# IQAC-EXTERNAL PEER TEAM REPORT ON PERFORMANCE OF THE INSTITUTION FOR THE ACADEMIC YEAR 2021-22

#### Submitted to



University Grants Commission (UGC) Bahadur Shah Zafar Marg, New Delhi

By
External Peer Team of
Internal Quality Assurance Cell (IQAC)



PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY(Autonomous)
Accredited by N.B.A., NAAC A+
An ISO 9001:2015 Certified Institute, Permanently Affiliated to JNTUK, KAKINADA
(Sponsored by SAGTE)
Kanuru, Vijayawada-520 007, Krishna District.
Andhra Pradesh, India
Phone number 0866-2581699

### EXTERNAL PEER TEAM REPORT ON PERFORMANCE OF THE INSTITUTION

#### Members of External Peer Team:

Dr. A. Sarat Babu Professor, Department of Chemical Engineering,

NIT Warangal.

Dr. A. Venu Gopal Professor, Department of Mechanical Engineering,

NIT Warangal.

### 1. Data of the Institution

Name of the Institution: Prasad V Potluri Siddhartha Institute of Technology

Name of the Principal: Dr. K. Sivaji Babu

Does the institution function from own campus: Yes

Phone No. / Alternate phone No.: 08662581699 / 2583037

\* Mobile No.: 9490217899 / 9490958212

\* Registered Email: principal@pvpsiddhartha.ac.in

• Alternate Email: sivajibabu@pvpsiddhartha.ac.in

Address: Devabhaktuni Ramalingeswara Rao Road

City/Town: Kanuru, Penamaluru, Vijayawada State/UT: Andhra Pradesh, Pin Code: 520 007

Year of Establishment: 1998

\* Whether private or government or University maintained: Private / Self Financing

Autonomous Status:

a) UGC granted Autonomous Status in the year 2012 for 6 years and in extended 2018.

b) UGC – Autonomous status extended for a period of 6years up to 2024, Ref. No. F22-1/2017 (AC), dated 5.08.19.

Type of Institution: Co-education/Men/Women:

Co-education

Location: Rural/Semi-urban/Urban:

Rural

Financial Status: Grants-in aid/ UGC 2f and 12 (B)/ Self-financing:

UGC 2f and 12 (B)/ Self-financing

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- 2. Name of the Affiliating Univ.: Jawaharlal Nehru Technological University Kakinada, Kakinada (JNTUK)
- 3. Website address: www.pvpsiddhartha.ac.in
  - Web-link of the AQAR: (Previous Academic Year): https://www.pvpsiddhartha.ac.in/IQAC2019/docs/AQAR2021.pdf
- **4.** Academic Calendar prepared during the year **and** it is uploaded in the Institutional website: <a href="https://www.pvpsiddhartha.ac.in/academiccalender-n.html">https://www.pvpsiddhartha.ac.in/academiccalender-n.html</a>
- 5. Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 <sup>st</sup>	В	2.32	2013	from: 2013 to: 2018
2 <sup>nd</sup>	A+	3.38	2019	from:2019 to: 2024

- 6. Date of Establishment of IQAC: 20/07/2012
- 7. The list of Special Status conferred by Central / State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount

**8.** Composition of IQAC is as per latest NAAC guidelines and uploaded latest notification of formation of IQAC

https://www.pvpsiddhartha.ac.in/IQAC2019/members1.pdf

9. No. of IQAC meetings held during the year: 4

http://www.pvpsiddhartha.ac.in/iqac2021/meetings.html

10. IQAC received funding from any of the funding agency to support its activities during the year? : yes

AICTE sanctioned 'PARAMARSH Scheme' with a total grant of Rs. 15.0 Lakhs the only self-financing institute in the state of Andhra Pradesh.

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# 11. Courses Offered

S No	Name of the Program	Sanctioned Strength (Regular+ EWS+LE)	Actual Strength
UG (	Engineering)		
1	B.Tech in Civil Engineering	272	224
2	B.Tech in Computer Science and Engineering	752	750
3	B.Tech in Electronics and Communication Engineering	544	540
4	B.Tech in Electrical and Electronics Engineering	544	485
5	B.Tech in Information Technology	544	543
6	B.Tech in Mechanical Engineering	545	461
UG 1	TOTAL:	3201	3003
PG			
1	M.Tech (Computer Science & Engineering)	19	0
2	M.Tech (Power System Control & Automation)	19	1
3	M.Tech (Machine Design)	26	0
4	M.Tech (Microwave and Communication Engineering)	26	4
5	MBA	130	128
PG T	COTAL	220	135
UG &	& PG TOTAL:	3421	3134

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# 12. Faculty Strength

Sl. No	Branch	Prof	Asso. Prof	Sr. Asst. Prof	Asst. Prof	Total	Ph.D
1	Principal	1		-	-	1	1
2	Mech	4	5	_	25	34	12
3	ECE	2	7	4	14	27	12
4	EEE	3	4	2	17	26	10
5	IT	3	1	1	21	26	13
6	CSE	5	2	3	30	40	14
7	CIVIL	2	1	-	11	14	6
	Total (Engg)	20	20	10	118	168	66
8	MBA	1	-	-	8	9	6
9	Freshman Engg. (Science & Humanities)	1	2	2	28	33	11
	Total	22	22	12	154	210	85

