

IPS ACADEMY
INSTITUTE OF ENGINEERING & SCIENCE
(A UGC Autonomous Institute affiliated to RGPV)



Academic and Administrative Audit
Reports
2023-2024

IPS Academy
Institute of Engineering & Science
(A UGC Autonomous institute affiliated to RGPV, Bhopal)

**Details of Academic & Administrative Audits (AAA) for the Academic
Year 2023-24**

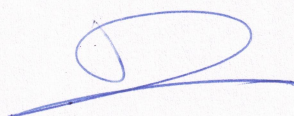
Date of Audit	Visit to the Department	Name of the External Members
13/12/2024	Computer Science Engineering	Dr. Sunita Verma, Professor, Computer Science Engineering, Shri G.S. I.T.S, Indore
03/01/2025	Mechanical Engineering	Dr. Basant Agrawal, Professor, Mechanical Engineering, Shri G.S. I.T.S, Indore
15/01/2025	Civil Engineering	Dr. Rakesh Khare, Professor, Civil Engineering, Shri G.S. I.T.S, Indore
20/01/2025	Chemical Engineering	Dr. Kailas L. Wasewar, Professor, Chemical Engineering, VNIT Nagpur
31/01/2025	Fire Technology & Safety Engineering	Dr. M.L. Jain, Professor, Mechanical Engineering, Shri G.S. I.T.S, Indore
03/08/2024 22/02/2025	1. Electronics Communication Engineering 2. Electrical and Electronics Engineering	1. Dr. K.K. Sharma, Professor, Elect. Comm. Engineering, MNIT, Jaipur (Raj.) 2. Rakesh Joshi, DGM, TATA Cumins, Dewas (M.P.)

ACADEMIC AUDIT
Academic Year 2023-24

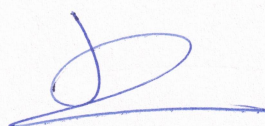
Name of the Department: Computer Science and Engg.

Date(s) of Audit: 13/12/24

	Criteria	Comments	Reviewers Observations and comments
A	Department Information		
A1	Year of Establishment	1999	Verified
A2	NBA Accreditation Status	NBA Accredited (2017-2020 & 2020-2023 & 2023-2026)	Verified
A3	Dept. vision, mission, graduate attributes/goals clearly defined and its agreement with institute vision, mission and goals	Vision: Attaining global recognition in computer science and engineering education, research and training to meet the growing needs of the industry and society. Mission: M1: Provide quality education, in both the theoretical and applied foundations of computer science and train students to effectively apply this education to solve real-world problems. M2: Amplifying their potential for lifelong high-quality careers. Map Consistency of the Department Vision statement with institute Vision statement Map Consistency of the Department Mission statement with institute Mission statement	Department Vision and Mission clearly defined, & In line with Institute Vision and Mission
A4	No. of UG intake and admission	UG intake :180 Admission:234	Verified Excellent Admission
A5	No. of PG programs in the department and admission	N/A	-



1	Curricular Aspects		
1.1.1	Curricular developed and implemented have relevance to local/national regional and global developmental needs	In accordance with the guidelines of UGC, AICTE and APSCHE, a board of studies is established comprising experts from reputable academic institutions and industries in the respective domain. These board members take into account input from alumni and industry professionals when shaping new syllabi or modifying existing ones. The curriculum is designed in alignment with the new National Educational Policy (NEP) 2020.	Curriculum in Aligned with the AICTE new National Educational Policy (NEP) 2020.
ANNEXURE 1.1.1			
1.1.2	Syllabus Content % (UG & PG): Employability/ entrepreneurship/ skill development PCC (Program Core Courses) Basis Sciences Honors and Minors courses Humanities Project Tutorials Department Elective Course Field projects / research projects / internships	Basic Science Courses: 12.05% Engineering Science Courses: 11.45% Humanities and Social Sciences including Management Courses: 6.02% Professional Core Courses: 34.93% Professional Elective Courses: 9.04% Inter-disciplinary Foundation Courses: 2.41% Skill Based Courses: 5.42% Liberal Learning Courses: 1.81 % Inter-disciplinary Open Courses: 3.61 % Project: 13.25% Mandatory Learning Courses: Audit	All categories are well defined and as per the need of AICTE and industry
1.1.3	Syllabus in line with AICTE model curriculum	Syllabus is designed to meet the AICTE norms and standards, as well as the industry expectations and requirements. We aim to provide our students with the best quality education and training in computer science and engineering. We have also covers the new courses (i.e. Interdisciplinary Foundation Courses, Skill Based Courses, Liberal Learning Courses) to incorporate the NEP – 2020 policy.	Verified Syllabus is in line with AICTE model curriculum
1.2.1	New courses introduced out of the total number of courses	No Change	-

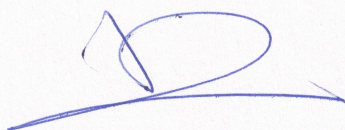


1.3.1	Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum	Human Values and Professional Ethics: Semester – I : (HS01) Design Thinking Semester – II : (HS02) English Semester – III : (HS04) Entrepreneurship and Principles of Management Semester – III : (MLC01) Professional Laws, Ethics, Gender, Human Values and Harmony Semester – IV : (HS03) Innovation and Creativity Semester – IV : (MLC02) Constitution of India Semester – V : (HS06) Humanities and Social Sciences Open Courses – II Semester – VI : (HS05) Humanities and Social Sciences Open Courses – I Semester – VI : (MLC04) Intellectual Property Rights Environment and Sustainability: Semester – V : (MLC03) Environmental Studies Gender equity: Semester – III : (MLC01) Professional Laws, Ethics, Gender, Human Values and Harmony	Verified Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability
1.3.2	Number of certificate/value added courses/Diploma Programs offered Online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms	Value Added Courses: 02 - Honors Certification in Artificial Intelligence & Machine Learning (AI & ML) https://ies.ipsacademy.org/honors-scheme-syllabus/ - Minor Certification in Computer Science & Engineering https://ies.ipsacademy.org/minor-scheme-syllabus/ AWS Course Completed: 150 Professional Certification Course (Udemy, IBM, Coursera etc.): 365	Verified Excellent Number of AWS Course Complete and Professional certification

ANNEXURE 1.3.2

1.3.3	Is the program have the components of field projects / research projects / internships	Project Offered in : Semester - VI : (PROJ-CS601) Project-I Semester – VII : (PROJ-CS701) Project-II Semester – VIII : (PROJ-CS801) Project-III Internship Offered in : Semester - VI : (PROJ-CS602) Evaluation of Internship-I Semester - VII : (PROJ-CS702) Evaluation of Internship-II ANNEXURE 1.3.3	Verified Project and internship included in the curriculum
1.3.4	Faculty course files containing handouts assignments tutorial sheet, question bank, list of resources/reference materials etc.	1.Vision Mission of the Department 2. PEOs (Program Education Objectives) 3. POs (Program Outcomes) / PSOs (Program Specific Outcomes) 4. COs + CO-PO mapping + CO-PSO mapping. 5. Individual Time Table 6. Syllabus 7. Lecture Plan + Content beyond syllabus (if any) 8.Attendance 9.Tutorial Sheet 10. Home Assignments + Quiz given to Students + Marked Home Assignments copies (2 best, 2 average) 11. MST - I & II Question Papers along with solutions + MST Copies (2 best, 2 average) + MST marks 12. End Semester Question Paper (last 3 Year) 13. Internal Evaluation Sheet 14. End Semester Examination Result 15. Assessment of COs/POs/ PSOs + Course end survey 16. Course Material	Verified Faculty Course files are well maintained
1.3.5	Lab manuals/handouts/ SOP	1.List of Experiments 2. Valued Lab Reports (Journal) (2 best, 2 average) 3. Practical Grade Sheet	Verified
1.3.6	Syllabus revision frequency: UG PG	BoS Meeting conducted in every semester to review the syllabus.	Verified from the BoS Minutes of Meeting
1.4.1	Structured feedback for curriculum and its transaction is regularly obtained	We collect the feedback from the stakeholders regarding curriculum to improve the teaching- learning process, and to enhance the satisfaction and outcomes of the learners. ANNEXURE 1.4.1	Check feedbacks, collect form all stack holder

	from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc		
2	Teaching-Learning and Evaluation		
2.1.1	Enrolment percentage Number of seats filled (Only first year admissions to be considered) Number of sanctioned seats	Sanctioned Seats : 180 Number Of Admission : 234 Enrolment Percentage : 100% ANNEXURE 2.1.1	100%, Excellent Enrolment Percentage
2.1.2	Number of actual students admitted from the reserved categories (SC, ST, OBC etc.) in the first year Number of seats earmarked for reserved category as per GoI/State Govt. rule	Number of actual students admitted from the reserved categories SC : 21 ST: 7 OBC: 72 EWS: 22 Number of seats earmarked for reserved category as per GoI/State Govt. rule SC : 36 ST : 45 OBC : 32 EWS : 22	Verified from the DTE list
2.2.1	Learning levels of the students and organizes special Programs to cater to differential learning needs of the student	We have categorized students into slow and advanced learners. ANNEXURE 2.2.1	Seen different activities for slow and advanced learners from the files
2.2.2	Student - Full time teacher ratio	STR: 18.53 ANNEXURE 2.2.2	Good Student - Full time teacher ratio



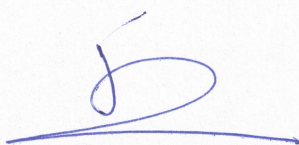
2.3.1	Student centric methods used for enhancing learning experience ICT- enabled tools including online resources for effective teaching and learning process	PowerPoint Presentation, NPTEL Lectures, Spoken Tutorial Project based Learning, MOOC, Swayam, Online Lectures etc. https://www.youtube.com/watch?v=jMODNqy80ZA&list=PLXy72hIIdE2tW-tzvaFTOeJrV9mNcKRFG ANNEXURE 2.3.1	Excellent, enhancing learning experience & ICT tools Used
2.3.2	Mentor-Mentee Schemes to address academics and student-psychological issues	Mentoring mentee program at the IPS Academy, Institute of Engineering and Science is a structured programme in which each faculty is assigned with the task of mentoring about 25-30 students. Mentors meet the group of students at least once in a month. They have to continuously monitor, counsel, guide, and motivate the students in all academic matters etc. ANNEXURE 2.3.2	Mentor Mentee Schemes are exist
2.3.3	Preparation and adherence of Academic Calendar and Teaching plans	The institution prepares the academic calendar every year in advance. The coverage of the academic calendar covers the list of examination dates, events, workshops and industrial visits, holidays, vacation dates, festivals, etc. The concerned faculties prepare a teaching plan for their respective subjects to adhere to the calendar. All MST, Exams etc. conducted as per Academic Calendar. ANNEXURE 2.3.3	Institute and Department Academic calendar are exist all the activities are executed as per the academic calendar
2.4.1	Number of full time teachers appointed against the sanctioned posts	No. of Full Time Faculty: 32 ANNEXURE 2.4.1	Verified
2.4.2	Full time teachers with Ph.D.	1) Dr. Neeraj Shrivastava 2) Dr. Nitin Jain 3) Dr. Dharmendra Yadav 4) Dr. Vaishali Gupta 5) Dr. Prateek Nahar 6) Dr. Barkha Sahu 7) Dr. Indra Kumar Shah ANNEXURE 2.4.1	Satisfactory, Need to Improve number of Ph.D faculties



2.4.3	Total teaching experience of full-time teachers (in number of years)	No. of Full Time Faculty: 32 Total Exp.: 301 Years Avg Exp.: 9.4 Years (in the same Institute) ANNEXURE 2.4.3	Good
2.4.4	Number of full time teachers who have been working in the organization continuously during the entire assessment period	No. of Full Time Faculty continuously during the entire assessment period : 32 ANNEXURE 2.4.4	Excellent
2.4.5	Number of PhDs pursuing faculty	Number of Ph.Ds Pursuing Faculty: 08 ANNEXURE 2.4.5	Less Needs to Improvement
2.4.6	Faculty Cadre	Year: 2023-24 Professor: 02 Associate Professor: 04 Assistant Professor: 26 ANNEXURE 2.4.4	Good Faculty Cadre
2.4.7	Faculty Retention with respect to CAYm2	% of Faculty Retained (CAY m1)2022-23: 88.88 % % of Faculty Retained: (CAY)2023-24: 88.88 % Average % Faculty Retained: 88.88 %	Good Faculty Retention
2.4.8	Full time adjunct faculty in the department	N/A	-
2.4.9	Part time adjunct faculty in the department	01 Mr. Kaustubh Choudhary: Ypsilon IT Solutions, Indore	Satisfactory
2.4.10	Faculty/Industry People Invited in co-teaching	01 Names & Organization are: Mr. Kaustubh Choudhary: Ypsilon IT Solutions, Indore	Needs Improvement

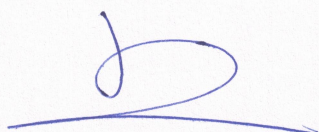


2.4. 11	JRF/SRF/TA/RA in the department	NIL	-
2.5. 1	Number of days from the date of last semester-end/ year- end examination till the last date of declaration of results	Average Days for Result Declaration: 23 ANNEXURE 2.5.1	Good Average Days for Result Declaration
2.5. 2	Number of Student complaints/grievan ces about evaluation	NIL	-
2.5. 3	IT integration and reforms in the examination procedures and processes Improvement in Examination Management System (EMS) of the institution	As the institute got the Autonomy a new module is needed for the smooth conduction of end semester examination that can perform all the basic tasks from student exam, form fee, submission to result declaration along with marksheet printing. Hence, the institution examination module has developed and is running successfully. Institute Examination module a. Exam Time Table b. Student exam form forwarding and online exam form fee submission c. Student Admit Card d. RABA for Student records e. Filing marks & calculating results f. Generating TR (Tabular Results) g. Declaration of Result h. Generating Physical Marksheets i. Generating PD (Provisional Degrees) & Migrations j. Reprinting k. ATKT l. Transcript m. Remuneration n. Summer Term	Excellent examination procedures and processes

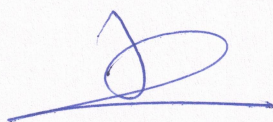


2.5. 4	Exam Evaluation Scheme: Theory Practical Audit of question papers through experts External examiners participation in practical evaluation Open Book Exams Comprehensive viva voice exam	1. Theory - Evaluate using ESE and CIE (70:30 / 60:40) 2. Practical Evaluation by ESE and CIE (60:40). One external member is appointed as an examiner 3. Audit of question papers done through Moderators. https://ies.ipsacademy.org/academic-rules-regulations/	Verified from the Institute Academic Rules and Regulation (ARR)
2.6. 1	CO-PO Assessment	Final CO attainment = 0.7 ESE + 0.3 COI where, ESE is CO Attainment through End Semester Examination COI is CO Attainment through internal assessments The assessment results obtained above may or may not be rounded off to the nearest integer. Note : (The above procedure is to be repeated for all COs in the respective subjects.) PO attainment: Direct attainment (POD) is obtained as the average of entries (without rounding off to the nearest integer) in the columns corresponding to each PO in the program articulation matrix. Indirect attainment (POI) is determined based on the Student Exit Surveys, Alumni Surveys, Employer Surveys, Co-curricular and extracurricular activities on a scale of 1-3. Final PO attainment = 0.8xPOD+0.2xPOI ANNEXURE 2.6.1	Verified form Document, Excellent software for CO-PO Assessment
2.6. 2	Pass percentage of students (excluding backlog students)	206/209 (98.56%)	Excellent

2.6.3	DUPC-DPPC: UG, PG	The institute is affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV), Madhya Pradesh, Bhopal. The institute became autonomous from the session 2020-2021 approved by UGC. The curriculum is updated by the institute itself in BoS twice a year. Course outcomes are designed and finalized by the DUPC committee.	DUPC exist
2.6.4	Quality of Students projects and relevance to specialization UG & PG	Student projects are selected based on the ideas of the students, relevance of the subject and the ability of the batches. Faculty assist students in formulating their ideas design of components and development. An annual event Competition- UDAAN under CSI is conducted every year in which students demonstrate their Major and Minor projects and the experts from industries evaluate student projects on following criteria: usability, functionality, GUI, presentation. Both major and minor project winners are given cash prizes and certificates. Students are also motivated to choose Smart India Hackathon Problems as a part of their major projects. ANNEXURE 2.6.4	Good, Project competition UDAAN is appreciable
2.7.1	Online student satisfaction survey regarding the teaching learning process.	An online feedback is taken from students and is analyzed by obtaining weighted averages for each of the attributes/parameters. Overall weighted average is also obtained. If the weighted average of one or more parameters is less than 3, it is presumed that the institute is required to take corrective action. The nature of corrective action to be taken depends upon the parameter/ attributes. The calculation of weighted averages is illustrated in the attached file. ANNEXURE 2.7.1	Verified
3	Research, Innovations and Extension		
3.1.1	Research facilities are frequently updated Policy for promotion of research which is uploaded on the institutional website and implemented	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	Satisfactory

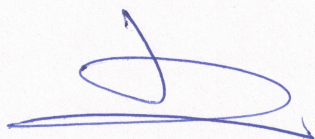


3.1. 2	Amount of seed money provided by institution to its teachers for research	Seed Money Grant (2023-24) = Rs. 15,50,000	Need to Improve
3.1. 3	Number of teachers receiving national/international fellowship/financial support by various agencies for advanced studies/ research	NIL	Initiative should be taken
3.2. 1	Research funding received by the institution and its faculties through Government and non-government sources	NIL	Initiative should be taken
3.2. 2	Number of research projects per teacher	NIL	Initiative should be taken
3.2. 3	Number of teachers recognized as research guides	NIL	Initiative should be taken
3.2. 4	Faculty applied for research funding	NIL	Initiative should be taken
3.3. 1	Awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same (IPR like Patent etc.)	Innovation, Incubation and Startup Policy are existing	Patents should be applied

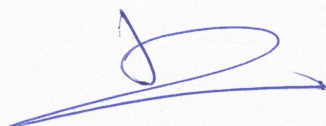


3.4.1	Code of Ethics for research and the implementation	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	Satisfactory
3.4.2	Number of candidates registered for Ph. D per teacher	NIL	Initiative should be taken
3.4.3	Number of research papers published in the Journals as notified on UGC CARE list	4	Need to improve
3.4.4	Number of books and chapters in edited volumes published	Book Published : 2	Need to improve
3.4.5	Average Citation index in Scopus/ Web of Science	33.59	Need to improve
3.4.6	Scopus/ Web of Science – h-index	1.53	Need to improve
3.4.7	Faculty publication in reputed conferences	1	Need to improve
3.4.8	Faculty publication ratio (UGC CARE list Journals)	0.125	Need to improve
3.5.1	Revenue generated from consultancy and corporate training	NIL	Need to improve

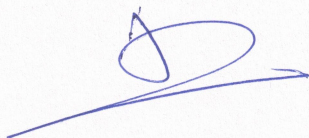
3.6.1	Extension activities in sensitizing students to social issues and holistic development	Various activities have been conducted: 1. Session on Constitution of India 2. Voter Awareness Camp 3. Eye Check Up Camp 4. Blood donation camp 5. World Environmental Day etc. ANNEXURE 3.6.1	Good Extension activities for social issues and holistic development
3.6.2	Number of extension and outreach programs conducted through organized forums including NSS/NCC with involvement of community	1. Different activities organized by NSS/NCC 2. Rural Outreach Program ANNEXURE 3.6.2	NSS/NCC are exist Good Number of Activities are organized under NSS/NCC
3.7.1	Faculty industry connect: Number of functional MoUs Number of industries visited by faculty	Two MoU has been Functional 1. Rubix Technology, Bangalore, 2. Inspark Technologies, Indore	Initiative should be taken for industrial visit by faculty
3.7.2	Industry participation in funded projects : Co-teaching details for each course:	NIL	Initiative should be taken
3.7.3	Faculty travelled abroad/in country for collaboration	NIL	Initiative should be taken



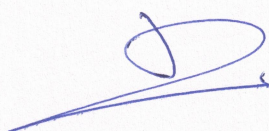
4	Infrastructure and Learning Resources		
4.1.1	No. of classrooms Laboratories Computing equipment ICT – enabled facilities such as smart class, LMS etc. Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.	No. of classrooms:12 (ICT Enabled) No. of Laboratories: 10 Computing Equipment: 727 PC	Verified, ICT enabled classroom are exist and LAB with good configuration system
4.1.2	Expenditure excluding salary, for infrastructure development and augmentation	We have 10 Laboratories with excellent configuration of computer and other equipment	Verified
4.1.3	Equipments and facilities available and their status: Log book status Software Modeling and computational tools and facilities Incubation Labs	➤ Log book maintained in each labs ➤ Number of Software : 22	Check and verified log book, Software
4.1.4	Industry sponsored labs	NIL	Initiative should be taken



4.1. 5	New lab/equipments added New software added MODROBS Sanctioned Testing Lab	Equipments Purchased	Verified from the budget file																														
4.1. 6	Virtual Lab Development	NIL	-																														
4.2. 1	Library facilities The library is optimally used by the faculty and students	The library has wide range of Engineering, Technology and Science resources. It includes- <table><tr><th>s.n</th><th>Item</th><th>Number</th></tr><tr><td>1</td><td>Number of Books</td><td>41243</td></tr><tr><td>2</td><td>Number of e-Books</td><td>70130</td></tr><tr><td>3</td><td>Number of Print Journals (Indian/International/ Periodical)</td><td>04</td></tr><tr><td>4</td><td>Local News Papers in English and Hindi</td><td>12</td></tr><tr><td>5</td><td>Magazines</td><td>09</td></tr><tr><td>6</td><td>CD/DVDs</td><td>2673</td></tr><tr><td>7</td><td>NPTEL courses</td><td>1068</td></tr><tr><td>8</td><td>Ethical Books</td><td>603</td></tr><tr><td>9</td><td>e-journals</td><td>59193</td></tr></table>	s.n	Item	Number	1	Number of Books	41243	2	Number of e-Books	70130	3	Number of Print Journals (Indian/International/ Periodical)	04	4	Local News Papers in English and Hindi	12	5	Magazines	09	6	CD/DVDs	2673	7	NPTEL courses	1068	8	Ethical Books	603	9	e-journals	59193	Verified
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4.2. 2	Expenditure for purchase of books/ e-books and subscription to journals/e-journals	Total Expenditure: 2942647/- (Document Enclosed)	Verified																														



4.3.1	IT facilities and sufficient bandwidth for internet connection	1 Gbps	Verified Good Internet Speed
4.3.2	Student - Computer ratio	1:1	Excellent Student Computer ratio
4.3.3	Audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development	A-View Setup and Lecture capturing system (LCS) are available in Department and Institute respectively. https://www.youtube.com/watch?v=jMODNqy80ZA&list=PLXy72hIIdE2tW-tzvaFTOeJrV9mNcKRFG ANNEXURE 4.3.3	Verified A-View setup, Lecture capturing system
4.4.1	Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component	Time to time expenditure increases ANNEXURE 4.4.1	Verified
4.4.2	Procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc .	10 well equipped laboratory - Classrooms are equipped with the required teaching aids to supplement the teaching-learning process ANNEXURE 4.4.2	Maintenance Procedure are well documented

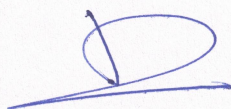


5	Student Support and Progression		
5.1.1	Number of students benefited by scholarships and freeships provided by the institution government and non-government bodies, industries, individuals, philanthropists	Total 328 students benefited from various scholarships. ANNEXURE 5.1.1	Verified as per the document
5.1.2	Efforts taken to provide career counseling including e-counseling and for competitive examinations	Career Counseling assists students in acquiring appropriate career guidance and placements at the right time. Team of career Management Group (CMG), Mentor-Mantee system helps student for career counseling. Details are enclosed	Excellent Career counseling cell
5.1.3	Capacity development and skills enhancement activities are organized for improving students' capability	Various Capacity development and skills enhancement activities are organized for students. Details are enclosed. ANNEXURE 5.1.3	Need to Improve
5.1.4	Redressal of student grievances including sexual harassment and ragging cases	The Institute has a Grievance Redressal mechanism to redress the grievance of student, academic and non-academic staff members. Students include all UG, PG, and Research scholars. No cases found in 2023-24. https://ies.ipsacademy.org/wp-content/uploads/2024/04/Grievance_Redressal_Mechanism-DARC-2023-24.pdf	Good Redressal cells are managed and implemented

