IARE
INSTITUTE OF
AERONAUTICAL ENGINEERING

NAAC ACCREDITATION A++ GRADE NBA NATIONAL BOARD OF ACCREDITATION

nirf INDIA RANKINGS 2024 ENGINEERING RANK 151-200 INNOVATION RANK 11-50

INTERNAL AUDIT PROCESS HANDBOOK

24 YEARS OF Excellence

INTRODUCTION

Internal Audit would help the Institute in improving economy, efficiency, effectiveness and transparency in institute's administration in general and financial administration in particular. It will also help in maintaining a sound record keeping system with adequate checks and balances to ensure a sound information system for decision making by the executives. The type of internal audit consists of academic audit and administrative audit.

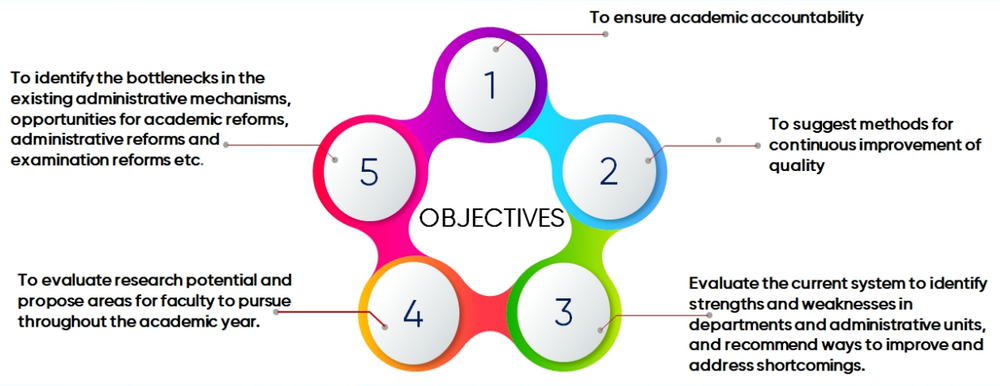
The academic audit process emphasizes reflection and improvement rather than compliance with predetermined standards. The purpose of an academic audit is to encourage departments or programs to evaluate their "education quality processes" – the key faculty and program activities required to produce, assure, and regularly improve the quality of teaching and learning. Its emphasis on faculty members and departments/programs approaches educational decision-making and how they organize their work, use the resources available to them and work collegially to provide a quality education in the best interests of discipline and student learning.

The administrative audit is a process of evaluating the efficiency and effectiveness of the administrative procedure. It includes assessment of policies, strategies & functions of the various administrative units.

The internal academic and administrative audit is conducted jointly by the internal audit office and Internal Quality Assurance Centre (IQAC) within the institute once in an academic year at department / units and external academic audit by the experts nominated by the principal. The audit office prepares, maintains and submits academic audit reports in prescribed formats for each semester at regular intervals.

OBJECTIVES

- To ensure academic accountability
- To understand the existing system and assess the strengths and weaknesses of the departments and administrative units and to suggest methods for improvement and for overcoming the weaknesses
- To identify the bottlenecks in the existing administrative mechanisms, opportunities for academic reforms, administrative reforms and examination reforms etc.
- To suggest methods for continuous improvement of quality



AUDIT CATEGORIES

The Audit is conducted both on Faculty Academic / Research, and administrative process to encourage faculty, programs, and departments to evaluate their quality and standards based on predefined benchmarks and to suggest activities required to improve the quality of the system on a regular basis as shown in figure 2.0

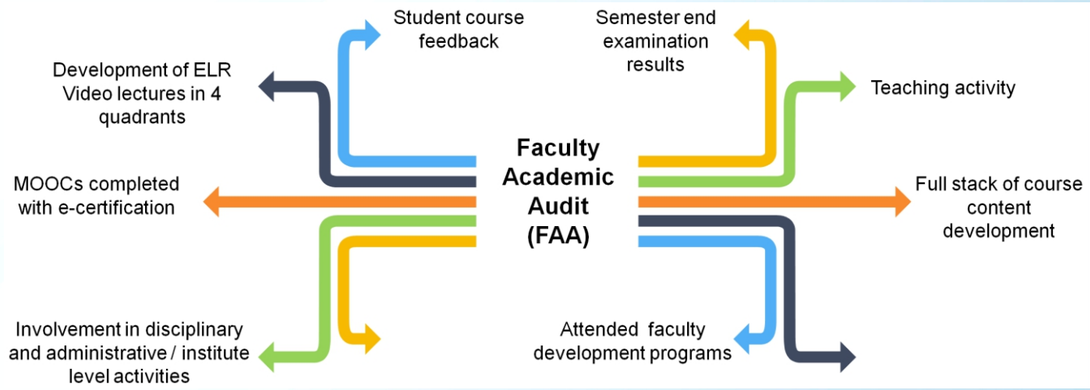
❖ FACULTY ACADEMIC AUDIT

Academic audit can be understood as a scientific and systematic method of reviewing the quality of academic process in the institution. It is related to the quality assurance and enhancing the quality of academic activities at institute level.

- Faculty academic performance through Faculty Academic Audit (FAA)
- Faculty Quality of instruction and content delivery audit through Self Evaluation Document (SED)

• Faculty academic performance through Faculty Academic Audit (FAA)

The faculty academic audit on performance of academic activities is evaluated through a specially designed Faculty Academic Audit form is conducted once in a semester.
"Refer Appendix I for the FAA form."



