INTERNAL QUALITY ASSURANCE CELL (IQAC)
V R SIDDHARTHA ENGINEERING COLLEGE

ACADEMIC AUDIT

Evaluation Sheet
(With effect from 2020-21)

Department Name : Civil Engineering

Programme Name : B. Tech (Civil Engineering); M. Tech (Structural Engineering)

Academic Year : 2023-2024

Annual department plan (enclose a separate sheet along with the previous 3 years planned & achieved data)

I. POs, PSOs and Curriculum

S. No	Criteria	Observations
1.	POs & PSOs attainment along with sample calculation sheet	POs and PSOs attainment were available.
2.	Stakeholders feedback collected; analyzed & action taken related to curriculum design (with evidences)	Stakeholders feedback was collected and the feedback from them was well taken for curriculum design.
3.	Extent of stakeholder's satisfaction with curriculum revision	Stakeholders have given satisfaction regarding curriculum revision
4.	-New courses introduced -Courses upgraded with more than 25% of course content	Honors (Civil Engineering) VR23 for UG
5.	Lab component - New labs added - No. of new experiments introduced - New Hardware / Software developed	1 (3D concrete printing) 4 -
6.	No & % age of courses focusing on employability/ entrepreneurship/ skill development.	30 & 70%
7.	No of students undertaken -full time field projects: -full time internships:	12 186

II. Faculty information and their contribution

S. No	Criterion	Observations
1.	Teacher- student ratio	12.94
2.	Faculty Cadre ratio	Professor: Assoc. Prof: Asst. Prof. 7: 6: 21 = 1: 0.85: 3.0
3	Faculty experience & retention	Average experience is more than 15 years & 90% retention
4.	Faculty qualifications: Percentage of existing faculty with PhD Faculty awarded with PhD:	PhD= 18; M. Tech= 16 = (18 /34) = 52.94% 2

	Faculty submitted their PhD: Faculty pursuing PhD: Faculty registered for PhD:	2 6	
5.	Faculty with Post-Doctoral Fellowship or Pursuing it:	1	
6	Faculty guiding /guided PhDs:	8	
7.	Percentage of faculty contributing in … ……..research publications: ……..books: ……..chapters:	90% 8 -	
8.	e-Content development / Lectures added to Web-resources	15%	
9.	Faculty *contribution* in professional organizations/ Reviewer / Editorial boards: *(not mere memberships)*	8	
10.	Academic Awards/Rewards received:		• Young Scientist Award (Indian Council of Agricultural Research)-WMO Summit 2024 • Best Paper Award (Shri Vishnu Engineering College (Autonomous), Bhimavaram • Certificate of merit for rendering meritorious service while discharging the duties-AP Government • Letter of Appreciation by Andhra Loyola Institute of Engineering and Technology
11.	Faculty contribution in Industry / Institute collaborative projects	4	
12.	Faculty trained in Industry	2	
13	Faculty contribution in obtaining internships/ Placements/ MoUs	4	
14	Faculty as resource persons in webinars/ workshops / key note speaker / training activities	9	
15	National level events organized -Conferences: -Workshops/ Seminars: - Webinars - FDPs: International level events organized - Conferences - Webinars -Workshops/Seminars	- 10 18 02 0 0 0	
16	List of conferences/seminars/ webinars/ workshops/FDPs attended for the enrichment of teaching - learning process		• Micro soft Copilot • ChatGPT & AI Tools • Advances in 3D Concrete Printing • NEP 2020 Orientation & Sensitization Pogramme under Malaviya Mission Teacher Training Programme (MM-TTP) • Finite Element Menthod and Computation Structural Dynamics • Non-Tiled Flooring in Today's context • Enhanced Contaminant Containment Performance of Innovayive Vertical Barriers

