

Date: 05.10.2021

Internal
Academic and Administrative Audit
For
Semester- I & II, AY: 2020-2021

Academic and Administrative Audit report for the academic year 2020-21, semester I & II have the following sections.

Section-1:	Audit Team and Academic Details
Section-2:	Aspects/Activities, Observations, Remarks/Suggestions.
Section-3:	Overall Observations and Recommendations

Section-1: Audit Team and Academic Details

Name of the Department		Electronics and Communication Engineering		
Date of Audit		30.09.2021		
Academic year		2020-21	Semester	I & II
Audit Team				
Sl.No	Name	Designation	Department	
1.	Dr AVS Prasad	Professor	CE	
2.	Dr R Gayathri	Professor	ECE	
3.	Mrs N Santhi Kumari	Assistant Professor	EEE	
4.	Dr P Penchalaiah	IQAC Coordinator	IQAC	

Name of the Head of the Department		Dr. K MURALI				
Mail ID	<i>hodece@necn.ac.in</i>	Mobile No		9441818312		
Sl. No	Program offered	Strength				
		I	II	III	IV	Total
1	B.Tech I SEM	192	138	124	126	580
2	B.Tech II SEM	192	138	123	125	578

Section-2: Aspects, Observations, Remarks/Suggestions

ACADEMIC AUDIT	
Sl. No	Aspects/Activities – Observations – Remarks/Suggestions
1	Academic Calendar- Implementation
	<p>Observations: The department prepares its own academic event calendar per semester in accordance to JNTUA schedules and has been following strictly the changes in JNTUA Calendar due to Covid-Pandemic. For I B.Tech I & II semesters Autonomous Academic calendars were prepared and conducted all exams and events specified in calendars.</p> <p>Remarks/suggestions: As per academic calendar, classes were conducted online & offline smoothly and activities were conducted with some deviation due to Covid.</p>
2	Syllabus coverage
	<p>Observations: It was observed that syllabus coverage was verified based on syllabus completion targets in online once in two weeks. Few subjects were deviated from the schedule due to health issues of faculty.</p> <p>Remarks/suggestions: The syllabus was completed in-time by taking extra classes for some subjects.</p>
3	Moodle Upload
	<p>Observations: College Learning Management System (LMS) was extensively used by both faculty & students for question banks of assignments and Mid-term examinations.</p> <p>Remarks/suggestions: Appreciation to Moodle coordinator for extensive use of Moodle.</p>
4	Course files
	<p>Observations: Department is maintaining course files for all individual subjects of the respective regulations.</p> <p>Remarks/suggestions: CAT & attainment sheets are yet to be filed for some courses.</p>
5	Mapping of COs and POs/PSOs
	<p>Observations: COs of R-20 Regulation courses were defined and CO-PO & PSOs mapping was done and filed properly.</p> <p>Remarks/suggestions: OBE coordinator was suggested to take necessary actions for verification of action verb & learning statement of COs of all the subjects.</p>
6	CO Attainment & PO Attainment

	<p>Observations:</p> <ol style="list-style-type: none"> 1. CO Attainments of 2019-20 I semester & 2020-21 I semester was done and not attained COs were listed. 2. PO Attainment for 2016-20 & 2017-21 batches were done. <p>Remarks/suggestions: Suggested to list the action taken for not attained COs.</p>
7	ICT usage
	<p>Observations:</p> <p>The department was practicing the blended teaching learning methods implemented during the pandemic like ICT usage, online classes, assignments for students etc for effective lecture delivery and making student engaged.</p> <p>Remarks/suggestions: Appreciated the department for improvement in ICT usage compared to last semester.</p>
8	Quality of Question Papers
	<p>Observations:</p> <p>The department is conducting Internal question paper quality verification before the commencement of the mid examinations.</p> <p>Remarks/suggestions: Advised to verify the question paper quality atleast three days in prior to mid examination.</p>
9	Evaluation of Answer Scripts
	<p>Observations:</p> <p>Evaluation of all assignment & Mid-term answer scripts was done and marks were posted after circulating among students.</p> <p>Remarks/suggestions: Advised to evaluate the answer scripts within three days of completion of the examination.</p>
10	Slow and Advanced Learners
	<p>Observations:</p> <p>Based on the result analysis up to previous semester, the students were divided into slow learners & advanced learners for two semesters and the lists were filed.</p> <p>Remarks/suggestions: Advised to send the advanced learners list to all the advanced learner activities in-charges for their reference.</p>
11	Remedial Classes
	<p>Observations:</p> <p>It is observed that no remedial classes were conducted due to pandemic for AY 2020-21.</p>