Programme Code	Programme Name	Number of students who appeared in the final year (final semester) examinations	Number of students who passed in the final year (final semester) examinations
A01	B.TECH (CE)	61	55
A02	B.TECH (EEE)	126	120
A03	B.TECH (ME)	123	105
A04	B.TECH (ECE)	125	125
A05	B.TECH (CSE)	131	130
A12	B.TECH (IT)	131	131
E00	MBA	62	62
D15	M.TECH (MEMD)		
	M.TECH (ECMC)	Project work and Vivo	-voce to be submitted

# Note: The above data has excluded re-admitted students

**PVP Siddhartha Institute of Technology** established in 1998, under the Siddhartha Academy of General & Technical Education, Vijayawada. The Institution attained Autonomous status in 2012. It is approved by AICTE and permanently affiliated to JNTUK, Kakinada. The Institution is ISO 9001-2015 certified and obtained A+ grade by NAAC. All the UG Programmes offered

A. S. Balu Spo 17/2/23 17.2.23 by the Institute are accredited by NBA and Outcome Based Education is adopted. The Institution is highly acclaimed for Quality Assurance.

14. Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year (594 in number).

Some of them are

Communicative English I	20HS1101	Employability/ Entrepreneurship/ Skill development
Calculus and Linear Algebra	20BS1101	Employability/ Entrepreneurship/ Skill development
Applied Physics	20BS1104	Employability/ Entrepreneurship/ Skill development
Basic Electrical & Electronics Engineering	20ES1101	Employability/ Entrepreneurship/ Skill development
Communicative English I Lab	20HS1151	Employability/ Entrepreneurship/ Skill development
Applied Physics Lab	20BS1153	Employability/ Entrepreneurship/ Skill development
Basic Electrical & Electronics Engineering Lab	20ES1151	Employability/ Entrepreneurship/ Skill development
Basic Workshop	20ES1153	Employability/ Entrepreneurship/ Skill development
Communicative English II	20HS1201	Employability/ Entrepreneurship/ Skill development
Differential Equations and Vector Calculus	20BS1201	Employability/ Entrepreneurship/ Skill development
Chemistry of Materials	20BS1206	Employability/ Entrepreneurship/ Skill development
Problem Solving & Programming with Python	20ES1203	Employability/ Entrepreneurship/ Skill development
Communicative English II Lab	20HS1251	Employability/ Entrepreneurship/ Skill development
Chemistry of Materials Lab	20BS1254	Employability/ Entrepreneurship/ Skill development
Engineering Graphics	20ES1251	Employability/ Entrepreneurship/ Skill development
Problem Solving & Programming with Python Lab	20ES1255	Employability/ Entrepreneurship/ Skill development
Life Sciences for Engineers	20MC1201	Employability/ Entrepreneurship/ Skill development
Numerical and Statistical Methods	20BS1301	Employability/ Entrepreneurship/ Skill development
Applied Mechanics	20BS1304	Employability/ Entrepreneurship/ Skill development

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Construction Materials & Concrete Technology	20ES1301	Employability/ Entrepreneurship/ Skill development
Mechanics of Fluids	20CE3301	Employability/ Entrepreneurship/ Skill development
Surveying	20CE3302	Employability/ Entrepreneurship/ Skill development
Construction Materials & Concrete Technology Lab	20ES1351	Employability/ Entrepreneurship/ Skill development
Computer Aided Drawing	20CE3351	Employability/ Entrepreneurship/ Skill development
Surveying Lab	20CE3352	Employability/ Entrepreneurship/ Skill development
C Programming Lab	20SO8351	Employability/ Entrepreneurship/ Skill development
Environmental Sciences	20MC1301	Employability/ Entrepreneurship/ Skill development
Environmental Engineering	20CE3401	Employability/ Entrepreneurship/ Skill development
Geotechnical Engineering	20CE3402	Employability/ Entrepreneurship/ Skill development

15. In National Institutional Ranking Framework (NIRF) India rankings 2022 Engineering category the college is within the band of 201-250. The college has secured PLATINUM rating in AICTE-CII Survey for the academic year 2019-20 and for the academic year 2020-21 the report is submitted for evaluation. The Annual Quality Assurance Report for the year 2020-21as submitted to NAAC.

- 16. Significant contributions made by IQAC during the current year
  - Effective Mentoring:
  - Learning management through moodle
  - ICT enabled teaching
  - Number of Quality placements with high pay package is improved.
  - SCI and Scopus Indexed journals publications number has been increased
  - Number of students opting for higher studies in abroad has been significantly improved
- 17. Quality Initiatives undertaken and activities performed during the year 2020-21 The various Quality initiatives by IQAC during the year for promoting quality culture are as follows:

Practice 1: Formation of Quality Circles in the Institution Process of implementing the initiative for achieving the outcome .

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Since it is a mandatory requirement to implement QC as per the revised guidelines of NAAC each department implemented QCs of their interest. Every QC will had a group of students and faculty with a leader and mentor from faculty As a result each department identified a small group consisting students and faculty who voluntarily, continually meet to improve the quality of their department by,

- Solving the performance improvement related problems,
- Utilizing problem solving tools & techniques,
- Leading to Self & mutual development.

IQAC Organized One Day Faculty Development Programme on

- a. "National Education Policy" on 15/03/2022."
- b. SOP-guidelines for NAAC Criterion -1. on 14/03/2022
- Indian STI Ecosystem and Funding Opportunities for Young Researchers on 22-01-2022
- d. "Online FDP On Science Technology and Innovation Ecosystem and R&D opportunities for young researchers.