·Teaching activity (Details of lectures, tutorials, practical and other teaching related activities)

The audit evaluates teaching activities, including lectures, tutorials, practicals, and other instructional tasks, based on class attendance and completion rates. Scoring is as follows: below 75% receives 0 marks, 75%–85% earns 3 marks, 86%–95% earns 6 marks, and above 95% earns the maximum of 10 marks.

·Student course feedback

Student feedback data collected for various courses across different semesters and academic levels (Undergraduate or Postgraduate). The feedback percentage is evaluated both at the early stage of the semester (content delivery) and at the end of the course. An average feedback score is calculated based on these two assessments, with a corresponding rubric score assigned based on the average: scores below 70% earn 0 marks, 70%-75% earn 3 marks, 75%-85% earn 6 marks, and scores above 85% earn the maximum of 10 marks.

·Semester end examination results

Semester-end examination results for various courses, detailing the academic year and semester, course code, course name, level (Undergraduate or Postgraduate), and teaching mode.
Each course's pass percentage is recorded, and based on this percentage, a rubric score is assigned: pass rates below 70% earn 0 marks, 70%-80% earn 3 marks, 80%-90% earn 6 marks, and above 90% earn 10 marks. This rubric helps assess overall course effectiveness and student achievement in terms of pass rates.

·Full stack of course content development

The development of full-stack course content for various courses, including details like course code, course name, academic year, and level (Undergraduate or Postgraduate). Each course has an associated weblink, which provides access to the developed content. For every course that has complete full-stack content developed, 7 marks are awarded. This rubric supports evaluation of course material development efforts and accessibility through web resources.

·Details of attended refresher / orientation course / research methodology / workshop / syllabus up- gradation / teaching - learning-evaluation / technology programs / faculty development programs

The details of faculty participation in various professional development events, such as refresher courses, orientation sessions, research methodology workshops, syllabus upgradation, teaching-learning-evaluation programs, technology programs, and faculty development programs. For each event attended, the table records the event details, location, time period (from and to dates), and the sponsoring or organizing agency. Each event attended earns 10 marks, with this rubric recognizing and encouraging continuous faculty development and skill enhancement.

·Details of conducted refresher / orientation course / research methodology / workshop / syllabus up- gradation / teaching - learning-evaluation / technology programs / faculty development programs

The faculty-led professional development events, covering refresher courses, orientation sessions, research methodology workshops, syllabus updates, teaching-learning-evaluation programs, technology initiatives, and faculty development programs. For each event conducted, details such as the event description, location, period (with start and end dates), and the sponsoring or organizing agency are provided. Conducting each event earns 10 marks, and these rubric highlights faculty contributions to professional development and knowledge-sharing within their fields.

·Development of ELR Video lectures in 4 quadrants

In this parameter records the development of Enhanced Learning Resources (ELR) through video lectures structured in four instructional quadrants. Each entry includes details of the video content, the number of quadrants covered, course code, course name, academic level (Undergraduate, Postgraduate, or Other), and a web link for accessing the videos. For every set of 20 videos developed, 10 marks are awarded, up to a maximum of 30 marks. This rubric encourages comprehensive, multimedia-based instructional materials, promoting diverse and effective learning resources for students.

·MOOCs completed with e-certification

The information on completed MOOCs (Massive Open Online Courses) with e-certification, including details about the course, name, certification-providing agency, date of certification, and academic level (Undergraduate, Postgraduate, or Other). For each MOOC completed with e-certification, 10 marks are awarded, as per the rubric. This evaluation encourages continuous learning and skill development through recognized online courses, supporting faculty and students in expanding their expertise.

·Involvement in disciplinary and administrative / institute level activities

The table outlines participation in institutional and administrative activities, listing the activity name, role or designation held, institution or department involved, and the period (start and end dates). Each listed activity contributes 2 marks, up to a maximum of 10 marks. This rubric acknowledges and rewards faculty engagement beyond academic duties, highlighting contributions to institutional development, governance, and the broader academic community.

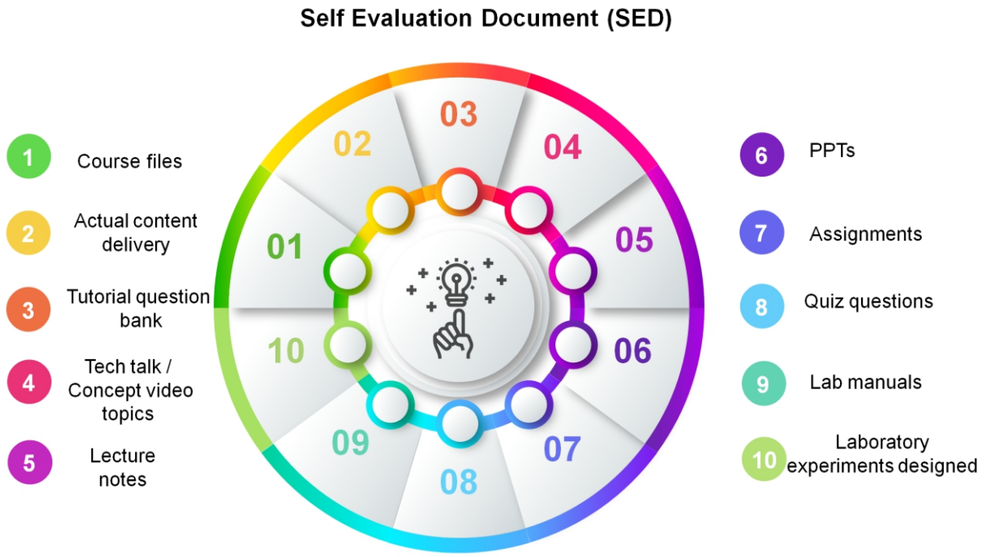
·Involvement in community development and social responsibility

The details of faculty involvement in community development and social responsibility activities, highlighting various initiatives they have participated in. Each activity listed includes a brief description of the initiative, the faculty member's role, and the duration of involvement. Faculty members earn 2 marks for each activity, with a maximum score of 10 marks. This rubric serves to recognize and reward contributions to community service, emphasizing the importance of social engagement and responsibility in academic settings.

