ANITS

ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES

'UGC AUTONOMOUS'

(Permanently Affiliated to Andhra University, Approved by AICTE, Accredited by NBA & NAAC with 'A' Grade)

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Department of Computer Science & Engineering

Date:06/09/2021

To,
Prof. D Lalitha Bhaskari
Professor, IQAC Coordinator,
Department of Computer Science and Systems Engineering
Andhra University
phone number:9885438922
email id: dlalithabhaskari@gmail.com

Sub: External IQAC audit request-reg

Respected Madam,
Heartiest greetings from the Dept. of CSE,ANITS(A), Visakhapatnam!

I am pleased to inform you ,ANITS department of Computer Science and Engineering is inviting you to audit 2020-21 department IQAC files on 08/09/2021. We are quite hopeful that , you will spend your valuable time to verify the documents and will contribute your most valued knowledge and expertise , which will help us to do the NBA filling under Tier-1.

We hereby request your kind Presence on the mentioned date.

Dr R Sivaranjani
HOD, CSE
ANITS.

Head of the Department of
Computer Science & Engineering
Anil Neerukonda Institute of
Technology & Sciences
Sangivalasa, Visakhapatnam Dist

ANITS

External

IQAC

DEPARTMENT PERFORMANCE INDEX-ANITS (DPI-A)

w.e.f 2020-21

Date:08/09/2021

1.	Teaching – Learning Processes:		300	268
2.	Student's Performance	:	200	104(result pending)
3.	Faculty contributions	:	250	190
4.	Co-curricular activities	:	100	62
5.	Students support systems	:	85	43
6.	Continuous improvement	:	40	20
7.	Best Practices	:	25	25
	Total	:	**1000**	

Availability of ATR and Impact analysis / implementation on comments of previous NBA committee/ IA remarks: (Copy may be provided by the departments)

1. Teaching Learning Processes: (Max – 300)

S.No	Description	Max Marks	Marks Awarded	Remarks
1.1	**Initiative for improvement of quality in teaching and learning (95)**			
1.1.1	Availability of Academic Calendar of the department based on Institute's academic calendar and its effective compliance / implementation and adherence to schedule	5	5	All events are executed as per the plan and more events were conducted
1.1.2 (a)	Implementation Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences	5	3	Role play and group discussion are conducted. It can be implemented by more faculty.
1.1.2 (b)	Teachers use ICT enabled tools including online resources for effective teaching and learning process	5	5	All materials are uploaded in the Moodle.
1.1.2 (c)	Usage of MOODLE Check apart from Lecture notes availability of quizzes, beyond curriculum contents, students usage, how useful for self learning for 2019-20 and 2020-21	5	5	Student usage proof has to be filed.
1.1.3	Guidelines to identify weak and bright students(1M); post identification actions taken(2M); impact observed and recorded(2M)	5	4	Remedial classes were conducted for weak learner. Action to be taken for the bright students.
1.1.4	Classrooms and seminar halls with ICT-enabled facilities such as smart class, LMS, etc.	5	5	LCD are available need.
1.1.5 (a)	Quality of laboratory experience with respect to conducting, recording observations	5	4	--