	Remarks/suggestions: -----
12	Remedial Coaching
	<p>Observations: It is observed that no remedial coaching was arranged due to pandemic.</p> <p>Remarks/suggestions: All the related documents are maintaining properly.</p>
13	Guest Lectures
	<p>Observations: Organized five guest lectures on</p> <ol style="list-style-type: none"> 1. "MATLAB programming" by Jaya Krishna Sunkara, ATD Engineer, Samsung (R&D) Bangalore from 10.05.21 to 21.05.21. 2. "Python Programming" by M.Kumar, Software Engineer, KXN IT Solutions, Hyderabad from 16.06.21 to 29.06.21. 3. "VLSI DESIGN" by G. Sarala, Intel Corporation, Project lead, Bangalore from 05.07.21 to 14.07.21. 4. "Digital System Design" by M. Madan Gopal, Star VLSI Services Private limited, Bangalore from 02.11.2020 to 07.11.21. 5. "Electronic Measurements & Instrumentation" by Dr. P. Vinod Babu, Associate Professor, Bapatla Engineering College on 18.06.2021. <p>Remarks/suggestions: All the relevant documents were filed.</p>
14	Lecture Schedule Verification
	<p>Observations: It was observed that the lecture delivery was done as per the session plans of all courses.</p> <p>Remarks/suggestions: Extra classes for deviated subjects have taken to comply with the session plan.</p>
15	Lab Records/Manuals
	<p>Observations: It was observed that stock registers and lab manuals are updated.</p> <p>Remarks/suggestions: Soft and hard copies of all lab manuals and sample records of each laboratory for each semester are maintaining in the department for future reference.</p>
16	Continuous Evaluation For Practical Courses
	<p>Observations: Continuous evaluation of practical courses was not done during semester due to pandemic. Virtual labs and simulation experiments were done in online and the remaining experiments were conducted as per JNTUA schedule.</p>

	Remarks/suggestions: -----
17	Students Project Evaluation and Review
	<p>Observations: All the project reviews including external review were conducted as per schedule in online.</p> <p>Remarks/suggestions: All the files were updated and maintaining properly.</p>
18	Internships
	<p>Observations: Seventy Three (73) no. of students have completed their internship at eight different companies in online mode.</p> <p>Remarks/suggestions: Due to pandemic, most of the companies were not allowed to do internship.</p>
19	Partial Delivery by Industrial Experts
	<p>Observations: There was seven partial deliveries by industry experts</p> <ol style="list-style-type: none"> 1. Switching Theory and Logic Design for II B.Tech/ I Sem students by Mr. P. Sudheer Babu, SDE BSNL, Nellore. 2. Data Communication and Networking for III B.Tech/I Sem students by Mr. Dhananchezian Jayachandiran, Technical Consultant and Lead Centre of Excellence Inflow Technologies Pvt Ltd, Bangalore. 3. MATLAB programming for III B.Tech/ II Sem students by Jaya Krishna Sunkara ATD Engineer, Samsung(R&D) Bangalore. 4. Python Programming for II B.Tech/II Sem by M.Kumar Software Engineer, KXN IT Solutions, Hyderabad. 5. VLSI DESIGN for III B.Tech/II Sem by G. Sarala, Tech Lead, C2DG, Intel Technologies India Ltd, Bangalore. 6. Digital System Design for III B.Tech/I Sem students by Mr. M. Madan Gopal, Star VLSI Services. 7. Project Work for IV B.Tech/II Sem by Mr. M. Madan Gopal, Star VLSI Services Private Limited, Bangalore. <p>Remarks/suggestions: All the relevant documents were filed properly.</p>
20	Adjunct Faculty
	<p>Observations: Mr. M. Madan Gopal, Star VLSI Services Private Limited, Bangalore have taken 24 hours for III ECE of Digital system design course & have taken 32 hours for IV ECE of Project for four batches.</p> <p>Remarks/suggestions: All the relevant documents were filed properly.</p>