♦ Faculty Quality of instruction and content delivery audit through Self Evaluation Document (SED)

The faculty academic audit on Quality of instruction and content delivery is evaluated through a specially designed Self Evaluation Document is conducted twice during every semester. “Refer Appendix II for the SED form.”

The audit, conducted by a committee appointed by the principal, systematically reviews the thoroughness and quality of course-related materials and teaching practices across several criteria as shown in figure 4.0 This includes evaluating course files, defined course outcomes, and the instructional schedule to ensure alignment with academic goals. The audit checks the actual content delivered against the planned schedule, along with supplementary materials like tutorial question banks, tech talks, concept videos, lecture notes, and PowerPoint presentations. It also assesses the use of ICT tools and e-content developed through a structured four-quadrant approach, enhancing student engagement. Practical resources, such as lab manuals and designed experiments, along with maintenance of accurate records, are reviewed to ensure that instructional resources are comprehensive, well-organized, and contribute effectively to student learning outcomes. This process promotes high standards of instructional quality and resource management within the institution.



The academic audit mainly focuses on

·Curriculum and Co-curriculum

·Teaching, Learning and Evaluation

Curriculum and Co-curriculum:

In Curriculum and Co-curriculum aspects are verified in terms of curriculum design and improvements, the content and sequencing of courses for achieving program outcomes.

Teaching, Learning and Evaluation:

The audit process will validate course delivery in accordance with the curriculum and syllabus, faculty member duties and responsibilities, class monitoring, course progress, internal assessment, student guidance and counselling, grievances, and the effective use of instructional materials and teaching tools for achieving student learning objectives.

FACULTY RESEARCH AUDIT

The research and development audit concentrate on Academic and sponsored research. Academic research includes faculty publications in referred and indexed journals (SCI / SCIE / Scopus), funded schemes sponsored research projects, publications, collaboration activities intellectual property rights (IPR) and tech transfers are verified every quad in an academic year through prescribed form named as Performance Appraisal Scoring System (PASS-Research) is available in the institute website.

"Refer Appendix III & IV for the PASS forms."

The sponsored research audit checks the details of research projects and proposals (submitted / ongoing / completed) with respect to sanction letters and utilization certificates of all funded projects and schemes. Revenue generated and utilization records of consultancy activities is to be verified as shown in figure 5.0

Research publication titles in referred and indexed journals (SCI/SCIE/Scopus)
Rubric for Scoring (Max: 20 Points)
The Performance Appraisal Scoring System (PASS) for faculty evaluates research output by assessing publications in recognized, high-impact, peer-reviewed, and indexed journals, specifically those in SCI, SCIE, and Scopus databases. Faculty members can submit research publication titles for appraisal in the months of April, August, and December.
Each publication in a qualifying journal contributes to the score, with a maximum of 20 marks attainable. This rubric incentivizes faculty research excellence, encouraging high-quality, impactful publications that contribute to academic and scientific advancements in their field.

Research publication titles in Scopus indexed International Conferences
Rubric for Scoring (Max: 10 Points)
This scoring rubric evaluates the quality and impact of research publications presented by faculty in Scopus-indexed international conferences. Faculty members are assessed on the relevance, innovation, and recognition of their research publications within their academic field. Scores should be awarded based on thorough review of conference quality and the publication's impact.
Evidence of citations, awards, or conference recognition should be provided where applicable to support scoring. Faculty may present supporting documentation during their appraisal review.

Chapters in books published by National and International Level publishers, with ISBN/ISSN number
Rubric for Scoring (Max: 5 Points)
This scoring rubric evaluates faculty contributions in the form of book chapters published by recognized national or international publishers. Chapters are assessed based on the quality of the publication, relevance to the academic field, and alignment with institutional goals.
All eligible publications must have a valid ISBN/ISSN.

Text/Reference books published by International Publishers, with ISBN/ISSN number Rubric for Scoring (Max: 10 Points)

Criteria: The book must include a valid ISBN (for books) or ISSN (for serial publications), ensuring its traceability in international databases.
The book must meet high publishing standards, including professional layout, design, and readability.
Scoring:
10 points: Clear and valid ISBN/ISSN number is present and correctly formatted.
7-9 points: ISBN/ISSN is included but contains minor formatting or detail errors.
4-6 points: ISBN/ISSN is present but may not be valid or traceable.
1-3 points: ISBN/ISSN missing or inaccurate.
0 points: No ISBN/ISSN provided.

Citation Index Count (Source: Scopus / Google Scholar) Rubric for Scoring (Max: 5 Points)

The objective of Citation Index Count is to assess the scholarly impact and productivity of an author or publication based on citation metrics and h-index sourced from Scopus or Google Scholar.
Citation index count refers to the total number of times an author's work or a publication has been cited in academic literature. High citation counts generally indicate that the work has influenced subsequent research and is well-regarded in its field.

h – Index (Source: Scopus /Google Scholar) Rubric for Scoring (Max: 3Points)

The h-index measures both the productivity and citation impact of an author's publications. An author with an h-index of "h" has "h" publications that have each been cited at least "h" times. A higher h-index reflects a sustained impact in the author's field.
This rubric allows for a comprehensive evaluation of an author's impact using citation index count and h-index metrics, ensuring a well-rounded assessment of their scholarly influence.