| | | • Structural Design of FRP composites
• Strengthening of Steel Structures using CFRP
• 3D Printing and 3D Scanning
• Outcome Based Education
• Hands on Training on Google Earth Engine for geospatial technology (GRR4GT-2024)
• Tekla Structures Custom Training
• 7 Day National level Online Faculty Development Program on OBE & Essential AI Tools
• AI Tools
• 7 Day National level Online Faculty Development Program on OBE & Essential AI Tools
• Emerging Trends in Construction Practice
• Research & Innovations in Structural Engineering
• Non-Destructive Evaluation of Reinforced Concrete Structures
• Bioinspired Design
• Sustainable and durable green concrete future and applications
• Research & Innovations in Structural Engineering
• International Conference on Materials Innovation & Infrastructure (ICMISI-2024)
• Conference on Advancements in Sustainable Materials and Infrastructures 2023(ASMI-2023)
• ICCSI-2004
• One Week Online Self-Sponsored Short-Term Course on Recent Advances in Transportation Geotechnics: Industry Perspective (RATG-IP)
• One week FDP: Innovative Inventions in Civil Engineering (IICE2024), Sandip Institute of Technology and Research Centre, Nashik, in association with Indian Water Resources Society (IWRS)-Student Chapter, SITRC, Nashik & Institutional Innovation Council (IIC).
• NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) Organized by UGC – MMTTC, Sri Venkateswara University, Tirupati
• Climate Resources for research and teaching Webinar |
| 17 | Faculty interaction with outside world (BOS/NBA/Examiner for PhD evaluation / selection committee / Academic auditing / Chairperson /Chief guest /etc.) | 5 |

III. Teaching-Learning Process and Evaluation

S. No	Criterion	Observations
1.	Student performance indices – Measures to reduce detentions -Attendance (detentions if any): -Exams (detentions if any):	 0 4
2.	Mechanism and activities for slow learners: Outcome:	Quality circles exist

3	Mechanism and activities for Fast learners to excel: Outcome:	CBCS, Minors, Honors
4	Bridge courses: Value added courses:	1 1
5	Quality circles and Practice: Outcome:	Exists and produced good results
6.	Student counseling /mentoring mechanism	Exists
7.	Initiatives taken for innovative mini and major projects -Training for students & faculty	Yes.
8.	Best student projects with awards	2
9	Student Model developments: Awards:	2
10	Student Innovation details: Awards:	2
11	Student Publications (other than IV.1) -UG: -PG:	7 7
12	Monitoring of teaching-learning process -- Mechanism for Assessment of teaching process inclassrooms. -- Random verification of evaluated answer papers and question paper during the semester. -- Innovative teaching methods presented, if any -- Verification of course files	Exists. Periodically, feedback was collected from students. Verification of question papers during the semester and answer scripts. Course file verification by PC.
13	Student enrolment in CBCS	Nil
14	EPICS (Engineering projects in community service) Projects: Awards:	34 1
15	Activities of students in professional bodies: Awards in co-curricular activities:	14
16	Training programs / Seminars/ workshops organized for students:	JOC
17.	Guest lecturers conducted for Students:	Guest lecture on "Applications of Reliability in Various Fields" Interactive session on MBA/PGDM for a promising career/Entrepreneurs/Engineering Interactive session on How to prepare for National Competitive Exams & Higher Education One day Seminar on "Together for Clean Air" One day seminar on "Career opportunities through GATE" Terzaghi Day Expert Lecture On "Navigating Challenging Ground Conditions In Coastal Andhra Pradesh" by IGS VRSEC student chapter Guest lecture on "Engineering your Dreams" by IGS VRSEC