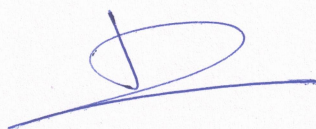


5.1. 5	Student Performance: Passing out in first attempt % Student scoring first class (>6.5 CGPA) No. of UG Students Graduating/ed in 4 years No. of UG Students Graduating/ed in more than 4 years No. of PG Students Graduating/ed in 2 years No. of PG Students Graduating/ed in more than 2 years	Total Students : 209 Student scoring first class (>6.5 CGPA) : 204 No. of UG Students Graduating/ed in 4 years : 206	Good Student Performance Verified from documents
5.1. 6	Result Analysis (UG & PG Pass Out Performance) Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9 Rest all UG,PG	Total Students : 209 Students with CGPA 10 : 00 Students with CGPA 9 to <10 : 05 Students with CGPA 8 to <9 : 31	Good Verified from documents
5.1. 7	UG/PG (Co/extra-curricular activities)	Details of activity are enclosed ANNEXURE 5.1.7	Satisfactory

5.1.8	Student industrial internships	Details of activity are enclosed ANNEXURE 5.1.8	Excellent
5.1.9	Student publications	NIL	Initiative should be taken
5.1.10	Student Startups	NIL	Initiative should be taken
5.1.11	Innovative Product/Prototype Developed by Students : Prototype Developed Product Developed Product+Prototype Developed	Campus Active Software: Campus Active software has designed by Institute of Engineering & Science, IPS Academy Indore. Campus Active provides web applications development rooted in creativity and founded in technical expertise. Details of modules are attached.	Excellent inhouse software development cell
5.2.1	Number of students placed and package received (Min. and Max.) Number of students progressing to higher education	Max: 9 LPA Min:2.7 LPA Avg: 4.25 LPA Higher Studies:9 ANNEXURE 5.2.1	Verified Need to Improve
5.2.2	Number of students qualifying in state/ national/ international level examinations (eg: GATE/NET/SLET/ Civil Services/State government examinations etc.)	Total number of students qualified in national/international examinations:06 GATE: 06 ANNEXURE 5.2.2	Verified

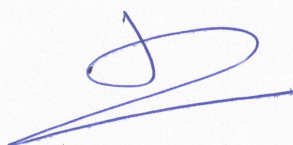


5.3.1	Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events	Details are attached for sports / cultural ANNEXURE 5.3.1	Good Number of activities in various categories
5.3.2	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the department/institution	We have formed a student council in which 5 students from second year to final year (total 15 students) have been selected.	Verified
5.3.3	Organizes following activities: Sports competitions/evens Cultural competitions/evens Technical fest/Academic fest Any other events through Active clubs and forums	Organizes different Sports competitions, Culture events and Project competition "Udaan" ANNEXURE 5.3.3	Good Number of activities in various Cells, Project Competition is appreciable
5.4.1	Alumni contribution to the institution through registered Alumni association	We have registered Alumni Association number 03/27/01/23952/21 dated 29/12/2021. Alumni meet organized once in a year.	Verified, Alumni cell are exist
5.4.2	Alumni contributes and engages significantly to the development of institution through academic and other support system	We conduct the Board of Studies(Bos) Meeting twice in a year in which Mr. Mustaffa Murabbi,2003 alumnus,CEO Canopus system, Indore & Mr. Parth Jha, E-bay system, 2012 alumnus, are active members of BOS.	Verified

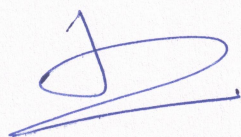


5.4.3	Professional Societies/Chapter and organizing events	The IPS Academy, Institute of Engineering and Science, Indore CSI Student Chapter was formed in Year 2011 in the spirit of providing students resources and contacts needed for the enhancement of their professional development. Details of events organized under CSI student chapter for session 2023-24 in annexure. ANNEXURE 5.4.3	Verified CSI institutional membership and activities
5.4.4	Publication of technical magazines, newsletters etc.	Every year we publish the technical magazine "Boot". Editors are: Faculty: Ms. Neha Yadav Ms. Pooja Choudhary Student: Amey Jog (0808CS211021) III Year Anmol Kushwah (0808CS211027) III Year Rohan Verma (0808CS221157) II Year Savan Lovanshi (0808CS221187) II Year Chhavi Sharma (0808CS221055) II Year Somya Kinker (0808CS221199) II Year	Verified technical magazine
6	Governance, Leadership and Faculty Empowerment Strategies		
6.1.1	Governance and leadership are in accordance with the vision and mission and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance	The Governance of the IPS Academy, Institute of Engineering and Science is a reflection of successful leadership in tune with the vision and mission of the institution as it includes all the stakeholders. ANNEXURE 6.1.1	Verified Various Cells are exists

6.2. 1	Committees in place and members: Advisory board, BoS Purchase, Grievance etc.	BoS meetings are conducted twice in a year, Purchase and Grievance exist. ANNEXURE 6.2.1	Verified
6.3. 1	Performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression	Follows well-defined appraisal system for teaching and non-teaching staff 360 degree score of faculty shall be determined on the basis of following factors: Annexure I 1.Teaching Process 2.Student's feedback 3.Departmental activities 4.Institute activity 5.Contribution to the society Annexure II – Research and Academic Contribution Annexure III – Self Assessment of Participation in Research & Academic Contribution Annexure IV – Annual Confidential Report	Verified Performance appraisal system are exists
6.3. 2	Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies	Number of teachers provided with financial support = 03	Verified, Need to Improve
6.3. 3	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. attended	Different Type of Program attended by faculty Member ANNEXURE 6.3.3	Verified record of FDP, STTP, etc. Attended by the faculties



6.3.4	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. Conducted	Number of Event Conducted = 04 (One Expert Lecture, One Refresher Course, One FDP, One webinar)	Verified records
7	Values and Best Practices		
7.1.1	Gender equity & sensitization in curricular and co-curricular activities	Safety, security and well-being, along with gender equity and friendly working atmosphere are the issues of prime concern to IES. Gender sensitivity is an inherent value in the cultural ethos of the institute and its neighboring community, as is evident by the following facilities: a) Safety and Security b) Counseling c) Other Measures	Taken care of gender equity through various cells
7.2.1	Department Best Practices	1. In-house Software Development(Campus active) 2. Spoken Tutorial Resource Center with 4 star rating(Bombay) 3. NPTEL E-Library 4. UDAAN Project Competition 5. AICTE 360 Degree Feedback 6. CSI Student Chapter 7. AWS Academy 8. Student Club	Good efforts are taken to implement best practices
8	Supporting staff contributions		
8.1.1	Qualification and participation in academics	Number of Supporting staff = 10 Supporting staff of the department are associated with different labs and office related activities.	Verified
8.1.2	Filling and data record keeping	Data record keeping in online and offline	Verified



8.1.3	House keeping	Exists housekeeping	Verified
8.1.4	Lab maintenance /office maintenance	Lab maintenance system services and software updation time to time	Verified record of Lab maintenance
8.1.5	Staff sent for training/workshops /skill up gradation/qualification improvement	Yes, number of workshop attended = 02	Verified Staff skill up gradation system exists
9	Other Important Aspects		
9.1.1	Feedback taken from various stakeholders (Passing out students, Alumni, Industry, Parent etc.)	We collect various feedbacks from the stakeholders	Verified Feedback System exists
9.1.2	Entrepreneurship Cell	https://ies.ipsacademy.org/institutions-innovation-council/	Verified
9.1.3	Department Webpage	Institute Website is Developed and Maintained by Student and Faculties https://ies.ipsacademy.org/departments/computer-science-engg/	Verified Website is well maintained and a departmental web page exists and appreciable efforts done by faculties and students.



9.1. 4	Self-Learning	1. Spoken Tutorial Resource Center with 4 star rating(Bombay) 2. NPTEL E-Library 3. MOOC Courses	Verified
10	Reviewer's final comments on dept. strengths and scope for improvement	① The documents are maintained with relevant proofs for all the points. ② The action taken and activities are not ^{lead to} good performance of the Dept and course ③ Research activities need to be improved ④ News letter may be published by the dept.	

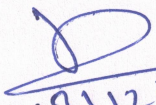
⑤ Alumni association play active role in the development of the department

Strengths:

1. Excellent Admission.
2. AWS Academy, Spoken Tutorial
3. Good Faculty Retention.
4. Excellent Inhouse Software Development cell.
5. Good Infrastructure and Facilities for student's overall grooming.

Weakness:

1. Less number of Ph.D & Ph.D Pursuing faculties in Department.
2. Need to invite more industry people for co-teaching.
3. More research publications should be in Scopus/SCI Journals.
4. Need to improve in consultancy, research project.
5. More functional MoUs
6. Separate training cell should in the Department


13/12/24
Dr. Sunita Sharma
Professor
SBISITS, Gondare

ACADEMIC AUDIT
Academic Year 2023-24

Name of the Department: Mechanical Engineering

Date of Audit: 03/01/2025

	Criteria	Comments	Reviewers Observations and comments
A	Department Information		
A1	Year of Establishment	Department started in 2013	Satisfactory
A2	NBA Accreditation Status	Department NBA Accredited from 2019-2022	Satisfactory
A3	Dept. vision, mission, graduate attributes/goals clearly defined and its agreement with institute vision, mission and goals	Vision: "Be a Nationally recognized mechanical engineering department excellent in education, training, research and innovation that attracts, rewards, and retains outstanding faculty, students, and staff to build a Just and Peaceful Society" Mission : M1. Imparting quality education to the students and maintaining vital, state-of-art research facilities for faculty, staff and students. M2. Create, interpret, apply and disseminate knowledge for learning to be an entrepreneur and to compete successfully in today's competitive market. M3. To inculcate Ethical, Social values and Environment awareness.	Satisfactory
A4	No. of UG intake and admission	UG intake -30 UG Admission-26	Satisfactory
A5	No. of PG programs in the department and admission	01(M. Tech –Robotics) Admission-01	Satisfactory
1	Curricular Aspects		
1.1.1	Curricular developed and implemented have relevance to local/national regional and global developmental needs	Curricular developed and implemented as per national and global need Attached - File No-1	Satisfactory (National /Global Justification)
1.1.2	Syllabus Content % (UG & PG): Employability/ entrepreneurship/ skill development PCC (Program Core	Syllabus Content fulfill need of NEP 2020 Attached - File No-1	Satisfactory



	Courses) Basis Sciences Honors and Minors courses Humanities Project Tutorials Department Elective Course Field projects / research projects / internships		
1.1.3	Syllabus in line with AICTE model curriculum	Syllabus in line with AICTE model curriculum & according to National Education Policy – 2020	Syllabus in lined with AICTE model curriculum
1.2.1	New courses introduced out of the total number of courses	New scheme & Syllabus w.e.f. 2023-2024	Satisfactory
1.3.1	Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum	New course on Professional Ethics, Gender, Human Values, Environment and Sustainability introduced	Satisfactory
1.3.2	Number of certificate/value added courses/Diploma Programs offered Online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms	---	Add some NPTEL etc courses.
1.3.3	Is the program have the components of field projects / research projects / internships	Curriculum having 9 percent weightage program have the components of field projects / research projects / internships Attached - File No-1	Satisfactory
1.3.4	Faculty course files containing handouts	Faculty maintained course file Attached course file	Satisfactory



	assignments tutorial sheet, question bank, list of resources/reference materials etc.		
1.3.5	Lab manuals/handouts/SOP	Lab manual maintain and having handouts and available on website	Satisfactory Student handout include in lab manual
1.3.6	Syllabus revision frequency: UG PG	BoS Meeting held twice in academic year for syllabus revision and updating Attached - File No-1	Satisfactory MOM Signed on each page
1.4.1	Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc	Structured feedback for curriculum is maintained Attached - File No-2	Seen, Suggested that Taken by google form online
2	Teaching-Learning and Evaluation		
2.1.1	Enrolment percentage Number of seats filled (Only first year admissions to be considered) Number of sanctioned seats	86.67% 26 30	Noted
2.1.2	Number of actual students admitted from the reserved categories (SC, ST, OBC etc.) in the first year Number of seats earmarked for reserved category as per GoI/State Govt. rule	11(OBC) 01(SC) 01(ST) Attached - File No.-1 Yes, As per Govt. rule	Noted
2.2.1	Learning levels of the students and organizes special Programs to cater to differential learning	Mentor identified learning levels of students Attached - File No	Seen & Found ok

	needs of the student		
2.2.2	Student - Full time teacher ratio	10.4 UG -120 PG -36 Total Faculty- 15(Excluding First year)	Seen & Found ok (can be calculated in Fractional percentage)
2.3.1	Student centric methods used for enhancing learning experience ICT- enabled tools including online resources for effective teaching and learning process	Attached - File No.-1	Seen & Found ok
2.3.2	Mentor-Mentee Schemes to address academics and student-psychological issues	Mentor-Mentee File attached	Seen & Found ok
2.3.3	Preparation and adherence of Academic Calendar and Teaching plans	As per institute Academic calendar department calendar is framed & implemented Attached - File No.-1	Seen & Found ok
2.4.1	Number of full time teachers appointed against the sanctioned posts	21 Full time teachers appointed against the sanctioned posts Attached - File No.-1	Seen & Found ok
2.4.2	Full time teachers with Ph.D.	02 Attached - File No.-1	Noted
2.4.3	Total teaching experience of full-time teachers (in number of years)	14.4 (10.7) Attached - File No.-1	Seen & Found ok
2.4.4	Number of full time teachers who have been working in the organization continuously during the entire assessment period	19 Attached - File No.-1	Seen & Found ok
2.4.5	Number of PhDs pursuing faculty	17 Attached -File No.-1	Noted
2.4.6	Faculty Cadre	Professor -01 Associate Professor- 4 Assistant professor -16 Attached - File No.-1	Noted
2.4.7	Faculty Retention with respect to CAYm2	100 % Attached - File No.-1	Seen & Found ok
2.4.8	Full time adjunct faculty in the department	-	
2.4.9	Part time adjunct faculty in the department	-	

2.4.10	Faculty/Industry People Invited in co-teaching	-	Try to contact industry person
2.4.11	JRF/SRF/TA/RA in the department	03 One JRF appointed by SERB Attached - File No.-1	Seen & Found ok
2.5.1	Number of days from the date of last semester-end/year- end examination till the last date of declaration of results	As Perusal Answer sheet is done Perusal File attached	Seen & Found ok
2.5.2	Number of Student complaints/grievances about evaluation	Perusal Answer sheet is done Perusal File attached	Seen & Found ok
2.5.3	IT integration and reforms in the examination procedures and processes Improvement in Examination Management System (EMS) of the institution	All data maintained on Computer Management System	Seen & Found ok
2.5.4	Exam Evaluation Scheme: Theory Practical Audit of question papers through experts External examiners participation in practical evaluation Open Book Exams Comprehensive viva voice exam	 60 40 Yes Yes NO Yes	 Seen & Found ok
2.6.1	CO-PO Assessment	Assessment of CO-PO done on Computer Management System (CMS) Attached -File No.-1	Seen & Found ok
2.6.2	Pass percentage of students (excluding backlog students)	Final Year -95.65 % Third Year -100 % Second Year-93.75 % Attached - File No.-1	Seen & Found ok
2.6.3	DUPC-DPPC: UG, PG	DUPC and DPPC meetings are conducted every	Seen & Found



		year File attached	ok
2.6.4	Quality of Students projects and relevance to specialization UG & PG	➤ To maintain quality of Project work, Project are to be evaluated by Panel of faculties ➤ Students allotted project as per their interest ➤ UG students are encouraged to publish project work in recommended conferences/journals Project File Attached	Seen & Found ok
2.7.1	Online student satisfaction survey regarding the teaching learning process.	Online survey link available in website	Seen & Found ok
3	Research, Innovations and Extension		
3.1.1	Research facilities are frequently updated Policy for promotion of research which is uploaded on the institutional website and implemented	Policy for promotion of research which is uploaded on website Attached - File No.-1	Seen & Found ok
3.1.2	Amount of seed money provided by institution to its teachers for research	Seed money provided to Dr. J. Ponmozhi Attached - File No.-1	Seen & Found ok
3.1.3	Number of teachers receiving national/international fellowship/financial support by various agencies for advanced studies/ research	Attached - File No.-1	Seen & Found ok
3.2.1	Research funding received by the institution and its faculties through Government and non-government sources	01 Faculty received research funding Attached in File No.-1	Seen & Found ok
3.2.2	Number of research projects per teacher	Student Project allotted to Faculty Attached in File No-1	Seen & Found ok
3.2.3	Number of teachers recognized as research guides	University not granted Research Center to Institute	Seen & Found ok
3.2.4	Faculty applied for research funding	02 Two faculty granted SERB Funding for workshop	Seen & Found ok
3.3.1	Awareness about IPR, establishment of IPR cell, Incubation centre and		

	other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same (IPR like Patent etc.)	Institute having IIC and MSME cell	Seen & Found ok
3.4.1	Code of Ethics for research and the implementation	Research policy available on website	Seen & Found ok
3.4.2	Number of candidates registered for Ph. D per teacher	University not granted Research Center to Institute	Seen & Found ok
3.4.3	Number of research papers published in the Journals as notified on UGC CARE list	01 Attached -File No.-1	Seen & Found ok
3.4.4	Number of books and chapters in edited volumes published	-	
3.4.5	Average Citation index in Scopus/ Web of Science	24	Seen & Found ok
3.4.6	Scopus/ Web of Science – h-index	6	Seen & Found ok
3.4.7	Faculty publication in reputed conferences	07 Attached - File No.-1	Seen & Found ok
3.4.8	Faculty publication ratio (UGC CARE list Journals)	0.04 Attached -File No.	Seen & Found ok
3.5.1	Revenue generated from consultancy and corporate training	--	
3.6.1	Extension activities in sensitizing students to social issues and holistic development	Extension activities on social issues and holistic development organized Attached - File No.-1	Seen & Found ok
3.6.2	Number of extension and outreach programs conducted through organized forums including NSS/NCC with involvement of community	Outreach program conducted Attached - File No.	Seen & Found ok
3.7.1	Faculty industry connect: Number of functional MoUs Number of industries visited by faculty	Faculty connect through industry 02 05 Attached - File No.-1	Seen & Found ok



3.7.2	Industry participation in funded projects : Co-teaching details for each course:	Yes Industry person taking expert lecture	Seen & Found ok
3.7.3	Faculty travelled abroad/in country for collaboration	Department organized International Conference during Feb.-2024	Noted
4	Infrastructure and Learning Resources		
4.1.1	No. of classrooms Laboratories Computing equipment ICT – enabled facilities such as smart class, LMS etc. Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.	04 11 30 Yes Yes	Noted
4.1.2	Expenditure excluding salary, for infrastructure development and augmentation	Expenditure on maintenance and infrastructure development Maintenance File Attached	Seen & Found ok
4.1.3	Equipments and facilities available and their status: Log book status Software Modeling and computational tools and facilities Incubation Labs	Yes Ansys, Solidworks Open source modeling software available AICTE IDEA Lab	Seen & Found ok
4.1.4	Industry sponsored labs	No Industry sponsored lab Valvo Eicher, Pithampur provided Engine	Seen & Found ok
4.1.5	New lab/equipments added New software added MODROBS Sanctioned	Every year new equipment added Open source software(Python) -	Seen & Found ok

	Testing Lab	Attached - File	
4.1.6	Virtual Lab Development	Experiments performed on virtual lab	Seen & Found ok
4.2.1	Library facilities The library is optimally used by the faculty and students	Department having Well established Library	Seen & Found ok
4.2.2	Expenditure for purchase of books/ e-books and subscription to journals/e-journals	Department purchase books/ e-books and subscription to journals/e-journals Attached - File	Seen & Found ok
4.3.1	IT facilities and sufficient bandwidth for internet connection	1 GBPS Speed and Wi-Fi campus Attached -File	Noted
4.3.2	Student - Computer ratio	3:1(30 computer Lab with latest software Solid works, Pro-E and Ansys)	Seen & Found ok
4.3.3	Audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development	Institute having media center in which faculty record their lecture Attached -File N0-1	Seen & Found ok
4.4.1	Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component	Every year department provided budget for maintenance activities Budget File Attached	Seen & Found ok
4.4.2	Procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc	For maintenance of a clean campus environment, grade IV staffs are assigned to various jobs and duties Maintenance File Attached	Noted
5	Student Support and Progression		
5.1.1	Number of students benefited by scholarships and freeships provided by the institution government and non-government bodies, industries,	Scholarship as per Govt. Norms Attached- file	Noted



	individuals, philanthropists		
5.1.2	Efforts taken to provide career counseling including e-counseling and guidance for competitive examinations	Expert lecture from alumina and GATE qualified students Attached -File No-1	Seen & Found ok
5.1.3	Capacity development and skills enhancement activities are organized for improving students' capability	Attached - File No-1	Seen & Found ok
5.1.4	Redressal of student grievances including sexual harassment and ragging cases	Redressal of student grievances including sexual harassment and ragging cases	Seen & Found ok
5.1.5	Student Performance: Passing out in first attempt % Student scoring first class (>6.5 CGPA) No. of UG Students Graduating/ed in 4 years No. of UG Students Graduating/ed in more than 4 years No. of PG Students Graduating/ed in 2 years No. of PG Students Graduating/ed in more than 2 years	17 17 21 00 NIL 03 Attached - File	Seen & Found ok
5.1.6	Result Analysis (UG & PG Pass Out Performance) Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9	NIL 01 05	Seen & Found ok



	Rest all UG,PG	UG-15 PG-03	
		Attached -File	
5.1.7	UG/PG (Co/extra-curricular activities)	Students actively participated in activities Attached – File No-1	Seen & Found ok
5.1.8	Student industrial internships	Attached – File No-1	Seen & Found ok
5.1.9	Student publications	Students participated in annual paper presentation competition Attached - File	Seen & Found ok
5.1.10	Student Startups	Students developed prototype	Seen & Found ok
5.1.11	Innovative Product/Prototype Developed by Students : Prototype Developed Product Developed Product, Prototype Developed	- 03 - -	Seen & Found ok
5.2.1	Number of students placed and package received (Min. and Max.) Number of students progressing to higher education	10 6 LPA- 1.8 LPA 02 Attached -File No-1	Seen & Found ok
5.2.2	Number of students qualifying in state/national/ international level examinations (eg: GATE/NET/SLET/Civil Services/State government examinations etc.)	- Attached -File No-1	Seen & Found ok
5.3.1	Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events	- Attached -File No-1	Seen & Found ok
5.3.2	Presence of an active Student Council & representation of students on academic & administrative	Active Students participated Board of studies ,DUPC/DDPC, Anti Ragging Committee	Seen & Found ok

	bodies/committees of the department/institution	Attached - File No-1	
5.3.3	Organizes following activities: Sports competitions/events Cultural competitions/events Technical fest/Academic fest Any other events through Active clubs and forums	Sport Competition, Cultural events, tech Fest organized every year ISHRAE and SAE BAJA Society in department Attached File	Seen & Found ok
5.4.1	Alumni contribution to the institution through registered Alumni association	Registered Alumni association Attached - File	Seen & Found ok
5.4.2	Alumni contributes and engages significantly to the development of institution through academic and other support system	Active Alumina participation • Member in Board of studies • Member in Advisory Committee • Expert lecture	Seen & Found ok
5.4.3	Professional Societies/Chapter and organizing events	Department has following Professional Societies/Chapter • ISHRAE • SAE BAJA Society Organized event regularly File attached	Seen & Found ok
5.4.4	Publication of technical magazines, newsletters etc.	Department published E-Magazine annually https://ies.ipsacademy.org/wp-content/uploads/2021/02/Mechazine-22-23.pdf	Seen & Found ok
6	Governance, Leadership and Empowerment Faculty Strategies	--	
6.1.1	Governance and leadership are in accordance with the vision and mission and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance	Governance and leadership are in accordance with the vision and mission of department aligned with NEP 2020	Seen & Found ok
6.2.1	Committees in place and members: Advisory board,	Department having following committee • Board of Studies	Seen & Found ok

	BoS Purchase, Grievance etc.	• Advisory Committee • Purchase Committee	
6.3.1	Performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression	Performance appraisal system available on CMS (Computer Management System) 360° Feedback Form filled by Faculty & Staff Appraisal File Attached	Seen & Found ok
6.3.2	Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies	0 6 Faculty Member Attached -File No-1	Seen & Found ok
6.3.3	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. attended	32 Attached in File No-1	Seen & Found ok
6.3.4	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. Conducted	03 Attached - File No-1	Seen & Found ok
7	Values and Best Practices		
7.1.1	Gender equity & sensitization in curricular and co-curricular activities	New course on Professional Ethics, Gender, Human Values, Environment and Sustainability introduced In all activities equal opportunities for students.	Seen & Found ok
7.2.1	Department Best Practices	• Well-equipped laboratories • Frequent conduction of Value-Added Courses • In curriculum course of Python, IoT included • Regular industrial visits • Regular Expert lecture organized by external members like professors, Industry person ,Alumni etc.	Seen & Found ok
8	Supporting staff contributions		
8.1.1	Qualification and participation in academics	All supporting staff having ITI or Diploma holder and actively participated in academic activities Attached - File	Seen & Found ok