21	Topic/Content Beyond Syllabus																
	<p>Observations:</p> <p>Four (4) topic/content beyond syllabus classes were conducted for this semester.</p> <p>1. "FPGA Implementation" by Dr. M Chandra Mohan Reddy, Professor, Department ECE, NECN on 30/07/2021.</p> <p>2. "Microstrip antennas " by Mr.C.Leela Mohan, Associate Professor, Department ECE, NECN on 29/07/2021.</p> <p>3. "Advanced radar sensor and PSR-500perimeter surveillance radar system" by A Vidyullatha, Assistant Professor, Department ECE, NECN on 08/02/2021.</p> <p>4. "Bi CMOS digital circuits and Verilog" by Dr. K. Murali, Professor and Head of the department ECE, NECN on 28/07/2021.</p> <p>Remarks/suggestions: All the relevant documents were filed properly.</p>																
22	Newsletter/Technical Magazine/Wall Papers etc.																
	<p>Observations:</p> <p>1. All departmental events were published in the departmental newsletters for the first and second semesters of 2020–21.</p> <p>2. The department's Technical Magazine for I& II semester of 2020–21 has been published.</p> <p>Remarks/suggestions: Advised to keep the newsletter and technical magazines in the department library.</p>																
23	Student Feedback on TLP																
	<p>Observations:</p> <p>Student feedback on TLP Status.</p> <table><tr><th>Academic Year</th><th>Semester</th><th>Online</th><th>Offline</th></tr><tr><td>2019-20</td><td>II</td><td>YES</td><td>NO</td></tr><tr><td>2020-21</td><td>I</td><td>NO</td><td>NO</td></tr><tr><td>2020-21</td><td>II</td><td>NO</td><td>NO</td></tr></table> <p>Remarks/suggestions: Action taken report has to be filed.</p>	Academic Year	Semester	Online	Offline	2019-20	II	YES	NO	2020-21	I	NO	NO	2020-21	II	NO	NO
Academic Year	Semester	Online	Offline														
2019-20	II	YES	NO														
2020-21	I	NO	NO														
2020-21	II	NO	NO														
24	Feedback on Curriculum																
	<p>Observations:</p> <p>It was observed that feedback on curriculum was collected from stake holders i.e., students, faculty, employers & alumni and submitted the same to IQAC for the analysis.</p> <p>Remarks/suggestions: Work done is appreciable.</p>																
25	Value added courses / Certificate Courses																
	<p>Observations:</p> <p>Conducted two certificate courses on</p> <p>i) "PCB Design & Fabrication" from 23/08/2020 to 28/08/2020 in Association with Takeoff group, Tirupati.</p>																

	<p>ii) "Python 3.4.3" on 14/06/21 in association with spoken tutorial, II Bombay.</p> <p>Conducted two Value Added Courses on</p> <p>i) "Introduction to Arduino Board" by Mr. Selava Kumaraswamy, Associate Professor, ECE Department, NECN on 18.01.2021.</p> <p>ii) "IOT Applications & Challenges" by Dr. K Murali, Professor, ECE Department, NECN on 04.01.2021.</p> <p>Remarks/suggestions: All the documents related to Certificate course & Value added Course were filed properly.</p>
26	Industrial Visits
	<p>Observations: No industrial visit was organized by the department because industries didn't allow students to do internship in pandemic.</p> <p>Remarks/suggestions: -----</p>
27	MOUs
	<p>Observations: Department has 7 active MOU's. Three activities were conducted under 2 MoU's.</p> <p>Remarks/suggestions: Advised to conduct workshops/ seminars to the students under each MoU in the coming semester.</p>
28	Professional society activities
	<p>Observations: Six Programs were organized under professional society activities</p> <ol style="list-style-type: none"> 1. ETRONS 2K21 National Level Students Technical Symposium in association with Sri. S. Hirinarayana, Group Head & Scientist Geosat Programme Department of Space, ISRO, Bengaluru on 24-12-2021. 2. Guest Lecture on Electronic Measurements & Instrumentation by Dr. Dr. P. Vinod Babu, Associate Professor Bapatla Engineering College, Bapatla on 18-06-2021. 3. Roles and Responsibilities of Engineers to Save Earth from EM Pollution- Motivation Towards Green Engineering by Dr M.Hemalatha B.E.,M.S, Ph.D, Professor, Dept. of ECE, King Abdul Aziz University, Saudi Arabia on 31-05-2021. 4. Webinar on Career Guidance and Soft Skills by Mrs. Suman Ramisetty, Deputy General Manager, Banka Bio loo Ltd on 28-05-2021. 5. Certificate Program on ROBOTICS by Sd Parveez, Technical Manager, IIClub, Hyderabad on 04-04-2021. 6. Psedu code Competition by T. Chaitanya, Asst. Professor, NEC, Nellore on 28-12-2020. <p>Remarks/suggestions: Appreciated the department for conducting good number of activities by professional society bodies.</p>