IPR Activities (Patents / Industrial Designs under institutional ownership only) Source: IPO / WPO

This rubric, totalling a maximum score of 15 points, allows for a comprehensive evaluation of IPR activities, ensuring that patents and industrial designs are original, commercially viable, strategically aligned with institutional goals, and legally enforceable.

Submitted any proposal/s for Funded Research Project

Here's a rubric for evaluating the submission of proposals for funded research projects, with a focus on assessing the quality, relevance, feasibility, and strategic alignment of the proposals.
This rubric, totalling a maximum score of 10 points, provides a structured approach to evaluating research project proposals submitted for funding based on impact, clarity, feasibility, budget justification, and alignment with institutional objectives.

Submitted proposal/s for Funded Research Scheme

Here's a rubric to evaluate proposals submitted for funded research schemes. This rubric, with a maximum score of 5 points, assesses the proposal's quality, strategic alignment, feasibility, and potential to secure funding.
This rubric, with a maximum score of 5 points, provides a structured approach to evaluate research scheme proposals based on relevance, quality, feasibility, and alignment with institutional goals, helping assess the proposal's likelihood of securing funding.

Innovation in Product development - Proposal/submitted to MSME / ASPIRE / HIBI / DSIR / Others

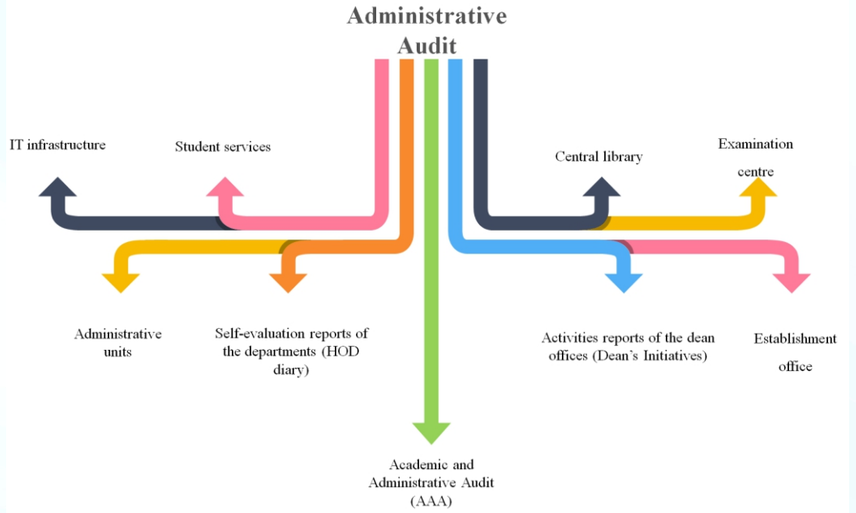
Here's a rubric for evaluating innovation proposals submitted for product development funding through schemes like MSME, ASPIRE, HIBI, DSIR, or other relevant programs.
The rubric focuses on assessing the innovation's originality, impact, feasibility, market potential, and alignment with the goals of the funding program.
This rubric, with a maximum score of 10 points, provides a structured approach to evaluating product development innovation proposals based on originality, feasibility, market potential, program alignment, and societal impact.

Consultancy Work undertaken

Here's a rubric for evaluating consultancy work undertaken, with a maximum score of 10 points.
This rubric assesses the relevance, impact, client satisfaction, alignment with institutional expertise, and financial contribution of the consultancy work.
This rubric, totalling a maximum of 10 points, provides a structured approach to assessing consultancy work based on relevance, client satisfaction, strategic alignment, and financial contribution.

ADMINISTRATIVE AUDIT

Administrative audit is a process of evaluating the efficiency and effectiveness of the administrative procedures. It includes assessment of policies, strategies and functions of the various administrative units as shown in figure 6.0
·Self-evaluation reports of the departments (HOD diary) collected and evaluated monthly.
·Activities reports of the various dean offices (Dean's Initiatives) collected and evaluated monthly.
·Departmental audit through Academic and Administrative audit (AAA) in an academic year.



Self-evaluation reports of the departments (HOD diary) collected and evaluated monthly

Vision, Mission and action plan of the departments are assessed as a very important facet of the audit system to work upon them for formulating a larger action plan. The process of Administrative Auditing intends to monitor and enhance the quality of department activities as shown in figure 7.0 through (both teaching faculty and students) prescribed document which is available in Institute website as Hod's self-evaluation report form “Refer Appendix V for the self-evaluation report form.”

Faculty interaction with outside world/achievements /awards/events organized

Here's a rubric for evaluating interactions with the outside world through invited talks, achievements awards, events organized and keynote addresses, with a maximum score of 40 points. This rubric focuses on the relevance, audience impact, institutional representation, and engagement level of the speaker.
This rubric, with a maximum score of 40 points, provides a structured approach to evaluating invited talks or keynote addresses based on relevance, audience impact, content quality, institutional alignment, and engagement.