		student chapter
		Lecture on "ASCE E-Journals Orientation"
		Guest lecture on "Structural Behavior of Self-Compacting Mortar at Elevated Temperature"
		Guest lecture on "significance of instrumentation in Geotechnical Engineering"
		Sri BV Krishna Rao Endowment Lecture "Research, Innovation and Application"
		Guest lecture on "Basic Engineering Skills and Life Skills"
		Guest lecture on "sustainability in cement industry and soft skills required for CE students"
		Sri Koya Srinivas Endowment Lecture on "Sustainable Urban Mobility: Indian Context"
		Guest lecture on 'Insights in Civil Engineering'
		Guest lecture on "Building with nature"
		Guest lecture on "Awareness on Women mental health and wellbeing"
		Guest lecture on "Construction of Bridges"
		Guest lecture on "Opportunities to Win a job"
		Guest lecture on "Tips to get a Rank and Win in Interviews/ sell yourself for better price"
18.	MoUs with Industries for Research / Consultancy/ internship / placements, etc.	Existing: 11..., Newly added 2........, Total:......13
19.	Students feedback	Yes (Available)
20.	Feedback follow-up action	Follow-up action by HoD to improve quality of teaching
21.	Scope for Self-learning: -Certificate courses -Online courses	2 2
22.	Cut-off rank (Admission): Cut-off rank Previous year:............. OC: BC: SC: ST: PH: Audited year: .... OC: BC: SC: ST: PH: Improvement / no change / decline Note: If there is no improvement it needs to discussed & suitable measures are to be taken up.	OC (Boys) 65211 OC (Girls) 62325 SC (Boys) 112224 SC (Girls) 133421 ST (Boys) 140821 ST (Girls) 124390 BC (Boys) 122875 BC (Girls) 127658 OC: 106088; SC: 129027; ST: 128575; BC: 106088 (2022-23)
23	**Range of CGPA & % of students** 10 -8 CGPA: 7 CGPA: 6 CGPA: 5 CGPA: No. & % age of failures: Success rate as per NBA guidelines:	80 64 31 9 2 & 0.01% 98.92%

IV. Research, Consultancy and Extension

S. No	Criterion	Observations
1.	Faculty publications in journals: (other than III.11)	Publications in Jrs: SCI/SCIE...6 ......Scopus......10..... Total...16....

	Scopus indexed: SCI / SCIE (Not ESCI): Total: h-index: Dept & Highest in the faculty.	Publications in Conferences: SCI/SCIE... 0......Scopus......26......Total...26...... Student Publications-UG: SCI/SCIE:0 Scopus:...12...WoS:.......Others:........Total...12 -PG: SCI/SCIE:0 Scopus:...8....WoS:........Others:........Total...8 Dept H-index (Scopus data base):....... Highest H-Index of faculty:...9...
2.	Publications in conferences: - National (Scopus, SCI & equivalent) - International (Scopus, SCI equivalent) - Total:	Publications in Conferences: SCI/SCIE... 0......Scopus......26......Total...26...... Student Publications-UG: SCI/SCIE:0 Scopus:...12...WoS:........Others:........Total...12 -PG: SCI/SCIE:0 Scopus:...8....WoS:........Others:........Total...8
3.	Faculty contribution in: ....books: ....book chapters: (Books/Chapters with ISBN/ISSN only are considered)	8
4.	Paper Publications & Book chapters:	Q1......4......, Q2...5..., Q3......2......, Q4......5......Total...16....
5.	Government: Funded R&D projects	Applied: 4 Total Amount: 80 Lakhs Ongoing: 01 Total Amount: 1800000/- Completed: 0 Total Amount:
6.	Non- Government: Funded R&D projects / Industry sponsored projects	Applied: 3 Total Amount: 464920 Ongoing: 0 Total Amount: Nil Completed:3 Total Amount: 464920/-
7.	Faculty involved in Consultancy & amount earned	22 & **Rs. 1,50,00,000/-**
8.	Faculty intellectual property rights / Patents:	Filed: 01 Published: 03 Awarded: 01 Total: 05
9.	In-house R&D grants & projects and their outcomes	Exists, Seed grants -4
10.	New research facilities/ laboratory facilities added	3D printing lab
11.	MOU's with industries/ R&D/ Premier Institutes Details of activities:	13
12.	Research centers of excellence established: Outcome in research centers:	1 2 PhDs are undergoing
13	Skill development centers established: outcome:	BOSCH tool lab
14	Incubation centers: - Established with outside Industries: -Status of incubation:	- -
15	Start-ups & Entrepreneurships: No of Start-ups & status:	-