Practice -2: Action taken report on how the feedback obtained is being analyzed and utilized for overall development of the institution

Process of implementing the initiative for achieving the outcome The students provide online feedback about course coordinator's teaching once in a semester. It is valuable as it helps course coordinator to improve and refine teaching. If the feedback is less than 3 out of 5, Head of the department will council the concerned faculty and also observes his teaching process.

Graduate Exit Survey

A questioner is prepared and is given to the student at the end of the program to get their Feedback of that program. The results are analysed to see whether the POs and PSOs are slightly, Moderately or strongly attained.

# Alumni Survey

A questioner is prepared and is given to the passes out students to get their feedback. The results are analysed to see whether the POs and PSOs are slightly, moderately or strongly attained. Feedback from Parents

Parents give feedback about POs and PSOs. It will be taken once in a year. It helps to improve the overall system.

- Feedback is taken from the students' through online mode after first mid examination in every semester, the performance of each faculty member is analysed a committee headed by HOD.
- If the feedback is less than 3 on a 5-point scale for any course the concerned faculty will be counselled and deputed to FDP/Workshop/seminar in that particular domain for improvement.
- Feedback from parents and alumni is taken in the Parents Meeting and Alumni Meet.

Plan of Action	Achievements/Outcomes
To Improve student attendance	No of students detained is reduced due to high attendance Number of detentions are Less than 3% (percentage of detentions reduced)
To improve the	578 students got placements

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placements	1037 total placement offers to students  More no of students are selected in Campus Interviews than last
To improve strong technical knowledge	Students have participated in various events and won prizes. students have done internships. Conducted training programs like PCB design, and LAB view. Organized as value added course on FPGA design Students have done internships in various companies
To improve pass percentage of students.	Pass percentage of most of the courses was 90 and above
Functional facilities for e-learning Development of e- learning resources	Students were able to get access to Lecture notes & material provided by the faculty  MOODLE content prepared for all the subjects and students are accessing it.
Providing mentoring and personal support To publish the papers in reputed national & international journals by the faculty.	Students started participating in different co-curricular and extracurricular activities.  145 papers have been published
To enroll Ph. D in government universities	Three faculty registered for PhD in the government universities. And 85 are with phd degree. 70 last year
To apply for Major and Minor projects funded by various authorities	Project proposals were Submitted by faculty
To improve social responsibility and health	Students will become good citizens and lead healthy life.
To support students in getting to develop as an entrepreneur	Awareness is created among the students Entrepreneur idea count is increased. One startup is registered
To support students in getting placements, higher studies and internships	Placement offers are increasedPaid internshipsstudent got admissions into master's program in reputed institutes like IIMs and universities abroad.
To enroll Online certificate Courses	Update the knowledge Students and Faculty completed the courses successfully
To encourage students to depute for summer internships and creation of provision	Students got exposure to practical orientation

for certification courses

- 18. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to Assess the functioning? Yes Date: March 2019
- 19. Institutional data is submitted to AISHE for Year: 2022, Date of Submission: 29/01/2022

# 20. The Institution have Management Information System

The website maintains the profiles of students and staff. The student's records like internal and external examination marks, grades, daily attendance, previous question papers, credits details are maintained in the website. The fee particulars, examination schedules, timetables are also maintained in the website. The Course Structure, Syllabus, Academic Calendar is maintained in the website. It has Online Exam Fee Payment System for Autonomous Section. Also, website maintains the placement data at the end of every Academic Year, branch wise as well as year wise. Website maintains the AP Skill Development Program Activities and professional activities like CSI,

ACM, NPTEL and Web-Mail facility to the entire Faculty in this institution. All the Service Rules for Teaching & Non-Teaching Staff are displayed on the website.

### 21. Mentoring system

It is our policy to entertain the hopes and aspirations of students from different places. Many of our students are from rural areas and they lack proper guidance and motivation required for gaining technical knowledge and skill.

Mentoring of students thus, is an essential feature to render equitable service to all our students having varied background. Student-mentorship has the following aims:

- To enhance teacher-student contact hours
- To enhance students' academic performance and attendance
- To minimize student drop-out rates
- To identify and understand the status of slow learners and encourage advanced learners
- To render equitable service to students

Mentoring system is initiated in the institute. All faculty members act as mentors and are allotted 15-20 students each. They conduct meetings once in every 15 days and the student's performance is monitored through the Mentor Record, wherein the academic and co-curricular activities of the student are updated regularly during four years of study. The faculty provides counselling on academic, personal growth and career planning of the student. A progress report on academic performance and attendance is generated in every semester and is periodically sent to the parents. Critical cases will be discussed with HOD, parent and solution is arrived.

#### 22. Student Council

The Institute has student council and students actively get involved in various committees like IQAC, Women's Cell, Literary and Cultural Committee, Library Committee, Grievance

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Redressal cell, Canteen Committee, sports committee, placement cell, Disciplinary Anti ragging, SC/ST CELL and members of various professional society chapters like IEEE, IGS, ISTE, CSI, and ACM. Members of student council share their Ideas, interests, concerns, opinions and suggestions to the respective faculty coordinator, make appropriate recommendation to the concerned authorities, and thus do be part to take measures for better academic environment. The committee meets at least twice in each semester.