Faculty Research publications/Seminars/Conference/FDP/Workshops attended

Here's a comprehensive rubric for evaluating various faculty research and professional development activities, consultancy work, intellectual property contributions, research grants, equipment usage, and educational initiatives for slow and advanced learners.
Each category is scored based on the quality, impact, and relevance of the work, with a maximum score indicated for each section.

Faculty Consultancy Activities/Patents/Copyrights/Industry Designs/Research Grant

These rubrics provide a detailed framework for scoring faculty accomplishments across research, consultancy, intellectual property, professional development, and educational support activities.
Student Internships/ Industry Visits / Certifications /Participations
Here's a detailed rubric for evaluating student internships, industry visits, certifications, and participation in various activities.

Students Project Presentations/ Design Challenges / Professional societies

Here's a detailed rubric for evaluating student participation in various activities along with project presentations and extracurricular involvement. Each section includes criteria for scoring, allowing for a comprehensive assessment of student engagement and achievement.

Co-curricular Activities / Extra-Curricular Activities / NSS Activities

Here's a detailed description and rubric for assessing Co-curricular Activities, Extra-Curricular Activities, and National Service Scheme (NSS) Activities. This framework will help evaluate the involvement, impact, and outcomes of student participation in these areas.
The scoring for each category can be summed to provide a comprehensive evaluation of a student's participation and contribution to co-curricular, extra-curricular, and NSS activities. This structured approach helps in recognizing the holistic development of students through various engagement opportunities.

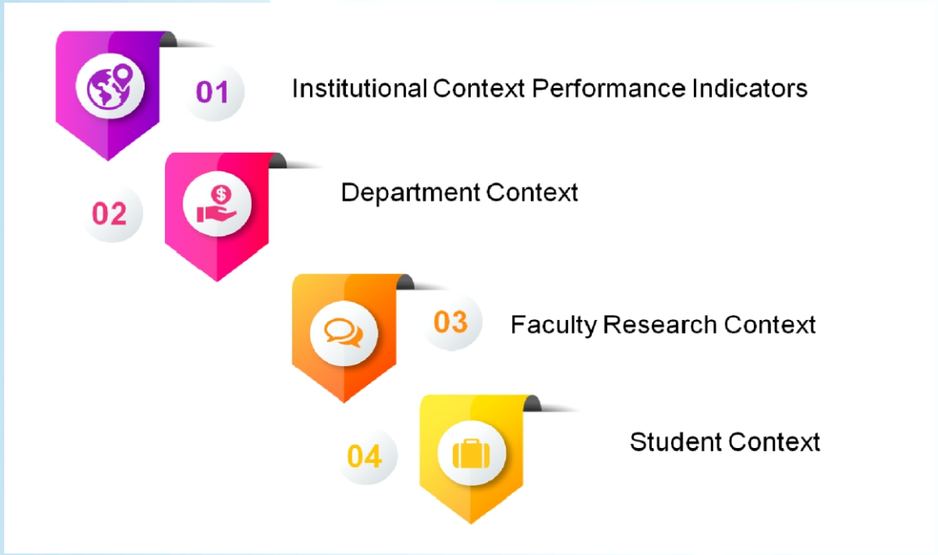
Academic and Administrative audit (AAA) in an academic year

The internal academic and administrative audit is conducted jointly by internal audit office and Internal Quality Assurance Centre (IQAC) within the institute once in an academic year at department / units and external academic audit by the experts nominated by the principal. The audit office prepares, maintain and submit academic audit reports in prescribed formats. **“Refer Appendix VI for the AAA form”**

The audit is conducted by a committee constituted by the Principal of the Institution on the following aspects as shown in Figure 8.0.

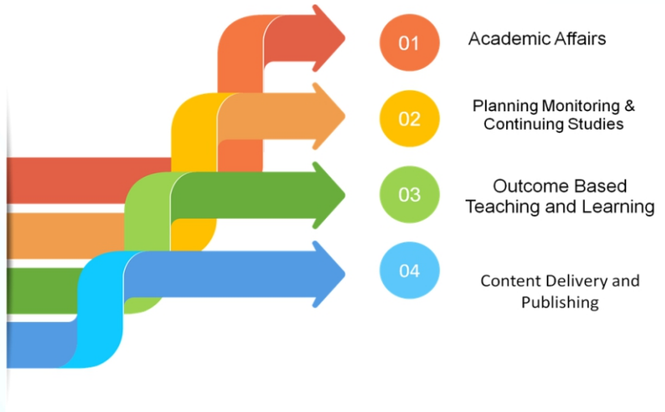
Quality Performance Indicators of Deans collected and evaluated monthly on the following aspects as shown in figure 9.0.
"Refer Appendix VII to XXV for Dean Performance indicators"

Quality Performance Indicators of Deans



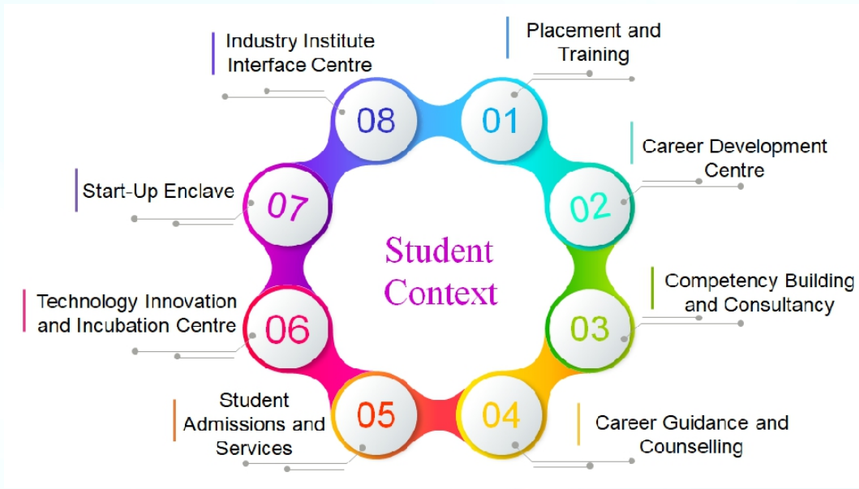
Institutional Context Performance Indicators

