,176/-	4,65,768 /-

3.7 No. of books publish	ed i) With ISBN No	0. 03 Chapte	ers in Edited Books 06
3.8 No. of University De	ii) Without ISBN partments receiving f		
	UGC-SAP	CAS	DST-FIST ✓ DBT Scheme/funds
3.9 For colleges	Autonomy INSPIRE	CPE	DBT Star Scheme Any Other (specify)
3.10 Revenue generated	through consultancy	Rs. 33,13,155 /-	

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	01	01			
Sponsoring	AICTE, VNRVJIET and	AICTE			
agencies	Sponsoring Agencies				

3.12 No. of faculty served as experts, chairpersons or resource	e persons 36		
3.13 No. of collaborations International 16	National 91	Any other	08
3.14 No. of linkages created during this year 94			
3.15 Total budget for research for current year in lakhs :			
			7

From Funding agency	38.42	From Management of University/College	8.27
Total	46.69		

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	04
	Granted	
International	Applied	
	Granted	
Commercialised	Applied	
	Granted	

3.17 No. of research awards/ recognitions received by faculty and research fellows Of the institute in the year

Total	International	National	State	University	Dist	College
51	2	24	01	24	0	0

3.18 No. of faculty from the Institution who are Ph. D. Guides

23	
-	
79	

and students registered under them

3.19 No. of Ph.D. awarded by faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF	03	SRF		Project Fellows		Any other		
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3.21 No. of students Participated in NSS events: 40 State level 5 University level National level International level 3.22 No. of students participated in NCC events: State level University level National level International level 3.23 No. of Awards won in NSS: State level University level 2 2 National level International level 3.24 No. of Awards won in NCC: State level University level _ National level International level 3.25 No. of Extension activities organized College forum University forum \checkmark NCC NSS ✓ Any other VNRSF

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

- Blood donation camp
- Special camp Social Services in Manthur, Reddipalli, Nagsentalli villages
- Medical camp
- Eye camp
- Drug Abuse campaign
- Clay Ganesha event
- Salute Parade
- Think VNR
- Saaradhi
- SOCH (Idea competition for students)
- WILL YOU BE MY TEACHER (Motivation talks by volunteers to the government school children)
- I'M NOT A HERO (Inspiring talk by young entrepreneurs and social workers)
- RAITHANNA AVISHKARANA (Interaction with innovative farmers and exhibition of their inventions)
- VERTICAL GARDENING

- NSS ORIENTATION (Orientation about NSS by senior volunteers to freshers)
- IDEAL-6 (I Donate for Education And Learning)
- Plant For The Planet Project
- PRAJA (A mind sport especially organized for the Social Enthusiasts)
- WOW –Wealth out of waste
- JAGRUTHI (Right to Information Act, INDIAN Trade, Civic Responsibilities, Environmental and Political Obligations etc)
- NAARI SHAKTHI (An awareness talk conducted by VNR Student Force on the occasion of International Women's day)
- ASPIRE TALKS (to educate the students and other fellow beings in social aspects)

Criterion – IV

4. Infrastructure and Learning Resources

Facilities	Existing	Newly	Sources of Funds	Total
		created		
Campus area	21.13 Acres		Donation from Patrons of	
_			the society	
Class rooms	101		Donation from	
	(62 class rooms +		Patrons of the society	
	39 Tutorial rooms)		Tuition Fee	
Laboratories	122		• Institute	
Seminar Halls	23		• Institute	
No. of important equipments	82	39	FIGT	121
purchased ($\geq Rs \ 1-0 \ lakh$)			• FIST	
during the current year.			• Institute	
Value of the equipment	287.13	105.59		392.72
purchased during the year			• Institute	
(Rs. in Lakhs)				
Others				

4.1 Details of increase in infrastructure facilities:

- 4.2 Computerization of administration and library
 - Campus Automation Management system
 - Complete Wi-Fi in campus
 - Website for public access
 - Electronic Resource management
 - E-journals
 - Content Management
 - Computers and Printers
 - Computerized Library services.

