The Two of the Best Practices are

- 1. Inculcation of Research Culture among Faculties and Students
- 2. Placement and Training

Best Practice 1:

1. Title:

Inculcation of Research Culture among Faculties and Students

- 2. Objectives of the Practice:
 - To motivate the faculty and student to do research.
 - To motivate the faculty and student to present/ publish the research paper at reputed journals and conference.
 - To identify thrust areas to know the individual research interest supporting infrastructure considering the thrust area and the state of the art.
 - To create the awareness about various funding schemes of Government, AICTE, DST, DRDO, etc., and motivate the faculty to prepare good research proposals.
 - To motivate the staff to pursue higher studies such as Ph.D. & post Ph.D.
 - To create the awareness about patent/innovating intellectual rights.
 - To encourage the consultancy in related areas.
 - To develop a research culture in the Institute and lifelong learning skills among students / faculty.

3. The Context:

The need of the society today is to develop budding engineers, having research mindset, ethical values and entrepreneurship skill. VCET has decided to involve the Faculty and students, who are the major stakeholders in research, for the development of society. Creating engineering manpower of global standards will involve participation of Faculty and students in the planning, decision making and implementation process. With the involvement of more and more faculty in research activity will benefit in the overall professional development of students. Encouraging Faculty to do research will improve the technical skill of students in classrooms and awareness among the students about recent technological development in society, which in turn will make the students one of the best entrepreneur. By

inculcating a research culture among faculty and students, Teaching-Learning process is improved; there is a better conceptual understanding of the subject among the students. Faculties are motivated to pursue higher studies.

4. The Practice:

It is massive task to inculcate research culture among faculty and student so as to develop a high quality engineers of global standards, however still below mentioned practices are followed by VCET.

- The institute has developed a system for students & parents' awareness, about the mission and vision of the institute.
- Eminent persons from related area guide the faculty to write good research proposals.
- The institute sponsors & deputes the faculty for summer & winter programmes, workshops, symposium, conference etc.
- The institute organizes industry and research organization visits.
- The institute has arranged the training to enhance the soft skills of the faculty and student.
- The experts from research organization like IISc, CABS, ISRO, DRDO and NAL have visited the institute & interacted with the faculty & students and made them aware about the various possibilities available to do good research.
- The eminent personalities from industries have delivered lectures and shared their experiences with Faculty & students as the part of our MOU with them.
- The institute organizes paper presentation, project exhibition, mathematical quiz, poster competition, and gaming and Robotics competitions for student to get acquainted with the state of art technology.
- The institute has developed research lab by purchasing higher end equipment and softwares according to the requirements of Principal investigators.
- The student can use various equipments available in laboratories as and when required.
- Students are also motivated to participate in inter Institutes / university level technical competitions.
- The institute provides financial support to the student in their research projects.
- 5. Evidence of Success:

- There are 13 faculty members were awarded with PhD and more than 20 faculty • registered in the PhD programme from various discipline.
- More than 3 Crore funds received from the various funding agencies •
- Faculty is involved in writing research proposals and at least one proposal submitted from individual department in 2014-15 academic year.
- Many students are involved in building the prototype with faculty mentors who • involved in proposal submission that nurture the R&D competency.

Department	No of Ph.Ds	No of Ph.Ds	No of Research	No of Research
	Completed	Registered	Projects Completed	Projects Registered
CIVIL	-	-	-	1
CSE	1	-	1	1
ECE	-	5	2	5
EEE	10	2	2	1
IT	3	2	1	2
MECH	1	2	-	-
CHEMISTRY	2	1	-	-
ENGLISH	-	-	-	-
MATHS	-	-	-	-
PHYSICS	-	1	-	-

Table.1 Progress on Research and Development during the Year 2021 – 22

Table.2 Details of ongoing and completed projects and grants received (Academic Year <u>20</u>