Awards from outside platforms:

V. Infrastructure and Learning Resources

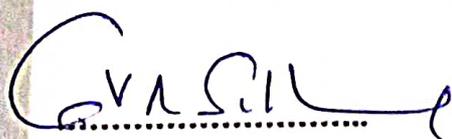| S. No	Criterion	Observations
1.	Addition of infrastructural facilities to improve the teaching learning process Class rooms / Laboratories /ICT class rooms / e- class rooms/ Smrrhalls / Syndicate rooms /Innovation center:	e- class rooms exist; Innovation center exists;
2.	Internet facilities for faculty & Students:	Available for both faculty & Students
3.	Technical manpower support added:	1
4.	Modern / new equipment added in Laboratories:	Retrofitting of the existing Francis Turbine - Rs. 2,89,100.00; Total station-2,78,000/-; Concrete 3D Printer --27,14,000/-;HP Laptop----86,590/-; Jaw Crusher--1,03,840/- Carbonation Chamber-7,27,175/- Universal tensile testing machine-6 Lakhs; Electric oven-Rs. 25,000/-
5.	New research facility /Computing facilities / laboratory added:	BIM, 3D concrete printing lab
6.	Dept. Newsletter / magazine:	Available
7.	Department library: New additions Text books / References / Journals	6 books

VI. Student information, Support and Progression

S. No	Criterion	Observations
1	Industrial visits	4
2	Internships	186
3	Dept. student clubs: Activities:	12 ACCE (I)-2; ACES-2; ASCE-2; EWB-2; IE(I)-2; IGS-3 IGBC-1; ICI-2
4	Details of coaching provided for GATE/GRE/any other competitiveexams	GATE coaching
6	Students qualified in -GATE -GRE/etc.	10 10
7	Students admitted for Higher studies (No & %):	5 till date
8	Total Placements (No & %) in the Dept: 2 - 4 Lakhs (No.) 4 Lakhs above (No.): 5 Lakhs above (No.): Highest salary (No.): Median salary:	Total Placements (No & %) in the Dept: 72 2 - 4 Lakhs (No.):64 4 Lakhs above (No.): 8 5 Lakhs above (No.): - Highest salary (No.):4.5 Lakhs Median salary:2.7 Lakhs

9	Student prizes:	NSS/NCC........ Cultural.........., Sports........... National Level, if any 36
10	Student Scholarships:	290

VII. Governance, Leadership and Management

S. No	Criterion	Observations
1	Setting of annual goals by individual faculty for their academic improvement.	Annual goals were set for individual faculty for their academic improvement
2	Setting of departmental annual goals by HOD for the improvement of dept.	Exists
3	Teaching staff attended for skill development/ Industry training/ any professional development programs	5
4	Non-teaching staff attended for skill development programs	8
5	Financial support received from the Management: Seed Grant for faculty: Incentive for Sponsored projects: Incentive for paper publications: Attending FDPs/ Seminars/ etc: Attending overseas seminars: Interaction with R & D personnel: Others:	 5 4 15 4 5
6	Financial support received from the Management: Student Projects: Model developments & exhibition: Student Innovations & exhibition:	 12
7	Quality policy & Quality objectives Committees & duties: Cells & duties:	 Exists Exists
8	Maintenance -General -Laboratory -Others	Calibration and service of equipment in GTE, TE, SM and Concrete labs
9	Financial support/ leaves for qualification/ skill up- gradation:	Implemented
10.	Risk evaluation/ safety measures:	Exists

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Dept. IQAC In-charge   **Academic Auditor**   **Head of the Dept.**