4.3 Library services:

	Exis	sting	Newly	added		Total
	No.	Value in Rs	No.	Value in	No.	Value in Rs
				Rs		
Text Books	73212	172,71,840	2982	12,04,931	76194	184,76,771
Reference Books	13861	172,71,040	93	12,04,931	13954	104,70,771
e-Books	2528	Downloads	245		2773	
Journals	257	6,55,252	17	23,983	274	6,79,235
e-Journals	10 packages	24,27,541	77	1,10,093		25,37,634
Digital Database			1	75,034		75034
CD & Video	2406	Downloads	107			
Others (specify)	1465	361855	39	12095		
Weeding (Hard						
copy & Soft copy)						

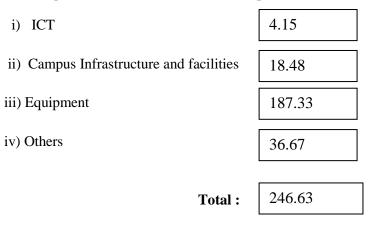
4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Institute Computer Centres	Office	Depart- ments	Others
Existing	1600	27	355 MBPS	1	1	3	9	0
Added	377	00	200 MBPS	0	0	0	0	0
Total	1977	27	500 MBPS	1	1	3	9	0

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

- Campus Automation Management system
- Complete Wi-Fi in campus
- Website for public access
- Electronic Resource management
- E-journals
- Content Management
- Computers and Printers
- Computerized Library services.
- Training to the faculty on the use of **MOODLE**

4.6 Amount spent on maintenance in lakhs of rupees:



Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- The IQAC through the 'Student Service Centre' promotes awareness about the student support services.
- The IQAC with the help of Deans and HoD's conducts seminars and Guest lectures for the UG and PG students to update them on advanced research areas and stimulate their minds.
- The IQAC promotes research and project work among the students by providing in-house facilities like laboratories and sponsoring them for internship projects in multinational companies. The students are also encouraged to attend conferences and workshops.
- Further, the IQAC through the institute, provides support to students seeking admission into foreign Universities to pursue higher studies.
- The IQAC ensures that the Training and Placements office works in collaboration with the faculty, students, industry and the government agencies in providing career guidance, enabling interaction with industry, and creating opportunities to discuss career choices with experts from industry.
- The Placements Office is instrumental in providing training to students, identifying placement opportunities and helping the students find excellent placement opportunities.
- Each student is assigned a Mentor (faculty advisor) at the time of his / her initial enrolment for advising students on course selection and registration, monitoring academic performance, and offering assistance to students in academics.
- Corrective measures are taken based on students feedback through
 - 1. Grievance redresse1 cell
 - 2. Women's support cell
 - 3. Finishing school

5.2 Efforts made by the institution for tracking the progression

- Student progression is tracked through MTP Books
- Result analysis and improvement is also tracked ; remedial classes are arranged accordingly
- Review of Seminars/Presentations of Projects at 'Show & Tell' Platform
- Daily Attendance tracking through Campus Automation System and alerting the students, parents through SMS.
- Apart from MID Exams, Assignments and End exams, continuous in-house assessment through tests, assignments, Group Discussions, Presentations etc. and continuous feedback.

5.3 (a) Total Nu	mber of	students	UG	PG	Ph. D.	Others		
			4741	286	-	-		
(b) No. of students outside the state 53								
(c) No. of in	iternatio	nal studer	nts	00]			
Men	No	%	Women	No	%	7		
	3274	35.12		1753	34.87]		

Last Year						Т	his Yea	ar			
General	SC	ST	OBC	Physically Challenged		General	SC	ST		Physically Challenged	
2223	524	210	1679	11	4636	2335	552	207	1933	-	5027

No. of Applications for other category (Other than Convenor quota) : 2223 No. of seats for other category: 425

Demand ratio : 5.23

Dropout % : 0 %

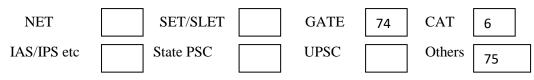
<u>Note:</u> Convenor quota admission is thorough web counselling hosted by the Affiliating University i.e. JNTU Hyderabad

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- Classes are conducted for students to train them for placements and competitive exams through Advanced English Communication Skills Lab and Finishing School.
- Campus training is provided for other competitive exams also apart from campus placements.
- High Intensity Training Programmes are conducted.
- An exclusive Student Service Centre
- Student professional development through Clubs coordinated by faculty member.
- TIME, Employability Bridge, First Naukri etc have conducted assessments for competitive exams and further trainings are planned as per the requirement

No. of students beneficiaries

5.5 No. of students qualified in these examinations



5.6 Details of student counselling and career guidance

Student counselling and guidance is provided through mentors.

- Mentor to student ratio is 1:20
- Each mentor takes care of the academics and welfare of the student assigned.
- Parents are updated about the performance by the mentors by meetings and communication through SMS and Mails.
- Certificate courses are conducted for career advancement.