29	Industry Institute Interaction Cell Activities
	<p>Observations:</p> <p>Three programmes were conducted by IIIC:</p> <ol style="list-style-type: none"> 1. Webinar on Career Awareness and Opportunities in Electronics Industry by P. Chaitanya, Associate Manager, Accenture, London, UK. On 23-12-2020. 2. Technical Talk on 5G Communications by P. Sudheer Babu, DE, BSNL, Nellore on 06-02-2020. 3. Technical talk on IoT using Android Applications by Pavan arigela, Application Engineer, Edgate Technologies Pvt. Ltd, Bangalore on 10-01-2020. <p>Remarks/suggestions: Appreciated for conducting seminars under IIIC cell even in pandemic.</p>
30	Student Association Activities
	<p>Observations:</p> <p>No activities were organized by the department under student association due to pandemic.</p> <p>Remarks/suggestions: -----</p>
31	Student External Participation
	<p>Observations:</p> <p>One hundred and two (102) no. of students have participated in events like PPT, Poster Presentation, Technical Quiz, Coding, Technical Treasure hunt, fashion show, etc.... and secured 8 prizes in various events.</p> <p>Remarks/suggestions: All sample certificates were filed and are advised to post the list of prize winners in all student whatsapp groups.</p>
32	Workshops/Seminars/Conferences/NLTS Etc., Conducted
	<p>Observations:</p> <p>One workshop & Nine Webinars were organized by the department.</p> <p>Remarks/suggestions: All relevant documents were filed.</p>
33	Placement Training (Internal & External)
	<p>Observations:</p> <p>Placement related training programmes on Aptitude, Verbal, Technical, coding on C and JAVA were organized by the department and placement cell.</p> <p>Remarks/suggestions: Suggested to invite companies that offer high package.</p>
34	Placements
	<p>Observations:</p> <p>Seventy Four (74) no. of students got placed in different companies.</p> <p>Remarks/suggestions: Appreciated the department for getting the better placements than previous academic years.</p>

35	Counseling/Mentoring
	<p>Observations: It was noted that the mentors conducted online counseling on academic concerns once every two weeks. Some of the students have received personal therapy.</p> <p>Remarks/suggestions: Appreciated The procedure that was implemented.</p>
36	Career Counseling
	<p>Observations: Ten career counseling programmes were organized by the department in both online & off line modes.</p> <p>Remarks/suggestions: Appreciated for organizing good number of career guidance programs for the students.</p>
37	Professional Development Programmes Conducted For Faculty
	<p>Observations: 1. A five day FDP on " Latest Trends in VLSI Design & Implementation using EDA Tools"from 06/04/2021to 10/04/2021. 2. A five day FDP on "Machine Learning for Computer Vision & Image Processing Applications" from 26.07.2021 to 30.07.2021.</p> <p>Remarks/suggestions: Appreciated for conducting two Faculty Development programmes.</p>
38	Professional Development Programmes Attended by faculty
	<p>Observations: Total 29 faculty members attended for different FDP's in both online and offline.</p> <p>Remarks/suggestions: Appreciated the department for having good number of faculty participation.</p>
39	Professional Development Programmes Organized for Non-Teaching Staff
	<p>Observations: A five day PDP was organized on "Inter-Personal and Effective Communication" on 15/06/2021 to 19/06/2021.</p> <p>Remarks/suggestions: All the relevant documents were filed properly.</p>
40	Faculty Publications
	<p>Observations: Total Forty six (46) papers were published by the faculty in different international & National journals.</p> <p>Remarks/suggestions: Advised the department to publish books & book chapters.</p>

41	Funded Projects and consultancy
	<p>Observations:</p> <p>Four funded projects were sanctioned by</p> <ol style="list-style-type: none"> 1. Pantech e-learning Solutions, Chennai for the project "An Embedded Real-Time Finger-Vein Recognition System for Mobile Devices using ARM" for four months. 2. Sun Square Technologies, Nellore for the project "Smart Level Dispenser and Water Level Monitoring System "for three months. 3. Takeoff Edu Group, Tirupathi for the project "Technological Advances in LPG Sector" for three months. 4. Green Corner Tech., Nellore for the project "SIM300W – SMT Module" for six months. <p>Remarks/suggestions: Appreciated for getting good number of funded projects.</p>
ADMINISTRATIVE AUDIT	
1	Classrooms
	<p>Observations:</p> <p>Nine (9) rooms were allotted for class work. All the classrooms are equipped with teaching aids such as projector, projector screen, Board and audio component.</p> <p>Remarks/suggestions: -----</p>
2	Laboratories
	<p>Observations:</p> <p>It is observed that laboratory files for maintenance have been updated.</p> <p>Remarks/suggestions: Advised to solve lab maintenance issues as early as possible.</p>
3	Department Library
	<p>Observations:</p> <p>Advanced learners are allowed to department library to study the academics and journals. The entry register was maintaining by the department.</p> <p>Remarks/suggestions: No maintenance issues were recorded.</p>
4	Computing Equipment
	<p>Observations:</p> <p>Total Seventy Six (76) computing equipments are available in the department.</p> <p>Remarks/suggestions: Sufficient number of computing equipment is available in the department.</p>
5	Website Updates