1.1.5 (b)	Laboratory Evaluation process: Usage of Rubrics for assessment	10	9	Signatures are missing in weekly analysis sheets.
1.1.5 (c)	Faculty / Technician explanation in labs (at least 2-3 labs)	5	4	Confidently explained the experiments
1.1.6 (a)	Feedback collection and analysis (CRC/ Student feedback)	5	3	Correlation of CRC and proctor issues need to be included
1.1.6 (b)	Actions taken	5	5	Available
1.1.6 (c)	Impact of action recorded Check action taken exactly matches with the analysis	5	4	Available
1.1.7	Identification of curricular gaps (5M) Analysis and action taken (5M)	10	8	Included 3 courses with INFOSYS
1.1.8	Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the department. $\text{Score} = 5 * \frac{\text{No. of courses focus on such catogeri}}{\text{Total No. of courses}}$	5	2	List available for 2019-20, it is justified.
1.1.9	Number of value-added courses for imparting transferable and life skills offered and students enrolled If No.of Value added courses > 3 and enrolled students count >50 ---- 5M If 3>No.of Value added courses <=1 and enrolled students count >25 ---- 3M Else --- 0M	5	3	Summary report can be done with respect to each course as well.
1.1.10	Structured feedback for design and review of syllabus (semester wise / year wise) is obtained from 1) Students, 2) Teachers, 3) Employers, 4) Alumni --- 5M Action taken and impact analysis --- 5M	10	8	Subject wise faculties and student feedback ,ATR's available. ATR for employer to be upgraded
1.2	**Quality of end semester examination, internal semester question papers, assignments and evaluation (30)**			
1.2.1	Process of internal semester question paper setting, scheme of evaluation and its compliance, existence of committee	5	5	Available
1.2.2	Question paper validation to ensure desired standard from outcome attainment perspective as well as learning levels perspective (Quality of Q papers) Internal (5) + external (5)	10	9	Internal evolution done, List of evaluator to be filled. External validation in the exam cell to be filled.
1.2.3	Mapping of questions with the Course outcomes, Blooms taxonomy, and indicating the above with percentage wise weightage for last 3 assessment years.	10	8	Available for 2019-20. Available with CO-PO with justification.
1.2.4	Assignments / case studies / seminars to promote self-learning,(for coverage of non-domain POs and also higher levels of Blooms	5	5	Assignments and seminar available. Rubrics available for

	taxonomy) survey of contents from multiple sources, assignment evaluation and feedback to the students, mapping with the COs.			assignment.
1.3	**Quality of student projects (30)**			
1.3.1	Guide allocation and Projects identification strategies	5	5	Available
1.3.2	Continuous monitoring mechanism and evaluation system (5M), Usage of Rubrics for project assessment Methodology(Appropriately documented) to assess individual contribution/understanding of the project as well as collective contribution/understanding {Process to assess individual and team performance}(5M)	10	8	Available
1.3.3	Projects classification (application, product, research, review etc.) consideration to factors such as environment, safety, ethics, cost, standards (non domain factors) and mapping with program outcomes and program specific outcomes. (5M)	5	5	Available
1.3.4	Quality of journal where the paper has been published /quality of competition in which award has been won for the projects	10	6	Maintain the impact factor, h-index for student publications
1.4	**Industry related interaction (25)**			
1.4.1	Industry supported laboratories	5	5	
1.4.2	Industry involvement in the program design and Curriculum.	5	5	3 courses designed along with INFOSYS. For regular courses, interaction available in BOS
1.4.3	Industry involvement in partial delivery of any regular courses for students	5	4	Do the mapping of seminars (CSI) with regular course and prepare the impact analysis
1.4.4	Impact analysis of industry institute interaction and actions taken thereof	5	4	--
1.4.5	Industrial /internship /summer training of more than two weeks and post training Assessment	5	5	Industrial Internships with stipend from INFOSYS, AMAZON, TECH MAHINDRA – 13 weeks and above
1.5	**Factors related to Outcome based education (100)**			
1.5.1	Explanation of Articulation matrix for CO s and POs and also fixing proper attainment levels of PO, PSO and PEO assessment.(Check faculty awareness)	15	12	Justification matrix available for all the subjects, but need to be filled
1.5.2	Coverage and quality of all direct and indirect assessment tools for POs and PSOs (Such as	15	12	Available

	COs, projects, placements, higher education etc., for direct assessment and recruiter, alumni, employer, parents etc., for indirect assessment). Reasonable sample size is critical for each tool			
1.5.3	Updating the data of CO / PO/PSO assessment in a time bound manner and action / measures taken and impact	20	18	Prepare the report for change of CO's for labs and theory. Revision of CO report required.
1.5.4	Initiatives for faculty and student awareness on OBE (10M) and verification of faculty and student awareness i.e. impact analysis (10M)Physically check	20	18	Reflected in Course Plan
1.5.5	CO attainment tools based on internal exam evaluation + external examination Procedures followed {Based on assessment on performance of students question wise in both cases}	20	18	Available
1.5.6.	Action taken on non attainment of POs / Cos	10	6	Need to be filed
1.6	**Laboratory facilities (20)**			
1.6.1	Maintenance and overall ambience (to check physically whether the equipment is working)	5	5	--
1.6.2	Safety initiatives in laboratories (incl Charts)	5	5	--
1.6.3	Facilities (additional equipment/ softwares) created for improving the quality of learning.	10	10	Available in college digital library and to be filed

