

INTERNAL QUALITY ASSURANCE CELL
ADITYA INSTITUTE OF TECHNOLOGY
AND MANAGEMENT- TEKKALI
ACADEMIC AUDIT REPORT

Name of the Department: **MECHANICAL ENGINEERING**

Academic Year : 2017-18

Date of Audit : 26-07-2018

I. COs, POs and Curriculum		
S. No	Criterion	Observations
1.	COs and POs assessment	COs and POs attainment calculated as per the procedure established by PAC.
2.	Stakeholders feedback related to curriculum design	Graduate exit survey, alumni survey and Employer survey are conducted as per format.
3.	Action taken on minutes of BoS	Incorporated changes as per the suggestions of BoS, DAC and PAC. Annexure-1.1
4.	Percentage of lab component	33.80%(24/71) – AR16 -Three additional experiments are conducted in all Labs
5.	Evidence of academic flexibility	5 open electives + 3 core elective courses 11.26% (8/71) – AR16
II. Faculty information and their contribution		
S. No	Criterion	Observations
1.	Student Teacher ratio	STR – 15
2.	Faculty Cadre ratio	FCR - 1 :1.2 :3
3.	Faculty qualifications	5 out of 26 faculty members are doctorates, 1 submitted thesis, 16 registered for Ph.D and rest of the faculty members are post graduates
4.	Faculty experience & retention	Annexure-2.1
5.	Faculty contribution in writing: - Books: - Book chapters:	Nil
6.	Faculty in professional bodies -Faculty contributions	Annexure-2.2

7.	Faculty as resource persons in workshops / training activities	Nil
8.	International / National level events organized -Conferences: -Workshops/ Seminars: -FDPs:	Number of conferences organized: 01 Number of FDPs/Seminars organized: 01 Annexure-2.3
9.	List of conferences/seminars/ workshops/ FDP's/ any exclusive programs attended for enrichment of teaching - learning process	26 faculty members attended Annexure-2.4

III. Teaching-Learning Process and Evaluation

S.No	Criterion	Observations
1.	Student performance indices Attendance Exams	Lists of students for Detention and Condonation are maintained. Results analysis is carried out. Annexure-3.1
2.	Mechanism and activities for slow learners improvement	Slow learners are identified based on performance in Mid-exams. Conducted Make-up classes for slow learners. Annexure-3.2
3.	Student counseling /mentoring mechanism	20 students are allotted to each faculty member to mentor for continuous improvement. Annexure-3.3
4.	Tutorial classes	Tutorial classes are conducted as per schedule given in the time table
5.	Initiatives taken for innovative projects	No. of Innovative Projects: 02 Skill development training programmes on AutoCAD, Assembly, Disassembly and Maintenance of Four wheeler and Two Wheeler are conducted for students. Annexure-3.4
6.	Review & Evaluation of Student Projects:	Project review and evaluation is carried out as per PRC guidelines
7.	Monitoring of Teaching-Learning Process - Observation of teaching process in classrooms as per schedule - Tracking of syllabus coverage - Uploading of lecture notes, question papers of mid and semester end examinations in e-learning portal - Verification of evaluated answer papers - Checking the quality of mid examination question papers - Innovative teaching methods presented - Verification of course files -Minutes of class committee meetings and action taken	- Attendance registers are verified once in a month. - Compliance of teaching diary with lesson plan is monitored once in a month. - Track sheets are maintained to review syllabus coverage - uploading of course material, mid and semester end question papers in e-Learning Portal - All Mid answer scripts are verified - Mid question papers as per cognitive levels are verified. - PPT's, NPTEL video lectures are used, - Course files are there for all courses. Annexure-3.5

8.	Training programs conducted for students - Guest lectures - Add-on courses - Seminars/workshops - Compliance of department academic calendar	No. of guest lectures: 23 No. of Add-on courses: 02 No. of Seminars/workshops: 01 No major deviations are observed in the compliance of department academic calendar. Annexure-3.6
9.	MoUs with Industries for internship	No. of MoUs: Nil
10.	Students feedback and follow-up action	Online feedback is taken from the students for all courses and review is carried out. Annexure-3.7
11.	Scope for Self-learning - Certificate courses - Online courses	Monetary encouragement for certification courses
12.	Result analysis and conduct of remedial classes for students with backlogs	Result analysis is carried out after the results of semester end examinations and remedial classes are conducted for students with backlogs Annexure-3.8
13.	Placements (%): Industries / organizations:	Placements(%): 47.66 Total 51 No. of students got selected in various companies Annexure-3.9
14.	Higher studies (%): Institutions:	Higher studies(%): 3.7 4 students joined for PG programme in various institutes Annexure-3.10
15.	Student development Activities: - co-curricular - extra-curricular activities	No. of technical events in association with student chapters: 15 No. of NSS Activities: 10 Annexure-3.11