IQAC ACADEMIC AUDIT   8   VRSEC

Academic Audit Report (Consolidated)

1. **Name of Department:**......Civil Engineering Department
....Year...2023-24...........
2. **No. of full time permanent faculty:** ......34..........
3. **No. of Visiting/Adjunct faculty:** ...... / ...6.....
4. **No. of PG / UG courses:**......1.../...1.......
5. **Curriculum Revisions Information:** UG & PG...VR23, SAHE24...........................
   Major changes...
   ....
   New courses Minors & Honors......Modified courses (min 20-25% change)30%
   Employable courses......30.......
6. **Research:** Ph.D. Theses submitted: ...2...... awarded:...1......
   Faculty guiding / guided Ph.Ds:.......6....../....................
   Publications in Jrs: SCI/SCIE...6 ......Scopus......10..... Total...16....
   Publications in Conferences: SCI/SCIE... 0......Scopus......26......Total...26......
   Student Publications-UG: SCI/SCIE:0 Scopus:...12...WoS:........Others:........Total...12
      -PG: SCI/SCIE:0
       Scopus:...8....WoS:........Others:........Total...8
   Dept H-index (Scopus data base):.......
   Highest H-Index of faculty:...
7. **Sponsored projects:** Applied: 4   Total Amount: 80 Lakhs
   Ongoing: 01   Total Amount: 1800000/-
8. Completed: 0 Total Amount:
9. **Consultancy Amount earned:**... 1.50 Cr............
10. **Start-ups & Entrepreneurship:** No......Awards from outside platforms:...4..........
11. **Incubation centers:** established............, Status of incubation:...................
12. **Patents:** Filled:...1........Published:......1.......Granted:.........3.......................
13. **Innovations:** ......, Awards from outside platforms (reputed Institutions only) :...........
14. **Books / Book chapters** (with ISBN/ISSN only are considered):...............8...............
15. **e-Content developed:** Lectures added to Web-resources: ......50.
16. **Placements:** Total Placements (No & %) in the Dept: 72
       2- 4 Lakhs (No.):64, 4 Lakhs above (No.): 8, 5 Lakhs above (No.): -,
       Highest salary (No.):4.5 Lakhs,
       Median salary:2.7 Lakhs
17. **Higher Education:** GATE No. 10...., GRE No..10., Others (specify):...3. %.........
18. **New Equipment and Infrastructure** added: .... (Name & amount)
    Retrofitting of the existing Francis Turbine - Rs. 2,89,100.00;
    Total station-2,78,000/-;
    Concrete 3D Printer --27,14,000/-
    HP Laptop----86,590/-
    Jaw Crusher--1,03,840/-
    Carbonation Chamber-7,27,175/-
    Universal tensile testing machine-6 Lakhs;
    Electric oven-Rs. 25,000/-

19. **Student feedback** on Curriculum, infrastructure and facilities: **Yes or No**

20. **Strengths:**
(1) Good number of faculty members and high end laboratory facilities
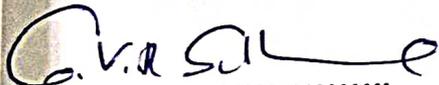(2) Focusing on more job oriented courses being introduced

21. **Weaknesses** (mandatory field to fill):
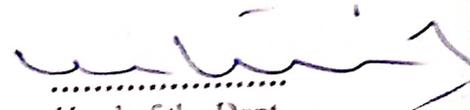(1) Placements potential to be improved
(2)

22. **Suggestions for improvement** (mandatory field to fill):
(1) Publications be in SCI journals
(2) Patents can be improved in numbers

18. Document addressing previous academic year weaknesses and suggestions for improvement.
    Enclosed: **Yes** / ~~No.~~   If 'yes' enclose an appropriate document. If "No" furnish proper explanation.

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Dept. IQAC In-charge   Academic Auditor   Head of the Dept.

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IQAC Coordinator