No. of students benefitted

1040

5.7 Details of campus placement

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
106	1089	896	

5.8 Details of gender sensitization programmes

- Screening Short Films and students presenting reviews on Girl, Babbai etc.
- Role Play: Enacted in the class rooms
- Safety & Security of Women and other gender issues: Screening of short films followed by group discussion
- Is gender a social and cultural construct? Oral Presentation by the English Teaching Faculty
- Poster Presentation on Gender issues by students
- Screening Short films to create awareness about Gender Equity followed by an interactive session and Group Discussions.
- Project work: study gender issues and make presentations
- Role Play: Enacted in the class rooms
- Safety & Security of Women and other gender issues: Screening of short films followed by group discussion
- Is gender a social and cultural construct? Oral Presentation by the English Teaching Faculty
- Poster Presentation on Gender issues by students
- Screening Short films to create awareness about Gender Equity followed by an interactive session and Group Discussions.
- Project work: study gender issues and make presentations
- NAARI SHAKTHI
- Social Assembly on 'Is VNRVJIET ready to accept LGBTQ in the Institute' during Convergence-Technical Fest

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level	332	National level	124	International level	
No. of students participa	ted in cul	tural events			
State/ University level	08	National level	02	International level	-
5.9.2 No. of medals /awards w	on by stu	idents in Sports, C	Games an	d other events	
Sports : State/ University level	69	National level	06	International level	
Cultural: State/ University level	08	National level	02	International level	-

5.10 Scholarships and Financial Support

	Number of students	Amount in Rs
Financial support from institution	43	Rs. 58,91,025 /-
Financial support from government	1185 (as on 29-06-2018)	Rs. 7,49,27,600 /-
Financial support from other sources		
Number of students who received International/ National recognitions		

5.11 Student organised / initiatives

Fairs	: State/ University level	07	National level	02	International level
Exhibitio	n: State/ University level	01	National level	02	International level
5.12 No. of social initiatives undertaken by the students					6
5.13 Maj	or grievances of students (i	f any) rec	dressed:		

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

VISION

To be a World Class University providing value-based education, conducting interdisciplinary research in cutting edge technologies leading to sustainable socio-economic development of the nation.

MISSION

- To produce technically competent and socially responsible engineers, managers and entrepreneurs, who will be future ready.
- To involve students and faculty in innovative research projects linked with industry, academic and research institutions in India and abroad.

6.2 Does the Institution has a management Information System

Yes, the institution has a Management Information System (MIS) that takes care of the following services.

- Automation of Attendance and Administration
- Academics and Library
- Online Examinations & Result Declaration
- Digitization of Service Records
- E-Circulars through Intranet
- Online Payment of Fees
- Availability of hall ticket online

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

The following Curriculum improvement strategies were adopted by the institution.

- Interdisciplinary courses are offered as Open electives
- Courses reflecting societal / Industry needs are introduced
- Courses focusing on Skill development and Employability skills are provided
- The CBCS is adopted to enable learning of cross domain subjects/ technologies and take up inter-disciplinary project work.
- Stake Holders feedback is taken while devising the curriculum
- Benchmark with Premier Institutes
- An Outcome-based curriculum enriched with Certificate courses is designed with stake holder's feedback to meet changing demands of the industry and society.
 - > 70 % of the courses are revised to cater to the needs of Society and Industry.
 - > 95% of the courses are focused on employability and skill development,
 - ➢ 5% of the courses are focused on entrepreneur development

- The institute introduced inclusive courses on Human Values & Professional ethics, Environmental Science and gender equality which are offered in various programs.
- Courses related to emerging areas in the field of cyber space are introduced.
- Courses such as Environmental Studies Environmental Engineering Ground Water Management National River Conservation Plan National Afforestation Programme that are in alignment with Government of India's Initiatives are introduced.
- The curriculum incorporates value added courses, Field Projects and Internships.

6.3.2 Teaching and Learning

- Learner-Centric Teaching Methodologies such as VNR Lab Protocol TM, WIT & WILTM, SHOW AND TELLTM, Open House, Course-Based Projects, Project Based Learning, Internships/Industry Oriented Mini Projects POGIL (Process Oriented Guided Inquiry Learning), Learning By Doing (LBD), Flipped classroom & Blended learning, Think Pair Share, and Storyboard are initiated.
- The faculty are trained on the ICT methodologies
- The faculty are continuously updated in teaching methodologies/knowledge through faculty development programmes, workshops and seminars.
- E-learning / online learning is encouraged in addition to the traditional class room teaching-learning practice.
- Students are given Industry exposure through Internships.
- A Learning Management System is in place for Online Self Learning Resources.
- The Institute Established Remote Centre For NMEICT,
- Initiated Nodal center for training,
- Registered for SWAYAM NPTEL Local Chapter
- Established Association with IITB for spoken tutorials.
- The quality of Teaching, learning and evaluation is improved by conducting
- Remedial Classes for weak students to improve their academics
- Tutorials and Video lectures to enlighten the students.
- Micro teaching sessions for low performing faculty based on CRC reviews and Feedback.
- E-learning is promoted through ICT, opening an NPTEL Local Chapter is an example for this.
- Continuous online assessment process called Hackathon-is also introduced for assessing the students.