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S. No	Name of the Depar	Name of the Faculty	Title of the Project	Fundi ng Agen	Submitt ed/Prese nted/Ob	Yea r	Amou nt (Rs.	Duration	
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	tment			су	tained		in Lakh s)	
1	CIVIL	Dr. L.Andal Mrs.P.Annie Sweetlin Jebarani	Indo-Polland Project	DST	Obtained	2021 -22	10 Lakhs	-
2	CSE	Dr.P.Alli Dr.S.Sasikala Mr. G. Vinoth Chakkaravarthy	RPS- Deep Learning Approaches for Clinical Decision Making on Lung Diseases for COVID-19 Prediction	AICT E,NE W DELH I	Obtained	2021 -22	10 Lakhs	_
	Dr. S.Classification of satellite Images using Cellular Automata		ISRO	Obtained	2019 -20	16.45 Lakhs	2.5 years	
	CSE	Dr.P.Alli, Dr. S. Poonkuntran, Dr.R.Deepalaks hmi, Dr. G. Vinoth Chakkaravarthy	Concentrated Solar Thermal (CST) Technology based System for Process Heat/Heat Applications	MNR E		2015 -16	56.25 Lakhs	7 Years
3	ECE	Dhanaselvam Pressure Sensor- Teachers Associateship for Research Excellence (TARE)		SERB- TARE	Complete d	2018 2021	18.3	3 years
4	ECE	Principal Investigator: Dr. A.Babu	Lifesaving IoT based hazardous gas monitoring and	DST- DDP	Complete d	2019 - 2020	10	1 year

		Karuppiah Co- Investigator: Mr.R.Rajaraja	drainage block detection and removal system to prevent manual scavenging					
5	ECE	Principal Investigator: Dr. S. Vasuki Co- Investigator: Dr.K.Kavitha (Asso Prof)	NadiPariksha - Resurrection Using Advancement in Signal Processing Techniques	DST- SHRI	Ongoing	2019 - 2022	24.74	3 years
6	ECE	Dr.S.Vasuki P.Suveetha Dhanaselvam Mr.G.Pradeep Kumar	Image pre processing Enhancement and 3D Modelling of Submerged Features / Objects for Digital Reconstruction of Poombuhar	DST- ICPS DIVISI ON	Ongoing	2019 - 2022	30.76	3 years
	ECE	Principal Investigator: Dr. S. Vasuki Co- Investigator: Dr.K.Kavitha (Asso Prof)	Early Forest Fire Detection Via Principal Component Analysis of Multi Spectral Imaging	AICTE, AQIS- RPS	Ongoing	2020	6	3 years
	ECE	Dr.S.Vasuki Dr.K.Kavitha Dr.G.Veera Senthil Kumar Dr. P. Karthikeyan	Modrobs For Image Processing Lab To Add Remote Sensing Data Analysis Facility	AICTE- MODR OB	Ongoing	2020 - 2021	16.47	1 year
	ECE	Dr.P.Rajeswari Dr.S.Vasuki Dr.N.Suresh Kumar	IoT Enabled Smart Cane for Enhancing Visually Impaired Mobility	AICTE- AQIS- RPS	Ongoing	2021 - 2023	10.25	
7	EEE	Dr.A.Shunmugala tha, Prof &(Dean Acadamics) Dr.R.Narmatha Banu,	Dean ics) IEDC Project		Completed	21-22	45.3	5 Years

		Prof &HoD/EEE Dr.B.Kiruthiga, AP-1/EEE						
8	EEE	Dr.A.Shunmugala tha Prof & (Dean Acadamics) Dr.S.Dhanalaksh mi, Prof/EEE Dr.A.Radhika, Asso.Prof/EEE	AICTE- MODROB	AICTE	Ongoing	21-22	6.4	3 years
9	EEE	Dr.A.Shunmugala tha, Prof & (Dean Acadamics) Dr.R.Narmatha Banu, Prof &HoD/EEE Dr.B.Kiruthiga, AP-1/EEE	Tamil Nadu Innovator Project	Tamil Nadu EDI- HUB	Completed	21-22	0.1	lyear
10	EEE	Dr.A.Shunmugala tha Prof & (Dean Acadamics) Dr.S.Senthil Rani, Asso.Prof/EEE J.Rajeswari, AP-III/EEE	AICTE-SPICES	AICTE	Ongoing	21-22	1	2years
11	EEE	Dr.N.Karpagam, Prof/EEE	Solar powered automatic dual smoke extractor chimney	Patent	Completed	21-22	-	-
12	IT	Mr.A.Gobinath	Investigations on Electromagnetic phenomenon behind the Temple Kalasam in Indian Historic Temples	DS T- SH RI	Obtained	20 21 - 22	17.8 Lak hs	2 Years
13	IT	Mr.A.Gobinath	Artificial Intelligence Enabled Assist for Visually Impaired Movements	MS ME	Obtained	20 21 - 22	8.67 Lak hs	2 Years

6. Problems Encountered and Resources Required:

• Requirement of more qualified and experienced faculty in all departments.