8.1.2	Filling and data record keeping	Records are maintain and updated	Seen & Found ok
8.1.3	House keeping	Dedicated team of Class 4 employees appointed for housekeeping	Seen & Found ok
8.1.4	Lab maintenance /office maintenance	Lab and office well maintain	Seen & Found ok
8.1.5	Staff sent for training/workshops/skill up gradation/qualification improvement	Staff send for computer training frequently	Seen & Found ok
9	Other Important Aspects		
9.1.1	Feedback taken from various stake holders (Passing out students, Alumni, Industry, Parent etc.)	Feedback from industry and alumni are collected through focused group meetings when they are at institute during expert Lecture Sessions, BoS-Academic Council and Department meetings Feedback File Attached	Seen & Found ok
9.1.2	Entrepreneurship Cell	Department representative of Institute innovation cell organized lecture on Entrepreneurship MSME incubation cell organized Hackathron every year Attached File	Seen & Found ok
9.1.3	Department Webpage	https://ies.ipsacademy.org/departments/mechanical-engg/	Seen & Found ok
9.1.4	Self-Learning	Students learn through participative learning	Seen & Found ok
10	Reviewer's final comments on dept. strengths and scope for improvement		

Strengths

- Good Student Faculty Ratio
- Admission status improved
- Well established lab in department

Weakness

- Less publication in department
- Industry participation less in department
- Less number of Ph.D. in deperment



Action Taken Report (ATR) based on previous audit

S. No.	Reviewer's comments	Remarks/ATR
1	Less No. of Ph.D. in the department	Mr. Satish Raghuwanshi submitted Thesis in 2023-2024
2	Less R&D activities	(i)Two faculty granted SERB Funding for workshop (ii)International Conference Organized
3	No Consultancies	At present no consultancy from Industry



Institute of Engineering & Science

Basant Agarwal
3/1/25
Dr. Basant Agarwal
Professor, SGSITS, Indore

CE

ACADEMIC AUDIT
Academic Year 2023-24
(01 June 2023 to 31 May 2024)

Name of the Department: Civil Engineering Department, IPS Academy Institute of Engineering & Science

Date of Audit: 15/01/2025, Wednesday

	Criteria	Comments	Reviewers Observations and comments
A	Department Information		
A1	Year of Establishment	2004	<i>Department established & running since 2004.</i>
A2	NBA Accreditation Status	UG Accredited by NBA New Delhi. <i>[Annexure A.A2]</i>	<i>Noted & verified. NBA Accreditation may be sought for PG programmes as well.</i>
A3	Dept. vision, mission, graduate attributes/goals clearly defined and its agreement with institute vision, mission and goals	Department Vision & Mission, graduate attributes/goals are well defined in adherence with the same of the Institute.	<i>Noted. Department vision needs to be revised to be in line with Institute vision</i>
A4	No. of UG intake and admission	B.Tech (Civil Engineering) Sanctioned intake – 60 Admission – 31 B.Tech (Working Professional)-30 Sanctioned intake – 30 Admission – 14 <i>[Annexure A.A5]</i>	<i>50%. Need for improvement in UG admissions.</i>
A5	No. of PG programs in the department and admission	02 PG Programs are offered in the department. - M.Tech (Structural Engineering) Sanctioned intake – 18 Admission – 12 - M.Tech (Construction Planning & Management) Sanctioned intake – 18 Admission – 16 <i>[Annexure A.A5]</i>	<i>Suggestions:- (1) May approach employers to encourage their employees to take admission in PG. (2) Strategy may be developed to offer for working professionals.</i>
1	Curricular Aspects		

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4.1.1	Curricular developed and implemented have relevance to local/national regional and global developmental needs	Yes				Noted & verified.
1.1.2	Syllabus Content % (UG& PG):	UG Actual Breakup of credits	PG (CPM) Actual Breakup of credits	PG (STR) Actual Breakup of credits	Noted. UG and PG syllabus is in-line with AICTE model curriculum. Honors course should have 18-20 credits. At present there are 15 credits only.	
	Category					
	Employability/ entrepreneurship/ skill development	17(11%)	39(55.71%)	42(60%)		
	PCC (Program Core Courses)	70(42.16%)	16(23%)	16(23%)		
	Basis Sciences	20(12.04%)	3(4.2%)	0		
	Honors and Minors courses	19	0	0		
	Humanities	10(6.02%)	0	0		
	Project	14(8.43%)	1(1.4%)	1(1.4%)		
	Tutorials	15(9.036%)	4(5.7%)	4(5.7%)		
	Department Elective Course	9(5.42%)	9(15%)	12(17.14%)		
	Field projects / research projects / internships	14(8.43%)	1(1.4%)	1(1.4%)		
	Liberal Learning Courses	3(1.80%)	1(1.4%)	1(1.4%)		
	Inter-disciplinary Foundation Courses	4(2.409%)	0	0		
	Skill Based Courses	11(6.626%)	26(37.14%)	26(37.14%)		
	Mandatory Learning Courses	4(2.409%)	4	4		
1.1.3	Syllabus in line with AICTE model curriculum	Yes, We follow the AICTE Model Curriculum and the guidelines provided. Referred with reputed university under the guidance of visionary BoS.				Syllabus is in line with AICTE.
1.2.1	New courses introduced out of the total number of courses	12 new courses are developed. [Annexure 1.2.1]				Percentage of new courses introduced =20%. Noted.
3.1	Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum	Cross-cutting issues	UG	PG (STR)	PG (CPM)	Introduce subjects related to Gender equity in PG curriculum as well.
		Professional Ethics	6	4	4	
		Gender	1	0	0	
		Human Values	6	4	4	
		Environment and Sustainability	1	0	1	
1.3.2	Number of certificate/value added courses/Diploma Programs offered and Online courses of MOOCs, SWAYAM/ e-PG Pathshala/	04 value added courses offered. Number of student enrolled- 71(STAAD Pro) 38 (AutoCAD)				Suggestion:- Assign to all UG & PG students to complete minimum one online course of NPTEL/ SWAYAM/ MOOCs etc.

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	NPTEL and other recognized platforms	28 (MATLAB) 16 (Primavera) [Annexure 1.3.2]	every year. Also make the relevant schedule available in the institute/department website for course registration when the courses are announced.																								
1.3.3	Is the program have the components of field projects / research projects / internships	YES. The curriculum has inclusion of field projects/research projects/ internships as per AICTE specifications. [Annexure 1.3.3]	Noted & verified.																								
1.3.4	Faculty course files containing handouts assignments tutorial sheet, question bank, list of resources/reference materials etc.	Course files are maintained by the faculty member who is teaching the course in each semester.	Noted & verified. COs should be designed as per BT levels.																								
1.3.5	Lab manuals/handouts/SOP	Lab Manuals are available in respective Labs.	Noted & verified.																								
1.3.6	Syllabus revision frequency: UG PG	BoS meeting is organized at least twice in a year. DUPC and DPPC are in place for recommendation regarding any change in syllabus.	Noted & verified.																								
1.4.1	Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc.	The department maintains curriculum feedback from all stakeholders in online/offline form. [Annexure 1.4.1]	Noted. Feedbacks from all the stakeholders are available.																								
2	Teaching-Learning and Evaluation																										
2.1.1	Enrolment percentage Number of seats filled (Only first year admissions to be considered) Number of sanctioned seats	<table><tr><th>Program me name</th><th>Progra mme Code</th><th>Number of seats sanctioned</th><th>Number of Students admitted</th></tr><tr><td>B.Tech</td><td>CE</td><td>60</td><td>31</td></tr><tr><td>B.Tech (W.P.)</td><td>CE</td><td>30</td><td>14</td></tr><tr><td>M.Tech</td><td>CPM</td><td>18</td><td>16</td></tr><tr><td>M.Tech</td><td>STR</td><td>18</td><td>12</td></tr><tr><td></td><td>Total</td><td>126</td><td>73</td></tr></table> [Annexure 2.1.1]	Program me name	Progra mme Code	Number of seats sanctioned	Number of Students admitted	B.Tech	CE	60	31	B.Tech (W.P.)	CE	30	14	M.Tech	CPM	18	16	M.Tech	STR	18	12		Total	126	73	58 % Enrolment % satisfies the minimum criteria as per guidelines. Improvement is however needed in number of admissions in UG (CE) and PG (STR).
Program me name	Progra mme Code	Number of seats sanctioned	Number of Students admitted																								
B.Tech	CE	60	31																								
B.Tech (W.P.)	CE	30	14																								
M.Tech	CPM	18	16																								
M.Tech	STR	18	12																								
	Total	126	73																								
2.1.2	Number of actual students admitted from the reserved categories (SC, ST, OBC etc.) in the first year	<table><tr><th>Year</th><th colspan="5">Number of students admitted from the reserved category</th></tr><tr><th></th><th>SC</th><th>ST</th><th>OBC</th><th>Gen</th><th>Others</th></tr><tr><td>2023-24 (UG)</td><td>1</td><td>6</td><td>13</td><td>11</td><td>-</td></tr><tr><td>2023-24 (UG in</td><td>-</td><td>-</td><td>1</td><td>13</td><td>-</td></tr></table>	Year	Number of students admitted from the reserved category						SC	ST	OBC	Gen	Others	2023-24 (UG)	1	6	13	11	-	2023-24 (UG in	-	-	1	13	-	53.62%. Satisfactory. Need for Improvement in number of admissions in all categories.
Year	Number of students admitted from the reserved category																										
	SC	ST	OBC	Gen	Others																						
2023-24 (UG)	1	6	13	11	-																						
2023-24 (UG in	-	-	1	13	-																						

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	Number of seats earmarked for reserved category as per GoI/State Govt. rule	WP)						
		2023-24 (PG,	2	1	8	5	-	
		2023-24 (PG,	1	1	4	6	-	
		[Annexure 2.1.2]						
2.2.1	Learning levels of the students and organizes special Programs to cater to differential learning needs of the student	Department focuses on imparting learning to students through participative, experiential and peer learning methods etc. Advance and Slow learners are identified and measures are taken to cater needs of both levels of students. Combined class-groups of advanced and slow learners are formed for developing participative learning among them. Department organizes following program for students like Software Training, Industrial Visit/Educational Tour, Summer/Winter Internship , NEEV – National Level Students’ Paper Presentation, SRUJAN – Technical Event and Competition, Sameeksha – Technical Quiz competition etc.						<i>Noted & verified.</i> <i>Remedial classes time table, remedial assignments, study materials etc. for weak students/slow learners found well in place.</i> <i>Honors and Minor courses are also available for students.</i>
2.2.2	Student - Full time teacher ratio	14.72 [Annexure 2.2.2]						<i>Noted</i>
2.3.1	Student centric methods used for enhancing learning experience ICT- enabled tools including online resources for effective teaching and learning process	Participative Learning Experiential Learning Peer Learning etc. (You Tube Video Lectures, etc.)						<i>CIVILIPSA YouTube channel is available and e-content is regularly updated.</i> <i>Smart board is available in one classroom</i> <i>Classrooms have projector facility.</i> <i>Centralised media centre for audio-visual facility.</i>
2.3.2	Mentor-Mentee Schemes to address academics and student-psychological issues	Mentor-Mentee scheme is available and practiced regularly. 10 mentees are assigned to one mentee every year.						<i>Noted & verified.</i> <i>Mentor-Mentee process is well in order.</i> <i>Wellness counsellor is available at institute</i>

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			level.
2.3.3	Preparation and adherence of Academic Calendar and Teaching plans	Department Activity Calendar and Teaching Plans are prepared in adherence with the Institute Academic Calendar.	<i>Noted & verified.</i>
2.4.1	Number of full time teachers appointed against the sanctioned posts	27 full time faculties against 27 posts 100% <i>[Annexure 2.4.1]</i>	<i>Noted & verified. (25 +02 First Year)</i>
2.4.2	Full time teachers with Ph.D.	07 % of Full time teachers with PhD = 28% <i>[Annexure 2.4.2]</i>	<i>Noted & verified.</i>
2.4.3	Total teaching experience of full-time teachers (in number of years)	27 full time faculties. Average experience = 14.2 years <i>[Annexure 2.4.3]</i>	<i>Good. (Between 12 to 15 years) Noted & verified.</i>
2.4.4	Number of full time teachers who have been working in the organization continuously during the entire assessment period	27 full time faculties. Average experience = 13.7 years (in institute only) <i>[Annexure 2.4.4]</i>	<i>Good. (Between 12 to 15 years) Noted & verified.</i>
2.4.5	Number of PhD pursuing faculty	14 faculties are pursuing PhD at present. <i>[Annexure 2.4.5]</i>	<i>Promising number. Faculties should be encouraged to complete PhD in stipulated time.</i>
2.4.6	Faculty Cadre	Professor – 4 Associate Professor – 1 Assistant Professor - 20	<i>Noted.</i>
2.4.7	Faculty Retention with respect to CAYm2	100% <i>[Annexure 2.4.7]</i>	<i>Exceptionally well.</i>
2.4.8	Full time adjunct faculty in the department	Nil	<i>Noted.</i>
2.4.9	Part time adjunct faculty in the department	01	<i>Noted. Dr. O.P. Bhatia Professor (Retd.), SGSITS</i>
2.4.10	Faculty/Industry People Invited in co-teaching	29 Expert lectures <i>[Annexure 2.4.10]</i>	<i>Noted.</i>
2.4.11	JRF/SRF/TA/RA in the department	RA – 03	<i>Noted. Comment:- RA can only be appointed under a funded research project. But there is no ongoing</i>

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			<i>funded research project in the concerned department.</i>
2.5.1	Number of days from the date of last semester-end/ year- end examination till the last date of declaration of results	19 days	<i>Excellent. (<20 days)</i>
2.5.2	Number of Student complaints/grievances about evaluation	No grievances so far. (Grievance Redressal Mechanism is available)	<i>Very good</i>
2.5.3	IT integration and reforms in the examination procedures and processes Improvement in Examination Management System (EMS) of the institution	ARR for Examination attached.	<i>Noted.</i>
2.5.4	Exam Evaluation Scheme: • Theory • Practical • Audit of question papers through experts • External examiners participation in practical evaluation • Open Book Exams • Comprehensive viva voice exam	Theory evaluation Scheme comprises of HA (15) + MST (25) + ESE (60) = 100 Practical evaluation Scheme comprises of Internal (40) + ESE (60) = 100 Moderation of Question Paper is done. External Examiners are called for Practical Evaluation. Open Book Exam – YES. CVV - No	<i>Noted.</i> <i>Open Book examination is found approved from the BoS.</i>
2.5.1	CO-PO Assessment	Direct /Indirect Assessment Process of CO-PO Assesment classified in to Direct Assesment and Indirect Assesment. Direct Assesment Class/assignment test, internal assessment tests, assignments, semester examinations, seminars, laboratory assignments/practical, minor projects etc. Indirect Assesment Course Exit Survey	<i>Noted.</i> <i>Very good.</i>
2.6.2	Pass percentage of students (excluding backlog students)	B.Tech – 91% M. Tech (STR) – 83 % M.Tech (CPM) – 93 %	<i>Noted.</i> <i>Very good.</i>

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		<i>[Annexure 2.6.2]</i>	
2.6.3	DUPC-DPPC: UG, PG	DUPC for UG programme and DPPC for PG programmes are constituted and functional at department level.	<i>Noted. Appreciable that the students are also an integral party for curriculum development.</i>
2.6.4	Quality of Students projects and relevance to specialization UG & PG	B.Tech – 15 projects (of 15 groups) M.Tech (STR)- 08 projects M.Tech (CPM)- 10 projects Quality of UG & PG students is assessed regularly (once every month) in terms of aim of work, content, presentation skills, defence viva, resource management etc. criteria.	<i>Noted. PG students should be encouraged to publish research paper in UGC-CARE/ SCI journals.</i>
2.7.1	Online student satisfaction survey regarding the teaching learning process.	Collected at Institute Level.	<i>Noted</i>
3			
3.1.1	Research facilities are frequently updated Policy for promotion of research which is uploaded on the institutional website and implemented	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	<i>Good policy framework.</i>
3.1.2	Amount of seed money provided by institution to its teachers for research	Nil	<i>Needs improvement. Faculty should be motivated to apply for seed funding for research.</i>
3.1.3	Number of teachers receiving national/ international fellowship/ financial support by various agencies for advanced studies/ research	04	<i>Noted Faculties should utilise the received fellowships to gain academic advantage from it.</i>
3.2.1	Research funding received by the institution and its faculties through Government and non-government sources	Nil <i>[Annexure 3.2.1]</i>	<i>Needs improvement. Faculty should be motivated to apply for funding for research.</i>
3.2.2	Number of research projects per teacher	Nil <i>[Annexure 3.2.2]</i>	<i>Needs improvement.</i>

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			<i>Faculties should send more research proposals to government agencies for grants.</i>
3.2.3	Number of teachers recognized as research guides	03	<i>Needs improvement.</i> <i>Remaining 4 PhD faculties should try to register in the coming session.</i>
3.2.4	Faculty applied for research funding	07	<i>Appreciable initiative.</i>
3.3.1	Awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same (IPR like Patent etc.)	02 Events 06 Patents	<i>Very good.</i>
3.4.1	Code of Ethics for research and the implementation	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	<i>(A)</i> <i>All committees present.</i>
3.4.2	Number of candidates registered for Ph. D per teacher	$8/3 = 2.66$ (03 faculties are recognized as research guides. 08 candidates are registered for PhD under Dr. Amit Sharma)	<i>Noted</i> <i>Needs improvement</i>
3.4.3	Number of research papers published in the Journals as notified on UGC CARE list	03	$03/25 = 0.12, <1.$ <i>Needs sincere improvement.</i>
3.4.4	Number of books and chapters in edited volumes published	Nil	<i>Needs improvement.</i>
3.4.5	Average Citation index in Scopus/ Web of Science	4.5	$9/2 = 4.5$ <i>Needs improvement in quality research and faculty publication.</i>
3.4.6	Scopus/ Web of Science – h-index	3	$15/5 = 3$ <i>Needs improvement</i>
3.4.7	Faculty publication in reputed conferences	42	<i>Noted</i> <i>Praiseworthy</i>
3.4.8	Faculty publication ratio (UGC CARE list Journals)	1:6	$0.166, <1.$ <i>Needs improvement.</i>

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3.5.1	Revenue generated from consultancy and corporate training	1800/-	<i>Unsatisfactory. Needs improvement Should try for NABL certification.</i>
3.6.1	Extension activities in sensitizing students to social issues and holistic development	Various extension activities like rural outreach, traffic awareness, voter awareness, blood donation camp, health checkups, NSS, NCC etc. are organised as institute and department level for sensitizing students to social issues and holistic development	<i>Noted</i>
3.6.2	Number of extension and outreach programs conducted through organized forums including NSS/NCC with involvement of community	26	<i>>10. Excellent</i>
3.7.1	Faculty industry connect: Number of functional MoUs Number of industries visited by faculty	08 (MoU) 11 (Industry Visits) 17 Collaborative activities	<i>Noted. Good number of active MoU is present.</i>
3.7.2	Industry participation in funded projects : Co-teaching details for each course:	PATH India	<i>Needs improvement Involve more industry personnel in direct co-teaching.</i>
3.7.3	Faculty travelled abroad/in country for collaboration	02 1. Dr Archana Keerti Chowdhary 2. Dr Keerti K. Chowdhary	<i>Noted</i>

4

Infrastructure and Learning Resources

4.1.1	No. of classrooms	UG: 5 PG: 2	<i>Noted. Adequate physical facilities for the student intake. Suggestion:- Smart Board should be available at department.</i>
	Laboratories	15	
	Computing equipment	86	
	ICT – enabled facilities such as smart class, LMS etc.	All classrooms are smart classes & equipped with LCD Projector	
	Facilities for Cultural and sports activities, yoga centre, games	Smart Board is used for digital content CMS is used as cloud-based resource for	

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	(indoor and outdoor), Gymnasium, auditorium etc.	LMS where faculty can upload assignments and study guides, and students can access them from anywhere. 1) 3 Audi (Available at Institute level for Cultural Activities) 2) 2 Quadrangle & Central ground for outdoor games 3) Student Section for indoor games and yoga activity	
4.1.2	Expenditure excluding salary, for infrastructure development and augmentation	Expenditure for infrastructure development and augmentation is available at institute level.	<i>Noted.</i>
4.1.3	Equipments and facilities available and their status: Log book status Software Modelling and computational tools and facilities Incubation Labs	Projectors, Printers, WiFi, Departmental Library, Photocopy Machines, Personnel Faculty Cabin with PC's with LAN connection, Generator Smart TV, Wheel Chair available in department and are in working condition. Available at respective labs. 14 Yes. Simulation Lab is well equipped with computational facilities and software. Nil	<i>Noted & verified.</i>
4.1.4	Industry sponsored labs	Concrete Testing Lab (NB-006) is sponsored by UltraTech as Centre of Excellence.	<i>Noted. Praiseworthy achievement.</i>
4.1.5	New lab/equipments added New software added MODROBS Sanctioned Testing Lab	Nil Nil Two MODROBS sanctioned before 2022-23. None in 2023-2024 Material testing lab is available.	<i>Noted & verified. Softwares and computers are adequate in number.</i>
4.1.6	Virtual Lab Development	Lab Access by MoE (Available at	<i>Noted</i>

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		Institute Website)	
4.2.1	Library facilities The library is optimally used by the faculty and students	Yes 1) 1 Central Library at Institute level with E-journal facility. 2) 1 Departmental Library	<i>Commendable work. E-journal is also available. Suggestion:- Department Library can also be developed as student self-learning centre.</i>
4.2.2	Expenditure for purchase of books/ e-books and subscription to journals/e-journals	As Per Departmental/ Institute Budget	<i>Good.</i>
4.3.1	IT facilities and sufficient bandwidth for internet connection	Yes Campus is Wi-Fi Enabled with bandwidth 1 Gbps.	<i>Noted & verified.</i>
4.3.2	Student - Computer ratio	1:1 (UG) 1:1 (PG)	<i>Very good ratio.</i>
4.3.3	Audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development	Media centre available at Institute Level with following facilities: Glass Board Studio Chroma studio Green Board Studio White Board Studio Video Switcher and Mixer Video Conferencing Technology	<i>Appreciable work. Media centre available at institute level.</i>
4.4.1	Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component	As Per Departmental Budget	<i>Noted.</i>
4.4.2	Procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc	Regular Inspection and Calibration of Instruments (Audit report available at respective laboratories)	<i>Committees are at place. Proposals are obtained at institute level.</i>
5	Student Support and Progression		
5.1.1	Number of students benefited by scholarships and free ships	Scholarships are sanctioned from the government for session 2023-24.	<i>Noted (96/177)*100 = 54.24%</i>

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	provided by the institution government and non-government bodies, industries, individuals, philanthropists		students received at least one type of scholarship.
5.1.2	Efforts taken to provide career counselling including e-counselling and guidance for competitive examinations	- Guidance & Assistance for Competitive Exams (GAPCE) by Civil Engineering Department. - To test & evaluate the General Aptitude of Civil Engineering students (General Aptitude Test) Organized by Training & Placement - To educate students about opportunities of placement in Civil Engineering, Department organized "Placement-o-Talk".	Guidance for GATE and other Govt. Exams is provided to students for free which is a praiseworthy step.
5.1.3	Capacity development and skills enhancement activities are organized for improving students' capability	Soft skills, Annual seminar, paper presentation, internship, software training. AUTOCAD Training (UG) NEEV 2024 (UG) SRUJAN 2023 (UG) SAMEEKSHA 2023 (UG) SAKRIYA 2023-24 (PG) <i>[Annexure 5.1.3]</i>	(A) Very good
5.1.4	Redressal of student grievances including sexual harassment and ragging cases	Redressal of student grievances including sexual harassment and ragging cases no any grievances for session 2023-24 <i>[Annexure 5.1.4]</i>	(A) Noted
5.1.5	Student Performance: Passing out in first attempt % Student scoring first class (>6.5 CGPA) No. of UG Students Graduating/ed in 4 years No. of UG Students Graduating/ed in more than 4 years No. of PG Students Graduating/ed in 2 years No. of PG Students	98.4% 55 64 01 PG(04): CPM:03 STR:01 PG(21): CPM:12 STR :09	Very Good in UG. Needs sincere improvement in PG.

