

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

ACADEMIC AUDIT

Evaluation Sheet

(with effect from 2020-21)

Department Name : Electronics and Instrumentation Engineering

Programme Name : B.Tech.

Academic Year : 2022-23

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	Data is available in PO and PSO attainment file.
2.	Stakeholders feedback collected, analyzed & action taken related to curriculum design (with evidences)	Student exit feedback collected and their suggestions were recorded and considered in VR 20 curriculum.
3.	Extent of stakeholders satisfaction with curriculum revision	The Stake holders suggestions were discussed in BOS meeting and considered in VR 20 Curriculum revision.
4.	-New courses introduced -Courses upgraded with more than 25% of course content	No. of New courses introduced: 10 VR -20: 34.15% courses revised. VR-17: 44.12 % courses revised.
5.	Lab component - New labs added - No. of new experiments introduced - New Hardware / Software developed	Rs. 31,66,992 worth of new equipment/software/ hardware procured for all the laboratories of EIE Dept. in 2022-23.
6.	No & % age of courses focusing on employability/ entrepreneurship/ skill development.	VR-20: Skill-65%, Employability-30% & Entrepreneurship-5% VR17- Skill-66%, Employability-31% & Entrepreneurship-3%
7.	No of students undertaken -full time field projects: -full time internships:	69 students done internships (more than 3 weeks) for the academic year 2022-23.

II. Faculty information and their contribution

S. No	Criterion	Observations
1.	Teacher- student ratio	No. of faculty: 24, Total no. of students:360
2.	Faculty Cadre ratio	Teacher student Ratio: 15
3	Faculty experience & retention	Professors: 01 Associate Professors: 03 Assistant Professors: 20 90% of the faculty retained for last 3 academic years.

4.	Faculty qualifications: Percentage of existing faculty with PhD Faculty awarded with PhD: Faculty submitted their PhD: Faculty pursuing PhD: Faculty registered for PhD:	Total Ph.D. Faculty: 07 Faculty awarded with Ph.D.: 01 Faculty submitted their Ph.D.: 02 Faculty pursuing Ph.D.: 11 Faculty registered for Ph.D.: Nil
5.	Faculty with Post-Doctoral Fellowship or Pursuing it:	Nil
6.	Faculty guiding /guided PhDs:	Faculty guiding Ph.Ds: 01 No. of research scholars: 05
7.	Percentage of faculty contributing inresearch publications:books:chapters: e-Content development / Lectures added to Web-resources	Faculty contribution in research publications: 21/24 = 87.5% Faculty contribution in book publications: 02/24=8.33%
8.	Faculty <i>contribution</i> in professional organizations/ Reviewer / Editorial boards: <i>(not mere memberships)</i>	Nil
9.	Academic Awards/Rewards received:	Reviewers: 1. Dr.P.Srinivas. 2. K.Vijayalakshmi. 3. Dr.N.Swathi
11.	Faculty contribution in Industry / Institute collaborative projects	Nil
12.	Faculty trained in Industry	03
13.	Faculty contribution in obtaining internships/ Placements/ MoUs	05 faculty members contributed to obtain internships for the students in industries.
14.	Faculty as resource persons in webinars/ workshops / key note speaker / training activities	Nil
15.	National level events organized -Conferences: -Workshops/ Seminars: - Webinars - FDPs: International level events organized - Conferences - Webinars -Workshops/Seminars	National Seminar organized: 02 Workshops organized: 01 Guest Lectures organized: 03
16.	List of conferences/seminars/ webinars/ workshops/FDPs attended for the enrichment of teaching - learning process	No. of FDPs attended by faculty: 29 No. of workshops attended by faculty: 10 No. of seminars/webinars attended by faculty: 07 Training Programs attended by faculty: 15
17.	Faculty interaction with outside world (BOS/NBA/Examiner for PhD evaluation / selection committee / Academic auditing / Chairperson /Chief guest /etc.)	Dr. G.N.Swamy is a BOS member in Bapatla Engineering College & Andhra Loyola College of Engineering, Vijayawada.