List of Student council activities

S.NO	Date	Title of the Talk/ Activity	Name of the Speaker/ Organizer	Participants.	Number of Students benefited
1.	21st FEB 2022	Mathrubasha Diwas	Poolabala Venkata Prasad	Students PVPSIT	222
2.	21st Feb 2022	Poster Making Competitions	Members of the student Council	Students PVPSIT	15
3.	19 <sup>th</sup> FEB 2022	JAM competitions in Telugu	Members of the student Council	Students PVPSIT	37
4.	11 <sup>th</sup> JAN 2022	National Youth Day	Swami Sevyananda, Ramakrishna Mission	Students PVPSIT	101
5.	22 <sup>nd</sup> December 2021	INDIA Quiz	Members of the student Council	Students PVPSIT	25
6.	21st December 2021	SPORTS Quiz	Members of the student Council	Students PVPSIT	46
7.	20 <sup>th</sup> December 2021	SUPER HERO'S Quiz	Members of the student Council	Students PVPSIT	98
8.	17 <sup>th</sup> December 20201	SCI-TECH Quiz	Members of the student Council	Students PVPSIT	55
9.	16 <sup>th</sup> December 2021	MELA Quiz	Members of the student Council	Students PVPSIT	56
10.	. 15 <sup>th</sup> December 2021	SOCIO-VERSE Quiz	Members of the student Council	Students PVPSIT	42
11.	. 14 <sup>th</sup> December 2021	MYTHOLOGY QUIZ to Commemorate BHAGAVADH	Members of the student Council	Students PVPSIT	154 members - 57 teams

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		GITA JAYANTHI			-
12.	27 <sup>th</sup> September 2021	Tourism for Inclusive Growth	Sibasi Mohanty SWOSTI	Students PVPSIT	180
13.	17 <sup>th</sup> August 2021	Stories through Photography	M.Anand Mohan	Students PVPSIT	50
14.	11 <sup>th</sup> August 2021	Photography Contest	Coordinators of Student Council	Students PVPSIT	37

# 23. Training and Placement:

The Training Placement officer works in perfect coordination with his team comprising the assistant Training and placement officer, soft skills, Reasoning Aptitude Trainers and a Faculty coordinator from each Department. Under the chairmanship of the Principal, Meetings are held at the beginning of the Academic year and the target is fixed. The mechanism reflects participation of all concerned leading to stakeholder satisfaction. The student of this Institution is qualitatively better, competent and confident to face the challenges of the Global- The Soft Skills, RA Trainers impart the Required Training, and Transfer the skill set and makes them ready to face the Recruitment Drives. Students have been successfully placed in reputed Industries. The feedback from the employers regarding the performance of the Selected Students is Encouraging.

24. Quality improvement strategies adopted by the institution for each of the following

#### Curriculum Development:

Curriculum is framed by following the model curriculum given by the statutory bodies like AICTE, APSCHE and the curriculum of IITs, NITs and some of the reputed autonomous institutions are taken into consideration according to industry needs. Stakeholders' feedback is taken for curriculum design. BOS members from Industry, Academia, Alumni and parents, review it. The curriculum is approved by BOS and finally ratified by the Academic Council.

#### Teaching and Learning:

Teaching and learning is strengthened by adopting course delivery methods like ICT and active teaching learning methods like Flip class, Role play etc. Learning Management System like MOODLE is being used for effective teaching learning. Some of the courses have been offered through MOOCs. Subjects.

#### Autonomous

All internal and external Question papers are set according to Bloom's Taxonomy covering all course outcomes. For external examination setting of question papers and evaluation of answer, scripts are done by outside members.

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- Cognitive levels and course outcomes of each question of the internal examinations are specified in the question paper (i.e. Blooms taxonomy is considered)
- > Two internal continuous assessment exams are conducted to evaluate the students in every semester as per the norms of the Institute.

### Research and Development:

- Research groups have been formed and meetings are conducted regularly to share ideas on the latest trends in research.
- Research facilities of the department are being improved by procuring additional equipment such as EDM, 3D Printer, Ball Mill, Ultra Sonicator, and FFT Analyser.
- Seed Money is provided to the faculty members to carry out their research with the emphasis on publishing Scopus journals.

Honors and recognitions received by teachers

The following faculty received awards/recognition/fellowships at State, National,

International level from Government, recognized bodies

Name of the		
teacher awarded		
national/		
international		
fellowship/financial		
support	Name of the Award/Fellowship	Awarding Agency
Dr. P. Adi	Best Academic Administrator Award	societies for learning technologies,
Lakshmi	Best Academic Administrator Award	India
Mr. Y. S. N.	IRSD International Young	Green Thinkerz Society
Murthy	Researcher Award 2021	· ·
Mr. Y. S. N.	Notice I Elite Teacher Assert 2021	International Institute of Organized
Murthy	National Elite Teacher Award 2021	Research(I2OR)
Mr. Y. S. N.	100 5	International Institute of Organized
Murthy	100 Eminent Academicians of 2021	Research (I2OR
Mr. Y. S. N.	International Eminent Young	International Institute of Organized
Murthy	Researcher Award 2021	Research(I2OR)

- Institution motivates faculty in various departments and grant received is Rs.11,39,510/-
- > 13 PhDs were awarded in the academic year 2021-22.
- An amount of Rs 8.19 lakhs is sanctioned by SAGTE as seed money towards research assistance to the faculty.
- An amount of Rs. 6.14 Lakhs revenue was generated from Consultancy and corporate training during the year 2021-22.
- > 145 quality research papers have been published in SCI/SCOPUS/WoS/UGC journals Also a substantial number of papers are presented at International and National conferences. In addition, 21 publications in book chapters/books are published. Overall there is a significant improvement in the quantity and quality of Research publications.

