To   28.12.2020
The Principal,
Geethanjali College of Engineering and Technology,
Cheeryal, Keesara, Telangana.

Sir,

> Sub: Academic and Administrative Audit Report, GCET, 2018-19
> by External Experts Committee – reg.

Let me first thank you for the excellent hospitality and support extended by you, by the Secretary and the faculty and staff of GCET to me and to our team of experts that were invited for the Academic and Admin Audit of Geethanjali College of Engineering and Technology on 26th December 2020.

Please find enclosed

1. A consolidated report of SWOT analysis and recommendations by the experts of the Departments of Civil, CSE, ECE, EEE, Mechanical and Management Studies, as well as mine for I year instruction and common facilities.

2. The detailed reports, as per the common format on various criteria, by the respective experts as given below, are also enclosed:

Civil Eng. Dept.	- Prof.P.Srinivas Sarma, CBIT
CSE Dept.	- Dr.A.Vani Vatsala, Prof& Head, CSE Dept, CVRCE
ECE Dept.	- Prof. P.Chandrasekhar, Head, ECE, OUCE
EEE Dept.	- Dr. S.Venkateshwarlu, Prof&Head, EEED, CVRCE
Mech. Eng. Dept.	- Dr.M.Madhavi, Prof& Head, Mech. Engg, MVSREC
Management Studies	- Dr.G.Vidyanath, Director SAI Services, & IPE

I trust the SWOT analysis as well as the recommendations / suggestions by the experts will help the head of the departments and in-charges of sections in guiding you to fine tune the various academic and administrative aspects of the college to travel further towards realising your Vision for GCET.

With best wishes and regards,

Dr.P.A.Sastry
Former Principal & Prof. of Mech. Eng., MVSREC
Chairman, GCET Academic & Admin. Audit Committee, 2018-19.

- Dr.P.A.Sastry

Good Practices:

1. Student strength of 48 per section from First year is laudable, as it significantly improves the quality of interaction in the classroom instruction.

2. Mentoring system is drafted comprehensively, and is followed and recorded well with commitment by faculty.

3. Transport arrangement for students and staff is taken care of well.

4. The campus presents a very pleasant ambience with greenery and care for cleanliness; Classrooms and laboratories are well maintained.

5. Faculty and staff are active and enthusiastic

6. Faculty are quite conversant with the CO-PO mapping and attainment evaluation procedures, and OBE in general.

7. Administration deserves appreciation for the environment friendly initiative of installing 250 KVA Solar power in the campus, while also providing adequate generator back up.

8. The vigorous effort being put in for student Career guidance and placements is appreciable.

9. Governing body is appropriately constituted, meetings are held at stipulated intervals regularly, and approvals are taken for annual budget and academic commitments. Minutes of meetings and follow up actions are recorded meticulously.

10. Examination section is well organised and competently manned. Paper setting and evaluation procedures are meticulously followed as per norms.

I Year

1. Student faculty Ratio is good at 15:1.
2. Of the faculty teaching I year students, nearly 30% have Ph.D degree.
3. Promotion rate of 96% at I year level is good, considering that the intake ranks are well spread over.
4. I year laboratories are well maintained; and there are adequate number of computer labs and systems.

Suggestions for improvement:

1. Quality of publications needs focus. In this regard, eligible faculty may be encouraged to supervise Ph.D students in order to produce quality research output and publications.

2. Faculty in various departments should explore avenues for Consultancy work for which they may start faculty need to establish contact with small and medium scale establishments.
3. Average CGPA of First years is 6.5. It is desirable to improve the same with focussed efforts.
4. It is observed the best and last ranks of admitted students has gone up (less merit as per EAMCET) significantly in 2018-19 compared to 2017-18. Reasons for this drop may be investigated for possible corrective action.
5. The Institute strategic 5-year plan, in most cases, needs to specify timelines, progressively if necessary, along with cost estimates.
6. Delegation of financial powers to individuals is indicated more as a function / responsibility assigned, and the associated budgeted expenditure, stating "as per provision / rules". It should be possible to state an amount the individual is authorised to spend.

P.A.Sastry

Date: 26.12.2020   Chairman, Acad & Admin Audit Committee
Hyderabad

Department of Civil Engineering

- Prof. P. Sreenivas Sarma, CED, CBIT

Good Practices

1. A systematic approach in place in maintaining documents and records
2. A very effective monitoring system in place
3. A few younger faculty trying to excel within the available facilities and constraints
4. A newsletter / student magazine Pragathi is published
5. Time slots for self learning are exclusively allocated and encouraged

Strengths

1. Excellent team spirit and dedicated younger faculty
2. Adequate lab facilities to cater to the academic needs
3. Good Teacher-Taught relations

Weaknesses

1. Needs to improve consultancy in laboratories
2. lack of exposure to industry
3. Quality of intake is low

Concerns

1. Student-faculty ratio
2. Percentage of students graduating within four years is very low.
3. Exposure of faculty to industry / Research / Consultancy
4. Faculty working hard feel they are not taken care of/ encouraged

Deficiencies

1. Faculty strength
2. Qualified lab assistants are needed
3. Project lab is needed

Recommendations

1. Faculty strength could be improved
2. Qualified supporting could be absorbed
3. Faculty must be encouraged based on their performance
4. Special efforts needed to increase the percentage of students who pass the course within four years (without backlogs).

Suggestions for improving the academic quality

1. Exposure of faculty to higher level teaching / Research /professional practice
2. Faculty should be encouraged to take up consultancy by which their comprehension of the subject will improve

Department of Computer Science Engineering

Dr. A.Vani Vatsala, Prof & Head, CSE Dept, CVRCE

Good Practices

1. Files are well maintained with necessary proofs
2. Student mentor ratio of 1:15 is very good
3. 48 students per class is appreciable

Strengths

1. Well trained and dynamic faculty
2. State-of-Art infrastructure
3. Excellent Maintenance of Mentoring Records / System

Weaknesses

1. Design Lab and Research lab needs to be established
2. Faculty publications quality needs to be improved
3. Research projects and Consultancy projects need to be improved.