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):	Total no. of students detained on shortage of attendance is 04. Detention Percentage due to shortage of attendance is 04/102 = 3.92%
2.	Mechanism and activities for slow learners: Outcome:	Counselling Mechanism is done properly for the slow learners from Assignment –I examination onwards.
3	Mechanism and activities for Fast learners to excel: Outcome:	1. Fast learners are encouraged to opt CBCS subject. 2. NI academy training program is provided for fast learners.
4	Bridge courses: Value added courses:	Nil
5	Quality circles and Practice: Outcome:	Nil
6.	Student counseling /mentoring mechanism	Counselling is done as per the guidelines of HOD and Program Coordinator. Counselling Records are periodically verified by Program Coordinator and HOD.
7.	Initiatives taken for innovative mini and major projects -Training for students & faculty	The department of EIE has organized few Guest Lectures and Seminars in edge technologies for the students.
8.	Best student projects with awards	03 students got appreciation certificates for their best projects.
9	Student Model developments: Awards:	16 technical models were developed by the students.
10	Student Innovation details: Awards:	26 papers were published by the students in the A.Y:2022-23.
11	Student Publications (other than IV.1) -UG: -PG:	26
12	Monitoring of teaching-learning process -- Mechanism for Assessment of teaching process in classrooms. -- Random verification of evaluated answer papers and question paper during the semester. -- Innovative teaching methods presented, if any -- Verification of course files	Data is prepared by P.Srinivas, Program Coordinator, EIE Dept. Assessment: External results, Student feedback, COs and POs attainment and course end survey. Random Verification of Answer Scripts: Verified by HOD and Program Coordinator. Innovative teaching methods: PPTs with own annotations, Topics related to NPTEL videos and model usage. Verification of Course Files: Verified by HOD and Program Coordinator.
13	Student enrolment in CBCS	57 students were enrolled for CBCS courses for the academic year 2022-23.

IQAC ACADEMIC AUDIT

VRSEC

14	EPICS (Engineering projects in community service) Projects: Awards:	No. Project batches: 34 Awards: 02 best projects among all projects.
15	Activities of students in professional bodies: Awards in co-curricular activities:	Total no. of Events conducted under ISOI: 06 Total no. of students participated: 295 No. of students won prizes: 24
16	Training programs / Seminars/ workshops organized for students:	Workshops: 02 National Seminar:02
17.	Guest lecturers conducted for Students:	Guest Lectures: 03
18.	MoUs with Industries for Research / Consultancy/ internship / placements, etc.	Existing: 05, Newly added: Nil .., Total:...05....
19.	Students feedback	Range of student feedback: above 4.0 Data is available in a separate file.
20.	Feedback follow-up action	No Follow-up action is required.
21.	Scope for Self-learning: -Certificate courses -Online courses	Some of the relevant NPTEL courses are approved for EIE students. Details are available in separate file.
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	A.Y: 2021-22 OC: 37087, BC: 47758, SC:54382, ST: 88227, PH: Nil. A.Y: 2022-23 OC: 22254, BC: 36033, SC:83055, ST: Nil, PH: Nil. The overall Performance of the department in admissions 2022 is slightly improved the lower cutoff ranks in all categories (except SC category).
23	<i>Note: If there is no improvement it needs to be taken up.</i> Range of CGPA & % of students 10 -8 CGPA: 7 CGPA: 6 CGPA: 5 CGPA: No. & % age of failures: Success rate as per NBA guidelines:	Consolidated results of 2019-23 batch: 9-10 CGPA: 01 8-9 CGPA: 26 7-8 CGPA: 35 6-7 CGPA: 28 5-6 CGPA: 08 4-5 CGPA:04 0-4 CGPA: 02 % of Pass: 86/102=84.31% % of Fail: 16/102=15.6%

IV. Research, Consultancy and Extension

S. No	Criterion	Observations
1.	Faculty publications in journals: (other than III.11) Scopus indexed: SCI / SCIE (Not ESCI): Total: h-index: Dept & Highest in the faculty.	Journal Publications: Scopus Indexed: 06 SCI/SCIE (Not ESCI): 12 UGC: 03 Total: 21