6.3.3 Examination and Evaluation

The Reforms carried out in the Examination Procedures and Processes are:

- Continuous evaluation is done through various tests from time to time.
- Mini project done by the student is continuously reviewed at 3 stages.
- Introduced online mode of tests for assignments as a part of continuous evaluation system.
- Student evaluation system is changed from Percentages to Grading system.
- ICR/OMR technologies are used in the conduct, evaluation and processing of results for avoiding manual coding of answer scripts.
- An industry oriented mini-project, seminar, comprehensive viva-voce and project work is given a weightage of 50, 50, 50 and 200 marks respectively.
- Question paper is thoroughly scrutinized to ensure the standards, spread of the syllabus and mapping of COs and following BLOOMS taxonomy.
- Students are educated on POs, PSOs, PEOs (also displayed in website).
- Complete automation of examination processes is done.

6.3.4 Research and Development

In order to promote Research and Development, the following were initiated.

- Sensitization program is conducted to promote research and extension.
- 10 Centres of Research in various departments focusing and working towards research and extension
- Special Interest Groups in specific Domains to carry out a focused approach towards the developments in the respective areas.
- Established Design Centre.

6.3.5 Library, ICT and physical infrastructure / instrumentation

As a Quality Improvement Strategy, the Institute accomplished the following:

- 75 ICT enabled classrooms
- 120 Laboratories
- Auditorium and 13 Seminar Halls
- Hostels for girl and Boy students
- 1629 E-journals from IEEE, Science Direct, ASCE, Springer, ASME, ACM
- Learning Management system-MOODLE is used to manage the courses.
- 5100 video Lectures from IITs, MIT, University of Berkely
- Grid connected solar plant is in use in campus and 100KWp in hostels
- 350Mbps dedicated leased line Internet facility is available to cater to the academic & research needs of the Campus.
- The institution is completely Wi-Fi enabled.
- Kindle E-books are made available in the library.
- 2:1 Student Computer Ratio is being maintained in the institute.
- 210 CC Cameras installed for video surveillance

6.3.6 Human Resource Management

The institute has excellent strategies/ norms for Human resource Management. It ensures that

- Payroll is as per norms
- Time and Attendance are monitored on a daily basis
- Performance record is maintained
- Performance appraisal is conducted
- Faculty and Staff recruitment are always based on merit.
- Seminars / trainings are conducted to train the newly recruited faculty
- Micro-teaching workshops are conducted for the new faculty
- Several internal workshops are held to train the faculty and staff to enable them to update their knowledge.
- IQAC creates awareness among faculty regarding quality
- Grievance cell is present to address issues for both staff and students

6.3.7 Faculty and Staff recruitment

The institute follows UGC guidelines to recruit faculty and staff and recruits faculty based on merit and need in the Department.

- The HR Office co-ordinates with the respective stakeholders for advertising in all leading Newspapers and Institute Website.
- Applications are received by post / e-mail /in person in response to such advertisements, are duly acknowledged by automated mail and sent to the respective Deans of Schools.
- Faculty are recruited through interviews by properly constituted selection Committee.

- Diversity is maintained in recruiting Faculty and Staff.
- Faculty recruitment is as per guidelines
- Ratification of Faculty by University Selection Committee

6.3.8 Industry Interaction / Collaboration

The institute has

- Encouraged consultancy projects with and without financial benefits.
- Entered into a Memorandum of Understanding (MoU) with reputed industries
- Promoted industry sponsored internships and projects
- Guest Lectures by Eminent personalities from Industry

6.3.9 Admission of Students

Students are admitted on the basis of merit through state wide entrance examination EAMCET for Under Graduate program and PGCET for Post Graduate program conducted by State Government.