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> 780 Details of collaborative activities for research, faculty exchange, student exchange,

internship, on-the-job training, project work, etc. during the year

Institution Innovation Council (IIC) is established under the MHRD's Innovation Cell and college achieved 4.5 star ranking for the activities organized with respect to Innovations, IPRs, Start-ups and Entrepreneurship.

Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus.

To spread the spirit and culture of entrepreneurship among the faculty/students of PVPSIT, a separate Cell was established and various activities were conducted in the institute. Where students will accomplish all required skills, whether it is Technical or Leadership, students will be encouraged & trained to explore all new possibilities through project-based learning (self-learning). Under this roof there is an open call in the college to participate in this possibility of Centre of Excellence along with their idea or to associate with others. Institution provides

- ☐ Infrastructural facilities
- ☐ Cross-disciplinary research
- ☐ Balancing basic research & shorter-term applied research
- ☐ R&D collaboration with industry/organizations to open innovation

Apart from conducting number of events in the last 3 years, the following Entrepreneurs were mentored through ED cell.

Start-up Name: OSMRAY: Hemalatha R, IT Department,

Aim: Services in Fashion Sector

- Start-up Name: STORAGE BUDDY: Suraj M, Mechanical Department, Aim: Providing Storage space by connecting with existing Warehouse
- > Start-up Name: DAY DELICIOUS: Prasanth, ECE,

Aim: Homemade food at your door step

> Start-up Name: SVS Pvt. Ltd.,: KarthikVarma, EEE,

Aim: Providing Design Services

> Start-up Name: NABES: SumanthR, Nuruddin, M, Yeswanth M, Sravani S, ECE,

Aim: Providing platform for young talents in film industry

> Start-up Name: RADON Technologies: Saichand, ECE,

Aim: Providing Services in Software and hardware sector

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# Following start-ups were registered for the last five years.

Name	Start-up details
Mr. SurajMaguluri—  Dept. of Mechanical Engineering  Name of the start-up:Radar Storage  Services Private Limited	It started as "Storage buddy" – an aggregator type start-up connects warehouse with tenants based upon the user requirements and also provides tailor made storage spaces for personal needs/ household storage/vehicle storage/ office storage in a simple and secure way.  Selected as top 7 emerging ideas all over ap in I2E competition 2019  May 2018 (Registered)
Mr. Ch. Gnana Karthik Sai Varma - Department of Electrical and Electronics Engineering	To boost the business growth of clients with website design, Software Development, IT (information Technology) services that build value and unchanging proficient advantage for the client around the globe.
Name of the start-up: KSVS Solutions Private Limited	Some of the clients are: Soundarya Jewellers, Tourist Guide, E College Dunia
Mentor: Dr. Jagadish V	MAY 2019 (Registered)
Mr. Sumanth Rayapaneni - Department of Computer Science  Name of the start-up: NABES Platform Services Private Limited  Mentor: Dr. Jagadish V	Mobile App based Services  NABES PLATFORM SERVICES PRIVATE LIMITED is involved in activities such as (Other business activities) Fashion design related to textiles, wearing apparel, shoes, jewelry, furniture and other fashion goods.  Activities started in the year 2019  July 2020 (registered)

#### **SMART INDIA HACKATHON 2022**

The Institute Innovation Council (IIC) of PVPSIT under the guidance of Dr.V.Jagdish, Convener IIC, PVPSIT and Dr.A.Haritha, coordinator, IIC, PVPSIT, organized an INTERNAL HACKATHON on 10<sup>th</sup> March, 2022 as per the guidelines of SMART INDIAHACKATHON 2022. The event was also graced by the presence of Dr K Sivaji Babu,

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Principal, PVPSIT, and President of IIC PVPSIT. Students identified various problem statements in both Software and Hardware categories given in the SIH problem statements portal and came up with innovative and feasible solutions to the adopted problem statements.

A total of 28 teams with 162 students from the departments of Computer Science, Information Technology, Electronics and Communication Engineering, Electrical and Electronics Engineering and Mechanical Engineering participated in the event. 87 from Female category and 75 from male category took participation in this event.

Some of the Problem Statements attempted by the students include Connected Health, Economic Waste Management System, Development of image processing - based approach to estimate flood inundation, Air Pollution and Stubble Burning in Delhi/NCR, promoting fitness Through Gamification, solar panel with solar tracking device without power consumption, Energy conservation with using Modern technology Smart Education, Agriculture and Rural Development Domain and Vehicle Servicing and Transport

D.Rahul Kiran, Associate Product Manager, Head Digital works, P Bhaskarachari, Managing Director, Jolt on Electronics Pvt. Ltd and B.Sumanth, Product Lead ,DBS Bank were invited as the Judges. The ideas presented in the Hackathon were marked based on presentation pitching and following four criteria: Appropriateness of the proposed solution to the problem statement, Innovativeness of the proposed solution, Feasibility of the proposed solution and Quality and Efficiency of the implementation. Out of the 28 teams 25 teams problem statements were uploaded in the SIH Website. A total number of 3 teams were selected for the final round of the Smart India Hackathon event organized by ministry of education (MOE), Govt of India.