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	Graduating/ed in more than 2 years		
5.1.6	Result Analysis (UG & PG Pass Out Performance): Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9 Rest all UG,PG	UG: 00, PG: 00 UG: 03, PG: 01 UG: 13, PG: 05 UG: 48, PG: 11	<i>Needs improvement in PG.</i>
5.1.7	UG/PG (Co/extra-curricular activities)	UG – NCC/NSS, NEEV, Srujan, Sameeksha etc. PG – Sakriya I, Sakriya II etc.	<i>Noted</i>
5.1.8	Student industrial internships	50 Students have been completed internship	<i>Noted</i>
5.1.9	Student publications	26 Research paper presented by students	<i>Very good. Encourage more students to publish in SCI journals.</i>
5.1.10	Student Start-ups	04 Startups	<i>Noted. More initiatives are required for promoting the start-up.</i>
5.1.11	Innovative Product/Prototype Developed by Students : Prototype Developed Product Developed Product+Prototype Developed	Technical model making competition Srujan is organized at deptt. Level every year where students prepare models of structure (i.e. trusses bridges etc.). Models are then tested & evaluated for finalizing the best models.	<i>Students shall be encouraged to participate at national/international level tech-fests/competitions at IITs, NITs etc.</i>
5.2.1	Number of students placed and package received (Min. and Max.) Number of students progressing to higher education	20 Min. Package – 1.80 LPA Max. Package – 6.50 LPA Higher education-04	<i>Needs improvement. Suggestion:- Alumni who are entrepreneurs or are associated with industry may be approached for recruitment drives for more placement.</i>
5.2.2	Number of students qualifying in state/ national/ international level examinations (eg: GATE/ NET/ SLET/ Civil Services/ State government examinations etc.)	02	<i>(02/65)*100 = 3% Needs improvement. This will also increase higher education enrolment.</i>
5.3.1	Number of awards/medals for	02	<i>Noted</i>

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	outstanding performance in sports/cultural activities at University / state /national / international Level events		
5.3.2	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the department/institution	Students are members of DUPC, DPPC, Advisory Board and BoS etc. Committees.	<i>Praiseworthy work.</i>
5.3.3	Organizes following activities: Sports competitions/events Cultural competitions/events Technical fest/Academic fest Any other events through Active clubs and forums	Technical fest- Srujan, Sakriya Quiz competition- Sameeksha Paper presentation- NEEV Sport & cultural- Swaranjali (Institute level)	<i>(A) Appreciable.</i>
5.4.1	Alumni contribution to the institution through registered Alumni association	New alumni registration	<i>Needs improvement. Active Participation of Alumni in development of institution/department needs more attention.</i>
5.4.2	Alumni contributes and engages significantly to the development of institution through academic and other support system	Alumni are participating in: 1. Departmental curriculum development (i.e. Bos, Advisory Board, Placement etc.) 2. Placements (Mr. Yash Goyal, CCPL, Indore)	<i>Alumni are the part of Advisory board, BoS. They also take part in placement activities. Alumni feedback is also obtained for curriculum development, facilities enhancement, employment generation etc. One alumni-meet was organised in the academic audit year.</i>
5.4.3	Professional Societies/Chapter and organizing events	1. Indian Geotechnical Society (IGS): (International conference) 2. Indian Concrete Institute (ICI): (NEEV)	<i>Less participation by students in professional society events outside institute. This needs to be improved.</i>
5.4.4	Publication of technical magazines, newsletters etc.	1. Sandarbh (E-magzine) 2. News article	<i>Noted.</i>
6	Governance, Leadership and Faculty Empowerment Strategies		
6.1.1	Governance and leadership are	Faculties and Students take part in	<i>Noted</i>

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	in accordance with the vision and mission and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance	holistic development of department and institution being member of various committees.	
6.2.1	Committees in place and members: Advisory board, BoS Purchase, Grievance etc.	Yes <i>[Annexure 6.2.1]</i>	<i>Noted</i>
6.3.1	Performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression	Appraisal system and welfare measures are done as per AICTE norms.	<i>Noted.</i> <i>Available for teaching and non-teaching staff.</i>
6.3.2	Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies	18 faculties received financial assistance for Life Membership in various reputed professional bodies. <i>[Annexure 6.3.2]</i>	<i>Praiseworthy.</i> <i>(18/25)*100 = 72%</i> <i>faculties were provided financial support.</i>
6.3.3	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. attended	No. of faculty attended the program – 22 <i>[Annexure 6.3.3]</i>	<i>Excellent</i> <i>(22/25)*100 = 88%</i>
6.3.4	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. Conducted	• Expert lecture on Research Paper Writing • No. of program including International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. conducted – 07 <i>[Annexure 6.3.4]</i>	<i>Noted</i>
7	Values and Best Practices		
7.1.1	Gender equity & sensitization in curricular and co-curricular activities	• Focus on ethics through subjects like Professional Practice, Law & Ethics. • Participation of female faculties & students in various annual technical, cultural and sports events like Srujan, Sameeksha, Swaranjali etc. as Coordinator, Volunteers and Participants.	<i>Commendable work.</i>

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		01 Female Students have joined NCC through institute.	
7.2.1	Department Best Practices	- Guidance and Assistance Program for Competitive Exams – Free guidance and assistance to students after regular class hours. - Honours and Minor Course - Department YouTube Channel – for providing free e-content. - Department Instagram Page – For quick dissemination of useful information & events among students.	<i>Conduction of Guidance Program for students and Availability of YouTube Channel, Instagram Page at Department Level is praiseworthy.</i>
8	Supporting staff contributions		
8.1.1	Qualification and participation in academics	B.E./B.Tech/ Diploma/ ITI Lab Staff: Demonstration of experiments, and handle laboratories Calibration/Maintenance records of lab equipments	<i>Noted</i>
8.1.2	Filling and data record keeping	Yes, (All the data records of the department are maintained by office staff)	<i>Noted</i>
8.1.3	House keeping	Outsourced	<i>Noted</i>
8.1.4	Lab maintenance /office maintenance	Yes (All the laboratories are maintained by lab staff)	<i>Noted</i>
8.1.5	Staff sent for training/ workshops/ skill up gradation/ qualification improvement	Technical Skill Development Programme	<i>Non-teaching staff should be motivated to obtain at least one NPTEL/MOOC certificate every year.</i>
9	Other Important Aspects		
9.1.1	Feedback taken from various stake holders (Passing out students, Alumni, Industry, Parent etc.)	Feedback is collected from all stakeholders	<i>Students, Teachers, Employers, Alumni - Feedback are collected regularly.</i>
9.1.2	Entrepreneurship Cell	Available	<i>Noted & verified.</i>
9.1.3	Department Webpage	https://ies.ipsacademy.org/departments/civil-engg/	<i>Available</i>
9.1.4	Self-Learning	Course included in curriculum. Also inculcated through events and activities like NEEV, Srujan, Sameeksha etc.	<i>Noted. Course is available.</i>
10	Reviewer's final comments on dept. strengths and scope for improvement		<i>Please refer below:</i>

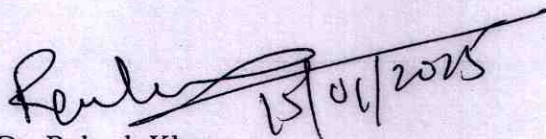
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Strength(s):

- Adequate faculty strength and excellent faculty retention rate.
- Curriculum is well designed in-line with AICTE model curriculum.
- Exercise of syllabus evaluation and updating is in routine. (BoS is conducted twice in a year).
- Good participation of students in academic as well as administrative processes.
- Adequate gender representation at all levels.
- Innovative steps by department like Guidance Program for students, regularly updated YouTube and Instagram handle.

Weakness(es) :

- Need for improvement in testing and consultancy works.
- Less number of research publications and book chapters.
- Less activity from the Alumni association.
- Placement should be improved.
- Intense drive should be made to obtain more research and consultancy project from industry and government.

Signature of the Reviewer:15/01/2018**Name of the Reviewer:**

Dr. Rakesh Khare

Designation & Affiliation:Professor, Civil Engineering & Applied Mechanics Department
Shri G. S. Institute of Technology & Science, Indore, (M.P.)

Academic and Administrative Audit (AAA)**Year 2023-24****(01 July 2023 to 30 June 2024)****Name of the Department:** Chemical Engineering, IPS Academy, Institute of Engineering & Science**Date of Audit:** 20/01/2025, Monday

	Criteria	Comments	Reviewers Observations and comments
A	Department Information		
A1	Year of Establishment	2004	Completed 20 years with excellence in education
A2	NBA Accreditation Status	UG Accredited by NBA New Delhi during 2017-2020	Documents are prepared according to NBA, Most of it are ready
A3	Dept. vision, mission, graduate attributes/goals clearly defined and its agreement with institute vision, mission and goals	Department Vision & Mission, graduate attributes/goals are well defined in adherence with the same of the Institute.	Updated in 2020 with proper procedure
A4	No. of UG intake and admission	Intake-30, Admission-10	Needs improvement + 10 added as lateral entry
A5	No. of PG programs in the department and admission	No. of PG Program-01 Admission-04	Needs improvement. Allow allied branches for admission
1	Curricular Aspects		
1.1.1	Curricular developed and implemented have relevance to local/national regional and global developmental needs	04 New Courses 1. Laplace Transform and Complex Analysis (BSC-MA04B), 2. Innovation and Creativity, (HSMC- HS03) 3. Liberal Learning Course-II (LLC 02) 4. Liberal Learning Course-III (LLC 03) (ANNEXURE 1.1.1)	Relevant as per NEP

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20/01/2025

1.1.2	Syllabus Content % (UG):		As per university structure 2018 Overall percentage of core professional is very low (<45%)																								
<table><tr><th>Syllabus Content % (UG) Category</th><th>UG Actual Breakup of credits</th></tr><tr><td>Humanities & Social Sciences Management Courses (HSMC)</td><td>10 (6.02 %)</td></tr><tr><td>Basic Science Courses (BSC)</td><td>20 (12.04 %)</td></tr><tr><td>Engineering Science Courses (ESC)</td><td>19 (11.44 %)</td></tr><tr><td>Professional Core Courses (PCC) including Tutorial</td><td>60 (34.93 %)</td></tr><tr><td>Professional Elective Courses (PEC)</td><td>16 (9.63 %)</td></tr><tr><td>Inter-disciplinary Foundation Courses (IFC)</td><td>4 (2.40 %)</td></tr><tr><td>Skill Based Courses (SBC)</td><td>8 (4.81 %)</td></tr><tr><td>Liberal Learning Courses (LLC)</td><td>2 (1.80 %)</td></tr><tr><td>Inter-disciplinary Open Courses (IOC)</td><td>6 (3.6 %)</td></tr><tr><td>Project</td><td>15 (9.03 %)</td></tr><tr><td>Mandatory Learning Courses (MC)</td><td>No Credit</td></tr></table>		Syllabus Content % (UG) Category		UG Actual Breakup of credits	Humanities & Social Sciences Management Courses (HSMC)	10 (6.02 %)	Basic Science Courses (BSC)	20 (12.04 %)	Engineering Science Courses (ESC)	19 (11.44 %)	Professional Core Courses (PCC) including Tutorial	60 (34.93 %)	Professional Elective Courses (PEC)	16 (9.63 %)	Inter-disciplinary Foundation Courses (IFC)	4 (2.40 %)	Skill Based Courses (SBC)	8 (4.81 %)	Liberal Learning Courses (LLC)	2 (1.80 %)	Inter-disciplinary Open Courses (IOC)	6 (3.6 %)	Project	15 (9.03 %)	Mandatory Learning Courses (MC)	No Credit	
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Open Elective Course (OEC)	3 (4.28 %)																										
Liberal Learning Courses (LLC)	1(1.4 %)																										
1.1.3	Syllabus in line with AICTE model curriculum	Yes, We follow the AICTE MODEL CURRICULUM 2018.	As per AICTE																								
1.2.1	New courses introduced out of the total number of courses	04 New Courses 1. Laplace Transform and Complex Analysis (BSC-MA04B), 2. Innovation and Creativity, (HSMC- HS03) 3. Liberal Learning Course-II (LLC 02) 4. Liberal Learning Course-III (LLC 03)	Relevant as per NEP																								

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1.3.1	Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum	<table><tr><th colspan="3">ANNEXURE 1.3.1</th></tr><tr><th>Cross-cutting issues</th><th>UG</th><th>PG</th></tr><tr><td>Professional Ethics</td><td>5</td><td>6</td></tr><tr><td>Gender</td><td>1</td><td>1</td></tr><tr><td>Human Values</td><td>6</td><td>3</td></tr><tr><td>Environment and Sustainability</td><td>3</td><td>3</td></tr></table>	ANNEXURE 1.3.1			Cross-cutting issues	UG	PG	Professional Ethics	5	6	Gender	1	1	Human Values	6	3	Environment and Sustainability	3	3	Sufficient courses are available as per NEP
ANNEXURE 1.3.1																					
Cross-cutting issues	UG	PG																			
Professional Ethics	5	6																			
Gender	1	1																			
Human Values	6	3																			
Environment and Sustainability	3	3																			
1.3.2	Number of certificate/value added courses/Diploma Programs offered Online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms	01 value added courses offered. 1.AFT Fathom	One course is added																		
1.3.3	Is the program have the components of field projects / research projects / internships	YES. The curriculum has inclusion of field projects/research projects/internships as per AICTE specifications.	As per AICTE valid documents have shown for this																		
1.3.4	Faculty course files containing handouts assignments tutorial sheet, question bank, list of resources/reference materials etc.	Course files are maintained by the faculty members who are teaching the course in each semester. [Sample course file is available for verification.]	Course files are as per prescribed format of NBA																		
1.3.5	Lab manuals/handouts/SOP	Lab Manuals are available in respective Labs	All relevant documents of labs are available																		
1.3.6	Syllabus revision frequency: UG PG	BoS meeting is organized at least twice in a year and syllabus revision is done as per need.	Revised few courses of UG/PG. well documented																		
1.4.1	Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc	The department maintains curriculum feedback from all stakeholders in online/offline mode.	Well defined procedure useful for improvement																		
2	Teaching-Learning and Evaluation																				
2.1.1	Enrolment percentage Number of seats filled (Only first year admissions to be considered) Number of sanctioned seats	B. Tech- 10/30=33% M. Tech -02/18=11%	Needs improvement. For PG, admissions should be opened for other allied braches																		

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2.1.2	Number of actual students admitted from the reserved categories (SC, ST, OBC etc.) in the first year Number of seats earmarked for reserved category as per GoI/State Govt. rule	<table> <tr> <th>Year</th> <th colspan="5">Number of students admitted from the reserved category</th> </tr> <tr> <th></th> <th>SC</th> <th>ST</th> <th>OBC</th> <th>Gen</th> <th>Oth ers</th> </tr> <tr> <td>UG</td> <td>2</td> <td>0</td> <td>3</td> <td>5</td> <td>0</td> </tr> <tr> <td>PG</td> <td>0</td> <td>0</td> <td>2</td> <td>2</td> <td>0</td> </tr> </table>	Year	Number of students admitted from the reserved category						SC	ST	OBC	Gen	Oth ers	UG	2	0	3	5	0	PG	0	0	2	2	0	As per GoI/ State Govt. of M.P. Actual numbers are mentioned
Year	Number of students admitted from the reserved category																										
	SC	ST	OBC	Gen	Oth ers																						
UG	2	0	3	5	0																						
PG	0	0	2	2	0																						
2.2.1	Learning levels of the students and organizes special Programs to cater to differential learning needs of the student	Department focuses on imparting learning to students through participative, experiential and peer learning methods etc. Advance and Slow learners are identified and measures are taken to cater needs of both levels of students. Department organizes following program for students like Software Training, Industrial Visit, ENGROSSER – National Level Technical Paper writing Competition , INNOVITA – Technical Fest. (The data is enclosed in the Advance slow learner Annexure 2.2.1)	Interacted with students. Advance approaches may be used for better understanding																								
2.2.2	Student - Full time teacher ratio	17:1	Acceptable																								
2.3.1	Student centric methods used for enhancing learning experience ICT- enabled tools including online resources for effective teaching and learning process	• Participative Learning • Experiential Learning • Problem solving method (The data is enclosed in the Annexure 2.3.1)	Available																								
2.3.2	Mentor-Mentee Schemes to address academics and student-psychological issues	Mentor-Mentee scheme is available and practiced regularly. 3 to 4 mentees are assigned to one mentee every year.	Well defined scheme students are benefited by same																								
2.3.3	Preparation and adherence of Academic Calendar and Teaching plans	Department Activity Calendar and Teaching Plans are prepared in adherence with the Institute Academic Calendar.	Well prepared and strictly followed the same																								
2.4.1	Number of full time teachers appointed against the sanctioned posts	10	As per sanctioned strength																								

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2.4.2	Full time teachers with Ph.D.	06	Good number of PhD teachers
2.4.3	Total teaching experience of full-time teachers (in number of years)	Average teaching experience of 10.81 years	Well experienced professors
2.4.4	Number of full time teachers who have been working in the organization continuously during the entire assessment period	10	Sufficient
2.4.5	Number of PhDs pursuing faculty	02	Good
2.4.6	Faculty Cadre	Professor-02 Associate Professor-03 Assistant Professor-05	Well structured faculty cadre
2.4.7	Faculty Retention with respect to CAYm2	100%	100% It may be arranged Depend on projects
2.4.8	Full time adjunct faculty in the department	NIL	
2.4.9	Part time adjunct faculty in the department	NIL	
2.4.10	Faculty/Industry People Invited in co-teaching	NIL	
2.4.11	JRF/SRF/TA/RA in the department	NIL	
2.5.1	Number of days from the date of last semester-end/ year- end examination till the last date of declaration of results	Jul-Dec 2023 : 06 days Jan-May 2024 --: 05 days	Within stipulated time
2.5.2	Number of Student complaints/grievances about evaluation	NIL (Grievance Redressal Mechanism is available)	Well defined mechanism
2.5.3	IT integration and reforms in the examination procedures and processes Improvement in Examination Management System (EMS) of the institution	ARR for Examination attached.	Implemented as per requirement of new technology
2.5.4	Exam Evaluation Scheme: Theory Practical	Theory evaluation Scheme comprises of HA (15) + MST(25) + ESE (60) = 100 Practical evaluation Scheme comprises of Internal (40) + ESE	Well balanced distribution of marks / weightage

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	Audit of question papers through experts External examiners participation in practical evaluation Open Book Exams Comprehensive viva voice exam	(60) = 100 Moderation of Question Paper is done. External Examiners are called for Practical Evaluation. Open Book Exam – YES. CVV – No	Question papers are moderated . External examiners are involved Concept of open book exams implemented
2.6.1	CO-PO Assessment	Direct /Indirect Assessment Process of CO-PO Assessment classified in to Direct Assessment and Indirect Assessment. Direct Assessment Class/assignment test, internal assessment tests, assignments, semester examinations, seminars, laboratory assignments/ practical, minor projects etc. Indirect Assessment Course Exit Survey	CO-PO Assessment was carried out as per NBA
2.6.2	Pass percentage of students (excluding backlog students)	100%	Good Results
2.6.3	DUPC-DPPC: UG, PG	DUPC-DPPC for UG & PG data attached in file.	Well defined various committees for academics & other activities
2.6.4	Quality of Students projects and relevance to specialization UG & PG	Students are doing project relevant to chemical and environmental engineering problems. B. Tech – 09 projects (of 9 groups) M. Tech - 05 projects Quality of UG & PG students is assessed regularly	Quality of projects are relevant trends in chemical engineering
2.7.1	Online student satisfaction survey regarding the teaching learning process.	Collected at Institute Level [CM Students Analysis attached]	Well defined process. All data/ documents are available
3	Research, Innovations and Extension		
3.1.1	Research facilities are frequently updated Policy for promotion of research which is uploaded on the institutional website and implemented	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	Very few facilities are available. Needs improvements

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3.1.2	Amount of seed money provided by institution to its teachers for research	NIL	Seed money must be provided by institute
3.1.3	Number of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research	NIL	Teachers should apply for same. Institute has to encourage for it
3.2.1	Research funding received by the institution and its faculties through Government and non-government sources	NIL	Try to take help of other well known institute in these regard
3.2.2	Number of research projects per teacher	NIL	Apply for projects at least 4-5 per year
3.2.3	Number of teachers recognized as research guides	03 faculties are recognized as research guide.	Good number
3.2.4	Faculty applied for research funding	5 faculties have applied for research funding from government agencies.	Others also apply
3.3.1	Awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same (IPR like Patent etc.)	1 events for IPR awareness : Refresher Course on Intellectual Property Rights conducted by department during 06-12 February 2024.	Aware about this
3.4.1	Code of Ethics for research and the implementation	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	Applied
3.4.2	Number of candidates registered for Ph. D per teacher	Nil	Try to attract working professionals
3.4.3	Number of research papers published in the Journals as notified on UGC CARE list	12 research papers	Good number
3.4.4	Number of books and chapters in edited volumes published	Nil	Motivated for same
3.4.5	Average Citation index in Scopus/ Web of Science	141.27	Good number
3.4.6	Scopus/ Web of Science – h-index	3.81	

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3.4.7	Faculty publication in reputed conferences	1	Needs improvement
3.4.8	Faculty publication ratio (UGC CARE list Journals)	1.54	
3.5.1	Revenue generated from consultancy and corporate training	NIL	Contact near by industries
3.6.1	Extension activities in sensitizing students to social issues and holistic development	Various extension activities like rural outreach, traffic awareness, voter awareness, blood donation camp, health checkups, NSS, NCC etc. are organized at institute and department level for sensitizing students to social issues and holistic development	Available
3.6.2	Number of extension and outreach programs conducted through organized forums including NSS/NCC with involvement of community	10 activities	Good number of activities conducted
3.7.1	Faculty industry connect: Number of functional MoUs Number of industries visited by faculty	MoU- 02 Industry Visits - 2	Try to convert in consultancy/ Project
3.7.2	Industry participation in funded projects : Co-teaching details for each course:	NIL	Get the involvement of industry persons
3.7.3	Faculty travelled abroad/in country for collaboration	NIL	Apply for international travel grant
4	Infrastructure and Learning Resources		
4.1.1	No. of classrooms Laboratories Computing equipment ICT – enabled facilities such as smart class, LMS etc. Facilities for Cultural and sports activities, yoga centre, games	03 08 15 All classes are smart classes & equipped with LCD Projector and CMS is used for LMS ➤ 3 Audi (Available at Institute level for Cultural Activities)	Sufficient number of facilities are available

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	(indoor and outdoor), Gymnasium, auditorium etc.	➤ 2 Quadrangle & Central ground for outdoor games ➤ Student Section for indoor games and yoga activity ➤	
4.1.2	Expenditure excluding salary, for infrastructure development and augmentation	Expenditure for infrastructure development and augmentation is available at institute level.	Allotment of fund is very less
4.1.3	Equipments and facilities available and their status: Log book status Software Modeling and computational tools and facilities Incubation Labs	Projectors, Printers, Wi-Fi, Departmental Library, Photocopy Machines, Personnel Faculty Cabin with PC's with LAN connection, Generator Smart TV, Wheel Chair available in department and are in working condition. Available at respective labs. 04 (DWSIM, SCILAB, AFT Fathom, Prodyne) Yes. Simulation Lab is well equipped with computational facilities and software's. NIL	Good facilities are available It can be started at institute level
4.1.4	Industry sponsored labs	NIL	Contact industries
4.1.5	New lab/equipments added New software added MODROBS Sanctioned Testing Lab	NIL No new software purchased. NIL NIL	} Needs more initiative to develop the same
4.1.6	Virtual Lab Development	NIL	
4.2.1	Library facilities The library is optimally used by the faculty and students	YES ➤ 1 Central Library at Institute level ➤ 1 Departmental Library	Available
4.2.2	Expenditure for purchase of books/ e-books and subscription to journals/e-journals	Expenditure for, Purchase of books - Rs. 42,840/-	Sufficient
4.3.1	IT facilities and sufficient bandwidth for internet connection	YES Campus is Wi-Fi Enabled with bandwidth 1 GBPS	Available

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4.3.2	Student - Computer ratio	2:1	Sufficient
4.3.3	Audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development	Media centre available at Institute Level with following facilities: • Glass Board Studio • Chroma studio • Green Board Studio • White Board Studio • Video Switcher and Mixer • Video Conferencing Technology •	Available
4.4.1	Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component	Expenditure incurred on maintenance of physical facilities and academic support facilities is available at institute level.	At institute level needs more attention for same
4.4.2	Procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc	Regular Inspection of Lab is done ANNEXURE 4.4.2	Well defined procedure
5	Student Support and Progression		
5.1.1	Number of students benefited by scholarships and freeships provided by the institution government and non-government bodies, industries, individuals, philanthropists	Scholarships are still due from the government.	Available as per GoI/ MP state Govt. Policy
5.1.2	Efforts taken to provide career counseling including e-counseling and guidance for competitive examinations	Aptitude and GATE classes are conducted regularly.	Available
5.1.3	Capacity development and skills enhancement activities are organized for improving students' capability	Soft skills, seminar, paper presentation, internship, software training is done	Regular such activities are conducted
5.1.4	Redressal of student grievances including sexual harassment and ragging cases	No grievances was found including sexual harassment and ragging cases	Well defined procedure
5.1.5	Student Performance: Passing out in first attempt % Student scoring first class (>6.5 CGPA)	 100% 18	100% result