✓ Yes

No

	Teaching	Group Insurance
6.4 Welfare schemes for	Non teaching	Medical Assistance
	Students	Insurance
6.5 Total corpus fund genera	ted in Rs R	S. 20,15,60,254 /-

- 6.6 Whether annual financial audit has been done
- 6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type		External	Internal		
	Yes/No	Agency	Yes/No	Authority	
Academic	Yes	Prof. MG. Sethuraman and Team	Yes	Academic Audit Cell	
Administrative	Yes	Prof. MG. Sethuraman and Team	Yes	Nominated team of the Institute	

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes	Yes	✓	No	
For PG Programmes	Yes	✓	No	

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

- CGPA System is used for the award of division.
- Online tests are conducted for Assignment.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

The university is encouraging and participating in Board of Studies meeting and Academic Council.

- Autonomy is promoted by encouraging lab linked theory courses in the curriculum.
- Providing more options for elective courses
- Providing options like Finishing School to take value added courses for better employability.
- Bringing in a change by introducing Choice based Curriculum
- Making conscious efforts towards supporting the socially disadvantaged section through learning and financial support

6.11 Activities and support from the Alumni Association

- Motivating Guest Lectures for the III Year students from Alumni.
- Alumni offer internships and projects to the present students in their organizations.
- Inputs on Curriculum design keeping in view Industry requirements.

6.12 Activities and support from the Parent – Teacher Association

- Parents are regularly invited to discuss the need / problem / progress of their wards.
- Relationship Management Cell is created chiefly to strengthen the parent- teacher relationship.

6.13 Development programmes for support staff

- Training / workshops/seminars are conducted.
- Academic / study leaves are granted to encourage higher education.
- Financial support is given for acquiring higher qualification.

6.14 Initiatives taken by the institution to make the campus eco-friendly

The Environment friendly measures undertaken are:

- Installation of Solar Power Grid
- Plastic-free environment
- E-waste management
- Rain Water Harvesting structures
- Green landscaping with trees and plants
- Using bicycles in the Campus
- Waste management which includes
- Solid waste management
- Liquid waste management
- E-waste management
- Paperless office

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Best Practices:

- WIT & WIL
- VNR Lab Protocol (TM)
- Career Vision Approach (TM)
- Hackathon A continuous online assessment process.
- Moodle
- Show and Tell
- Teaching through Learning by Doing (LBD) methods
- Design Thinking
- Course-based Projects
- Societal Impact Projects.
- 7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year
 - EEE Dept. conducted International Conferences
 - Placements have been improved
 - The quality of Faculty Publications has improved to a large extent.
 - Research Projects have been considerably increased.
 - Efforts have been made to improve consultancy.
 - Beautification of the Campus has been accomplished.

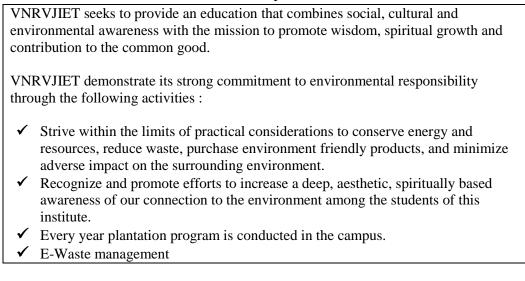
7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)

- 1. Fusion of "Learner-centric Pedagogy" to achieve Graduate Attributes.
- 2. Societal Empowerment through Student Projects

*Provide the details in annexure (annexure need to be numbered as i, ii,iii)

Annexure – iii : Best Practices.

7.4 Contribution to environmental awareness / protection



7.5 Whether environmental audit was conducted?

Yes	✓	No	
-----	---	----	--

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

- The Institute has considered the AICTE Model Curriculum and Revised the curriculum for the academic Year 2018-19
- The Institute is Ranked in the band of 101 to 150 in NIRF by MHRD in 2017-18.
- The NAAC Peer team visited the Campus on 27-7-2018 & 28-7-2018 for the qualitative verification of the Second Cycle Accreditation and the Institute has been accredited with the A++ Grading with a score of 3.73 on a scale of 4.