Department Context



Faculty Research Context

Student Context



FACULTY RESEARCH AUDIT

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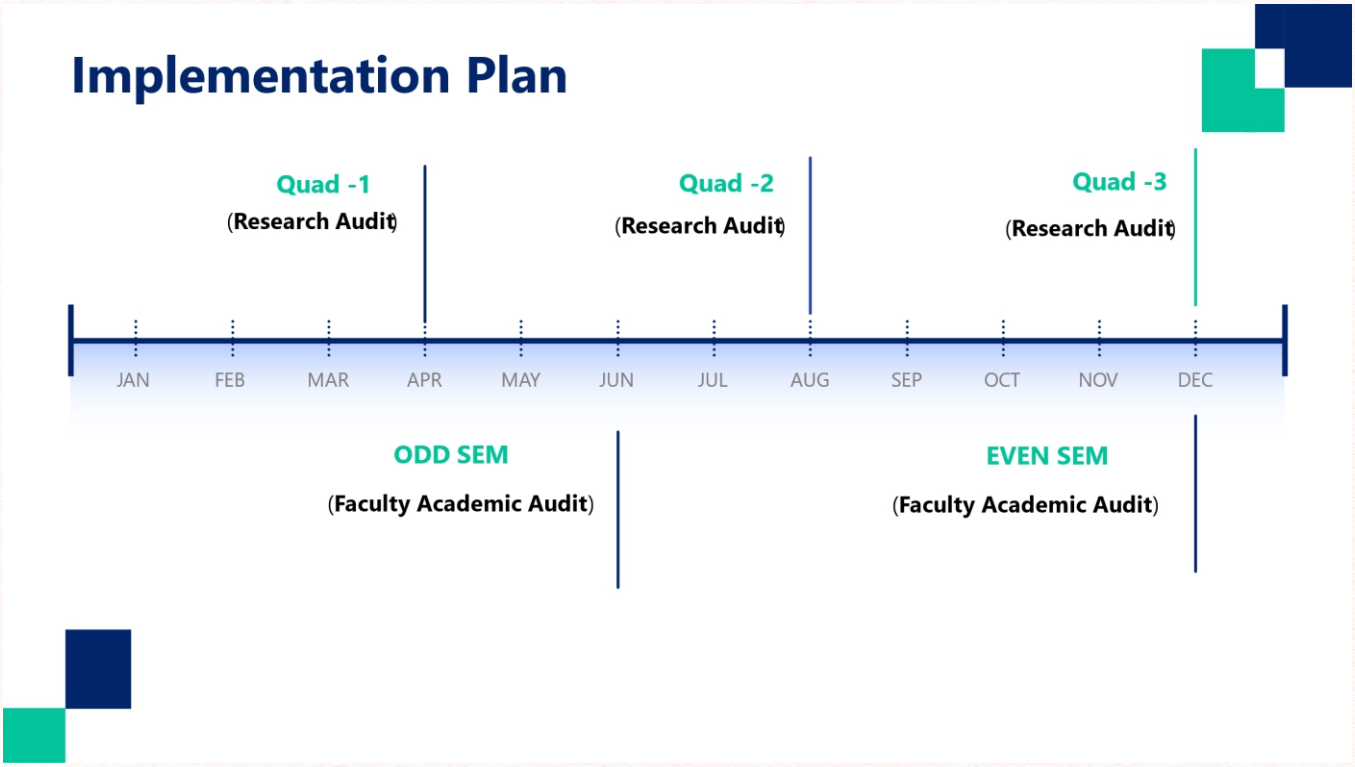


Faculty Academic Audit

Name of the Faculty		Emp. ID	
Designation		Department	
Experience at IARE		Month and Year	

Teaching activity (Details of lectures, tutorials, practical and other teaching related activities)
- Below 75%0
- 75% - 85%3 Marks
- 86% - 95%6 Marks
- Above95%10 Marks

S. No	Year / Semester	Course name	Level (UG / PG)	Lectures / Tutorials / Practical's / Other activities		% of assigned classes taught
				No of classes scheduled	No of classes conducted	

Student course feedback
- Below 70%0
- 70% - 75%3 Marks
- 75% - 85%6 Marks
- Above 85%10 Marks

S. No	Year / Semester	Course Name	Level (UG / PG)	Feedback (%)		Average (%)
				Early semester (content delivery)	Course end survey	

Semester end examination results
- Below 70%0
- 70% - 80%3 Marks
- 80% - 90%6 Marks
- Above90%10 Marks

S. No	Year / Semester	Course code	Course Name	Level (UG / PG)	Teaching Mode	Pass (%)

Full stack of course content development
- Per course 7 Marks

S. No	Course code	Course name	Year	Level (UG / PG)	Weblink

Attended - Details of refresher / orientation course / research methodology / workshop / syllabus up-gradation/ teaching - learning-evaluation / technology programs / faculty development programs
- Per event 10 Marks