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	No. of UG Students Graduating/ed in 4 years No. of UG Students Graduating/ed in more than 4 years No. of PG Students Graduating/ed in 2 years No. of PG Students Graduating/ed in more than 2 years	18 NIL NIL 03	Overall very good performance
5.1.6	Result Analysis (UG Pass Out Performance) Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9 Rest all UG Result Analysis (PG Pass Out Performance) Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9 Rest all PG	NIL 01 7 10, NIL NIL NIL 05	Overall performance satisfactory
5.1.7	UG/PG (Co/extra-curricular activities)	Co/extra-curricular activities are conducted by department (Engrosser, B'Reactive and Innovita)	Activities are conducted
5.1.8	Student industrial internships	18 students have done industrial training in various industries	Available
5.1.9	Student publications	NIL	Initiative may be taken to motivate students for same
5.1.10	Student Startups	NIL	
5.1.11	Innovative Product/Prototype Developed by Students : Prototype Developed Product Developed Product + Prototype Developed	NIL	

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5.2.1	Number of students placed and package received (Min. and Max.) Number of students progressing to higher education	8 students placed Min:2.6 Lac Max:6.5 Lac NIL	Needs improvement Motivated students for higher studies
5.2.2	Number of students qualifying in state/ national/ international level examinations (eg: GATE/NET/SLET/Civil Services/State government examinations etc.)	1	Needs improvement
5.3.1	Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events	00	Increase the participation
5.3.2	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the department/institution	Students are members of DUPC, DPPC, Advisory Board, and BoS etc. committees.	Available
5.3.3	Organizes following activities: Sports competitions/events Cultural competitions/events Technical fest/Academic fest Any other events through Active clubs and forums	Technical fest – INNOVITA Paper writing competition – Engrosser Sports & Cultural – Swaranjali (Inst.) Singing – Voice of IES (Inst.)	Conducted
5.4.1	Alumni contribution to the institution through registered Alumni association	Institute has its registered alumni association.	Invite alumni for their contribution
5.4.2	Alumni contributes and engages significantly to the development of institution through academic and other support system	Alumni plays important role in academic and holistic development of department being a part of BoS, Advisory board, and support in organizing Industrial Visit	Contributed
5.4.3	Professional Societies/Chapter and organizing events	Student Chapter - IICHe 02 Events Engrosser, INNOVITA Number of faculty having professional body membership- 10	Available
5.4.4	Publication of technical magazines, newsletters etc.	Technical magazines - B'Reactive	Published
6	Governance, Leadership and Faculty Empowerment Strategies		

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6.1.1	Governance and leadership are in accordance with the vision and mission and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance	Governance and leadership are in accordance with the vision and mission of the department. Faculties and Students of the department take part in holistic development of institute through various cell and committees.	Teachers are contributing in many administrative and other work allotted by institute
6.2.1	Committees in place and members: Advisory board, BoS Purchase, Grievance etc.	Yes	Involved in various committees
6.3.1	Performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression	Appraisal system and welfare measures are done as per AICTE norms.	Well defined procedure for appraisal and welfare
6.3.2	Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies	10	Supported good number of teachers
6.3.3	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. attended	20 workshops, FDPs, Refresher Course etc. are attended by 10 faculty members	Participation by faculties are sufficient
6.3.4	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. Conducted	01 National workshop 01 AICTE FDP 01 International Conference are organized by department	Three activities are conducted by deptt
7	Values and Best Practices		
7.1.1	Gender equity & sensitization in curricular and co-curricular activities	• Focus on ethics through subjects like Professional Practice, Law & Ethics. • Representation by female faculties & students in various department level committees like DUPC DPPC, Grievance, Cultural, Sports, Magazine etc. • Participation of female faculties & students in various annual technical, cultural and sports	Adapted in all activities

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		events. As Coordinator, Volunteers and Participants. • Female Students have joined NCC through institute.	
7.2.1	Department Best Practices	- Guidance and Assistance Program for Competitive Exams – Free guidance and assistance to students after regular class hours. - Honors and Minor Course - Departmental WhatsApp group – For quick dissemination of useful information & events among students.	Actively involved in mentioned best practices
8	Supporting staff contributions		
8.1.1	Qualification and participation in academics	Lab Staff: Demonstration of experiments, and handle laboratories, Practical for students. Calibration/Maintenance records of lab equipments	Well qualified staff and contributed in academics
8.1.2	Filling and data record keeping	Dispatch Register For Notice and letter, Project Register for list of B. Tech Major Project and M. Tech Thesis, UG/PG) Mark sheet Issue register, Departmental Library Books issue and return register	All data and record are kept properly
8.1.3	House keeping	Yes	Very Good
8.1.4	Lab maintenance /office maintenance	Yes The lab maintenance is done regularly	Regularly performed
8.1.5	Staff sent for training/workshops/skill gradation/qualification improvement	NIL	Send for the same
9	Other Important Aspects		
9.1.1	Feedback taken from various stake holders (Passing out students, Alumni, Industry, Parent etc.)	Feedback is collected from all stakeholders	Available Impact analysis is required
9.1.2	Entrepreneurship Cell	IIC cell is available at institute level	Activities are to be done

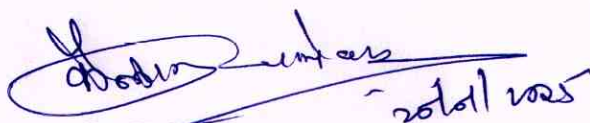
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9.1.3	Department Webpage	https://ies.ipsacademy.org/departments/chemical-engg/	Available
9.1.4	Self-Learning	Students are motivated to undertake NPTEL and MOOC courses.	List out the courses
10	Reviewer's final comments on dept. strengths and scope for improvement	Overall well balanced activities on academic, training and other Research, Funding, Consultancy needs improve also admission improvement is required. More fund should be allotted for all activities including research	

Strength: *Department has well qualified and experienced faculty members. Curriculum is designed and in-line with AICTE model curriculum 2018.*

Weakness: *Few more infrastructures must be develop. Fund allotment is less. Research activities are less including projects, consultancies, publication, patents, etc.*

Signature of the Reviewer:



Name of the Reviewer:

Dr. Kailas L. Wasewar

Designation & Affiliation:

Professor & Head,

Department of Chemical Engineering, VNIT Nagpur (M.H)

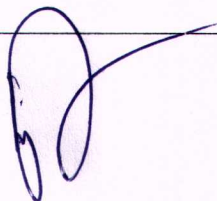


ACADEMIC AND ADMINISTRATIVE AUDIT
Academic Year 2023-24

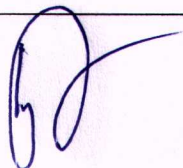
Date of Audit: 31.01.2025

Name of the Department: **Department of Fire Technology & Safety Engineering**

	Criteria	Comments	Reviewers Observations and comments
A	Department Information	Department of Fire Technology & Safety Engineering	
A1	Year of Establishment	U.G Bachelor of Engineering-1999 P.G Master of Technology-2010	
A2	NBA Accreditation Status	U.G Yes, accredited up to June 2025 P.G Not Accredited	
A3	Dept. vision, mission, graduate attributes/goals clearly defined and its agreement with institute vision, mission and goals	The vision and mission of the department are well-defined and aligned with the institute's vision, mission, and goals to ensure a coherent framework for academic excellence, professional development, and societal contribution. (Available in Institute website, Link: https://ies.ipsacademy.org/departments/fire-tech-safety-engg/vision-mission/)	
A4	No. of UG intake and admission	Intake =112 students Total Admission =100 students	
A5	No. of PG programs in the department and admission	PG program -01nos. M.Tech. (Industrial Safety Engineering) Intake =20 students	
1	Curricular Aspects		
1.1.1	Curricular developed and implemented have relevance to local/national regional and global developmental needs	Yes, The curriculum developed and implemented by the department firmly aligns with local, national, regional, and global developmental needs. This alignment is systematically mapped to Course Outcomes (COs), Program Outcomes (POs), and Program-Specific Outcomes (PSOs), ensuring both its relevance and effectiveness.	
1.1.2	Syllabus Content % (UG & PG): Employability/ entrepreneurship/ skill development PCC (Program Core Courses) Basis Sciences Honors and Minors courses Humanities Project Tutorials Department Elective Course Field projects / research projects / internships	The department FT&SE aligns its curriculum with the AICTE Model Curriculum and National Education Policy (NEP) 2020 to ensure the integration of cross-cutting issues such as Professional Ethics, Gender Equality, Human Values, Environment and Sustainability, and aspects related to the Sustainable Development Goals (SDGs). (Departmental File Scheme & Syllabus)	



1.1.3	Syllabus in line with AICTE model curriculum	Yes, we refer to AICTE model Curriculum & guideline for preparing content of individual courses in UG&PG programs. We are the first institute to implement the NEP 2020 guidelines for the same in state of Madhya Pradesh.	
1.2.1	New courses introduced out of the total number of courses	Introduced 07 new courses/ revision in syllabus in academic year 2023-24 (Departmental File Scheme & Syllabus)	
1.3.1	Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum	The department FT&SE aligns its curriculum with the AICTE Model Curriculum and National Education Policy (NEP) 2020 to ensure the integration of cross-cutting issues such as: • Gender Equality • Professional Ethics • Human Values • Environment and Sustainability • SDGs and NEP 2020 Alignment	
1.3.2	Number of certificate/value added courses/Diploma Programs offered Online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms	The department offers 07nos certificates courses. The details are as follows:- 02 Minor certificate in namely 1. Fire Prevention and Protection. 2. Industrial Safety 02 Honors Certificate in namely 1. Disaster management 2. Risk Assessment and Process Safety (Available in Institute website, Link: https://ies.ipsacademy.org/departments/fire-tech-safety-engg/scheme-syllabus/) 03 Certificate Programs in namely 1. Industrial Safety 2. Disaster Management 3. Advance Fire Fighting (Departmental File Scheme & Syllabus)	
1.3.3	Is the program have the components of field projects / research projects / internships	Yes, the department actively facilitates research projects and internships for students through the efforts of the Research Committee and the Training and Placement Committee. The department is equipped with a well-furnished project laboratory exclusively for UG students, providing them with a conducive environment to work on a variety of projects. These include: • Hobby Projects. • R&D Projects. • Interdisciplinary Projects Additionally, the curriculum incorporates structured project work in the final year: 7th Semester (Project Phase-I): Students begin their project work by exploring problem definitions, literature reviews, and initial designs.	



		8th Semester (Project Phase-II): Students finalize and implement their projects, culminating in a comprehensive evaluation of their work.	
1.3.4	Faculty course files containing handouts assignments tutorial sheet, question bank, list of resources/reference materials etc.	Yes, the department ensures that course files are maintained every semester, subject-wise, by individual subject teachers.	
1.3.5	Lab manuals/handouts/SOP	Lab manuals/handouts/SOP are available in the laboratories. The course files practical subject also maintained by the individual subject teachers.	
1.3.6	Syllabus revision frequency: UG PG MOOC Courses	The Board of Studies (BoS) for Fire Technology and Safety Engineering (FT&SE) convenes twice during each academic session to engage in thoughtful discussions and comprehensive reviews of the syllabus. The revisions to the syllabus are thoughtfully informed by constructive feedback from employers, industry experts, and our valued alumni, ensuring that the curriculum remains relevant and effective. (Detail available in NBA-P26)	
1.4.1	Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc	Feedback on the curriculum has been obtained from students, faculty, alumni, and stakeholders. The curriculum is upgraded regularly every year. Latest developments and innovations are to be incorporated into the curriculum. (Detail available in NBA-P-28)	
2	Teaching-Learning and Evaluation		
2.1.1	Enrolment percentage Number of seats filled (Only first year admissions to be considered) Number of sanctioned seats	UG - 89% PG -35% UG - No. of seats filled-100 students. PG - No. of seats filled-07 students. UG sanctioned seats – 112nos. PG sanctioned seats -20nos. NBA File-P3	
2.1.2	Number of actual students admitted from the reserved categories (SC, ST, OBC etc.) in the first year Number of seats earmarked for reserved category as per GoI/State Govt. rule	UG - Admitted SC – 03 ST – 01 OBC –14 EWS-03 PG - Admitted SC – 00 ST – 00 OBC –00 EWS-00	
2.2.1	Learning levels of the students and organizes	The department actively monitors student progress through regular counseling sessions.	

	special Programs to cater to differential learning needs of the student	Counselors conduct periodic meetings to assess the academic progress of their mentees and identify students scoring less than 60% in internal assessments. Additionally, faculty members track the performance of both high-achieving (bright) and underperforming (poor) students by reviewing their CGPA from previous semesters, ensuring timely interventions and personalized support throughout their academic journey.	
2.2.2	Student - Full time teacher ratio	SFR=17 (2023-24) Professor-02 nos. Associate Professor-02 nos. Assistant Professor-17 nos. Total Faculty- 21 nos. Student -353 students	
2.3.1	Student centric methods used for enhancing learning experience ICT- enabled tools including online resources for effective teaching and learning process	The department adopts a variety of student-centric methods to enhance the learning experience, fostering an environment where students are actively engaged and encouraged to take responsibility for their learning. These methods are complemented by the integration of ICT-enabled tools to support effective teaching and learning processes. In addition to these methods, the department is equipped with technological infrastructure to further enhance the learning experience: 1. Classroom Technology: Every classroom is equipped with computer systems, projectors, and internet access for a seamless learning experience. 2. E-Learning Resources: Students have access to an e-library, e-journals, and virtual labs, ensuring that they have the necessary resources to explore topics in-depth. 3. Computer Access: The department library houses 5 computers, and there is a dedicated computer lab with 54 computers, ensuring all students have access to the resources they need. 4. Wi-Fi and Software: High-speed Wi-Fi (100 Mbps) is available throughout the department, and students have access to specialized software necessary for their coursework.	
2.3.2	Mentor-Mentee Schemes to address academics and student-psychological issues	The mentor-mentee system is implemented and the Head of the department is reviewed periodically at the end of the semester.	



		(Departmental File- Mentor-Mentee)	
2.3.3	Preparation and adherence of Academic Calendar and Teaching plans	Yes, the Preparation and release of the academic calendar for every year is practiced and it is displayed on the notice board and institute website. The lesson plan is prepared by the individual subject teacher for each course. (Available in Institute website, Link: https://ies.ipsacademy.org/academics/academic-calendar/)	
2.4.1	Number of full time teachers appointed against the sanctioned posts.	21nos. full time teachers (Annexure B)	
2.4.2	Full time teachers with Ph.D.	04 nos.	
2.4.3	Total teaching experience of full-time teachers (in number of years)	Average experience -9.71years.	
2.4.4	Number of full-time teachers who have been working in the organization continuously during the entire assessment period	Total 21nos. full time faculties	
2.4.5	Number of PhDs pursuing faculty	04nos.pursuing faculty	
2.4.6	Faculty Cadre	23.33 (2023-24) Professor-02 nos. Associate Professor-02 nos. Assistant Professor-17 nos. Total Faculty- 21 nos.	
2.4.7	Faculty Retention with respect to CAYm2	96.08% 24.02 out 25	
2.4.8	Full time adjunct faculty in the department	Nil	It is recommended to appoint full-time adjunct faculty to strengthen academic and research activities.
2.4.9	Part time adjunct faculty in the department	Nil	
2.4.10	Faculty/Industry People Invited in co-teaching	Yes, A total of 9 lectures were conducted by Faculty /industry professionals.	
2.4.11	JRF/SRF/TA/RA in the department	Nil	It is recommended that the department establish collaborations in the future with other institutes to enhance academic and research opportunities.



2.5.1	Number of days from the date of last semester-end/ year-end examination till the last date of declaration of results	Semester-end examinations are concluded, and results are declared within 10 to 15 days of the exam's conclusion. This period allows time for grading, evaluation, Perusal and result processing before they are officially announced.	
2.5.2	Number of Student complaints/grievances about evaluation	After the end-semester examination, students are given the opportunity to review their evaluated answer copies. If any concerns arise regarding the evaluation, students may submit a grievance, which is initially addressed by the concerned faculty member. If necessary, the issue is escalated to the Head of the Department (HOD) for further review and resolution, ensuring student satisfaction.	
2.5.3	IT integration and reforms in the examination procedures and processes Improvement in Examination Management System (EMS) of the institution	The campus active software is practiced to perform various examination related activities such as examination form submission, exam fee collection, internal and external marks feeding, display of marks etc. It has been consistently improved at the department FT&SE level over the last four years, based on the guidelines provided by the Academic Rules & Regulations (ARR). These improvements aim to enhance the efficiency, transparency, and effectiveness of the examination process.	
2.5.4	Exam Evaluation Scheme: Theory Practical Audit of question papers through experts External examiners participation in practical evaluation Open Book Exams Comprehensive viva voice exam	UG & PG Schemes (Old & NEP) End Sem (70) +MST (20) +Quiz/Assignment (10) =100 marks End Sem (60) +Lab Work & Sessional (40) =100 marks Moderation work is practiced by the subject experts for end semester question papers. Academicians and industry resource person from the specialization is invited as external examiner. Not Practiced. Not Practiced.	
2.6.1	CO- PO & PSO Assessment	Department has well defined Program outcomes (PO), Program specific outcomes (PSO) and course outcomes (CO) for its UG program. Their assessment is done at the end of every academic session. CO Assessment is done every semester by	

		subject faculty; PO & PSO assessment is done every year batch wise. (Detail available in NBA-P-27)	
2.6.2	Pass percentage of students (excluding backlog students)	88.88% (without backlog 96 out of 108)	
2.6.3	DUPC-DPPC: UG, PG	The Departmental Undergraduate Program Committee (UG) and Departmental Postgraduate Program Committee (PG) oversee academic affairs and quality assurance for UG and PG programs. The department has an Advisory Board (meeting annually) and a Board of Studies (BoS) (meeting twice a year) to guide syllabus revisions. These committees incorporate feedback from industry professionals, faculty, and students to ensure the curriculum stays relevant. UG Programs (DUPC) focus on curriculum development and student progression, while PG Programs (DPPC) ensure alignment with current academic and industry standards for quality education and research.	
2.6.4	Quality of Students projects and relevance to specialization UG & PG	Topic selection of project is done as per student choice/interest and available expertise in institute. Student encouraged publishing paper in reputed journals and presenting them in conferences and project competition organize by department. Assessment: Evaluation process is done based on project review committee (PRC) comments observed in PRC scheduled 3-4 times for UG & PG students. End sem evaluation is done by external expert faculty from other organization.	
2.7.1	Online student satisfaction survey regarding the teaching learning process.	Yes, the department conducts regular online course end survey to assess the effectiveness of the teaching-learning process. These surveys gather feedback on various aspects such as course content, teaching methodologies, faculty performance, and learning resources. The insights collected from students are carefully analyzed and used to implement improvements, ensuring a better learning experience within the department. It is practiced through course end survey for each course at the end of semester.	
3	Research, Innovations and Extension		
3.1.1	Research facilities are	The institution has a comprehensive Research	The department

	frequently updated Policy for promotion of research which is uploaded on the institutional website and implemented	Promotion Policy designed to foster a research-driven environment. Key highlights of the policy include: • Encouraging faculty and students to undertake funded research projects. • Providing seed funding for innovative research proposals. • Offering financial assistance for attending conferences, publishing in high-impact journals, and filing patents. • Organizing workshops, conferences, and training programs to enhance research skills. • Membership fee of professional bodies. • Fee and travelling allowance for attending Conferences and completed NPTEL course. Available on institute website and link is https://ies.ipsacademy.org/wp-content/uploads/2016/12/RULES-REGULATIONS.pdf Impact This policy has resulted in: • Increased research publications in reputed journals. • A rise in funded projects and industry collaborations. • Enhanced innovation culture leading to patents and prototypes.	encourages faculty to write collaborative project proposals with SES, NITs, IITs, RRCAT, industries, etc.
3.1.2	Amount of seed money provided by institution to its teachers for research	Yes, the institution provides financial support for research by offering seed money of up to ₹ 2.0 lakhs	
3.1.3	Number of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research	Nil	
3.2.1	Research funding received by the institution and its faculties through Government and non-government sources	Nil	
3.2.2	Number of research projects per teacher	Nil	
3.2.3	Number of teachers recognized as research guides	Dr. Praveen Patel	
3.2.4	Faculty applied for research funding	Yes, following members are applied for funding: Dr. Praveen Patel, Dr. Aditya Tiwary, Dr. Sumit Bhatiya, Mr. Yashwant Buke, Mr. Vijay Shankul and Mr. Manish Dubey	
3.3.1	Awareness about IPR,	The department actively promotes awareness	

	establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/ technology and the outcomes of the same (IPR like Patent etc.)	about Intellectual Property Rights (IPR) among students and faculty to foster a culture of innovation and protect intellectual assets. (Departmental File –IPR/ IIC)	
3.4.1	Code of Ethics for research and the implementation	Yes, code is prepared and practiced in the department. Available on institute website and link is : https://ies.ipsacademy.org/wp-content/uploads/2021/03/Professional-Ethics-and-Human-Values1.pdf	
3.4.2	Number of candidates registered for Ph.D. per teacher	Nil	
3.4.3	Number of research papers published in the Journals as notified on UGC CARE list	01nos in UGC CARE list Journals Other (Detail available in NBA-P-13)	Should be increases
3.4.4	Number of books and chapters in edited volumes published	1- book chapter is published. (Detail available in NBA-P-13)	
3.4.5	Average Citation index in Scopus/ Web of Science	Average Citation index -10.85 (Detail available in NBA-P-13)	
3.4.6	Scopus/ Web of Science – h-index	h-index -0.71 (Detail available in NBA-P-13)	
3.4.7	Faculty publication in reputed conferences	35nos faculty attend the conference	
3.4.8	Faculty publication ratio (UGC CARE list Journals)	Faculty publication ratio 0.28 (Detail available in NBA-P-13)	
3.5.1	Revenue generated from consultancy and corporate training	Revenue generated 2,19,340/- Rs.	
3.6.1	Extension activities in sensitizing students to social issues and holistic development	The department (FT&SE) undertook the initiative and secured institute-level approval for the 9 MP NCC Battalion with 53 cadets in 2022. Additionally, in 2023, the regional office approved the department to establish an NSS unit comprising 100 volunteers. These initiatives promote students' holistic development and engagement with social issues.	
3.6.2	Number of extension and outreach programs conducted through organized forums including NSS/NCC with involvement of community	NSS- 15 nos. NCC-12nos.	
3.7.1	Faculty industry connects: Number of functional MoUs Number of industries visited by faculty	MoUs signed with 08 industries, 07 nos 01nos. (Annexure C)	