8. Plans of institution for next year

The plan for improvement in the next Year cover the following:

- Implementation of Revised R18 Curriculum
- Initiation of NBA Application
- Enhancement in Student Progression
- Conduct International Conference
- Strengthen Consultancy

Name : <u>Dr. Poonam Upadhyay</u>



Name : <u>Dr. CD Naidu</u>



Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

Abbreviations:

CAS	-	Career Advanced Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission

Annexure – i

	VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY (An Autonomous Institute) ACADEMIC CALENDAR 2017-18 I B.Tech, Courses						
EVENT Induction Programme Commencement of Class Work		I - SEMESTER	II - SEMESTER 26 th December 2017				
		26th July 2017					
		26 th July 2017					
I CRC Meetings / Students Feedback		29 th - 31 st August 2017	29 th - 31 st January 2018				
I MID Term Examinations		25 th – 27 th September 2017	22 nd – 24 ^{dh} February 2018				
Semester End Examinations Registration and Fee Payment		03 rd - 09 th October 2017	22 nd to 28 th February 2018				
II CRC Meetings / Students Feedback		23 ^{ri} – 25 th October 2017	19 th – 21 th March 2018				
Lab Internal Examinations		21" - 27 th November 2017	17 th - 23 rd April 2018				
Last Working Day of the Semester		27 ^e November 2017	23 rd April 2018				
II MID Term B	Examinations	28 th - 30 th November 2017	24 th – 26 th April 2018				
Semester End Exams – Practical Courses		04 th -09 th December 2017	27th April - 03rd May 2018				
Semester End Exams – Theory Courses		12 th - 23 rd December 2017	04 th -18 th May 2018				
Summer Vacat	tion for Students		19 th May – 30 th June 2018				
	ent of Class Work for emic Year 2018-19	02 nd July, 2018					

K. Amurulu

Dean, Academics

- Copy to:-1. PA to Principal 2. Head Office for information 3. All Deans 4. Heads of all Departments 5. Controller of Examinations 6. Manager, Admin & HR 7. A.O 8. Sectional Heads 9. Physical Director 10. Hostel Wardens

R

Prepared by : Dr. Y. Shivraj Narayan, Coordinator, Academic Section

Principal

Date: 25.07.2017

VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLO (An Autonomous Institute) ACADEMIC CALENDAR 2017-18 II, III & IV B.Tech. Courses						
EVENT	I - SEMESTER	II - SEMESTER				
Commencement of Class Work	03 rd July 2017					
I CRC Meetings / Students Feedback	07 th - 09 th August 2017	22 rd – 24 th January 2018				
I MID Term Examinations	04 th – 09 th September 2017	19 th – 24 th February 2018				
Registration and Fee Payment for Semester End Examinations	11 th - 16 th September 2017	26 th February – 02 nd March 2018				
II CRC Meetings / Students Feedback	09 th – 11 th October 2017	19 th – 21 st March 2018				
Laboratory Internal Examinations	01 st – 08 th November 2017	12 th - 18 th April 2018				
Last Working Day of the Semester	08 th November 2017	18 th April 2018				
II MID Term Examinations	09 th - 15 th November 2017	19 th - 25 th April 2018				
Semester End Examinations – Laboratory Courses	16 th - 25 th November 2017	26 th April – 02 nd May 2018				
Semester End Examinations – Theory Courses	27 th November – 11 th December 2017	03 rd - 16 th May 2018				
Winter Break / Summer Vacation for Students	12 th - 16 th December 2017	17 th May – 30 th June 2018				
Commencement of Class Work for the next Academic Year 2018-19	02 ^{nt} July, 2018					

K. Americe

Dean, Academics

- Copy to:-1. PA to Principal 2. Head Office for information 3. All Deans 4. Heads of all Departments 5. Controller of Examinations 6. Manager, Admin & HR 7. A.O 8. Sectional Heads 9. Physical Director 10. Hostel Wardens

A Prepared by : Dr. Y. Shivraj Narayan, Coordinator, Academic Section Date: 21.06.2017

louidy

Principal

Annexure – ii

Feedback Form : VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY (An UGC Autonomous Institute, Accredited by NBA, NAAC "A" Grade) Bachupally, Nizampet (S.O.), Hyderabad – 500 090.

STUDENT FEED BACK

Bra	anch:	Section:	I B.Tech. I Semester – End	Oct.' 2015
	S.No	Name of the Subject	Name of the Faculty	
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			

Mark the rating of the teacher E / G / S / U in the following table (E - Excellent; G - Good; S - Satisfactory; U - Unsatisfactory)

S.No.	Description	Subject S.No.							
		1	2	3	4	5	6	7	8
1	Creates interest in the subject								
2	Planning & Delivery of subject								
3	Subject knowledge								
4	Audibility and Clarity								
5	Blackboard Management								
6	Clarification of doubts and thought provoking								
7	Regularity in taking classes								
8	Discipline in the class								
9	Correction of Assignments/Tutorials / Mid exams								
10	Accessibility of the Teacher								

Your valuable suggestions for improvement:

V N R Vignana Jyothi Institute of Engineering & Technology Bachupally, Nizampet (S.O), Hyderabad – 500 090 Student Feedback - Academic Year 2015-16 I B.Tech. – I Semester (End) – Jan.' 2016

Section : I

Branch : CSE

Subject: **Advanced Calculus** Name: J. Srinivas Feedback E*5 G*4 S*3 U*1 S.NO. DESCRIPTION Ε G S U Total (Q.wise) Creates interest in the 4.17 subject Planning & Delivery of 4.36 Subject Subject knowledge 4.67 Audibility and Clarity 4.36 Blackboard Management 4.50 Clarification of doubts and 4.34 thought provoking Regularity in taking Class 4.79 Discipline in the class 4.60 Correction of Assignments/ 4.67 Tutorials/Mid exams Accessibility of the 4.45 Teacher Total 44.91 Feedback 4.49 **Engineering Physics** Subject: Name: K.S. RUDRAMAMBA Feedback S E*5 G*4 S*3 S.NO. G U U*1 Total Ε subject knowledge (Q.wise) Creates interest in the 3.76 subject Planning & Delivery of 4.10 Subject Subject knowledge 4.24 Audibility and Clarity 4.40 Blackboard Management 4.47 Clarification of doubts and 4.21 thought provoking Regularity in taking Class 4.64 Discipline in the class 4.34 Correction of Assignments 4.57 /Tutorials/Mid Exams Accessibility of the 4.40 Teacher Total 43.13

4.31

Feedback

Annexure - iii Best Practices

Best Practice-1

1. Title of the Practice :

Fusion of "Learner-centric Pedagogy" to achieve Graduate Attributes.

2. Goal :

- Develop "Learner–Centric Environment".
- * Knowledge and Process Skills development through "Course-Based Projects".
- Enhance usage of "ICT in Teaching-Learning Process".
- Achieving "Graduate Attributes' by all students

3. The Context :

- Technical education (TE) is getting globalized with the increasing demands and expectations from industry. The outcomes of TE are not merely a set of skills or knowledge acquired in the classroom setup but has to purposefully serve the requirements of all stakeholders and should, in turn, drive the economic growth of country and balance/create socio-economic equality.
- In this context, achieving the universally accepted Graduate Attributes (GAs) by the student community is the major mission.
- The challenge of achieving GAs can be realized by shifting from Teacher-Centric to Learner -Centric Approach (LCA).
- One particular pedagogy method may not be sufficient for the diversities existing in the institution. So, a fusion of several pedagogical -Learner-centric methods meets the needs of such diversity in various dimensions of TE in our institution.

4. The Practice

- The teaching-learning process at VNR Vignana Jyothi Institute of Engineering and Technology is a fusion of various LCAs. Inspired and imbibed with "The Seven Habits of Highly Successful People" at all a level, intrinsic motivation is encouraged among the students.
- Teaching and Learning is personalized in a sense where the needs of distinct learning levels, interests, aspirations are taken care by the fusion of various methods listed below.
- Students of today and tomorrow are mostly doers, not listeners -rather want to learn in their own environment by doing "Learning by Doing".
- Students of different learning levels face a problem in TE, which can be overcome by cooperative learning in the classroom like "Think-Pair-Share" and "Process Oriented Guided Inquiry Learning (POGIL)".
- Real-time application based learning is one interesting way to make a student intrinsic which is achieved by "WIT and WIL TM " (Why am I Teaching What I am Teaching? and Why am I learning What I am learning?) and "Story Board", "VNR Lab Protocol TM ". These methodologies will "Engage", "involve" and "indulge" the students making

them more imaginative, creative and independent in problem-solving through "Design and Planning" of experiments rather than just conducting experiments.

- Self –driven learning projects help students to actively participate in modelling and development which is taken care by "Course-Based Projects".
- Goals are set by Teachers and Learners through "Career Vision Approach" right from their first year to graduating year.
- Students have the flexibility to learn anytime and anywhere –meaning learning can happen outside traditional classroom "Flipped classroom & Blended learning", ICT enabled lecturing through Learning Management Systems like MOODLE, Blogs are in place.

5. Evidence of Success

- The interactive learning through these initiatives enhanced the team spirit, learning capabilities and soft skills of the student. It created an environment to think out of the box, innovate and find a solution for the problems around them, which also created a responsibility towards addressing the societal problems.
- Many of the students are part of research projects leading to Patent publications, Startups.
- Rather than reading the textbooks or listening to the lecture, the classroom teaching is made interactive improved the retention skills. The proactive involvement in coursebased projects enhanced the team spirit and motivated towards participation in National and State level competitions.
- The student success rate improved and this is reflected in quality and statistics of the placements. The employer's feedback is a clear testimony of this claim.
- The students opting for international studies are able to come up with good grades and indulge in research because of the self and interactive learning aptitude.

