 <b>JAI PUR ENGINEERING COLLEGE AND RESEARCH CENTRE</b>	<b>Jaipur Engineering College and Research Centre</b> <b>Shri Ram ki Nangal, via Sitapura RIICO</b> <b>Jaipur- 302 022.</b>	<b>Academic year 2020-2021</b>
	<b>Department of Electrical Engineering</b>	


**INTERNAL ACADEMIC AUDIT REPORT**


Academic year 2020-21

<b>DQAC</b>		<b>DATE</b>	12/07/2021
<b>PROCESS</b>	Academic Process (Electrical Department)		
<b>Auditors</b>	1) Dr. Prerak Bhardwaj 2) Sh Gopal Tiwari 3) Sh. Vishal Sharma 4) Sh. Shailendra Shrivastva	<b>Auditees</b>	EE Faculties
<b>Observers</b>			

Sr. No	Observation	Type	Correction
1	Course file (Faculty)		Status Check By Gopal Tiwari Dy HOD
2	Academic Diary (Faculty)		Status Check By HOD
3	Defaulter list (All CC's)		Signed by HOD
4	Mapping of all subjects		Status Check By DQAC
5	Industry feedback data		Maintained by TPO
6	Alumni Feedback		Maintained by HOD

Sr. No	Observation	Type	Remark
1	All Academic process	Departmental Policy	Maintained by DQAC – MOM chaired by HOD/Dy HOD
2	Course File		Maintained by individual faculty
3	PO and PEOs and CO and PSO's		Feedback taken from faculties and approved by DQAC
4	Mapping		Faculty
5	Student feedback analysis index		Analysis – action taken by HOD
6	Industry feedback analysis index		Maintained by TPO
7	Alumni feedback analysis index		Maintained by HOD
8	Remedial Lectures		Maintained by Individual faculty
9	Advance Learners		List is prepared with proof by the individual faculty
10	Slow learners' efforts taken		Register is maintained by Respective faculty with action taken with proof by individual faculty

  
 Head of the Department  
 Electrical Engineering  
 JECRC Jaipur

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	<b>Department of Electrical Engineering</b>	

11	Add on Courses		Maintained by TPO
12	Seminars/Guest Lectures		Maintained by SDO
13	Social Activities/ Ethical / Moral value education		Maintained by SDO
14	Higher Education data		Maintained by Sonali Mam
15	Internship data		Maintain by SDO / CCs / and respective faculty
16	Student final year project		Project coordinator
18	All files (Sample tested)	OK	OK
19	Previous Students punched old files, exam record		Maintained by EXAM I/c
20	Existing submission		Going on
21	Training needed identification teaching, nonteaching		Maintained in soft copy by DQAC
22	Budget details	In Progress	Dy. HOD with all lab I/C prepare the budget which is finally approved by HOD.
23	Departmental Library details	Found OK	Maintained (Vishnudutt Sharma)
24	FDP/Publications	OK	Ram Singh / Shailendra Shrivastva
25	Curricular and co-curricular activities	OK	Maintained by SDO/CC
26	Teaching/ Non-teaching appraisal review	OK	HOD

Name Signature

Dr Prerak Bhardwaj

*Prerak*

Sh Gopal Tiwari

*Gopal*

Sh L.Senthil

*Senthil*

Smt. Sonali Chadha

*Sonali*

*[Signature]*  
**PRINCIPAL**  
**Jaipur Engineering College &**  
**Research Centre**  
**Tone Road, Jaipur-302022**

*[Signature]*  
**Head of the Department**  
**Electrical Engineering**



JAIPUR ENGINEERING COLLEGE  
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## JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

### Academic Audit (2020-21)

Name of the Department: Electrical Engineering

Date: 18 August 2021

Name, Designation and Address of Academic Audit Experts:

Members of Staff Present:

1. Dr. Prerak Bhardwaj
2. Mr. Gopal Tiwari
3. Ms. Sonali Chadha
4. Mr. L Senthil

- a) Reviewed by Dr. Bhanu Pratap Soni, Associate Professor Department of Electrical Engineering University of Engineering & Management, Jaipur
- b) Reviewed by Industry expert Mr. BS Jha, Executive Engineer RVPNL Jaipur.