3.7.2	Industry participation in funded projects : Co-teaching details for each course:	Nil	
3.7.3	Faculty travelled abroad/in country for collaboration	Nil	
4	Infrastructure and Learning Resources		
4.1.1	No. of classrooms Laboratories Computing equipment ICT – enabled facilities such as smart class, LMS etc. Facilities for Cultural and sports activities, yoga center, games (indoor and outdoor), Gymnasium, auditorium etc.	08nos. 12nos. Total -80nos. Computer System are available, (56nos. computer lab 05nos. department library 19nos. faculties) Smart Board with internet LED Tv for display Printer-04nos. Scanner-02nos Internet, Available lease line 1Gbps 1:1. Wi-Fi available and Lan available. Yes, available in institute	
4.1.2	Expenditure excluding salary, for infrastructure development and augmentation	Yes, (Detail available in NBA-P2)	
4.1.3	Equipment's and facilities available and their status: Log book status Software Modeling and computational tools and facilities Incubation Labs	Every laboratory of the department have its stock register with date of purchase of apparatus, consumable items register, experiment list, instrument's calibration certificate and display of SoPs for every major apparatus. Software maintained in department laboratories includes Sheel CASA, Sheel HAZOP, Sheel Explosion, ALOHA, AutoCAD and MATLAB. Research lab/testing lab is available for fire and safety equipment performance testing at 03 acre drill ground.	
4.1.4	Industry sponsored labs	Nil	
4.1.5	New lab/equipment added New software added MODROBS Sanctioned Testing Lab	Nil No No Yes	
4.1.6	Virtual Lab Development	Department students are engaged in soft skill classes for personality development with humanities department facilities. Classes	

		empower students with the confidence, boldness, expressiveness, etc.so that student's personality is overall developed. In every semester a teaching slot is provided in the timetable so that students can enhance their soft skills. Also subject taught to students name is Emergency Communication System Lab PCC FT-801	
4.2.1	Library facilities The library is optimally used by the faculty and students	Yes, the departmental library has a good collection of textbooks, video lectures, reference books, and project/seminar reports. Over and above, the institute library is also available for the use of UG/PG students and faculty members.	
4.2.2	Expenditure for purchase of books/ e-books and subscription to journals/e-journals	Yes, Budget utilization is attained. No. of books/e-books and Journals/E-journals available in department library for UG &PG students. Departmental Expenditure = ₹1,50,652/- INR	
4.3.1	IT facilities and sufficient bandwidth for internet connection	Yes, Internet having lease line 1Gbps 1:1, sufficient bandwidth, Wi-Fi, and facilities are available.	
4.3.2	Student - Computer ratio	Student - Computer ratio is 3:1	
4.3.3	Audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development	Yes, Central facility with 02 numbers of digital studios are available where following e content development facilities exists: • Mixing equipment, • Editing facility, • Media studio, • Lecture capturing system(LCS) • TelePrompTer • Olypus TG6 Digital Cembra • Insta 360 X3 Action Cembra	
4.4.1	Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component	Expenditure on maintenance support facility laboratory, research & development maintenance, training and miscellaneous expenses year 2022-23. Laboratory Consumables- ₹24,824.00 INR Maintenance & Spares- ₹19861.00 INR Training & Travels- ₹124723.00 INR Miscellaneous Expenses- ₹42000.00 INR R&D - ₹752000.00 INR Total Expenditure = ₹963408/- INR	
4.4.2	Procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc	Yes, the department FT&SE follows systematic procedures for maintaining and utilizing academic and physical infrastructure: • Laboratories. • Library & E-Resources. • Computers & Internet. • Classrooms & Projector. • Sports Ground An advance approval through IoM or	

		requisition book is practiced to avail the facilities like laboratory, library, sports complex, computers, and classrooms from the concerned authority.	
5	Student Support and Progression		
5.1.1	Number of students benefited by scholarships and free ships provided by the institution government and non-government bodies, industries, individuals, philanthropists	62 students benefited in the academic year 2023-24. (Departmental File Scholarship or 5.1.1)	
5.1.2	Efforts taken to provide career counseling including e-counseling and guidance for competitive examinations	Yes, Efforts taken by the department for students are: • Aptitude Training • Verbal Ability • Placement & Internship Support-Mock Interview Department students are engaged in soft skill classes for personality development with humanities department facilities. Classes empower students with confidence, boldness, expressiveness etc. so that student's personality is overall developed. In every semester a teaching slot is provided in the timetable so that students can enhance their soft skills. (Departmental File Time Table)	
5.1.3	Capacity development and skills enhancement activities are organized for improving students' capability	Yes, Capacity development and skills enhancement programs were organized by the department are: • Vindicator-2023-24 • Techfest-2023-24 • Expert Lectures • Industrial Visit • One Week Training (Available in Departmental File)	
5.1.4	Redressal of student grievances including sexual harassment and ragging cases	Yes, the Student grievance cell is available at the institute level.	
5.1.5	Student Performance: Passing out in first attempt % Student scoring first class (>6.5 CGPA) No. of UG Students Graduating/ed in 4 years No. of UG Students Graduating/ed in more than 4 years No. of PG Students	UG = 96.42% (108 Students- No backlog) UG =106 Student scoring UG =108 Students UG =04 Student 01 PG Student	

	Graduating/ed in 2 years No. of PG Students Graduating/ed in more than 2 years	02 PG Student Graduating in more than 2 years (Detail available in NBA-P4 & 5)	
5.1.6	Result Analysis (UG & PG Pass Out Performance) Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9 Rest all UG,PG	UG= Nil PG=Nil UG= 01Student PG=Nil UG= 40 Students PG=01Student UG=72 Students PG=01 Student (Detail available in NBA-P5)	
5.1.7	UG/PG (Co/extra-curricular activities)	The department FT&SE, fosters holistic student development through co-curricular and extra-curricular activities. These initiatives enhance technical knowledge, leadership, teamwork, and overall personality, ensuring industry readiness. Co-Curricular Activities Workshops & Seminars, Industrial Visits, National Tech FEST and Vindicator, Internships & Training, Extra-Curricular Activities Student chapter -FSAI and SSAFE Cultural & Sports Activities NSS/NCC Participation Students are participating in the annual cultural event SWARANJALI 2023 -24. (Dept. File --Extra-curricular activities)	
5.1.8	Student industrial internships	Total= 152 UG students from V and VI semester and 02 PG student's III semester in 2023-24 imparted industrial internships in major hazardous industries. (Dept. File: Training and Internship Record)	
5.1.9	Student publications	Research publication 29 nos. (Dept. File: Student publications Record)	
5.1.10	Student Startups	Nil	
5.1.11	Innovative Product/Prototype Developed by Students : Prototype Developed Product Developed Product + Prototype Developed	Nil	
5.2.1	Number of students placed and package received (Min. and Max.) Number of students progressing to higher	102 nos. students are placed Max. package= 16.80 lakh Min. package= 4.0 lakh Nil	

	education	(Dept. File: Placement Record 2024)	
5.2.2	Number of students qualifying in state/ national/ international level examinations (eg: GATE/NET/SLET/Civil Services/State government examinations etc.)	Nil	
5.3.1	Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events	Sports Activities = 12 nos. State Level -08nos. National Level-04nos. Cultural activities = 06nos FT& SE students- win 03 activity	
5.3.2	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the department/institution	The advisory board of the department include the representatives from UG and PG program as student representative where current students can participate in the administrative body of the department. Students also participate in BoS, DUPC/DDPC, Anti-ragging sports, & discipline. -229 student FSAI Student chapter members for the 2023-24 academic years. - Various events are organizations like workshops, seminars; exhibitions, expert lectures, and fire safety activities are conducted by the FSAI Student Chapter. (Departmental File-Student Chapter)	
5.3.3	Organizes following activities: Sports competitions/events Cultural competitions/events Technical fest/Academic fest Any other events through Active clubs and forums	Yes, The following activities are scheduled on regular basis for an academic session: • Vindicator-2023-24 • Techfest-2023-24 • Industrial Internships • Swranjali-2023-24 • Voice of IES-2023-24	
5.4.1	Alumni contribution to the institution through registered Alumni association	Alumni members contribute to the department and have representation in both the advisory board and BoS. Other contributions to the department's overall developments like: • Internship • Expert lecture • Syllabus up-gradation (Dept. file-BoS and NBA-P28)	
5.4.2	Alumni contribute and engages significantly to the development of institution through academic and other support system	The academic support system includes course content revisions, expert lecture commencement, and functional MoUs with the Institute. The alumni of the Fire Technology & Safety Engineering department at IPS Academy-Institute of Engineering & Science, Indore, play	

		a crucial role in institutional growth through: In other support systems campus placement drive of passing students and arrangement of industrial internships, and expert lectures, are the key areas where our alumina contributed a lot in the past. (Detail available in NBA-P-28)	
5.4.3	Professional Societies/Chapter and organizing events	The department has established the Fire and Security Association of India (FSAI) Student Chapter. Department organizes various engineering events under the banner of this chapter such as Expert lectures- Seminars, Workshops, Entrepreneurship awareness camp, and celebration of domain influencing days National Safety Day- 01no. National Fire Service Day-01no. World National Disaster Reduction Day and M.P. State Safety Day	
5.4.4	Publication of technical magazines, newsletters, etc.	The department publishes a technical magazine, "SPARKLE" year-wise to promote technical advancements in Fire Technology and Safety Engineering.	
6	Governance, Leadership, and Faculty Empowerment Strategies		
6.1.1	Governance and leadership are in accordance with the vision and mission and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance	The existence and active involvement of governing bodies, academic councils, advisory board members, and BoS members in institutional governance are instrumental in ensuring that governance and leadership are aligned with the institution's vision and mission. These bodies can contribute to the successful implementation of policies like the NEP, sustainable institutional growth, decentralization, and greater participation in institutional governance, all of which support the institution in achieving its goals and fulfilling its educational mission.	
6.2.1	Committees in place and members: Advisory board, BoS Purchase, Grievance etc.	Yes, the following committees are in place at the department level: • Advisory Committee. • Board of Studies (BoS) Committee. • Purchase Committee. • Governance Committee.	
6.3.1	Performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression	360-degree appraisal exists at the institute level. Welfare measures are taken care of by management at the Institute level.	
6.3.2	Number of teachers provided with financial support to	Total: 02 Nos	

	attend conferences/workshops and towards membership fee of professional bodies	02 nos. faculties are participated in summer faculty research fellow program 2023	
6.3.3	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. attended	International Conference:18 Nos National Conference:00 Nos Seminar/Workshop: all students and Faculty FDP:00 Nos Refresher Course: 18 Nos	
6.3.4	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. Conducted	International Conference:01 Nos Refresher Course: 01 Nos Seminar:01 Nos Training: 01 Nos Vindicator-2023-24 Techfest-2023-24	
7	Values and Best Practices		
7.1.1	Gender equity & sensitization in curricular and co-curricular activities	The department incorporates gender equality and women's rights into the curriculum, fostering awareness and respect. Co-curricular activities focus on gender sensitization, while the presence of female security staff and safety initiatives ensure a secure environment. • Gender Equity & Sensitization lecture • International Women's Day celebration • 11 female students enrolled in NCC	
7.2.1	Department Best Practices	The department emphasizes quality education and continuous improvement through strong best practices. Support systems like counseling services, grievance redressal, and welfare initiatives are actively maintained. Key practices include: • Mentor Mentees scheme • Women Grievance Cell • Student Welfare Cell • Anti Ragging Committee • Department also organize mock drill once in a year. • CPR training in the department	
8	Supporting staff contributions		
8.1.1	Qualification and participation in academics	B.E., M.Sc., Diploma etc.	
8.1.2	Filling and data record keeping	Yes	
8.1.3	House keeping	Outsource Agency	
8.1.4	Lab maintenance /office maintenance	Maintenance done by Lab Incharge/office Staff	
8.1.5	Staff sent for	Yes, department organize skill-based program	



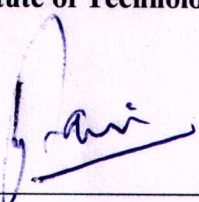
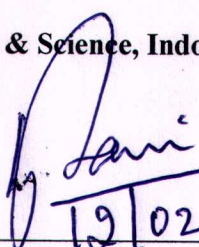
	training/workshops/skill up gradation/qualification improvement	like squad drills and Firefighting drills, on regular basis and staff were sent for their skill up gradation.	
9	Other Important Aspects		
9.1.1	Feedback taken from various stake holders (Passing out students, Alumni, Industry, Parent etc.)	Yes (Available in NBA File No P28)	
9.1.2	Entrepreneurship Cell	Yes, 03nos One day Workshops conducted by the department FT&SE under IIC-2023.	
9.1.3	Department Webpage	Yes, Available on institute website and is regularly updated	
9.1.4	Self-Learning	Yes, The FT& SE department at IPS Academy-Institute of Engineering & Science, Indore, encourages self-learning through various resources and initiatives: 1. E-Learning Platforms 2. E-Library & Digital Resources 3. Virtual Labs 4. Seminars & Webinars	
10	Reviewer's final comments on dept. strengths and scope for improvement	On above mention report will be	

Strengths:

1. Qualified and Experienced Faculty.
2. Strong Industry Connections.
3. Innovative Research Focus.
4. Strong Placement Record
5. Commitment to Continuous Improvement

Weakness:

Action Taken Report (ATR) based on previous audit

S. No.	Reviewer's comments	Remarks/ATR
01	Dr. M. L. Jain Professor Shri G. S. Institute of Technology & Science, Indore  	The ATR is evaluated today i.e. on 31.01.2025 and some more suggestions are proposed and that will be recheck after correction/addition by head of the department. Rest of the academics is very well maintained by the department. 12/02/2025

EXTERNAL ACADEMIC AUDIT
Academic Year 2023-24

Name of the Department: Electrical and Electronics Engineering
IPS Academy , Institute of Engineering & Science, Indore
A UGC Autonomous Institute affiliated to RGPV

Date of Audit: 22/02/2025

	Criteria	Input from The Department	Reviewers Observations and comments
A	Department Information		
A1	Year of Establishment	2003	<i>Department established & running since 2003.</i>
A2	NBA Accreditation Status	UG Accredited by NBA New Delhi (2017-2020)	<i>Noted & verified. The Department may apply for reaccreditation again when norms fulfilled.</i>
A3	Dept. vision, mission, graduate attributes/goals clearly defined and its agreement with institute vision, mission and goals	Department Vision & Mission, graduate attributes/goals are well defined in adherence with the same of the Institute. The details are available in the file.	<i>Yes, in line with Institute Vision Mission and Goals.</i>
A4	No. of UG intake and admission	B.Tech.(Electrical and Electronics Engineering) Sanctioned intake – 30 (Session 2023-24) Admissions – 14 Students through lateral entry - 07	<i>Noted & verified. 54% seats remained vacant. Strategy should be made to increase the admissions.</i>
A5	No. of PG programs in the department and admission	One PG Program is offered in the department. M. Tech.(Power Electronics) Sanctioned intake – 9 (Session 2023-24) Admissions – 3	<i>Very few admissions in PG. Poor Enrolment ratio May approach employers to encourage their employees to take admission in PG.</i>
1	Curricular Aspects		
1.1.1	Curricular developed and implemented have relevance to local/national regional and global developmental needs	Curriculum developed as per AICTE model curriculum and in line with NEP 2020. The list of courses in the program is attached B.Tech., (EEE) & M.Tech. (Power Electronics)	<i>Appreciable contribution towards AICTE model curriculum and NEP 2020.</i>

1.1.2	Syllabus Content % (UG & PG): Employability/ entrepreneurship/ skill development PCC (Program Core Courses) Basic Sciences Honors and Minors courses Humanities Project Tutorials Department Elective Course, Open Elective Courses Field projects / research projects / internships	<table><tr><th>S. No.</th><th>Category</th><th>Syllabus Content Credits (%) UG</th><th>Syllabus Content Credits (%) PG</th></tr><tr><td>1</td><td>Employability/ entrepreneurship/ skill development</td><td>22 (8.545%)</td><td>34 (48.57%)</td></tr><tr><td>2</td><td>Humanities</td><td>6 (3.62%)</td><td>1 (1.14%)</td></tr><tr><td>3</td><td>Basic Sciences</td><td>20 (12.05%)</td><td>3 (4.28%)</td></tr><tr><td>4</td><td>ESC(Engineering Science Course)</td><td>21 (12.65%)</td><td>-</td></tr><tr><td>5</td><td>PCC (Program Core Courses)</td><td>76 (45.78%)</td><td>16 (22.85%)</td></tr><tr><td>6</td><td>PEC(Professional Elective Courses)</td><td>15 (9.03%)</td><td>9 (12.85%)</td></tr><tr><td>7</td><td>OEC(Open Elective Courses)</td><td>12 (7.23%)</td><td>3 (4.28%)</td></tr><tr><td>8</td><td>PROJ(Project Work ,Seminar& Internship)</td><td>16 (9.64%)</td><td>26 (37.14%)</td></tr><tr><td>9</td><td>Mandatory Courses</td><td>NO Credit</td><td>4 (5.71%)</td></tr></table>			S. No.	Category	Syllabus Content Credits (%) UG	Syllabus Content Credits (%) PG	1	Employability/ entrepreneurship/ skill development	22 (8.545%)	34 (48.57%)	2	Humanities	6 (3.62%)	1 (1.14%)	3	Basic Sciences	20 (12.05%)	3 (4.28%)	4	ESC(Engineering Science Course)	21 (12.65%)	-	5	PCC (Program Core Courses)	76 (45.78%)	16 (22.85%)	6	PEC(Professional Elective Courses)	15 (9.03%)	9 (12.85%)	7	OEC(Open Elective Courses)	12 (7.23%)	3 (4.28%)	8	PROJ(Project Work ,Seminar& Internship)	16 (9.64%)	26 (37.14%)	9	Mandatory Courses	NO Credit	4 (5.71%)	All criteria relevantly maintained in lines with AICTE mode curriculum and NEP 2020 for the holistic growth of student.
S. No.	Category	Syllabus Content Credits (%) UG	Syllabus Content Credits (%) PG																																										
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1.1.3	Syllabus in line with AICTE model curriculum	AICTE Model Curriculum and NEP 2020 are followed.																																											
1.2.1	New courses introduced out of the total number of courses	Nil																																											
1.3.1	Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable	<table><tr><th>Cross Cutting Issue</th><th>Number</th><th>Addressed by courses in curriculum/activities</th></tr><tr><td>Gender</td><td>02 Courses</td><td>1. Professional Laws , Ethics, Gender, Human values and</td></tr></table>	Cross Cutting Issue	Number	Addressed by courses in curriculum/activities	Gender	02 Courses	1. Professional Laws , Ethics, Gender, Human values and	Noteworthy contribution in UG program same suit can be followed for PG program also.																																				
Cross Cutting Issue	Number	Addressed by courses in curriculum/activities																																											
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Development Goals and National Education Policy – 2020 into the Curriculum			Harmony (MLC-01) 2. Constitution of India (MLC-02)	
	Professional Ethics	04 Courses	1. Professional Communication Skills (HSMC - EEE301) 2. Communicative English (HSMC-HS-02) 3. Disaster Management (AUD – II) 4. Intellectual Property Rights (OEC-EEE 701(A))	
	Human values	06 Courses	1. Stress Management 2. (OEC-EEE- 601(B)) 3. Business Communication (OEC- EEE- 501(B)) 4. Liberal learning Course-II (LLC-01) 5. Liberal learning Course-II (LLC-02) 6. Operation Research (OEC-EEE701(C)) 7. Design Thinking (HSMC-HS01)	
	Environment & Sustainability	05 Courses	1. Hybrid & Electrical Vehicles (PCC-EEE702) 2. Power Electronics Converters for Renewable Energy(PEC-EEE701(B)) 3. Smart Grid Technology (PEC-EEE701(C)) 4. Solar & Wind Energy (PEC-EEE501(B)) 5. Electrical Energy Conservation and Auditing (PEC-	

			EEE501(C))	
1.3.2	Number of certificate/value added courses/Diploma Programs offered. Online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms	• Minor Courses: 1.Power Electronics 2.Renewable Energy • Honor Courses :Power Electronics • MOOC Courses list attached Value added course offered -02 (PLC & SCADA MATLAB Programming)		<i>UG & PG students shall be encouraged to pursue Minor, Honor, Certified & online courses.</i>
1.3.3	Is the program have the components of field projects / research projects / internships	YES. The curriculum has inclusion of field projects/research projects/ internships as per AICTE specifications.		<i>Appreciable but more focus can be given for live projects of industry</i>
1.3.4	Faculty course files containing handouts assignments tutorial sheet, question bank, list of resources/reference materials etc.	Course files are maintained by the faculty member who is teaching the course in each semester		<i>Noted & verified.</i>
1.3.5	Lab manuals/ handouts/ SOP	Lab Manuals are available in respective Labs		<i>Noted & verified with some suggestions:</i> 1. At-least 5% change is recommended in lab manual. 2. Addition of one new lab equipment in every two to three year according to change in curriculum.
1.3.6	Syllabus revision frequency: UG PG	BoS meeting is organized at least twice in a year. DUPC and DPPC are in place to guide students during registration.		<i>Praiseworthy changes undertaken.</i>
1.4.1	Structured feedback for curriculum and its	The department maintains curriculum feedback from all stakeholders in		<i>Students, Teachers, Employers, Alumni -</i>

	transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc	online/offline form. • Course End Survey • Student Exit Survey • Feedback on curriculum • Alumni Survey • Employer Survey	feedback collected, analyzed and action has been taken. For deeper penetration Academic Peers may also be involved. (External Examiners) Feedback is taken from 1 to 5 scale. where 1 is least and 5 is excellent.												
2	Teaching-Learning and Evaluation														
2.1.1	Enrolment percentage Number of seats filled (Only first year admissions to be considered) Number of sanctioned seats	37% <table border="1"> <thead> <tr> <th>Program me Name</th><th>Program me Code</th><th>Number of seats sanctioned</th><th>Number of Students admitted</th></tr> </thead> <tbody> <tr> <td>B.Tech</td><td>EEE</td><td>30</td><td>14</td></tr> <tr> <td>M.Tech</td><td>PE</td><td>9</td><td>3</td></tr> </tbody> </table>	Program me Name	Program me Code	Number of seats sanctioned	Number of Students admitted	B.Tech	EEE	30	14	M.Tech	PE	9	3	More efforts are required for improvement in admissions.
Program me Name	Program me Code	Number of seats sanctioned	Number of Students admitted												
B.Tech	EEE	30	14												
M.Tech	PE	9	3												
2.1.2	Number of actual students admitted from the reserved categories (SC, ST, OBC etc.) in the first year Number of seats earmarked for reserved category as per GoI/State Govt. rule	List attached :	Representation from all categories of society appreciable.												
2.2.1	Learning levels of the students and organizes special Programs to cater to differential learning needs of the student	Department focuses on imparting learning to students through participative, experiential learning methods etc. Advance and Slow learners are identified and measures are taken to cater needs of both levels of students. Department organizes following program for students like Software Training, Industrial Visit/Educational Tour, Summer/Winter Internship , e-Awartan : Technical Event and	The procedure followed is commendable, data verified. The same procedure can be atomized on CMS under weighted preference, so that system generates												

		Competition,	slow and fast learners
2.2.2	Student - Full time teacher ratio (STR)	9:1	Verified
2.3.1	Student centric methods used for enhancing learning experience ICT- enabled tools including online resources for effective teaching and learning process	All classrooms and labs are ICT enabled • Experiential Learning: Internship/ industrial visit/ industrial training • Participative Learning: Technical competition, such as, Techfest e-Awartan & Science exhibition • Problem solving methodology: Softskill training, mentoring, engage in complex, challenging problems & collaboratively work towards there solution by using enter-disciplinary knowledge e.g. ROBOTICS, BAJA etc. (NPTEL, You Tube Video Lectures, MOOCs etc.)	Verified
2.3.2	Mentor-Mentee Schemes to address academics and student-psychological issues	Mentor-Mentee scheme is followed and practiced regularly. Maximum 10 mentees are assigned to one mentee every year.	Wellness counselor is available at institute level. Mentor-Mentee process is well in order. There are minimum two meetings are held per semester
2.3.3	Preparation and adherence of Academic Calendar and Teaching plans	Yes Department Activity Calendar and Teaching Plans are prepared in adherence with the Institute Academic Calendar	Yes follows
2.4.1	Number of full time teachers appointed against the sanctioned posts	Faculty list attached	As per norms
2.4.2	Full time teachers with Ph.D.	03 (Session 2023-24) for session	Faculty be encouraged for quality research
2.4.3	Total teaching experience of full-time teachers (in number of years)	15 full time faculties. Average experience = 17.4 years	Verified & Appreciable.
2.4.4	Number of full time teachers who have been working in the organization	Average experience is between 13 and 16.	Very good faculty retention.

	continuously during the entire assessment period		
2.4.5	Number of PhDs pursuing faculty	09	<i>Very promising number. Faculties should be encouraged to complete PhD in stipulated time.</i>
2.4.6	Faculty Cadre	: Professor-02 Associate Professor-1 Assistant Professor-12	<i>Cadre ratio as per norms.</i>
2.4.7	Faculty Retention with respect to CAYm2	100%	<i>Exceptionally well.</i>
2.4.8	Full time adjunct faculty in the department	NIL	<i>Noted.</i>
2.4.9	Part time adjunct faculty in the department	02 (1.Prof. B.N. Phadke 2. Prof. R.D. Kaveeshwar)	<i>Noted.</i>
2.4.10	Faculty/Industry People Invited in co-teaching	03 Expert Lecture	<i>It is suggested to Involve experts in direct co-teaching of the courses in curriculum.</i>
2.4.11	JRF/SRF/TA/RA in the department	Teaching Assistants(TA) – 03	<i>Noted.</i>
2.5.1	Number of days from the date of last semester-end/ year- end examination till the last date of declaration of results	: Jan-May 2024: 22 days	<i>Commendable work.</i>
2.5.2	Number of Student complaints/grievances about evaluation	NIL (Grievance Redressal Mechanism is available)	<i>Very Good</i>
2.5.3	IT integration and reforms in the examination procedures and processes Improvement in Examination Management System (EMS) of the institution	Full OBE evaluation via Campus Management system (CMS) Examination reforms are in place as per guidelines issued by AICTE in connection with examination reforms.	<i>Praiseworthy work done.</i>
2.5.4	Exam Evaluation Scheme: Theory	Theory evaluation Scheme comprises of HA (15) + MST (25) + ESE (60) = 100 Practical evaluation Scheme comprises of Internal (40) + ESE (60) = 100	<i>As per Academic Rules Regulation(ARR) available on website.</i>