2.	Publications in conferences: - National (Scopus, SCI & equivalent) - International (Scopus, SCI equivalent) - Total:	Conference Publications: 44
3.	Faculty contribution in:books:book chapters: (Books/Chapters with ISBN/ISSN only are considered) Paper Publications & Book chapters:	Book Chapters: 02
4.		Q1..Nil....., Q2.....09....., Q3...06....., Q4.....02.....Total.....17.....
5.	Government: Funded R&D projects	Applied: 04 , Total Amount:Rs. 1,97,34,000 /- Ongoing:..Nil..... Total Amount:..... Completed:.....Nil..... Total Amount:.....
6.	Non- Government: Funded R&D projects / Industry sponsored projects	Applied:..Nil....., Total Amount:..... Ongoing:.... 01, Total Amount: Rs.1,00,000 /- Completed:.....Nil..... Total Amount:.....
7.	Faculty involved in Consultancy & amount earned	Nil
8.	Faculty intellectual property rights / Patents:	Filed:...01.....Published...05....., Granted...01.....
9.	In-house R&D grants & projects and their outcomes	Nil
10.	New research facilities/ laboratory facilities added	Nil
11.	MOU's with industries/ R&D/ Premier Institutes Details of activities:	Nil
12.	Research centers of excellence established: Outcome in research centers:	Nil
13.	Skill development centers established: outcome:	NI Academy and SIEMENS
14.	Incubation centers: - Established with outside Industries: -Status of incubation:	Nil
15.	Start-ups & Entrepreneurships: No of Start-ups & status: Awards from outside platforms:	Nil

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/ Seminar halls / Syndicate rooms /Innovation center:	Class Rooms: 06 Laboratories: 06 ICT class rooms/e-class rooms:01 Seminar halls: 01 Syndicate Rooms: Nil Faculty Rooms: 17

2.	Internet facilities for faculty & Students:	All the Faculty Rooms, Laboratories and Tutorial rooms are having internet facility.
3.	Technical manpower support added:	Total no. of technical staff: 04
4.	Modern / new equipment added in Laboratories:	Data is available in the corresponding lab stock registers.
5.	New research facility /Computing facilities / laboratory added:	Nil
6.	Dept. News letter / magazine:	Yes, EIE Dept. is having News Letter with 2 issues per year.
7.	Department library: New additions / Text books / References / Journals	No. of new books are added for 2022-23 A.Y: 05

VI. Student information, Support and Progression

S. No	Criterion	Observations
1	Industrial visits	Nil
2	Internships	72 Students are attended for internships.
3	Dept. student clubs: Activities:	Dept. Student Club: ISOL- Student Chapter Activities organized: 06
4	Details of coaching provided for GATE/GRE/any other competitive exams	Career counselling and soft skill development has given for the students.
6	Students qualified in -GATE -GRE/etc.	GRE: 13 TOEFL: 02 IELTS: 06 PGECET: 03 Dulingo: 02 Total no. of Students qualified: 26
7	Students admitted for Higher studies (No & %):	No. of Students admitted for higher studies: 07 No. of students appeared for competitive exams: 26
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: 63 students = 63/105=60% 2 - 3 Lakhs (No.): Nil 3-4 Lakhs (No.): 23 4-5 Lakhs above (No.): 16 5 Lakhs above (No.): 24 Highest salary (No.): 9.5 LPA Median salary: 4 LPA
9	Student prizes:	NSS/NCC...Nil..Cultural.....Nil....., Sports.....Nil.....
10	Student Scholarships:	National Level, if any Ghanta Lakshmi Mounica got Siddhartha Sahaya Scholarship in the year 2022-23.

VII. Governance, Leadership and Management

S. No	Criterion	Observations
1	Setting of annual goals by individual faculty for their academic improvement.	HOD conducted several meetings and reviews regarding goals of individual faculty.
2	Setting of departmental annual goals by HOD for the improvement of dept.	Annual goals are fixed by the HOD based on the strategic plan 2020-25.
3	Teaching staff attended for skill development/ Industry training/ any professional development programs	The details are available in a separate file.
4	Non-teaching staff attended for skill development programs	Non-Teaching staff:04 The details are available in a separate file
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:	No. of Faculty received Incentives for paper publications: 04
6	Financial support received from the Management: Student Projects: Model developments & exhibition: Student Innovations & exhibition:	Students are continuously encouraged for model exhibitions by the management. The details are available in a separate file.
7	Quality policy & Quality objectives Committees & duties: Cells & duties:	Prepared by Program Coordinator and HOD available in separate file.
8	Maintenance -General -Laboratory -Others	Each laboratory is having a separate maintenance register.
9	Financial support/ leaves for qualification/ skill up- gradation:	College is providing financial support for workshops/journals/conferences.
10.	Risk evaluation/ safety measures:	No. of Fire extinguishers: Labs:05, Dept. of Office: 01 & Seminar Hall: 01

[Signature]
.....14/08/2022

Dept. IQAC In-charge

[Signature]
.....14/08/23

Academic Auditor (Int.)