S. No	Details	Place	Period		Sponsoring / Organizing agency
			From	To	

Conducted - Details of refresher / orientation course / research methodology / workshop / syllabus up-gradation / teaching learning-evaluation / technology programs / faculty development programs
- Per event 10 Marks

S. No	Details	Place	Period		Sponsoring / Organizing agency
			From	To	

MOOCs completed with e-certification
- Per course completion 10 Marks

S. No	Details of MOOC	Course Name	Certification providing agency	Date of certification	Level (UG / PG / Other	E-certification

Development of ELR Video lectures in 4 quadrants
- Per every 20 videos 10 Marks

S. No	Details of ELR Video (with no of quadrants)	Course code	Course name	Level (UG / PG / Other)	Weblink

Involvement in disciplinary and administrative / institute level activities (if yes) list the activities involved
- Per activity 2 Marks (Max. score 10)

S. No	Name of the Activity	Designation	Institution / Department	Period	
				From	To

Involvement in community development and social responsibility (if yes) list the activities involved
- Per activity 2 Marks (Max. score 10)

S. No	Name of the Activity	Designation	Institution / Agency	Period	
				From	To

Date:

Signature of the faculty

Performance Appraisal Scoring System (PASS) Non Ph.D Faculty

(APRIL / AUGUST / DECEMBER)

Name of the Faculty: _____Emp. ID: _____Designation: _____Department: _____

Experience at IARE (in Years):_____Month and Year: _____

S No	Parameter	Expected value	Details		
1	Research publication titles in refereed and indexed journals (SCI/SCIE/Scopus) (Max. score 20)	2			
2	Research publication titles in Scopus indexed International Conferences (Max. score 10)	2			
3	Chapters in books published by National and International Level publishers, with ISBN/ISSN number (Max. score 5)	1			
4	Text/Reference books published by International Publishers, with ISBN/ISSN number (Max. 10 per book for single author)	1			
5	Citation Index Count (3) Source: Scopus / Google Scholar	-	Earlier (Till Last month)	At Present	
	h – Index (2) Source: Scopus /Google Scholar	-	Earlier (Till Last month)	At Present	
6	IPR Activities (Patents / Industrial Designs under institutional ownership only) Source: IPO / WPO (Max. score 15)	1+1+1	Filled (2)	Published (5)	Granted (8)
7	Submitted proposal/s for Funded Research Scheme (Max. score 10)	1	(FDP / Workshop / Seminar / Conference / Awareness Programs / Science fair / Brain Storming Sessions etc.)		
8	Innovation in Product development - Proposal/submitted to MSME / ASPIRE / HIBI / DSIR / Others (Max. score 15)	1			
9	Consultancy Work undertaken (Max. score 10) brief details				
10	SELF-TARGET: Three product development proposals you would like to carry out in the next 3 months (submit a copy of 200 word abstracts)		1.		
			2.		
			3.		

HOD Details:	
Name of the HOD	
Signature of the HOD	
Remarks / Recommendations if any:	
Auditor Details	
Name of the Auditor-1	
Signature with date	
Remarks / Recommendations if any:	
Name of the Auditor-2	
Signature with date	
Remarks / Recommendations if any:	

Observations (In respect of the weightage of activities claimed)

Recommendation / Remedial Measures Suggested

Dean of Internal Audit and Policies

Principal

Signature of the Faculty

Course Quality Assurance

Self-evaluation Document (sed) Enhancing Teaching-learning

Faculty Details	
Name of Department	
Name of Programme	B.Tech / M.Tech / MBA
Semester	
Course	
Course Code	
Regulations	
Name of the Faculty	
Employee ID	
Date of Submission of SED	

Note:

1.This form may be used as Self-Evaluation Document for academic audit for course quality assurance.
2.Fill-in a separate form for each course taught by the faculty.
3.Please ensure that all necessary attachments are enclosed as separate documents.

Knowledge & Understanding of Vision &Mission Statement	Yes / No
Knowledge & Understanding of PEOs, POs / PSOs	Yes / No

Activity	Observations w.r.t. Course File		Non-Conformance (if any)	NC / Ref	Remarks (if any)
	Available	Not available			
Vision / Mission of the Institute*					
Vision / Mission of the Department*					
PEOs, PSOs & POs*					
Academic Calendar*					
Time Table*					
List of students*					
Syllabus*					
Course Objectives / Outcomes*					
Course Description / Course Template*					
Lecture Notes*					
PPTs*					
Quality of e-Learning video content developed*	Good	Need improvement			

Mapping of syllabus with Course Outcomes*						
Mapping of CO's with PO's*						
Mapping of CO's with PSO's*						
Usage of ICT tools**						
Schedule of Instruction*	Scheduled	Delivered				
Course Activity Diary Report**						
SEE Question Papers**						
SEE Solutions / Key for Evaluation						
SEE questions Mapped to COs						
Assignments*	Planned	Given	Checked			
Tutorial Sheets*	Planned	Given	Checked			
Old question papers* (SEE)						
Quiz*	Planned	Given	Checked			
Quality of tutorial question bank*	Good	Need improvement				
Quality of concept videos*	Good	Need improvement				
Quality of tech talk topics*	Good	Need improvement				
List of Books Referred*						
Recommended NPTEL / MOOC's / Swayam Courses / Videos*						
Expert Lectures**	Planned	Executed				
Mapping of Concept videos / Tech Talks MOOCs Courses, Expert talks, Industry Visits, Tutorial Question bank, Open ended experiments with Course Outcomes*						
Gaps in Syllabus**						
Topics Beyond Syllabus**						
Assessment Methodologies*						
Proof of Assignment's, Tutorial's, Expert lectures, Industry Visits, MOOC's courses ***						
COs Attainment***						
POs Attainment***						