	Practical Audit of question papers through experts External examiners participation in practical evaluation Open Book Exams Comprehensive viva voice exam	Moderation of Question Paper is done. External Examiners are called for Practical Evaluation. Comprehensive viva voice exam -No	
2.6.1	CO-PO Assessment	Direct /Indirect Assessment [Attachment enclosed in file]	<i>Perused and found appreciable</i>
2.6.2	Pass percentage of students (excluding backlog students)	B.Tech – 94% (15/16) M.Tech.-100% (3/3)	<i>Excellent in UG & PG</i>
2.6.3	DUPC-DPPC: UG, PG	DUPC for UG program and DPPC for PG programs are constituted and functional at departmental level.	<i>Appreciable that the feedback from all stack holders are accounted and DUPC and DPPC are operational for guidance during registration.</i>
2.6.4	Quality of Students projects and relevance to specialization . UG & PG	B.Tech – 04 projects (of 04 groups) Quality of UG & PG students is assessed regularly (once every month) in terms of aim of work, content, presentation skills, defense viva, resource management etc.	<i>Projects should be more oriented towards live problems of industry. All students should be encouraged to publish research papers in SCI/UGC-CARE/ SCOPUS journals of repute. To ensure the quality of project , every year project competition is organized under techfest e-Awartan .</i>
2.7.1	Online student satisfaction survey regarding the teaching learning process.	Collected at Institute Level.	<i>Noted.</i> <i>Appreciable work.</i>
3	Research, Innovations and Extension		
3.1.1	Research facilities are frequently updated	• Incentive on research publication/ patent/ book publication/ conference	<i>Good policy framework.</i>

	Policy for promotion of research which is uploaded on the institutional website and implemented	registration fee & allowances. Financial support for workshop & seminar participation https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	
3.1.2	Amount of seed money provided by institution to its teachers for research	<i>As per institute policy</i>	<i>Faculty should be motivated to apply for seed funding for research.</i>
3.1.3	Number of teachers receiving national/international fellowship/financial support by various agencies for advanced studies/research	NIL	<i>More participation of faculties is needed in national/international events, conferences, symposiums, competitions etc.</i>
3.2.1	Research funding received by the institution and its faculties through Government and non-government sources	NIL	<i>Needs improvement</i>
3.2.2	Number of research projects per teacher	NIL	<i>Needs improvement.</i> <i>Faculties should send more research proposals to government agencies for grants.</i>
3.2.3	Number of teachers recognized as research guides	NIL	<i>Needs improvement.</i>
3.2.4	Faculty applied for research funding	02 faculties have applied for research funding from government agencies. (Dr. Manish Sahajwani & Mr. Kamlesh Gupta)	<i>Verified and faculty shall be encouraged to take up more research assignments.</i>
3.3.1	Awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer	; Department has 1 patent published in 2023-24 (AI based solar Equipment for solar Energy collection and Distribution)	<i>Needs improvement.</i>

	of knowledge/technology and the outcomes of the same (IPR like Patent etc.)		
3.4.1	Code of Ethics for research and the implementation	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	<i>All Committees Operational.</i>
3.4.2	Number of candidates registered for Ph. D per teacher	NIL	<i>Needs improvement</i>
3.4.3	Number of research papers published in the Journals as notified on UGC CARE list	05 Research papers $5/15 = 0.33, <1$	<i>Needs improvement.</i>
3.4.4	Number of books and chapters in edited volumes published	Nil	<i>Needs improvement.</i>
3.4.5	Average Citation index in Scopus/ Web of Science	-	<i>Needs improvement</i>
3.4.6	Scopus/ Web of Science – h-index	-	<i>Needs improvement</i>
3.4.7	Faculty publication in reputed conferences	-	<i>Noted</i>
3.4.8	Faculty publication ratio (UGC CARE list Journals)	$5/15=0.33$	$5/15 = 0.33, <1.$ <i>Needs improvement.</i>
3.5.1	Revenue generated from consultancy and corporate training	NIL	<i>No consultancy from outside.</i> <i>Dept. may start with small testing projects of industry</i>
3.6.1	Extension activities in sensitizing students to social issues and holistic development	Various extension activities like rural outreach, traffic awareness, voter awareness, blood donation camp, health checkups, NSS, NCC etc. are organized as institute and department level for sensitizing students to social issues and holistic development. Various extension activities like rural outreach, traffic awareness, voter awareness, blood donation camp, health checkups, NSS,	<i>Commendable work.</i>

		NCC etc. are organized as institute and department level for sensitizing students to social issues and holistic development • Unnat Bharat Abhiyan Adopted 5 villages: Kudana, Kattkya, Magarkheda, Solsinda, Potlod • Rural Outreach • Swachh Bharat Abhiyan • NCC Activities 1. Ghar Ghar Tiranga Har Ghar Tiranga 2. NCC Combined Annual Trg Camp (Catc-lit) 3. Swachh Bharat Abhiyan Puneet Sagar Scheme 4. 75th NCC Day Celebration 5. Eye Check Up Camp 6. Rural Outreach Program 7. World Environmental Day	
3.6.2	Number of extension and outreach programs conducted through organized forums including NSS/NCC with involvement of community	16 programs/activities conducted.	<i>Good initiative.</i>
3.7.1	Faculty industry connect: Number of functional MoUs Number of industries visited by faculty	Number of functional MoUs - 01 Number of industries visited by faculty -03	<i>Needs improvement.</i> <i>Involve industry personnel in direct co-teaching.</i>
3.7.2	Industry participation in funded projects : Co-teaching details for each course:	Nil	<i>Needs improvement</i>
3.7.3	Faculty travelled abroad/in country for collaboration	Asst. Professor Kamlesh Gupta, Prof. Manoj Gupta	<i>Faculties must be encouraged for international collaboration and research.</i>
4	Infrastructure and Learning Resources		

4.1.1	No. of classrooms Laboratories Computing equipment ICT – enabled facilities such as smart class, LMS etc. Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.	No. of classrooms:05 Laboratories:09 Computing equipment:44 All classes are smart classes & equipped with LCD Projector and CMS is used for LMS 1) 3 Audi (Available at Institute level for Cultural Activities) 2) 2 Quadrangle & Central ground for outdoor games 3) Student Section for indoor games and yoga activity	<i>Adequate infrastructure for the conduction of UG/PG program.</i>
4.1.2	Expenditure excluding salary, for infrastructure development and augmentation	Expenditure for infrastructure development and augmentation is available at institute level.	<i>Noted.</i>
4.1.3	Equipments and facilities available and their status: Log book status Software Modeling and computational tools and facilities Incubation Labs	Projectors, Printers, WiFi, Departmental Library, Photocopy Machines, Personnel Faculty Cabin with PC's with LAN connection, Generator Smart TV, Wheel Chair available in department and are in working condition. Available at respective labs. 03 Yes. Simulation Lab is well equipped with computational facilities and software's. Nil	<i>Noted and verified .</i> <i>All the students of UG and PG take the benefits of software and Simulation Lab .</i>
4.1.4	Industry sponsored labs	<i>Nil</i>	<i>Needs improvement.</i> <i>Involvement from Alumni who are in industry may be sought.</i>
4.1.5	New lab/equipments added	No new software purchased.	<i>Procure more Software relevant to the programs.</i>

	New software added MODROBS Sanctioned Testing Lab		
4.1.6	Virtual Lab Development	EoI signed with Virtual Lab MoE. Virtual Lab experiments are available at all computer nodes.	<i>Good work.</i>
4.2.1	Library facilities The library is optimally used by the faculty and students	Yes 1) Central Library at Institute level 2) Departmental Library	<i>Commendable work. E-journals Packages are also available. Department Library can also be developed as student self-learning centre.</i>
4.2.2	Expenditure for purchase of books/ e-books and subscription to journals/e-journals	5.21% of total expenditure at department level. Expenditure for, Purchase of books - Rs. 99910/- Journals/e-journals- Rs. 18,79829/-	<i>Good.</i>
4.3.1	IT facilities and sufficient bandwidth for internet connection	Yes. Campus is Wi-Fi Enabled with bandwidth 1 GBPS.	<i>Noted & verified.</i>
4.3.2	Student - Computer ratio	2:1 (UG) 1:1 (PG)	<i>Good.</i>
4.3.3	Audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development	Yes Media centre available at Institute Level	<i>Appreciable initiative</i>
4.4.1	Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component	Adequate expenditure incurred on maintenance of physical facilities and academic support facilities :	<i>Appreciable</i>
4.4.2	Procedures for maintaining and utilizing physical and academic support facilities –	Regular Inspection and Calibration of Instruments (Audit reports available at respective laboratories)	<i>External Experts conducts the audit and reports are available in the department.</i>

	laboratory, library, sports complex, computers, classrooms etc		
5	Student Support and Progression		
5.1.1	Number of students benefited by scholarships and freeships provided by the institution government and non-government bodies, industries, individuals, philanthropists	Scholarships as per M.P. Government are available. https://scholarships.gov.in (For OBC Students) tribal.mp.gov.in (For SC/ST Students)	<i>Noted</i>
5.1.2	Efforts taken to provide career counseling including e-counseling and guidance for competitive examinations	Session conducted on career counseling by external/internal experts	Guidance for GATE and other Professional Exams is available to students for free which is a praiseworthy step.
5.1.3	Capacity development and skills enhancement activities are organized for improving students' capability	Soft skills, Annual seminar, paper presentation, internship, software training	Very good
5.1.4	Redressal of student grievances including sexual harassment and ragging cases	Redressal of student grievances including sexual harassment and ragging cases no any grievances reported for session 2023-24	Noted
5.1.5	Student Performance: Passing out in first attempt % Student scoring first class (>6.5 CGPA) No. of UG Students Graduating/ed in 4 years No. of UG Students Graduating/ed in more than 4 years	 94% (15/16) 15 15 -	<i>Very Good in UG & PG</i>

	No. of PG Students Graduating/ed in 2 years	-	
	No. of PG Students Graduating/ed in more than 2 years	:	
5.1.6	Result Analysis (UG & PG Pass Out Performance) Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9 Rest all UG,PG	 0 2 8 5	<i>Very good</i>
5.1.7	UG/PG (Co/extra- curricular activities)	UG: e-Awartan	<i>Noted</i>
5.1.8	Student industrial internships	15 students have completed the internship	<i>Internship should be in- line with the project of students. This will also enhance the employability of student. Interned students should give presentation to second year and third year students. (List attached)</i>
5.1.9	Student publications	NIL	<i>Noted</i>
5.1.10	Student Startups	NIL	<i>Noted</i>
5.1.11	Innovative Product/Prototype Developed by Students : Prototype Developed Product Developed Product+Prototype	Technical Fest e-Awartan is organized at department level every year. Where students Participate in Paper Presentation Competition, Technical Quiz ,Circuit Making Competition, Poster Competition. Prize will be given to winner and runner-up. 02 (e-Baha, 3-D Printer)	<i>Students should be encouraged to participate at national/international level tech- fests/competitions at IITs, NITs etc.</i>

	Developed		
5.2.1	Number of students placed and package received (Min. and Max.) Number of students progressing to higher education	06 (UG) Placement % = $(6/15) \times 100 = 40\%$ Max Package-6.5 Lacs Min Package-2.1 Lacs Higher education % = $(3/15) \times 100 = 20\%$	<i>Needs improvement.</i> <i>Alumni who are entrepreneurs or are associated with industry may be approached for recruitment drives for more placements.</i>
5.2.2	Number of students qualifying in state/national/ international level examinations (eg: GATE/NET/SLET/Civil Services/State government examinations etc.)	Nil	<i>Needs improvement. This will also increase higher education enrolment.</i>
5.3.1	Number of awards/ medals for outstanding performance in sports/ cultural activities at University / state /national / international Level events	Nil	<i>Needs improvement.</i>
5.3.2	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the department/institution	Students are members of DUPC, DPPC, Advisory and BoS etc. committees.	<i>Praiseworthy work.</i>
5.3.3	Organizes following activities: Sports competitions/ events Cultural competitions/ events Technical fest/ Academic fest Any other events through Active clubs and forums	Technical fest – e-Awartan Quiz Competition – e-Awartan Paper Presentation e-Awartan Sports & Cultural – Swaranjali (Instt.) Singing – Voice of IES (Instt.)	<i>Appreciable.</i>
5.4.1	Alumni contribution to the institution through registered Alumni	Registered Alumni Association Exist at institute level	<i>Noted</i>

	association		
5.4.2	Alumni contributes and engages significantly to the development of institution through academic and other support system	Alumni plays important role in academic and holistic development of department being a part of BoS, Advisory board, Placements etc. <i>Alumni feedback is also obtained for curriculum development, facilities enhancement, employment generation etc.</i>	<i>Other alumni contribution noted. Entrepreneur alumni should be approached often to provide training/ internship and offer employment opportunities to current batches.</i>
5.4.3	Professional Societies/Chapter and organizing events	01 (e-Awartan under ISTE)	<i>Less participation by students in professional society events outside institute. This needs to be improved.</i>
5.4.4	Publication of technical magazines, newsletters etc.	E-Magazine Urja is annually published by the department with inputs from faculties and students.	<i>Noted & verified</i>
6	Governance, Leadership and Faculty Empowerment Strategies		
6.1.1	Governance and leadership are in accordance with the vision and mission and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance	Faculties and Students take part in holistic development of department and institution being member of various committees. [List has been attached]	<i>Noted</i>
6.2.1	Committees in place and members: Advisory board, BoS Purchase, Grievance etc.	YES. List has been attached	<i>Noted</i>
6.3.1	Performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression	Appraisal system and welfare measures are done as per AICTE norms. • IPS Sakh Sahakari Santha Matyadit: • Uniform for Faculties: • Medical facility within the Institution • A Qualified Medical Practitioner is	<i>Available for teaching and non-teaching staff.</i>

		available - ambulances within the Institution - MoUs with nearby hospitals	
6.3.2	Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies	08 faculties received financial assistance for Life Membership in various reputed professional bodies.	<i>Noted</i>
6.3.3	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. attended	; No. of faculty attended the program - 10	<i>Very good.</i> $(10/15) * 100 = 67\%$
6.3.4	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. Conducted	- Expert lecture -03 - No. of program including International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. conducted - 02	<i>Noted</i>
7	Values and Best Practices	;	
7.1.1	Gender equity & sensitization in curricular and co-curricular activities	- Focus on ethics through subjects like Professional Practice, Law & Ethics. - Representation by female faculties & students in various department level committees like DUPC, DPPC, Grievance, Cultural, Sports, Magazine etc. - Participation of female faculties & students in various annual technical, cultural and sports events like e-Awartan, Swaranjali etc. as Coordinator, Volunteers and Participants. - Female Students have joined NCC through institute.	<i>Appreciable</i>

7.2.1	Department Practices	Best	• Guidance and Assistance Program for Competitive Exams – Free guidance and assistance to students after regular class hours. • Honors and Minor Course • Social media used for quick dissemination of useful information & events among students.	Use of social media is praiseworthy					
8	Supporting contributions	staff							
8.1.1	Qualification participation academics	and in	<table><tr><td>B.E./B.Tech/ Diploma/I.T.I</td></tr><tr><td>Lab Staff: Demonstration of experiments, and handle laboratories, Practicals for students</td></tr><tr><td>Maintenance records of lab equipments</td></tr></table>	B.E./B.Tech/ Diploma/I.T.I	Lab Staff: Demonstration of experiments, and handle laboratories, Practicals for students	Maintenance records of lab equipments	Noted		
B.E./B.Tech/ Diploma/I.T.I									
Lab Staff: Demonstration of experiments, and handle laboratories, Practicals for students									
Maintenance records of lab equipments									
8.1.2	Filling and data record keeping		<table><tr><td>Dispatch Register for Notice and letter</td></tr><tr><td>Project Resister for list of B.Tech Major Project and M.Tech Thesis</td></tr><tr><td>(UG/PG) Mark sheet Issue register</td></tr><tr><td>Departmental Library Books issue and return register</td></tr><tr><td>Training & internship Register</td></tr></table>	Dispatch Register for Notice and letter	Project Resister for list of B.Tech Major Project and M.Tech Thesis	(UG/PG) Mark sheet Issue register	Departmental Library Books issue and return register	Training & internship Register	Noted
Dispatch Register for Notice and letter									
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(UG/PG) Mark sheet Issue register									
Departmental Library Books issue and return register									
Training & internship Register									
8.1.3	House keeping		Store Register	Noted					
8.1.4	Lab maintenance /office maintenance		Store Register Calibration and Maintenance record Register, Stock Register	Noted					
8.1.5	Staff sent for training/workshops/skill up gradation/qualification improvement		Technical Skill Development Programme: 02	Noted					
9	Other Important Aspects								
9.1.1	Feedback taken from various stake holders (Passing out students, Alumni, Industry, Parent etc.)		Feedback is collected from all stakeholders. : Students, Teachers, Employers, Alumni - Feedback collected, analyzed and action has been taken.	Take more feedbacks from Academic Peers when they appear as External Examiners in your institute. Prepare a feedback form for the same.					
9.1.2	Entrepreneurship Cell		Available	Noted & verified.					

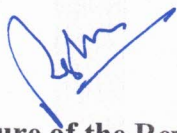
9.1.3	Department Webpage	https://ies.ipsacademy.org/departments/elect-elex-engg/	Available
9.1.4	Self-Learning	Course included in curriculum. Also inculcated through events and activities like e-Awartan	Noted. Course is available.
10	Reviewer's final comments on dept. strengths and scope for improvement		Please refer below:

Strengths:

- Good faculty strength and faculty retention rate.
- Curriculum is appropriately designed & updated according to NEP 2020 and in-line with AICTE model curriculum.
- Exercise of syllabus evaluation and updating is in routine.
- Good participation of students in academic as well as administrative processes.
- Adequate gender representation at all levels.
- Innovative steps by department like 'Guidance Program for students, regularly updated social Media handle .

Weakness:

- Need for improvement in testing and consultancy works.
- 05 SCI/Scopus/conference research publications, book chapters and student chapter.
- Less activity from the Alumni association.
- Placement is ok and should be improved.
- An intense drive should be made to obtain more research and consultancy projects from industry and government.



Signature of the Reviewer:

Name of the Reviewer: Mr. Rakesh Joshi
DGM, Tata Cummins, Dewas

Signature of the Reviewer:

Name of the Reviewer: Prof. (Dr.) K. K. Sharma
Professor, MNIT, Jaipur

EXTERNAL ACADEMIC AUDIT
Academic Year 2023-24

Name of the Department:

Electronics & Communication Engineering
IPS Academy, Institute of Engineering & Science, Indore
(A UGC Autonomous Institute affiliated to RGPV)

Date of Audit: 03/08/2024

	Criteria	Input from The Department	Reviewers Observations and comments
A	Department Information		
A1	Year of Establishment	1999	Department established & running since 199.
A2	NBA Accreditation Status	UG Accredited by NBA New Delhi.(2017-2020)	Noted & verified. The Department may apply for reaccreditation again when norms fulfilled.
A3	Dept. vision, mission, graduate attributes/goals clearly defined and its agreement with institute vision, mission and goals	Department Vision & Mission, graduate attributes/goals are well defined in adherence with the same of the Institute. The details are available in the file.	Yes, in line with Institute Vision Mission and Goals.
A4	No. of UG intake and admission	B.Tech (Electronics & Communication Engineering) Sanctioned intake – 30 (2023-24) Admission - 28 (01% seats remained vacant)	Good Admission. Intake can be increase as per industries requirement.
A5	No. of PG programs in the department and admission	01 M. Tech.(Digital Communication) Sanctioned intake – 09 Admission- 01	Very few admissions in PG. Poor Enrolment ratio May approach employers to encourage their employees to take admission in PG.
1	Curricular Aspects		
1.1.1	Curricular developed and implemented have relevance to local/national regional and global	Curriculum developed as per AICTE model Curriculum & in line with the NEP 2020 Policy. The list of courses in the program is attached- B. Tech. (EC) & M. E. (DC)	Appreciable contribution towards AICTE model curriculum and NEP 2020.

	developmental needs			
1.1.2	Syllabus Content % (UG & PG): Employability/ entrepreneurship/ skill development PCC (Program Core Courses) Basic Sciences Honors and Minors courses Humanities Project Tutorials Department Elective Course, Open Elective Courses Field projects / research projects / internships	B. Tech.-		All criteria relevantly maintained in lines with AICTE mode curriculum and NEP 2020 for the holistic growth of student
		Type of Course	Proposed Scheme	
			Total credits 166	
		Basic Science Courses	20 (12%)	
		Engineering Science Courses	19 (11.44%)	
		Humanities and Social Sciences including Management Courses	10 (6%)	
		Professional Core Courses & Laboratory	61(36%)	
		Professional Elective Courses	19 (11.5%)	
		Inter-disciplinary Foundation Courses	04 (2.40%)	
		Skill Based Courses	10 (6%)	
		Liberal Learning Courses	03 (1.80%)	
		Inter-disciplinary Open Courses	06 (3.60%)	
		Project	14 (8.40%)	
		M.E. structure- enclosed		
1.1.3	Syllabus in line with AICTE model curriculum	AICTE Model Curriculum and NEP 2020 are followed.		Appreciable contribution towards NEP 2020 & syllabus in line with AICTE model curriculum.
1.2.1	New courses introduced out of the total number	New Courses: 07		There is Need for continuous improvement.

	of courses	<table><tr><th>S. No.</th><th>New Courses</th><th>Code</th></tr><tr><td>1.</td><td>Humanities & Social Sciences Open Courses (HSMC) – I,</td><td>HSMC05</td></tr><tr><td>2.</td><td>Interdisciplinary Foundation Course (IFC) -II,</td><td>IFC-DS001</td></tr><tr><td>3.</td><td>Humanities and Social Sciences Open Courses - II</td><td>HSMC06</td></tr><tr><td>4.</td><td>Electronics Workshop – IV (Prototype Development)</td><td>SBC EC05(P)</td></tr><tr><td>5.</td><td>Liberal Learning Course –III</td><td>LLC03</td></tr><tr><td>6.</td><td>Intellectual Property Rights</td><td>MLC04</td></tr><tr><td>7.</td><td>Android App. Development Lab</td><td>LC EC15(P)</td></tr></table>	S. No.	New Courses	Code	1.	Humanities & Social Sciences Open Courses (HSMC) – I,	HSMC05	2.	Interdisciplinary Foundation Course (IFC) -II,	IFC-DS001	3.	Humanities and Social Sciences Open Courses - II	HSMC06	4.	Electronics Workshop – IV (Prototype Development)	SBC EC05(P)	5.	Liberal Learning Course –III	LLC03	6.	Intellectual Property Rights	MLC04	7.	Android App. Development Lab	LC EC15(P)	
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6.	Intellectual Property Rights	MLC04																									
7.	Android App. Development Lab	LC EC15(P)																									
1.3.1	Cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum	<u>I Year</u> 1. English 2. Human Values 3. Rural Outreach 4. NSS/NCC (LLC) <u>II Year</u> 5. Professional Ethics 6. Energy & Environmental Engineering 7. Liberal Learning Course (NCA/NSO)- II 8. Creativity and Innovation 9. Self-Study <u>III Year</u> 10. Interdisciplinary Foundation Course-I 11. French Language 12. Business Communication 13. Minor Projects 14. IPR 15. Interdisciplinary Foundation Course-II 16. Constitution of India 17. Liberal Learning Course -III <u>IV Year</u> 18. Internship	Noteworthy contribution in UG program same suit can be followed for PG program also.																								