[Signature]
.....14/08/2020
Academic Auditor (Ext.)

IQAC ACADEMIC AUDIT

[Signature]
Head of the Dept.

HEAD

Dept of Electronics & Instrumentation Engg
V J Sridharrao Engineering College
VILAYAWARA-520 002
VRSEC

Academic Audit Report (Consolidated)

1. Name of Department: Electronics and Instrumentation Engineering **Year: 2022-23**

2. No. of full time permanent faculty: ...24....

2. No. of Visiting/Adjunct faculty: ...Nil... / ...01.....

3. No. of PG / UG courses:.....Nil.../...B.Tech with 2 Sections....

5. Curriculum Revisions Information: UG & PG.....UG (For VR-20 batch)

Major changes.....34.15%.....

New courses...10...Modified courses (min 20-25% change)...34.15% Employable courses...30%.....

6. Research: Ph.D. Theses submitted: ...02..... awarded:...01.....

Faculty guiding / guided Ph.Ds:.....05...../.....01.....

Publications in Jrs: SCI/SCIE...09Scopus...06.. Total: 21 (Including UGC)

Publications in Conferences: SCI/SCIE... Nil Scopus...30...WOS:01

IEEE :13.... Total...44.....

Student Publications

-UG: SCI/SCIE:.....Scopus:...26... WoS:..... Others:..... Total...26.....

-PG: SCI/SCIE:Scopus:..... WoS:..... Others:..... Total.....

Dept H-index (Scopus data base):...08.....Highest H-Index of faculty:...08..

Publications: Q1...Nil....., Q2...09., Q3...06....., Q4...02..... Total...21.....

7. Sponsored projects: Amount:Rs. 1,97,34,000...Applied...04.....Ongoing...01(Rs.1,00,000)..., completed.....Nil...

8. Consultancy Amount earned:.....Nil.....

9. Start-ups & Entrepreneurship: Nil.....Awards from outside platforms:...Nil.....

10. Incubation centers: established.....Nil....., Status of incubation:.....Nil.....

11. Patents:

Filled:.....01.....Published:...05.....Granted:.....01.....

12. Innovations: ...Nil..., Awards from outside platforms (reputed Institutions only) :.....

13. Books / Book chapters (with ISBN/ISSN only are considered):.....02.....

14. e-Content developed: Lectures added to Web-resources:Nil.

15. Placements: No:...63....., Percentage:....60%..., Median salary:...4LPA..., Highest salary:...9 LPA.....

16. Higher Education: GATE No...Nil., GRE No...13.....TOEFL:02, IELTS:06, PGECET:03 Dulingo:02.

17. New Equipment and Infrastructure added: ...Rs.31,66,992.....(Name & amount)

18. Student feedback on Curriculum, infrastructure and facilities: Yes

19. Strengths:

(1) Good Infrastructure in all the laboratories.

(2) Good placements and Good faculty retention.

(3) Student publications are good in the department.

Weaknesses (mandatory field to fill) :

(1) Industry Institute Interaction is less, So, more attention is required.

(2) Consultancy activity is nil in the department.

Suggestions for improvement (mandatory field to fill):

- (1) R&D Projects by the faculty need to be improved.
- (2) Faculty need more concentration on Patents and Consultancy activities.
- (3) Alumni interaction for sharing their experiences on carrier growth.
- (4) More number of students need to be sent for paper presentation to the premier institutions.
- (5) Python based and Matlab based System on Chip boards needs to be introduced in the curriculum.

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.

 P. Padguganathan
Dept. IQAC In-charge 14/08/2023
Academic Auditor (Int.)

 P. Umapathi
Academic Auditor (Ext.)
14/08/2023


Head of the Dept.

HEAD

Dept of Electronics & Instrumentation Engg
V R Siddhartha Engineering College
VILAYAWADA-520 007

Details of the External Academic Auditor:
A.Y: 2022-23.

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Details of the Internal Academic Auditor:
A.Y: 2022-23.

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