2. Student Performance:(Max-200)

S.No	Description	Max Marks	Marks Awarded	Remarks
2.1	**Success rate (90)**			
2.1.1	a) Success rate of students who cleared programme without backlogs in any year of study including lateral entry=20×(Students graduated / Students admitted)	20	14	--
	b) Improvement in success rate from previous years (1M for each percent increase)	5	0	--
2.1.2	a) Success rate in any year of study including lateral entry=15×(Students graduated / Students admitted)	15	10	--
	b) Improvement in success rate from previous years (1M for each percent increase)	5	0	--
2.1.3	Academic Performance in Third Year Academic Performance = 1.5 * API (Academic Performance Index)	15	Results Pending	--

	API = (3rd Year Grade Point Average of all successful Students on a 10 point scale X number of successful students)/number of students appeared in the examination)			
2.1.4	Academic Performance in Second Year {Same as above formula in 2.1.3}	15	Results Pending	--
2.1.5	Academic Performance in First Year { Same as above formula in 2.1.3}	15	Results Pending	--
2.2	Student enrollment (>=90% - 15M; >=80% - 10M; >=70% - 5M; otherwise – 0)	15	**15**	--
2.3	Placement, Higher Studies and Entrepreneurship: 50 X (students placed + admitted to higher studies + 3 X entrepreneurs) / (Total students)	50	**40**	--
2.4	**Achievements in curricular, co-curricular and extra- curricular activities (45)**			
2.4.1	Paper, model presentation etc in International Level (IL), National Level * (NL), State Level (SL) Marks=2.5x (10 x SPIL + 5x SPNL + 2.5 x SPSL)/TNS SPIL=students participated in International Level SPNL=students participated in national Level SPSL=students participated in state Level TNS= Total number of students in 2nd, 3rd and 4th year	25	10	--
2.4.2	Certificate programs or courses like NPTEL/Course-era/Udany etc. attended by students • Participation for 4 weeks : 3 M • Participation for 4 to 8 weeks: 5M • Participation more than 8 weeks: 10 M Assessment = 20×Sum of points/0.5 x No. of students	20	15	--

*National level (Paper, model presentation etc) conducted in-house is treated as State level

3 Faculty contributions:(Max-250)

S.No	Description	Max marks	Marks awarded	Remarks on non compliance
3.1	Average percentage of full time teachers with Ph.D. Number of available PhDs in the department >=20% - 10M 20% <Number of available PhDs in the	10	**8**	--

	department>10% - 5M			
3.2	**Research Guidance (20)**			
3.2.1	Number of Teachers recognized as research guides Score: Number of Teachers recognised as research guides	5	3	--
3.2.2	M.Phil / M.Tech./ (1M / candidate)	15	0	--
3.2.3	Ph.D. (5 M/ candidate)		0	--
3.3	**Research projects funded by government and nongovernment agencies during the last five years (45)**			
3.2.1	Major (More than 10 lakhs) 15M / project	25	0	--
3.2.2	Minor (5M/ project)		0	--
3.2.3	Patents (10 M/ patent)	10	4	--
3.4	Revenue generated from consultancy: More than 2 Lakhs : 10 marks < 2 lakhs: 5 marks	10	0	--
3.5	**Publications(75)**			
3.5.1	Number of books and chapters in edited volumes / books published during the last five years (5M / each chapter)	10	10	--
3.5.2	Publication in journals: Marks awarded=50 X P/F F = number of faculty, P = number of publications P=1xSCI+0.6xWOS+0.6xScopus+0.3xUGC	50	24	--
3.5.3	Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed 1. No. of citations for last 3 years / No. of publications for last 3years If the percentage ≥ 100 then the marks awarded 5 Marks 2. No. of publications which were cited for last 3 years / No. of papers published for last 3 years If the percentage ≥ 100 then the marks awarded 10 Marks	15	0.34	--
3.6	**Papers presented in seminars / conferences(30)**			
3.6.1	Marks = 30 x (1.5 x NFPI +0.5xNFPN)/TNF NFPI=number of faculty presented in international seminars/conferences NFPN=number of faculty presented in national seminars/conferences Max: 30M	30	2.5	--