- More budget provision needs to be made to develop research oriented lab, to give more exposure to the students for their overall development.
- More awareness needs to be created among faculty and students about various funding agencies, writing good research proposal and awareness of PhD research centre.
- Scarcity of senior faculty having good research experience.

Best Practice 2:

1. Title:

Placement & Training

- 2. Objectives of the Practice:
 - To develop Placement & training cell for career counseling and Higher learning in Engineering & Technology fields.
 - To set up the Training Infrastructure for conducting value added training programs and enhance the employability of students.
 - To contest the best practices in conducting and coordinating the campus placement process for the industries in the institution.
 - To build up a computerized database of students of all the branches with a view to serve the industries requirement in a queue response mode.
 - To achieve the services of competent training agencies to train the students in soft skills and personality development programme.

3. The Context:

VCET has an independent Training & placement Cell devoted to cater the needs of the organizations in conducting campus interviews for placements. The Placement Officer, Staff and Student Placement coordinators meet periodically and whenever necessary to carry out the placement work of respective departments. The TPO Cell plays a very important and key role in counseling and guiding the students for their successful career a placement which is a crucial interface between the stages of completion of academic program of the students and their entry into the Corporate. The cell also coordinates various activities to the career of the students along with the industrial training. Students from different levels & backgrounds need training to improve their technical as well as employability skills. Considering these requirements, TPO cell is providing excellent facilities for the students to improve their skills and to achieve their career goals.

4. The Practice:

For the career growth of students, TPO cell arranges pre-placement training periodically by conducting

- Mock Interview by VCET Alumni
- Soft Skills Training(trained by PAC Training Academy, Learn Well, Chennai)
- Aptitude Training Class(trained by Mr.Eldo Ranjith Program, T.I.M.E, FACE, SMART, SixPhrase)
- Technical training is provided by SixPhrase and Company Specific Training also provided.
- WIPRO Certified Trainer handled classes for improving coding skill.
- Placement Training hours are prepared in the Academic Time Table of every semesters (handled by faculty of respective department) and the classes are handled by Final Year placed students and the students are trained in both Aptitude and Technical Skills.
- Apart from these, the Institution had been offering Spoken English classes for the students. These classes are being handled by the faculty of English to strengthen the communication skills.
- Online placement test is periodically conducted to enhance aptitude, mental ability and reasoning skill of the students to make them successful in getting employment.

5. Evidence of Success:

VCET has achieved 82.88% placement in the Academic Year 2020-21. Placement Statistics and full details of the Placed Students list is available in the following link: http://vcet.ac.in/vcetit/placestats.html

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WE THANK ALL OUR RECRUITERS For creating Benchmark in Top Notch Placements									
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	75 Total Of			Batch (20				s. 4.(Average	53 LPA Salary
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For Admis	For Admissions, contact: +919994994991 Email: principal@vcet.ac.in Website: www.vcet.ac.in								

The following table shows the statistics of the Students Placement Record.

	Department	No. of Student s Placed	Eligible	Percentage	No. of Offers
	CSE	92	92	100.00	187
Γ	ECE	103	103	100.00	242
Γ	EEE	58	58	100.00	116
Γ	IT	43	43	100.00	108
Γ	Civil	23	27	85.19	24
Γ	Mech	51	52	98.08	80
	Total	370	375	98.67	757
	No. of Single offers No. of Double offers	171 88	Maximum Salary	20.00	Lakhs p.a
i L	No. of Triple offers	58	Average Salary	4.67	Lakhs p.a

No. of Quadruple offers

No. of Quintuple offers

No. of Sextuple offers

6. Problems Encountered and Resources Required:

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Personality Development Programmes could be a very robust approach for enhancing the students' technical and reasoning ability. It seems to be a way to student's career by ensuring their job in reputed companies. Various training agencies are involved as a resource to give training to the students. The Placement related trainings are offered during holidays, summer and winter vacation. During this Corona Pandemic period, online classes were handled. We encountered some of the problems like, Mobile Data Usage, Students mindset, Missing direct contact, lack of understanding when taking online training.