	<p>Observations: Updating regularly.</p> <p>Remarks/suggestions: Advised to update the hobby clubs events in the departmental window of the college website.</p>				
6	Meetings (Faculty, Cells, Committees, Student Bodies)				
	<p>Observations:</p> <p>Faculty meetings were conducted twice in a month. Meetings were conducted once in a month under Student Association.</p> <p>Remarks/suggestions: Advised to record the minutes of meeting of professional society and coding club.</p>				
7	General Maintenance				
	<p>Observations:</p> <p>No maintenance indent have been raised and completed.</p> <p>Remarks/suggestions: Advised to maintain the separate file and update the same periodically.</p>				
8	Extension Activities (Activities, Awards, Outreach)				
	<p>Observations:</p> <p>Conducted thirty five (35) programmes under NSS by the department in the academic year 2020-21 in both online & offline modes.</p> <p>Remarks/suggestions: Appreciated the department for conducting more service oriented programmes.</p>				
9	Student Grievance Redressal				
	<p>Observations:</p> <p>There are no grievances.</p> <p>Remarks/suggestions: -----</p>				
10	Alumni(Data Updates, Visits, Benefits Derived, Alumni Meets)				
	<p>Observations:</p> <p>No alumni visits and alumni meets were conducted due to pandemic.</p> <p>Remarks/suggestions: Advised to plan alumni meet in the upcoming semester.</p>				
11	Any other				
	<p>Observations: -----</p> <p>Remarks/suggestions:</p>				
12	Attendance (Final-End Semester)				
	Year	No of Students	Promoted	Condoned	Detained
	II/I	138	138	15	0

	III/I	124	124	11	0
	IV/I	126	125	0	1
	II/II	138	138	1	0
	III/II	123	123	1	0
	IV/II	125	125	3	0
	<p>Observations: For every 15 days attendance calculation was done, information to parents over phone, mentor counseling to attendance shortage students all such information is maintained in the file.</p> <p>Remarks/suggestions: Advised to do Effective follow up to reduce the shortage of attendance.</p>				

Section-3: Overall Observations and Recommendations

IQAC team has conducted periodical verification of various aspects pertaining to activities of entire semester. Find the following overall observations and recommendations for your department.

- 1) OBE coordinator was suggested to verify the action verb & learning statement of COs of all the subjects.
- 2) Advised to conduct workshops/ seminars to the students under each MoU in the coming semester.
- 3) Suggested to invite companies offer high package.
- 4) Advised the department to encourage faculty towards publishing books & book chapters.
- 5) Advised to record the minutes of meeting of professional society and coding club.
- 6) Advised to plan alumni meet in the upcoming semester.

Please ensure such or similar Non conduction/short comings do not recur in future.

Action Taken for previous Academic Administrative Audit (AAA):

1. Suggested to organize the programs for not attained COs in coming semesters.

Conducted technical talks and webinars for not attained COs.

2. Advised to conduct more guest lecturers to the students in every semester by inviting eminent speakers from industries, organizations or institutions.

Conducted five guest lectures by eminent personalities from industries & organizations.

3. Suggested to conduct more programmes under IIIC cell to improve the relation between industry & institute.

Organized good number of IIIC activities.

4. Encourage all the faculty members to attend more workshops / FDP.

Faculty attended very good number of FDPs and workshops in both online and offline.

5. The faculty are advised to publish research papers and to participate in R&D related activities.

Forty six (46) no. of papers were published by the faculty.

REMARKS: Some of the suggested actions were unable to complete because of pandemic.

1. Signature: 


(Name: Dr. Aris P. Arum)

3. Signature: 

(Name: N. Santhi Kumari)

2. Signature: 

(Name: R. Gayathri)

4. Signature: 

(Name: Dr. P. Panchan)