3.7	**Seminars / Conferences / Workshops / Symposia wherein served as Resource person(10)**			
3.7.1	Keynote Speaker / Chairman / Co-Chairman / Distinguished Guest / Key Speaker / Lead Discussant International: 4M/session (max 20) ; National: 2M/session (max 10)	10	3	Need to be filed
3.8	Membership in editorial boards and number of papers reviewed (2.5M / paper)	5	5	Proofs to be filed
3.9	Membership / executive positions in professional bodies and their related activities(2.5M / activity)	5	5	Proofs to be filed
3.10	Development activities (product development, instructional materials, working models, charts, monogram etc.) 2.5M/activity	5	5	Faculty blog is available
3.11	Guest lectures delivered by faculty Industry / research institutes / universities 2.5M / lecture	5	2.5	--
3.12	Teachers awarded national / international fellowship and honors for advanced studies/research during 2020-21 (only academic bodies and Govt. Organizations) 2.5M/award	5	0	--
3.13	Faculty Qualification FQ =1.5x [(10X +6Y)/F)] where X is the no. of regular faculty with Ph.D., Y is the no. of regular faculty with M.Tech., F is no. of regular faculty required to comply 1:25 Faculty Student ratio including LE.	15	12	--
3.14	Faculty participation in online/ face-to-face Faculty development/training activities/STTPs (Professional Development Programmes, Orientation /Induction Programmes, Refresher Course, Short Term Course). A Faculty scores maximum five points for participation • Participation in 2 to 5 days FDP: 3 M • Participation>5 days FDP: 5M • Assessment = 3×Sum of points/0.5RF where RF is required faculty as per 1:25 ratio	20	16	--

4. Co-curricular activities:(Max-100)

S.No	Description	Max marks	Marks awarded	Remarks on non compliance
4.1	**Expert faculty / industrial heads visits** From Foreign universities / IITs, NITs /research organizations / companies (5M/ visit) From universities (4M / visit)	15	15	Available
4.2	Number of workshops/seminars/ FDP / STTP conducted for faculty during the last five years.	15	10	2 STTPs organized
4.3	Department Journal / News letter / Magazine / Website	5	5	Available
4.4	Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology Student clubs	15	10	Student clubs available
4.5	**Alumni association meetings**	5	4	Proofs need to be recorded
4.6	**Contributions from Alumni** (Technical collaboration / employment providers / aid for infrastructure improvement / scholarships)	5	3	NIL
4.7	Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC, etc., year wise during the last five years **students participating in extension activities also required**	10	8	Proofs Available
4.8	Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years (only functional MoUs with ongoing activities to be considered)	5	4	Files available
4.9	**Adjunct faculty(Minimum 30 Hrs engagement /semester)**(10M / faculty)	10		NIL
4.10	Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.	10	0	Available

4.11	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the department	5	3	Available