The following events were conducted

TITLE	TYPE OF EVENT		
National Webinar on research and innovation and ranking	Chief Guest: Dr.RajkumarRanjan Singh, Hon'ble Minister of State for Education and External Affairs, Govt. of India Guest of Honour: Prof. K. Vijay Raghavan, Principal Scientific Advisor, Govt. of India	11.08.2021	
National Innovation Day	Conducted for students at PVPSIT	15.10.2021	
Workshop on entrepreneurship and innovation as career opportunities	Conducted for students at PVPSIT	30.10.2021	
National Education Day	Conducted online webinar for students at PVPSIT	11.11.2021	

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	10.00	
Exposure and Field visit for problem identification	Visit to M/s LCC Pvt. Ltd. (Ready Mix Concrete Plant)	07.02.2022
Webinar on Entrepreneurship and Innovation as career	Mr. Ch. GnanaKarthik Sai Varma, startup founder, KSVS Pvt Ltd.,	27.02.2022
Session on achieving problem solution fit and product Market fit	Mr. SurajMogaluri, startup founder, Storage Buddy	04.03.2022
Workshop on Innovation and Sustainability	Ms. Golivarsha	05.03.2022
Workshop on Entrepreneurship skill, attitude and behaviour development	Mr. Siva Velaga, Engagement Director, TCS, Pune, Maharashtra	07.03.2022
Collaboration between Atal Innovation Mission and AICTE, Webinar	Mr. Ramanan, Mission Director, AIM Dr Anil Sahasrabudhe, Chairman AICTE DrAbhayJere, Chief Innovation officer	14.04.2022
Workshop on Prototype/Process Design and Development – Prototyping	IIC calendar activity	19-04-2022
World Earth Day	Celebrations Activity	22-04-2022
World Intellectual Property Day	Celebrations Activity	26-04-2022
Session on "How to plan for Start-up and legal & Ethical Steps"	IIC calendar activity	10-05-2022
National Technology Day	Celebrations Activity	11-05-2022
Workshop on Intellectual Property Rights (IPRs) and IP management for start up	IIC calendar activity	23-05-2022
World Environment Day	Celebrations Activity	05-06-2022
Out of the box thinking for problem solving ( MIC Event)	Prof. V. Kamakoti, Director, IIT Madras	28.06.2022

# Library, ICT and Physical Infrastructure / Instrumentation:

- > There are Established Systems for Maintaining and Utilizing facilities in the Library. The Central Library has adopted Open Access System. All the books are arranged classified as per Dewey decimal classification 21st edition which is helpful to the users to locate his / her desired book. Name of the LMS Software: LIBSYS10 LMS, Nature of automation Fully, Version: 10, Year of automation: 12-02-2018. Central Library is Fully Automated using LIBSYS10 LMS (Library Management Software). It is Web Centric having support for Twenty Thousand Unique Records with five Concurrent housekeeping clients along with twenty five concurrent users for web OPAC (On - line Public Accessing Catalogue) on server Under Windows 2012 platform. This Software is supporting Barcode system for issue & return of books. The Library is an Institutional member of DELNET. It provides web access to 1,21,08,793 records of Books, Periodicals, Thesis, Dissertations. It is connected with 2196 libraries. Access to the e - resources / NPTEL / SONET video lectures. The Library has a collection of 54178 volumes and 11157 Titles on various subjects and more than 2561 reference books covering Biographies, Dictionaries, Encyclopaedias, and Yearbooks etc. It subscribes to 98 National, 08 International (print) Journals and e – Journals (22456). 63 Volumes of Pearson e - Books purchased perpetual based. (Life time usage) worth of Rs.2,80,729.00, 4939 volumes of packt e - Books, 862 Courses and 1911 videos were purchased worth of Rs.1,46,025/- an annually based (Subscription period is one year) i.e. September 2021 to September 2022. The Central Library organizes Book Exhibitions / Book Display regularly by inviting various reputed publishers nationwide. The Librarian receives book indent regularly from various HOD'S for their departmental needs. Purchase orders will be placed after the Indent is approved by the Head of the Institution. The Central Library holds 120 books in its rare book collection. It includes the Documents on Indian Constitution, Ancient Indian Culture, Various Cultures, Religions and subjects like Astronomy, Economy, Literature, Science and Technology etc. The Central Library has a collection of Dictionaries, Encyclopaedias, Hand Books, Books on World War History, Science, Engineering, Technology, History of world famous scientists, Books on Scientific Inventions, Biographies of National Leaders. The Central Library holds books published by the Publication Division, Govt. of India. Our Institution is Life Member to The Institute of Engineers, Kolkata. Our Institutional Library is member of N-List & NDLI (National Digital Library of India). Central Library has Wi-Fi facility.
- ➤ E-content was developed by teachers such as SWAYAM, other MOOCs platform NPTEL/NMEICT/ and Government initiatives & institutional (Learning Management System (LMS) etc.

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# > Facility for e-content

Name of the teacher	Name of the module developed	Platform on which module has been developed	List of the e-content development facilities available
Dr. B Surya Prasad Rao	Control Systems	Youtube	Audio-visual  Centre and Lecture Capturing System (LCS)
Mr.T.Balaji	Bio Medical Instrumentaion	Google class room	Audio-visual  Centre and Lecture Capturing System (LCS)
Dr.A.Geetha Devi	Digital Image Processing	Google class room	Audio-visual  Centre and Lecture Capturing System (LCS)
Dr.P.Venu Madhav	Wireless Communications and Networks	Google class room	Audio-visual  Centre and Lecture Capturing System (LCS)
Mr. P.Gopalakrishnaiah	LCS	Google class Room	1.PPT 2. NPTEL videos 3. LCD 4. Tablet 5. CDs

## Human Resource Management:

- > Student Teacher ratio is maintained as per the AICTE norms
- Number of capability enhancement, Student Training programs and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc. have been regularly conducted.
- ➤ Students are benefited by guidance for competitive examinations and career counselling. Students qualifying in state/ national/ international level examinations during the year; Total 103 selected & 168 appeared
- Coding Skills Enhancement Program (CSEP) was introduced to improve programing skills through Hackerrank platform at II, III Year Level.