Criterion	Items	Verification Yes / No	Comments	Suggestions for improvement
1. Curriculum	Steps followed in the designing of syllabus & curriculum	YES	Affiliated to Rajasthan Technical University (RTU), Kota	Benchmarking should be done with leading institutes/universities and mentioned.
	Contents of the Curriculum	YES	Affiliated to RTU. The Dept is following OBE practices and after internal assessment, the department identifies the weak students and the fast learners. For weak students, the department undertakes mentoring and remedial classes. The Fast learners are encouraged to participate in conferences/seminars etc and the participation fees is either waved off or paid by the college itself. The Fast learners are motivated to be a	The approach of identifying slow learner in every semester is done in the department and extra efforts are done on them and advance learners are motivated and efforts are taken to increase the learning capability.



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			part of the organising committee and financial assistance is given on Pan India basis and are encouraged to participate on co-curricular activities outside college. The college provides for the cost of the raw materials as well as transport facility.	
	Validation done	YES	Affiliated to RTU	-
	IDC / EDC	YES	Motivating students for start-up and applying for patents	Students from 2 <sup>nd</sup> year must be motivated and encouraged for start-ups
	Credits allotted / distribution – logic	YES	Mapping is done	Mention how the mapping was done, which tool used, who were involved, when was it done.
<b>2. Curriculum Transaction</b>	Teaching methods & teaching aids	YES	<ol style="list-style-type: none"> <li>1. Lectures(Blended mode)</li> <li>2. Laboratories/Virtual Lab</li> <li>3. Guest lectures</li> <li>4. Technical Activities</li> <li>5. Brain Zest</li> <li>6. Social Activities</li> </ol>	Appreciated for Guest Lectures in the area of industrial automation and latest technologies in the field of renewable energy. Also the efforts made by Brain Zest and Social Activities are appreciated during the pandemic.
	E-learning modules	YES	<ol style="list-style-type: none"> <li>1. E-BOOKS</li> <li>2. ICT Courses</li> <li>3. NPTEL/Swayam</li> <li>4. Faculty e-Content</li> </ol>	Advisable to provide the guidance with respect to NPTEL & SWAYAM Courses for present industry scenario.
	Project work UG/PG	YES	<p>Paper Presentation Skill development activity Industry institute interaction Projects done in the area of automation, artificial intelligence, machine learning, hybrid electrical vehicle, social, experimental and analysis.</p>	Projects started in third year will give early outputs in terms of research paper publication and patents and start-ups.



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	Internal assessment – components – Uniqueness	YES	Mid Term Evaluated on the basis of Course Outcome (CO) and based on CO, slow learners and advance learners were identified.	Mention the components of assessment like tests, presentations, etc.
	Student support – remedial coaching	YES	Identification of weak students Oral questionnaire Query session	Mentoring, Assignment and retest in form of quiz are taken to improve the knowledge of students.
	Parents Open House Meeting –evaluation of student's progress	YES	Performance report is discussed with students & their parents on regular basis.	The frequency of meeting with parents should be increased.
	Feedback from students	YES	Communicated through program coordinator to faculties	Feedback mechanism was appraised. Analysis and action taken reports, and efforts were made for improvement in department are also appreciated.
	Steps taken on the feedback	YES	Feedback analysis is done.	Suggestions are obtained to increase more criteria's in the feedback.
<b>3.Faculty Profile</b>	Projects completed / on going	YES	Completed	Suggested to give stress on hardware approach.
	Seminars / conferences attended	YES	Many faculties attended conferences and seminars	Faculty members are motivated and attended several seminars and conferences of repute.
	Papers / articles / published	YES	Many faculties have excellent publication	Much appreciated for quality publications.
	FDP / RC / OC / Training Program / Workshop	YES	Faculties are encouraged to attend and organise FDP at least once in semester	Faculties are appreciated by auditor for participating in activities and courses of repute.
	Preparation of E-learning materials / Content	YES	Students as well as faculties enrol the courses	How the e-learning material is prepared. Write about who prepares, who finalizes and approves.