5. Student support systems: (Max-85)

S.No	Description	Max marks	Marks awarded	Remarks on non compliance
5.1	**Mentoring system:** Efficacy of the system (5M), impact analysis (10M)	15	10	Available, but can be improved
5.2	**Self learning (15)**			
5.3.1	Scope for self-learning	5	5	---
5.3.2	The facilities provided such as materials for learning beyond syllabus, Webinars, Podcast, MOOCs etc. and demonstrate its effective utilization	10	8	Available
5.3	**Career Guidance, Training, Placement (15)**			
5.3.1	Number of students participated by career counselling and guidance for competitive examinations offered by the Institution during the last five years.	5	3	Conducted GATE question bank and classes for the students
5.3.2	Number of students benefited by career counselling and guidance for competitive examinations offered by the Institution during the last five years.	5	4	Students qualified in GATE exam and other Competitive exams
5.3.3	Number of students Appearing Vs qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.)) year-wise during last five years	5	4	Available
5.4	**Entrepreneurship Cell (25)**			
5.4.1	Subject offered related to Entrepreneurship	5	3	--
5.4.2	Entrepreneurship activities	5	3	Available
5.4.3	Students benefitted	5	3	Presented models
5.4.4	Paper published	5	0	--
5.4.5	Innovative projects	5	0	--
5.5	Grievance redressal system for the students and action taken	5	4	Available
5.6	**Department library (10)**			
5.6.1	No. of Volumes, titles, journals and magazines available in the department	5	5	Available

	library			
5.6.2	Usage of department library by teachers and students	5	4	Available

6. Continuous Improvement (Max-40)

S.No	Description	Max marks	Marks awarded	Remarks
6.1	PO And PSO attainment {2M For Each 1% Increase} 2016-20 batch to 2017-21 batch	8	2	--
6.2	Pass percentage{ 2M For Each 1% Increase}	8	0	--
6.3	Intake: (Improvement in mean rank in open category- 5M) + (>95% seats filled -5M90-95% seats filled – 3M, and below 90% -0M)	8	5	--
6.4	Student Placements, Higher Studies& Entrepreneurship {1M For Each 1% Increase}	8	8	--
6.5	Faculty Publications {1M For Each 1% Increase}	8	5	--

7. Innovative / Best practices and their impact (Max-25)

S.No	Description	Max marks	Marks awarded	Remarks
7.1	Describe the best practices the department claims to have a niche for itself in the areas such as Teaching learning process, community engagement, co-curricular activities, evaluation, feedback system, Student participation in other activities, Alumni activities etc., (which makes the dept unique)	10	10	Available
7.2	The impact of such activities	15	15	Available

Prof. D Lalitha Bhaskari
Professor,
IQAC Coordinator,
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Andhra University.

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2020 - 21

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Date:8.9.2021

From
Prof.T.V.Hanumantha Rao,
Principal,
ANITS.

To
Prof.D.Lalitha Bhaskari,
Professor,
Department of Computer Science and Systems Engineering,
Andhra University.

This is to certify that Dr. D.Lalitha Bhaskari, Professor & IQAC coordinator, Department of Computer Science and Systems Engineering, Andhra University has successfully completed the external IQAC Audit in Computer Science & Engineering department, ANITS, Sangivalasa, Visakhapatnam on 8.9.20201.

Anil Neerukonda Institute of Technology & Sciences SANGIVALASA

Prof.T.V.Hanumantha Rao
Principal Principal,
ANITS

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Department of Computer Science and Engineering

Suggestion given by IQAC committee and its Action Taken Report for Academic Year 2020-2021

Suggestions of IQAC	Action Taken
Teaching Learning Process should include advanced Teaching Learning Process methodologies	All the faculties are suggested to introduce advanced learning methodologies to make the classes more productive.
Conduct more parent and alumini meetings for taking feedback on the curriculum	The concerned coordinator is advised to follow up the suggestion and conduct at least one per semester as suggested by the committee.
Prepare report for change of CO's for labs and theory. Revision of CO report required.	Concerned coordinators are suggested to take initiative and plan accordingly.
All faculty should have peer reviewed Or UGC approved journal Publications	All faculty members are advised and encouraged to publish research papers in approved journals
Create awarness to students and faculty on Quality Assessment	Initiatives were taken as per the suggestion from the committee.
Maintain the impact factor, h-index for student publications	Process is being initiated.
Do mapping of seminars(CSI)with regular course and prepare analysis	Measures are being taken to do the mapping as per the suggestion given by the committee.