		19. Seminar 20. Minor/ Major Projects Interdisciplinary Open Course	
1.3.2	Number of certificate/value added courses/Diploma Programs offered. Online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms	- Minor Courses Robotics Engineering - Honor Courses Communication and IoT VLSI Design & Technology - MOOC courses List Attached - ISRO IIRS courses List Attached	<i>UG & PG students shall be encouraged to pursue minor, honor, certified & online courses.</i>
1.3.3	Is the program have the components of field projects / research projects / internships	<u>II Year</u> 1. Creativity and Innovation <u>III Year</u> 2. Minor Project <u>IV Year</u> 3. Major Projects 4. Internship Industry Visits	<i>Appreciable but more focus can be given for live projects of industry</i>
1.3.4	Faculty course files containing handouts assignments tutorial sheet, question bank, list of resources/reference materials etc.	Course files are maintained by the faculty member who is teaching the course in each semester	<i>Noted & verified.</i>
1.3.5	Lab manuals/ handouts/ SOP	Lab Manuals are available in respective Labs.	<i>Noted & verified with some suggestions:</i> 1. At-least 5% change is recommended. 2. Addition of one new lab equipment in every 2-3 year according to change in curriculum.
1.3.6	Syllabus revision frequency: UG PG	BoS meeting is organized at least twice in a year. DUPC and DPPC are in place to guide students during registration.	<i>Praiseworthy changes undertaken.</i>
1.4.1	Structured feedback for	The department maintains curriculum	<i>Students, Teachers,</i>

	curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc	feedback from all stakeholders in online/offline form. • Course End Survey • Student Exit survey • Feedback on Curriculum • Alumni Survey • Employer Survey	Employers, Alumni - feedback collected, analyzed and action has been taken. For deeper penetration Academic Peers may also be involved. (External Examiners)									
2	Teaching-Learning and Evaluation											
2.1.1	Enrolment percentage Number of seats filled (Only first year admissions to be considered) Number of sanctioned seats	99% <table><tr><th>Programme Name</th><th>Programme Code</th><th>Number of Students admitted</th></tr><tr><td>B.Tech</td><td>EC</td><td>28</td></tr><tr><td>M.Tech</td><td>DC</td><td>01</td></tr></table>	Programme Name	Programme Code	Number of Students admitted	B.Tech	EC	28	M.Tech	DC	01	More efforts are required for improvement in admissions.
Programme Name	Programme Code	Number of Students admitted										
B.Tech	EC	28										
M.Tech	DC	01										
2.1.2	Number of actual students admitted from the reserved categories (SC, ST, OBC etc.) in the first year Number of seats earmarked for reserved category as per GoI/State Govt. rule	<table><tr><th>Programme Name</th><th>Programme Code</th><th>Number of Students admitted</th></tr><tr><td>B.Tech</td><td>EC</td><td>SC-3, ST-0, OBC-8, General-16 EWS- 01</td></tr><tr><td>M.Tech</td><td>DC</td><td>SC -1</td></tr></table> List attached	Programme Name	Programme Code	Number of Students admitted	B.Tech	EC	SC-3, ST-0, OBC-8, General-16 EWS- 01	M.Tech	DC	SC -1	Representation from all categories of society appreciable.
Programme Name	Programme Code	Number of Students admitted										
B.Tech	EC	SC-3, ST-0, OBC-8, General-16 EWS- 01										
M.Tech	DC	SC -1										
2.2.1	Learning levels of the students and organizes special Programs to cater to differential learning needs of the	Department focuses on imparting learning to students through participative, experiential learning methods etc.	The procedure followed is commendable, data verified. The same procedure can									

	student	Advance and Slow learners are identified and measures are taken to cater needs of both levels of students. Remedial classes time table, remedial assignments, study materials etc. for weak students/slow learners Department organizes following program for students like Software Training, Industrial Visit/Educational Tour, Summer/Winter Internship, Technical Event and Competition • Industrial Visit • Technothon Tech Quiz (Basic Science & QAR) Workshop (Robotics Workshop) Coding-Decoding Competition symposium Robo-Race	<i>be atomized on CMS under weighted preference, so that system generates slow and fast learners.</i>
2.2.2	Student - Full time teacher ratio (STR)	9:1 UG/1:1 PG	<i>Verified, Need Improvement</i>
2.3.1	Student centric methods used for enhancing learning experience ICT- enabled tools including online resources for effective teaching and learning process	• Experiential Learning Methods Internship/industrial visits/industrial training • Participative learning Technical competitions such as project competition and science exhibition, Quiz • Problem solving Methodology Soft skill trainings, Mentoring, Engage in complex, challenging problems and collaboratively work toward their solutions by using inter-disciplinary knowledge e.g. ROBOTICS, BAJA etc. (NPTEL, You Tube Video Lectures, MOOCs etc.)	<i>Verified</i>
2.3.2	Mentor-Mentee Schemes to address academics and student-psychological issues	Mentor-Mentee scheme is followed and practiced regularly. Maximum 10 mentees are assigned to one mentee every year.	<i>Wellness counselor is available at institute level.</i> <i>Mentor-Mentee process is well in order.</i>
2.3.3	Preparation and adherence of Academic Calendar and Teaching	Department Activity Calendar and Teaching Plans are prepared in adherence with the Institute Academic Calendar	<i>OK</i>

	plans		
2.4.1	Number of full time teachers appointed against the sanctioned posts	Faculty list attached	<i>As per norms</i>
2.4.2	Full time teachers with Ph.D.	05	<i>Faculty be encouraged for quality research</i>
2.4.3	Total teaching experience of full-time teachers (in number of years)	17 full time faculties. Average experience = 12 Years	<i>Verified & Appreciable.</i>
2.4.4	Number of full time teachers who have been working in the organization continuously during the entire assessment period	17 Faculties (100%)	<i>Very good faculty retention.</i>
2.4.5	Number of PhDs pursuing faculty	08	<i>OK</i>
2.4.6	Faculty Cadre	Professor-03 Associate Professor-03 Assistant Professor-11	<i>Cadre ratio as per norms.</i>
2.4.7	Faculty Retention with respect to CAYm2	100%	<i>Exceptionally well.</i>
2.4.8	Full time adjunct faculty in the department	NIL	<i>Noted.</i>
2.4.9	Part time adjunct faculty in the department	NIL	<i>Noted.</i>
2.4.10	Faculty/Industry People Invited in co-teaching	Expert Lecture - 07	<i>Involve experts in direct co-teaching of the courses in curriculum. At least 10% of course syllabus.</i>
2.4.11	JRF/SRF/TA/RA in the department	Teaching Assistants – 03	<i>Noted.</i>
2.5.1	Number of days from the date of last semester-end/ year-end examination till the last date of declaration of results	Jan-May 2024: 22 days	<i>Commendable work. Exam gaps can be reduced so that saved time may be utilized for summer term.</i>
2.5.2	Number of Student complaints/grievances about evaluation	NIL (Grievance Redressal Mechanism is available)	
2.5.3	IT integration and	Full OBE evaluation via Campus	

	reforms in the examination procedures and processes Improvement in Examination Management System (EMS) of the institution	Management system (CMS) Examination reforms are in place as per guidelines issued by AICTE in connection with examination reforms. https://ies.ipsacademy.org/academic-rules-regulations/	<i>Praiseworthy work done.</i>
2.5.4	Exam Evaluation Scheme: Theory Practical Audit of question papers through experts External examiners participation in practical evaluation Open Book Exams Comprehensive viva voice exam	Theory evaluation Scheme comprises of HA (15) + MST (25) + ESE (60) = 100 Practical evaluation Scheme comprises of Internal (40) + ESE (60) = 100 Moderation of Question Paper is done. External Examiners are called for Practical Evaluation. Comprehensive viva voice exam -No	<i>As per Academic Rules Regulation (ARR) available on website.</i>
2.6.1	CO-PO Assessment	Direct /Indirect Assessment [Attachment enclosed in file]	<i>Perused and found appreciable.</i>
2.6.2	Pass percentage of students (excluding backlog students)	B. Tech – 96.29%, ME -100%	<i>Excellent in UG & PG</i>
2.6.3	DUPC-DPPC: UG, PG	DUPC for UG programme and DPPC for PG programmes are constituted and functional at departmental level.	<i>Appreciable that the feedbacks from stack holder are also an important part of DUPC and DPPC for guidance during registration.</i>
2.6.4	Quality of Students projects and relevance to specialization UG & PG	B.Tech – 9 projects Quality of UG & PG students is assessed regularly (once every month) in terms of aim of work, content, presentation skills, defense viva, resource management etc. criteria.	<i>Projects should be more oriented towards live problems of industry. All students should be encouraged to publish research papers in SCI/UGC-CARE/ SCOPUS journals of repute.</i>
2.7.1	Online student	Collected at Institute Level.	<i>Noted.</i>

	satisfaction survey regarding the teaching learning process.		<i>Appreciable work.</i>
3	Research, Innovations and Extension		
3.1.1	Research facilities are frequently updated Policy for promotion of research which is uploaded on the institutional website and implemented	• Incentive on research publication/ patent/ book publication/ conference registration fee & allowances. • Financial support for workshop & seminar participation https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	<i>Good policy framework.</i>
3.1.2	Amount of seed money provided by institution to its teachers for research	<i>As per institute policy</i>	<i>Faculty should be motivated to apply for seed funding for research.</i>
3.1.3	Number of teachers receiving national/ international fellowship/ financial support by various agencies for advanced studies/ research	NIL	<i>More participation of faculties is needed in national/international events, conferences, symposiums, competitions etc.</i>
3.2.1	Research funding received by the institution and its faculties through Government and non-government sources	NIL	<i>Needs improvement</i>
3.2.2	Number of research projects per teacher	Nil	<i>Needs improvement.</i> <i>Faculties should send more research proposals to government agencies for grants.</i>
3.2.3	Number of teachers recognized as research guides	01	<i>Needs improvement.</i>
3.2.4	Faculty applied for research funding	Nil	<i>Faculty shall be encouraged to take up</i>

			<i>more research assignments.</i>
3.3.1	Awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same (IPR like Patent etc.)	IPR Cell from 2018 01- Start up	<i>Needs improvement.</i>
3.4.1	Code of Ethics for research and the implementation	https://ies.ipsacademy.org/wp-content/uploads/2016/12/Research-Policy-Revised.pdf	<i>All committees present.</i>
3.4.2	Number of candidates registered for Ph. D per teacher	01	<i>Needs improvement</i>
3.4.3	Number of research papers published in the Journals as notified on UGC CARE list	11	<i>Needs improvement.</i>
3.4.4	Number of books and chapters in edited volumes published	NIL	<i>Needs improvement.</i>
3.4.5	Average Citation index in Scopus/ Web of Science	66/17=3088	<i>Needs improvement</i>
3.4.6	Scopus/ Web of Science – h-index	26/17=1.52	<i>Needs improvement</i>
3.4.7	Faculty publication in reputed conferences	01	<i>Noted</i>
3.4.8	Faculty publication ratio (UGC CARE list Journals)	11/17=0.65	<i>Needs improvement.</i>
3.5.1	Revenue generated from consultancy and corporate training	NIL	<i>No consultancy from outside.</i> <i>Dept. may start with small testing projects of industry</i>
3.6.1	Extension activities in sensitizing students to social issues and holistic	Various extension activities like rural outreach, traffic awareness, voter awareness, blood donation camp, health checkups, NSS,	<i>Commendable work.</i>

	development	NCC etc. are organised as institute and department level for sensitizing students to social issues and holistic development • Unnat Bharat Abhiyan Adopted 5 villages: Kudana, Kattkya, Magarkheda, Solsinda, Potlod • Rural Outreach • Swachh Bharat Abhiyan • NCC Activities 2022-23 05 1. Ghar Ghar Tiranga Har Ghar Tiranga 2. NCC Combined Annual Trg Camp (Catc-Iii) 3. Swachh Bharat Abhiyan Puneet Sagar Scheme 4. 75th NCC Day Celebration 5. Eye Check Up Camp 6. Rural Outreach Program 7. World Environmental Day	
3.6.2	Number of extension and outreach programs conducted through organized forums including NSS/NCC with involvement of community	• NCC Activities 2022-23 05 Ghar Ghar Tiranga Har Ghar Tiranga NCC Combined Annual Trg Camp (Catc-Iii) Swachh Bharat Abhiyan Puneet Sagar Scheme 75th NCC Day Celebration Eye Check Up Camp Rural Outreach Program World Environmental Day.	<i>Good initiative.</i>
7.1	Faculty industry connect: Number of functional MoUs Number of industries visited by faculty	Number of industries visited by faculty -04	<i>Needs improvement.</i> <i>Involve industry personnel in direct co-teaching.</i>
3.7.2	Industry participation in funded projects : Co-teaching details for each course:	Expert Lecture- 07	<i>Needs improvement</i>
3.7.3	Faculty travelled abroad/in country for collaboration	Visit to Indian Institute of Technology (IIT) Kanpur, on March 4, 2023, for delivering lecture on advanced technologies in Virtual Labs under Ministry of Education GoI for collaboration with IIT Kanpur Virtual Labs	<i>Faculties must be encouraged for international collaboration and research.</i>

		Visit to India International Education Fair Education Worldwide India, Delhi, Bangalore, Hyderabad from April 16-23, 2023 for collocation with International Universities.	
4	Infrastructure and Learning Resources		
4.1.1	No. of classrooms Laboratories Computing equipment ICT – enabled facilities such as smart class, LMS etc. Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.	No. of classrooms: 04 Laboratories: 10 Computing equipment:77 All classes are smart classes & equipped with LCD Projector 1) 3 Audi (Available at Institute level for student Activities) 2) 2 Quadrangle & Central ground for outdoor games 3) Student Section for indoor games and yoga activity 4)Interactive LED TV in Room No. 313 5) ERP software and CMS	<i>Adequate infrastructure for the conduction of UG/PG program.</i>
4.1.2	Expenditure excluding salary, for infrastructure development and augmentation	Expenditure for infrastructure development and augmentation is available at institute level.	<i>Noted.</i>
4.1.3	Equipments and facilities available and their status: Log book status Software Modeling and computational tools and facilities	Projectors, Printers, WiFi, Departmental Library, Photocopy Machines, Personnel Faculty Cabin with PC's with LAN connection, DG Generator, Smart TV, Wheel Chair available in Institute for differently enabled persons Available at respective labs. 08 Yes. Simulation Lab is well equipped with computational facilities and software.	<i>Noted & verified.</i>

	Incubation Labs	Yes	
4.1.4	Industry sponsored labs	E- Yantra Lab established by IIT Bombay.MOU signed for establishment of Center of Excellence by Gaurana Aerospace Ltd.	<i>Needs improvement. Involvement from Alumni who are in industry may be sought.</i>
4.1.5	New lab/equipments added New software added MODROBS Sanctioned Testing Lab	IoT lab established	<i>Procure more Software relevant to the programs.</i>
4.1.6	Virtual Development Lab	EoI signed with Virtual Lab MoE. Virtual Lab experiments are available at all computer nodes.	<i>Good work.</i>
4.2.1	Library facilities The library is optimally used by the faculty and students	Yes 1) Central Library at Institute level 2) Departmental Library	<i>Commendable work. E-journal is also available. Department Library can also be developed as student self-learning centre.</i>
4.2.2	Expenditure for purchase of books/ e-books and subscription to journals/e-journals	Adequate expenditure for the purchasing of e-books and subscription to journals/e-journals.	<i>Good.</i>
4.3.1	IT facilities and sufficient bandwidth for internet connection	Yes. Campus is Wi-Fi Enabled with bandwidth 1 Gbps.	<i>Noted & verified.</i>
4.3.2	Student - Computer ratio	1:1	<i>V. Good.</i>
4.3.3	Audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development	Yes Media centre available at Institute Level	<i>Appreciable initiative</i>
4.4.1	Expenditure incurred on maintenance of physical facilities and academic support facilities	Adequate expenditure incurred on maintenance of physical facilities and academic support facilities	<i>Appreciable</i>

	excluding salary component		
4.4.2	Procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc	Regular Inspection and Calibration of Instruments (Audit reports available at respective laboratories)	<i>External Experts conducts the audit and reports are available in the department.</i>
5	Student Support and Progression		
5.1.1	Number of students benefited by scholarships and freeships provided by the institution government and non-government bodies, industries, individuals, philanthropists	A scholarship as per M.P. Government is available. https://scholarships.gov.in (For OBC Students) tribal.mp.gov.in (For SC/ST Students)	<i>The scholarship amount is deposited through DBT.</i>
5.1.2	Efforts taken to provide career counseling including e-counseling and guidance for competitive examinations	In an effort to provide valuable insights and guidance for career development, a specialized lecture featuring industry experts was arranged. This informative event aimed to assist individuals in making well-informed decisions about their professional journeys. The event brought together accomplished professionals with extensive experience in various industrial sectors. These experts shared their knowledge and expertise, offering valuable advice on career planning and development. Participants had the opportunity to gain insights into different career paths, job market trends, and the skills and qualifications required for success in their chosen fields.	<i>Guidance for GATE and other Professional Exams is available to students for free which is a praiseworthy step.</i>
5.1.3	Capacity development and skills enhancement activities are organized for improving students' capability	Soft skills, Annual seminar, paper presentation, internship, software training	<i>Very good</i>
5.1.4	Redressal of student grievances including	Redressal of student grievances including sexual harassment and ragging cases no any	<i>Noted</i>

	sexual harassment and ragging cases	grievances reported for session 2022-23	
5.1.5	Student Performance: Passing out in first attempt % Student scoring first class (>6.5 CGPA) No. of UG Students Graduating/ed in 4 years No. of UG Students Graduating/ed in more than 4 years No. of PG Students Graduating/ed in 2 years No. of PG Students Graduating/ed in more than 2 years	92.85% 26 25 01 00 00	Very Good in UG & PG
5.1.6	Result Analysis (UG & PG Pass Out Performance) Students with CGPA 10 Students with CGPA 9 to <10 Students with CGPA 8 to <9 Rest all UG,PG	00 05 14 7	Very good
5.1.7	UG/PG (Co/extra-curricular activities)	Technothon-23 Cultural/ Sports Report Attached	Noted
5.1.8	Student industrial internships	The industrial internship program provides students with a chance to work closely with experienced professionals and gain insights into the inner workings of different industries. They will have the opportunity to tackle real-world challenges, collaborate with industry experts, and build a network of valuable	Internship should be in-line with the project of students. This will also enhance the employability of student. Interned students should

		contacts in their respective fields. A group of 41 students has undertaken industrial internships/Training, gaining practical training and experience in a wide range of industries. These internships offer them a unique opportunity to apply their classroom knowledge to real-world situations and further their professional development.	<i>give presentation to second year and third year students.</i>
5.1.9	Student publications	03 papers published	<i>Need Improvement</i>
5.1.10	Student Startups	To fuel the ambitions of aspiring young entrepreneurs, two impactful events, "Smart India Hackathon" and an "Expert Lecture", have been meticulously organized. These initiatives aim to motivate students and ignite their passion for startup ventures.	<i>Noted</i>
5.1.11	Innovative Product/Prototype Developed by Students : Prototype Developed Product Developed Product + Prototype Developed	Technical Fest Technothon-23 is organized at department level every year. where students Participate in Competition, Technical Quiz, symposium, Circuit Making Competition. Prize will be given to winner and runner-up.	<i>Students should be encouraged to participate at national/international level tech-fests/competitions at IITs, NITs etc.</i>
5.2.1	Number of students placed and package received (Min. and Max.) Number of students progressing to higher education	A total of 20 students have achieved placements in prestigious and well-established industries, marking a significant milestone in their academic and professional journeys. These placements represent an exciting opportunity for these students to gain hands-on experience and apply their knowledge in real-world settings. Max. package = 10.5 Lakh Min. package = 2.1 Lakh	<i>Needs improvement.</i> <i>Alumni who are entrepreneurs or are associated with industry may be approached for recruitment drives for more placements.</i>
5.2.2	Number of students qualifying in state/national/ international level examinations (eg: GATE/NET/SLET/Civil Services/State government examinations etc.)	In a notable achievement, 02 students have demonstrated their academic excellence by qualifying in the Graduate Aptitude Test in Engineering (GATE) examination. This accomplishment is a testament to their dedication and expertise in the field of engineering	<i>Noted</i>
5.3.1	Number of awards/	Nil	<i>Needs improvement.</i>

	medals for outstanding performance in sports/ cultural activities at University / state /national / international Level events		
5.3.2	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the department/institution	• IETE Student Chapter • IEEE Student Chapter • Student Committee for Technothon • Students representation in Advisory Board	<i>Praiseworthy work.</i>
5.3.3	Organizes following activities: Sports competitions/ events Cultural competitions/ events Technical fest/ Academic fest Any other events through Active clubs and forums	• Cultural Report attached • Sport Report attached • Technothon Report attached	<i>Appreciable.</i>
5.4.1	Alumni contribution to the institution through registered Alumni association	Registered Alumni Association Exist at institute level	<i>Noted</i>
5.4.2	Alumni contributes and engages significantly to the development of institution through academic and other support system	Alumni plays important role in academic and holistic development of department being a part of BoS, Advisory board, Placements etc. Alumni feedback is also obtained for curriculum development, facilities enhancement, employment generation etc.	<i>Other alumni contribution noted.</i> <i>Entrepreneur alumni should be approached often to provide training/ internship and offer employment opportunities to current batches.</i>
5.4.3	Professional Societies/Chapter and organizing events	Technothon-23- Technical event	<i>Less participation by students in professional society events outside institute. This needs to be improved.</i>
5.4.4	Publication of technical magazines, newsletters	Exist	<i>Noted & verified</i>

	etc.		
6	Governance, Leadership and Faculty Empowerment Strategies		
6.1.1	Governance and leadership are in accordance with the vision and mission and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance	Faculties and Students take part in holistic development of department and institution being member of various committees. • BOS • List of Faculty • Committee list • NEP implemented in Curriculum [List has been attached]	<i>Noted</i>
6.2.1	Committees in place and members: Advisory board, BoS Purchase, Grievance etc.	• BOS • List of Faculty • Committee list	<i>Noted</i>
	Performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression	Appraisal system and welfare measures are done as per AICTE norms.	<i>Available for teaching and non-teaching staff.</i>
6.3.2	Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies	All faculties received financial assistance for Membership in various reputed professional bodies.	<i>Praiseworthy. faculties were provided financial support.</i>
6.3.3	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. attended	No. of faculty attended the program - 17	<i>Very good. 100%</i>
6.3.4	International/National Conferences,	No. of program including	<i>Noted</i>

	symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. Conducted	International/National Conferences, symposiums, seminars, research conclaves, workshops, FDPs, STTP, Trainings, Orientation / Induction Programs, Refresher Course etc. conducted - 12	
7	Values and Best Practices		
7.1.1	Gender equity & sensitization in curricular and co-curricular activities	• Focus on ethics through subjects like Professional Practice, Law & Ethics. • Representation by female faculties & students in various department level committees like DUPC DPPC, Grievance, Cultural, Sports, Magazine etc. • Participation of female faculties & students in various annual technical, cultural and sports events like e-Awartan, Swaranjali etc. as Coordinator, Volunteers and Participants. • Female Students have joined NCC through institute. • Subject- Profession, Law, Ethics, Gender, Human Values and harmony (III Sem) • Induction Program- Expert Lecture on Gender Equality.	<i>Commendable work.</i>
7.2.1	Department Practices Best	• Guidance and Assistance Program for Competitive Exams – Free guidance and assistance to students after regular class hours. • Honors and Minor Course • Social media used for quick dissemination of useful information & events among students.	<i>Use of social media is praiseworthy</i>
8	Supporting staff contributions		
8.1.1	Qualification participation academics and in	B.E./B.Tech/ Diploma/I.T.I Lab Staff: Demonstration of experiments, and handle laboratories, Practicals for students	<i>Noted</i>

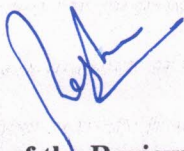
		Maintanance records of lab equipments	
8.1.2	Filling and data record keeping	Dispatch Register For Notice and letter Project Resister for list of B.Tech Major Project and M.Tech Thesis (UG/PG) Marsksheet Issue register Departmental Library Books issue and return register Training & internship Register	Noted
8.1.3	House keeping	Store Register	Noted
8.1.4	Lab maintenance /office maintenance	Store Register Calibration and Maintenance record Register, Stock Register	Noted
8.1.5	Staff sent for training/workshops/skill up gradation/qualification improvement	Nil	Noted
9	Other Important Aspects		
9.1.1	Feedback taken from various stake holders (Passing out students, Alumni, Industry, Parent etc.)	Feedback is collected from all stakeholders	Take more feedbacks from Academic Peers when they appear as External Examiners in your institute. Prepare a feedback form for same.
9.1.2	Entrepreneurship Cell	Available	Noted & verified.
9.1.3	Department Webpage	https://ies.ipsacademy.org/departments/electronics-communication/	Available
9.1.4	Self-Learning	Course included in curriculum. Also inculcated through events and activities like e-Awartan	Noted. Course is available.
10	Reviewer's final comments on dept. strengths and scope for improvement		Please refer below:

Strengths:

- *Good faculty strength and faculty retention rate.*
- *Curriculum is appropriately designed and in-line with AICTE model curriculum.*
- *Exercise of syllabus evaluation and updating is in routine.*
- *Good participation of students in academic as well as administrative processes.*
- *Adequate gender representation at all levels.*
- *Innovative steps by department like Guidance Program for students, regularly updated Facebook and Whatsapp handle.*

Weakness:

- *Need for improvement in testing and consultancy works.*
- *Less number of research publications and book chapters.*
- *Less activity from the Alumni association.*
- *Placement should be improved.*
- *Intense drive should be made to bag more research and consultancy project from industry and government.*



Signature of the Reviewer:

Name of the Reviewer: Mr. Rakesh Joshi
DGM, Tata Cummins, Dewas

Signature of the Reviewer:

Name of the Reviewer: Prof. (Dr.) K.K. Sharma
Professor, MNIT, Jaipur