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- Mentoring/Proctoring the students two times for a month to give suggestions in improving their communication skills, participation in different events organized by other colleges throughout the country, improve organizing skills in various activities and etc.
- > Student progression to higher education in percentage: 48 students have gone to higher studies in reputed Institutions.

# **Industry Interaction / Collaboration:**

- To enhance Industry Institute Interaction, entered into number of MOUs for providing Internships
- > The following are various MoUs that were signed with institutions of national, international importance, other institutions, industries, corporate houses etc.

Name of the institution/ industry/ corporate house	Month and Year of signing MoU	List of activities under each MOU	Number of students/teachers who benefitted from MoUs
M/s Indian Green Building Council-CII	30.08.2017	Conferences, visits, workshops	91 students of B.Tech Civil Engineering students and 6 faculty members attended for conducted "Green built environment" workshop
Medini Design Company	22.08.2019	Industrial Visit	
National Highways Authority of India (NHAI)	31.07.2020	Technical Support, Maintenance	5 IV Year B.Tech students done internship
Ladder survey institute of technology	04.01.2021	Internship and training on total station	faculty  1) 5 day skill training program on "Land Survey Using Total Station" for 56 IV Year B.Tech. students and 5 faculty members. 2) Internship on Land survey using total station for 4 IV Year B.Tech students
LDR survey Pvt Ltd., Chennai	08.01.2021	Training & Placement	Placements given for 12 IV Year

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			B.Tech students
Construction Management Training Institute Pvt Ltd.; Bangalore	05.08.2021	Guest lecture	1 webinar
LCC Ready Mix Plant Pvt Ltd.; Guntur	01.01.2022	Industrial Visit, Internship and Consultancy works	Industrial Visits – 102 B.Tech. Civil Engineering students Internship – 5 students
Canter CADD, Vijayawada	03.01.2022	Guest lecture	66 B.Tech. Civil Engineering students attended guest lecture
Virtusa Consulting Services Pvt Ltd.,	2021	Skill Training and Placement Drives	Students: 9
Hexaware Technologies Ltd.	2020	Skill Training and Placement Drives	Students: 2
Edu Skills Foundation	2021	Skill Training and Placement Drives	0
AWS Academy	2021	Skill Training and Placement Drives	Faculty: 1 Students: 79
CISCO Networking Academy	2021	Skill Training, Internships and Placement Drives.	0
PALO ALTO Networks (Cyber Security)	2021	Skill Training and Placement Drives	Students :39
BLUE PRISM University (RPA)	2021	Skill Training, Internships and Placement Drives.	Students: 80
Red Hat Academy	2021	Skill Training and Placement Drives	Students: 19 +194 = 213
Celonis Academic Alliance	2021	Skill Training and Placement Drives	Faculty: 1 Students: 19
WOIR Software India Pvt Ltd.,	2020	Student Internships and Placement	Students: 1
Anblicks	2019	Student Internships &	0
Andhra Pradesh State Skill Development Corporation	2018	Placements	0
Indian Servers, Vijayawada	2017	Student training Programs and Faculty Improvement	0

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Grupo Antolin India Private Limited, Vijayawada	01-05-2021	Training program on Electronics for Mechanical Engineers – An Automotive Interiors Perspective, Phase-I by our faculty to Group Antolin people on 4th, 5th, 8th, 11th and 12th of Sept, 2021. Training program on Electronics for Mechanical Engineers – An Automotive Interiors Perspective, Phase-II by our faculty to Group Antolin people during 20th- 26th November, 2021.	20 Engineers benefited in Phase-I & another 20 Engineers benefited in Phase-II
Entuple Technologies Private Limited, Banglore	15-03-2021	A 3-Day training on Design of antennas for 5G applications using HFSS from 03.03.2022 to 05.03.2022	28 Students benifited.
M/s. Optithought, Chennai	22-09-2020	A 3-Day FDP on Essentials of 5G Communication from 26.08.2021 to 28.08.2021	34 Faculty benifited from various colleges acoss AP & Telengana state.
M/s. Incap Limited, Vijayawada	20-08-2019	NIL	NIL
NI Systems India Private Limited	23-10-2020	A 5-Day training programme on Engineering solutions using graphical programming-LABVIEW from 28/02/2022 to 04/03/2022	29 students benifited
Cranes Software International Limited, Bangalore (referred to as Cranes henceforth) which is University Program Partner of Texas instruments, India.	07-03-2013	NIL	NIL
M/s Efftronics Systems Pvt. Ltd., Vijayawada	02-12-2005	NIL	NIL
BSNL, Vijayawada	11/2/2021	NIL	NIL
AP GENCO TRAINING INSTITUTE, Dr. NTTPS, IBRAHIMPATNAM	5/9/2022	NIL	NIL
Medini, Vijay Nagar, Bengaluru-40, Karnataka, India	22-Aug-19		
M/s Kristna Engg. works, Enikepadu, Vijayawada, A.P.	30-Aug-19	Organized industrial visit for II-year students on 22/03/2022 and 24/03/2022	132 students and 7 faculty members
G S Alloy Castings Limited, Payakapuram, Vijayawada, 520015	30-Aug-19	Organized industrial visit for III-year students on 28/04/2022 and 29/04/2022	95 Students and 7 faculty members
NEERAJ Industries, Kanuru,	9-Jul-19		