IV. Research, Consultancy and Extension

S.No	Criterion	Observations
1.	Faculty publications in journals: Thomson Reuters Impact factor Journals:	No. in Scopus/SCI indexed journals: 3 Annexure-4.1
2.	Publications in conferences: - National - International	No. in Conference publications: 1 Annexure-4.2
3.	Percentage of faculty contributing in - Research publications:	Percentage of faculty involved in research publications: 30.76% (8/26)
4.	PhDs - Registered - Submitted - Awarded	No. registered: 2 No. submitted: Nil No. awarded: Nil Annexure-4.3
	PhDs guiding /guided:	No. of PhDs guiding : 4 No. of PhDs guided: Nil
5.	Funded R&D projects and consultancy work	Total amount of funding for R&D and consultancy projects Ongoing: Rs.10.08 Lakhs Completed: Rs. Nil Annexure-4.4
6.	Incentives for faculty R&D	Incentives for faculty research publications as per HR policy Annexure-4.5

7.	MOU's with industries/ R&D/ Premier Institutes	Nil
8.	Research centers of excellence Established	Recognized as JNTUK research center for the academic years 2016-17 & 2017-18
9.	Skill development centers established	Identified as SIEMENS PLM authorized training centre

V. Infrastructure and Learning Resources

S.No	Criterion	Observations
1.	Infrastructural facilities to improve the teaching learning process Class rooms: Laboratories: e- class rooms: Seminar halls:	No. of class rooms: 10 No. of tutorial rooms: 01 No. of laboratories: 10 No. of e-Class rooms: 01 No. of seminar halls: 01
2.	Internet facilities for faculty & Students:	Wi-Fi enabled campus
3.	Technical & administrative staff support	11 members of Lab Technician/ Jr. Mechanic for supporting various Laboratories in addition to 2 members for supporting administrative activities Annexure-5.1
4.	Department budget - Sanctioned amount - Amount spent - Maintenance of equipment and consumables registers in labs	Amount sanctioned in Rs. 46.18 Lakhs Amount spent in Rs. 44.63 Lakhs Equipment and maintenance registers are maintained for all the Labs
5.	Details of computing facilities and software	Total number of Computers: 103 List of Software procured: Ansys, CATIA, UNIGRAPHICS, Auto CAD, Automation Studio
6.	Dept News letter / magazine	Department half-yearly Newsletter is in place Annexure-5.2
7.	Department level library resources	Number of Titles: 132 Number of Volumes: 205 Number of Journals: Nil Number of E-Journals: Nil Number of Video courses: Nil

VI. Student information, Support and Progression

S.No	Criterion	Observations
1.	Add-on courses:	List of add-on courses: NX Design for experienced CAD users, Seiger Innovations Annexure-6.1
2.	Student publications: Dept. student clubs:	No. of student publications: 8 Annexure-6.2 Department student clubs: Nil
3.	Details of coaching provided for GATE/ GRE/CRT/any other competitive exams	No. of GATE classes: 180 No. of CRT classes: 180
4.	Industrial visits and internships	No. of Industrial visits: 01 Total number of industries offering internships: 15 Annexure-6.3

VII. Governance, Leadership and Management

S. No	Criterion	Observations
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1.	Teaching and non-teaching staff attended For skill development programs	No. of teaching staff: 8 No. of Non-Teaching staff: 2 Annexure-7.1
2.	MoUs with premier Institutions for knowledge exchange	Nil
3.	Display of Vision, Mission and other Quality objectives at prominent places	Display of Vision: Yes Display of Mission: Yes Display of PEOs, POs, PSOs and COs: Yes
4.	Staff and student attendance monitoring system -Biometric -Attendance registers	Generation of Daily, Weekly and Monthly attendance reports
5.	Financial support/leaves for qualification/skill up-gradation:	Faculty members are sanctioned with Registration fees, TA and Academic leave for attending Conferences and Workshops Annexure-7.2
6.	Risk evaluation/safety measures:	Maintaining Fire extinguishers at prominent places

VIII Strengths, Weaknesses and Areas of Improvement

Strengths

- (1) Accredited by NBA under Tier -II
- (2) Identified as research centre by JNTUK, Kakinada

Weaknesses:

- (1) Less number of research publications in SCI/SCIE indexed journals
- (2) Less Involvements of faculty members in consultancy actives
- (3) Less number of projects with real time applications

Suggestions for improvement:

1. Improve publications in SCOPUS/SCI/SCIE indexed journals
2. Implement industry relevant inter disciplinary projects
3. Improve percentage of students placements in core industries

Sign. of Department Coordinator



Sign. of Academic Auditors

1. 

2. 

Sign. of HOD



H.O.D.

Dept. of Mech. Engg.
AITAM, TEKKALI,

Sign. of IQAC Coordinator



COORDINATOR, IQAC

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