6. Problems Encountered and Resources Required

- The admissions are done as per the common entrance examination conducted state wide. Students from various backgrounds, levels are admitted into the technical courses.
- The learning styles and retention vary across the student fraternity creating a challenge to the classroom deliverables.
- Continuous training on usage of ICT and teaching methodologies is difficult when the class work is in progress.
- Initial inertia for a paradigm shift.

Best Practice-2

1. Title of the Practice

SOCIETAL EMPOWERMENT THROUGH STUDENT PROJECTS.

2. Goal

- Involve students and faculty in innovating research projects linked with industry and academia.
- Conduct interdisciplinary research in cutting-edge technologies
- Improve the work ethos and make student more responsive to the needs of the society
- To enhance the student's overall understanding and appreciation of research by sharpening the student's practical laboratory skills.
- To upgrade the student's ability to collect, analyze and interpret Experimental data.

3. The Context

- The field of education is currently undergoing a paradigm shift with the onus now being on the learner. Students at VNR Vignana Jyothi Institute of Engineering and Technology learn from a higher platform, in a culture to innovate (without fear) and with a mindset (held high) that they can make a positive change to the society we all live in.
- The selection of courses and curriculum design is in line with current and future critical issues and sustainable technologies that serve the society at large.
- The course structure assigns credits to the industry participation through Mini-Projects, Major Projects, and Internships. The internship provides exposure and opportunities for implementation of the knowledge gained academically and also design projects addressing the societal needs.
- The Research and Consultancy Cell (RCC) of the institute, promotes research and innovation in leading-edge technologies. It facilitates the participation of faculty and students in the cross-domain platform. The problem-specific and inventive research taken up by our stakeholders addresses regional and national needs.

4. The Practice

- The curriculum is redesigned to incorporate the industry needs and the sociodimensional subjects that would enhance the student self-learning and the projects they take up address the problems of the society.
- Through course-based projects, the experiential learning component is increased.
- Additional expertise over and above the curriculum and as per the market needs is offered through Certificate Courses on a continuous basis.
- Students are motivated to take up projects of social relevance from II Year of their study. An exclusive facility Weekend projects lab is created to transform classroom learning into a project-based experience.
- The idea to innovate is encouraged by the Big Idea Competition and the best idea is rewarded.

- ✤ Infrastructure and seed money is provided to implant the ideas at VJ HUB, a facility created for the stakeholders for incubation.
- Advanced training and mentoring to the students is given through Entrepreneurship Development Cell to realize the idea into application/ product at the institution.
- Centers of Excellence are established in every department identifying the respective domain expertise. The students and faculty across all departments participate in training sessions and project implementation.

5. Evidence of Success

- Some of the projects carried out by students won best prizes by TCS and at national level competitions.
- Few student projects mentioned below reflect the relentless efforts of students towards inter-disciplinary societal research.
- The patent is published for Jarsh Pluto the first of its kind "Air Conditioned Helmet" and Patent is applied for "Stabilization device for Two wheeler". Both the projects are being commercialized.
- Cough and wheeze analyzer for respiratory digital health services" won a Bronze medal from China Association of Inventions and silver medal at International Innovation Fair Association.
- Solar Powered car and Weapon Locking and Tracking system projects are demonstrated in Design and Development competition. 3 social projects are developed and submitted to Defense.
- Students are carrying out collaborative projects like "Development of Effective wireless sensor network system for water quality and quantity monitoring (aquasense)" with IIIT Hyderabad.
- Automated Commando Training System for Greyhounds, AP Police Academy, National Police Academy, Sensory Measuring Unit and Driving simulator for X Design are executed successfully.
- Socially beneficial projects to the tune of 286 were carried out
- 286 Social projects are implemented by students as a part of their Curriculum during the last five years.

6. Problems Encountered and Resources Required

- Students come from a diversified background, balancing the curriculum changes between ready learners and slow learners.
- Maintaining equilibrium between Research and Academia.
- ✤ Identifying and retaining the research team
- Lack of encouraging recipient Industries for projects and internships.
- Explore prospects for enlarging the set of participating organizational entities which could potentially contribute complementary resources or expertise
- Expertize/training in upcoming technologies, on a continuous basis.
- Institutional network beyond the academic sphere.
- Development of non-scientific skills related to research.