Vijayawada-07			
Annoor Envirochem and Food Analytical Laboratory, Polyclinic Road, Benz Circle, Vijayawada.	1-Jul-19	4 students have done internship in academic year 2021-22	×
Grupo Antolin India PVT LTD, Medha Towers, Kesarapalli, Gannavaram. AP.	1-May-21	Organized a Guest Lecture on "Thermodynamic system in power plant" by Sri. R. Samuel Johnson, Assistant Divisional Engineer- Mechanical, Training Institute, APGENCO on 04.12.2021. 12 Students have done B.Tech Projects in academic year 2021-22	97 students
Andhra Pradesh Power Generation Corporation Limitd, Training Institute, Dr. NTTPS, Ibrahimpatnam-521456	17-Mar-22		
Prakasa Spectro cast Itd and synergem, Prakash Nagar, Enikepadu, Vijayawada, A.P	27-Jan-21		
Kusalava International, Vijayawada, Krishna Dt.	24-Jan-22	Organized a Guest Lecture on "Personality Development" by Sri. A. Radha Krishna Chowdary, Director, Kusalava International Ltd. 1 student has done internship in AY: 2021-22	37 students
Central Institute of Plastics Engineering & Technology, Ministry of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India. Kanuru, Vijayawada-7, A.P	30-Sep-19	Organized industrial visit for III-year students on 21/12/2021 and 24/12/2021	85 students and 6 faculty Members
KCP SUGAR and Inds Corp.Ltd., Vuyyuru-521165 Krishna District A.P	Sep-15		26
KUMAR Pumps, Sri Lakshmi Ganpathi Engineering Works, Tenali, Gutur Dt, A.P	20-Nov-21		
M/s Element School of Visual Arts, Vijayawada, A. P	30-08-2010 to till date	Lifetime	
Indian Servers, Vijayawada.	25-11-2020 to 24-11-2 026	NIL	
Bridge IT Solutions. Hyderabad	08-06-2014 to 07.06.2023	A Webinar conducted on "DEEP LEARNING AND ITS APPLICATIONS" on 27-10-2021	129 students

	02.01 2021 to	Conducted different certification courses for Staff and Student	5 Staff members & 150 students
Edu Skills Foundation	01.01.2023	courses for Staff and Student	& 130 students
Aadhya Analytics, Gannavaram, Vijayawada	10/9/2018 to 9/9/2023	NIL	
M/s Infosys Technologies Ltd., Hyderabad,	1/3/2019 to11.01.2022	NIL	
Sefe Automation System Pvt. Ltd, Hyderabad	21.12.2021 to 20.12.2027	NIL	
KCP Sugers, Vuyyuru	2015	Industrial Visits and Internships	65
Pedilite	2020	Training Programmes	65
ALEAP	2018	Industrial Visits and Internships	65
Squps	2021	Training Programmes	
Seshasayee Knitting Pvt. Ltd	2021	Industrial Visits and Internships	60
Business Toys	2021	Training Programmes	65
Power Lab Instruments, Chennai	1st May 2019		
APGENCO Training Institute, NTTPS, Ibrahimpatnam	10th April 2019	Industrial visit	82 Students & 4 Faculty Visited NTTPS on 26-11-2021 and 27- 11-2021
G.S. Electricals, Vijayawada	9th April 2019	Internship Program	One M.Tech student undergone Internship program during the period 03-01-2022 to 29- 01-2022
Vijay Electricals, Vijayawada	2nd April 2019	Internship Program	22 Students & 2 Faculty Visited on 21-03-2022
JOHNNETTE Technologies Pvt. Ltd.,	23 <sup>rd</sup> October 2020		
ZMS Technology	10 <sup>th</sup> Nov. 2020		
Kumar Sri Lakshmi Ganapathi Engg., Work, Tenali	20th November 2021	Student Project	4 members of final year B.Tech performed their project
AB Technologies	25th November		

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- Management is providing full financial support for Patenting, which is resulting in publishing and grant of patents.
- Fifty percent course fee is reimbursed by the management for obtaining AAA/AA rating in NPTEL courses.
- Fifty percent membership fee is reimbursed by the management in professional bodies.
- Free transport facility to faculty is being provided.
- Incentives for quality research publications are resulting in substantial improvement in quality and quantity of publications.
- Merit Scholarships, Gold medals, Best project, Innovative project are supported by Management.
- Regular revision of Curriculum with CBCS is also implemented.

# Concluding Remarks:

- > Obtaining NAAC, A+ accreditation for 5 years is a significant achievement
- > Focus on sponsored Research and consultancy with a target of at least one sponsored project in each department.
- > Eminent persons may be hired to train the faculty on writing project proposals for funding.
- > Best practices among the departments may be shared and practiced.
- > Start-up and Entrepreneurship culture to be promoted.
- M.Tech. programs may be re-designed to attract admissions.

(Dr. A. Sarath Babu)

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External Member, IQAC, PVPSIT

(Dr. A. Venu Gopal)

Professor of Mechanical Engineering
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