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<b>4.Profile of Students</b>	Demand ratio (Applications received Vs Sanctioned Strength)	YES	180	Applications received for what? Sanctioned what?
	Students involvement in extra-curricular & Cocurricular activities	YES	Majority of students are involved in extra-curricular & Cocurricular Activities.	Technical activities, national conference are appreciated but more tie-ups for collaborative conferences.
	Study tour / industrial visits / exhibitions / Internship / Training	Yes	Students showcasing their project work in the institute are appreciated. Students do mandatory internship training as prescribed by RTU.	Virtual industrial tours near by and inside Jaipur must be planned and implemented.
<b>5. Infrastructure in the Department</b>	No. of class rooms	YES	5	Sufficient classroom as per curriculum prescribed by RTU
	No. of laboratories	YES	7	As per curriculum by RTU
	No. of computers – for teachers	YES	3	Less computers allotted, more laptops maybe allotted to faculty on compulsory Buy Back Scheme.
	No. of computers – for students	YES	CAD LAB	Students are allowed to access the computers in laboratory.
<b>6. Activities of the Department</b>	MoU's signed	YES	The JECRC has made MOU with the following companies in past few years. 1.Techinest, Jaipur 2.Engineers Academy Jaipur	Much appreciated regarding active MOU'S which leads to increase in industry institute interaction.
	Consultancy	No	Suggestion for work towards in this field.	Dept. should approach industries for consultancy work.
	Collaborations	YES	Department has collaboration with Technest	Students chapters like ISHRAE, IEEE, ETC should be started in the department



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	Association Meetings	NO	-	-
	Guest lectures	YES	In last three years department of Electrical Engineering invited lot of eminent Academicians and Industrialists.	Guest's lectures are organised wherein eminent personalities from the academia and corporate world are invited to share real life problems with students.
	Conference / Seminar / Workshop conducted	YES	In last three years department of Electrical Engineering organised a few National and International conferences. The selected papers were published in reputed Journal.	Conferences/seminars and workshop leads to latest awareness in students. Which leads to improve research facilities, inculcate research culture among faculties and students.
	Extension Activity	Yes	The dept. actively participated in various programs like Awareness of Swachh Bharat Abhiyan, tree plantation drive, sports, dance, singing, etc. Celebration of Engineer's day, Teachers day, Independence day, Republic day and Women's day.	Students must involve in extension activities for overall growth and development.
	Interaction with Industry / Research Centres / Educational Institutions	YES	For internship students are applying for paid internship through Intershala and some get training through that, as per affiliating university now 15 days training is mandatory for 1 <sup>st</sup> and 2 <sup>nd</sup> year students and one month for 3 <sup>rd</sup> year students. Electrical department visited various industry along with students	Students are encouraged to undertake industry sponsored projects and participate in projects competition at national and international level.
	Newsletters / Magazine	YES	Department of Electrical Engineering highlighted the various activities of the department by faculty members and students in the	The department having a good practice of releasing e-newsletters and magazines, also student's magazine can be initiated



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			form of Magazine on quarterly basis.	for motivation and encouragement of students.
	Placement	YES	College provides the skill based training and technical training to students.	Training & placement activities reinforce the student's skill and acquire industry specific knowledge from trained faculty and experts from outside. Training positively influences the performances, productivity and self-esteem of the students

### Please comment on SWOT Analysis:

#### SWOT Analysis:

##### Strength:

1. Faculty members are young and dedicated for handling the classes, laboratory and extra curriculum activities.
2. Good student Faculty ratio-as per AICTE guideline
3. Strong social commitments by students and faculties
4. Project based learning and collaborative learning for students

##### Weakness:

1. Centre of excellence does not exist.
2. Departmental Career Development cell
3. The current syllabus is partially based on the current needs of industry.
4. Sponsored research projects from any funding agency are minimal
5. Consultancy and testing from the industry are minimal
6. Placements in core companies are average.

##### Opportunities:

1. Department follows Outcome based education
2. Provide jobs for fast learners as well as slow learners.
3. Motivate to students for publication
4. Motivate and Provide platform for start-up & patent
5. Motivate and provide platform for social activities.

##### Challenges:

1. Average employment opportunities for fresh graduates
2. Gap between curriculum and industry requirements
3. Bringing slow learner to the level of fast learners
4. International collaboration with reputed institutes/ Industries





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**Best Practice (s) / Innovations of the Department: (need to mention more. Just one best practice means the college doesn't have much to position itself as a good place for study. Add information related to courses, faculty strength etc)**

1. Team Brain Zest organize events in online mode for the overall development of the students during the pandemic.
2. Identifying thrust areas and guidance by senior faculty to juniors for confident and satisfactory delivery in the classroom for the content.
3. To improve the satisfaction index of students for teaching and learning activity.
4. Mentoring of weak students.

**Future of the Department:**

1. Setting of Industry oriented lab in the department.
2. Industry specific courses to be introduced soon.
3. Planning to organize the MOOC courses for the students in the thrust areas.

**Signature of the Academic Audit Experts**

**Signature of the HOD with Seal**  
Head of the Department  
Electrical Engineering  
JECRC Jaipur

**PRINCIPAL**  
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