Concerns

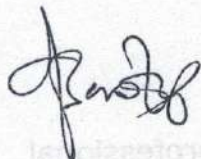1. ICT facilities in classrooms, system and internet for teachers

Recommendations

1. Maintain summary sheets at the beginning of every file, signed by HOD
2. Publish department level technical and non-technical magazines

Suggestions for improving the academic quality

1. Provide on-line access for Alumni to provide inputs / modify their details
2. Maintain all activities of the department on website

Department of Electrical and Electronics Engineering

- Dr. S.Venkateshwarlu, Prof & Head, EEED, CVRCE

Good Practices
1. Very effective Mentoring system
2. Well maintained laboratories
3. Effective Teaching-learning process
4. Filing system is well organised.

Strengths
1. Five faculty have Ph.D, and 10 pursuing Ph.D
2. Excellent infrastructure, committed staff with dynamic leadership
3. Though student at intake is not very meritorious, outcome is good

Weaknesses
1. Every classroom to have LCD projector
2. Lacking in Quality publications
3. R&D and project labs needed with due allocation of funds

Concerns
1. Quality of research work
2. faculty to be provided Wi-Fi, PCs etc
3. Motivate faculty with incentives for better research output

Deficiencies
1. Placements and students taking up higher studies
2. Project Lab and R&D lab required with necessary s/w and hardware
3. LCD projectors in classrooms and Wi-Fi facility for faculty rooms
4. Quality of publications

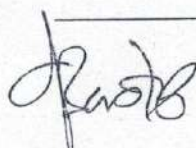### Recommendations ---(As in Suggestions..)
Brief report
Overall, teachers and lab infrastructure is good.
Needs improvement in areas mentioned above.

Suggestions for improving the academic quality
1. Provide ICT environment in the classrooms and staff rooms for better Teaching- learning
2. Establish Project Lab and R&D lab
3. Motivate faculty with incentives and facilities for good research
4. Encourage teachers performing well in Academics and Research

Department of Electronics and Communication Engineering

Prof. P.Chandrasekhar, Head, ECE, OUCE

Good Practices

1. Well defined website
2. Peer learning – engaging students (seniors – juniors)
3. Result Analysis data to improve mentoring system
4. Systematic documentation
5. Techno Chronicle / Newsletter
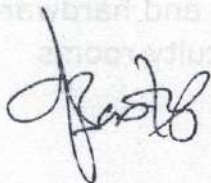6. Stream-wise monitoring
7. No. of sections more than stipulated

Strengths

1. Effective Teaching learning processes
2. Centres of Excellence for VLSI and ES
3. Very active professional body activities
4. six patents cited
5. Good R&D initiative

Suggestions for improving the academic quality

1. Improve quality of faculty publications
2. Initiate industry internship to BE VIII semester students
3. Encourage students for higher studies and core company placement

Department of Mechanical Engineering

- Dr.M.Madhavi, Prof& Head, Mech. Eng., MVSREC

Good Practices

1. Regular Student mentoring, Junior faculty mentoring, Course feedback system
2. Motivating students in Co-curricular and extra-curricular activities
3. Motivating life-long learning attitude through skill development courses
4. GATE coaching provided to students.

Strengths

1. Good academic environment, encouraging fabrication projects, hands-on experience, college sponsored
2. Many faculty completed NPTEL certificate courses
3. 3 faculty possess Ph.D and 11 registered for Ph.D

Weaknesses

1. R&D grants
2. Consultancy
3. Few faculty are publishing in journals. Quality of research publications should be improved

Concerns

1. Innovative teaching methods – to imbibe some life-long learning traits among students
2. Outside world interaction required – faculty to be trained in industry
3. Teachers to update their domains in advanced levels and in interdisciplinary domains
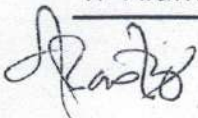
Deficiencies

1. Average teaching experience is only 8 years, and lacks experienced teachers
2. Encouragement to students as Entrepreneurs
3. PG program

Recommendations

1. Rewrite PSOs as they are not specific to department
2. Competencies and Performance indictors to be mentioned
3. Department Academic calendars are not available
4. Average teaching experience is only 9 years. To recruit experienced teachers and adjunct faculty.

Suggestions for improving the academic quality

1. Form departmental committees – PAC, AAC, SIC, DAC comprising of HoD, senior members, industry personnel and alumni.
2. Concluding remarks of all stake holders are to be maintained
3. T-Hub MOU for encouraging entrepreneurs
4. Alumni record has to be maintained.

Department of Management Studies

Dr.G.Vidyanath, Director SAI Services, faculty IPE

Good Practices
1. MOOCs used by faculty and students
2. Student members in HMA
3. AICTE – ATAL FDPs in 2020 year

Strengths
1. Students participating in Conferences, paper presentation
2. Sufficient faculty
3. Faculty average experience is 10 years

Weaknesses
1. Less placements
2. R&D

Recommendations
1. Alignment of department vision with that of institution
2. Alignment of Mission statement with Vision & Mission of Institute
3. Self-financed department periodical
4. Organising at least 3 one-day workshops on burning topics in different specialisations
5. Using parents as resource persons for Guest lectures
6. Improving placements
7. Focussing on career than job
8. Make students prepare industrial profiles
9. e-placement brochure

Suggestions for improving the academic quality
1. Experience sharing among faculty in terms of knowledge & teaching methodology
2. Issuing letters of appreciation to deserving faculty and students