Additional Information

(To be checked and verified by the concerned Auditor)

Activities	Actions		Remarks
Student attendance record (hardcopy / Online)	Available	Not available	
Class work Adjustments (Nos)	Given	Taken	
No. of Extra Classes held; if any	Scheduled	Delivered	
Minor Projects / Case studies Allotted to Students	Allotted	Executed	
Interactive Teaching Aids / Techniques Developed (give details).			
List of students who are currently undertaking Massive Online Open Learning Courses (MOOCs)	Available	Not available	
List of Virtual Labs being recommended / conducted	Available	Not available	
List of students who are currently enrolled / using virtual lab(s)	Available	Not available	

HOD Details:	
Name of the HOD	
Signature of the HOD	
Remarks / Recommendations, if any:	
Auditor Details	
Name of the Auditor-1	
Signature with date	
Remarks / Recommendations, if any:	
Name of the Auditor-2	
Signature with date	
Remarks / Recommendations, if any:	

* To be completed before start of the semester;
*** To be completed at the end of the semester

** To be updated regularly during the semester

Signature of the faculty

Observations (In respect of the weightage of activities claimed)

Recommendation / Remedial Measures Suggested

Dean of Internal Audit and Policies

Principal

Performance Evaluation Form

Faculty Academic Audit (FAA)

Semester: Odd / Even **Date:**

Employee ID		**Name of the faculty**	
Designation		**Department**	
Academic year		**Experience at IARE**	

1. **Teaching activity (Details of lectures, tutorials, practical and other teaching related activities) (Max. score 30)**
   - Below 75% 0
   - 75% - 85% 3 Marks
   - 86% - 95% 6 Marks
   - Above 95% 10 Marks

S. No	Year / Semester	Course name	Program	Lectures / Tutorials / Practical's / Other activities		% of assigned classes taught
				No. of classes scheduled	No. of classes conducted	

2. **Student course feedback (Max. score 30)**
   - Below 70% 0
   - 70% - 75% 3 Marks
   - 75% - 85% 6 Marks
   - Above 85% 10 Marks

S. No	Year / Semester	Course Name	Program	Feedback (%)		Average (%)
				Early semester (Content delivery)	Course end survey	

3. **Semester end examination results (Max. score 20)**
   - Below 70% 0
   - 70% - 80% 3 Marks
   - 80% - 90% 6 Marks
   - Above 90% 10 Marks

S. No	Year / Semester	Course code	Course Name	Level (UG / PG)	Teaching Mode	Pass (%)

4. **Full stack of course content development**
   - Per course 5 Marks **(Max. score 10)**

S. No	Course code	Course name	Year	Level (UG / PG)	Web link

5. **Attended - Details of refresher / orientation course / research methodology / workshop / syllabus up-gradation/ teaching - learning-evaluation / technology programs / faculty development programs**
   - Per event 10 Marks (Max. score 20)

S. No	Details	Place	Period		Sponsoring / Organizing agency
			From	To	

6. **Conducted - Details of refresher / orientation course / research methodology / workshop / syllabus up-gradation / teaching learning-evaluation / technology programs / faculty development programs**
   - Per event 10 Marks **(Max. score 20)**

S. No	Details	Place	Period		Sponsoring / Organizing agency
			From	To	

7. **MOOCs completed with e-certification**
   - Per course completion 10 Marks **(Max. score 20)**

S. No	Details of MOOC	Course Name	Certification providing agency	Date of certification	Level (UG / PG / Other)	E-certification

8. **Development of ELR Video lectures in 4 quadrants**
   - Per every 20 videos 10 Marks **(Max. score 30)**

S. No	Details of ELR Video (with no of quadrants)	Course code	Course name	Level (UG / PG / Other)	Web link

9. **Involvement in disciplinary and administrative / institute level activities (if yes) list the activities involved**
   - Per activity 2 Marks **(Max. score 10)**

S. No	Name of the Activity	Designation	Institution / Department	Period	
				From	To

10. **Involvement in community development and social responsibility (if yes) list the activities involved**
    - Per activity 2 Marks **(Max. score 10)**

S. No	Name of the Activity	Designation	Institution / Agency	Period	
				From	To

Note: All the faculties are required to submit faculty academic audit for even and odd semesters separately.

HOD Details:	
Name of the HOD	
Signature of the HOD	
Remarks / Recommendations, if any:	
Auditor Details	
Name of the Auditor-1	
Signature with date	
Remarks / Recommendations, if any:	
Name of the Auditor-2	
Signature with date	
Remarks / Recommendations, if any:	

Observations (In respect of the weightage of activities claimed**)**

Recommendation / Remedial Measures Suggested

Dean of Internal Audit and Policies **Principal**

Course Quality Assurance

SELF-EVALUATION DOCUMENT (SED)

Enhancing Teaching-Learning

Faculty Details	
Name of Department	
Name of Programme	**B.Tech / M.Tech / MBA**
Semester	
Course	
Course Code	
Regulations	
Name of the faculty	
Employee ID	
Date of Submission of SED	

Note:

1. This form may be used as Self-Evaluation Document for academic audit for course quality assurance.
2. Fill-in a separate form for each course taught by the faculty.
3. Please ensure that all necessary attachments are enclosed as separate documents.

Knowledge & Understanding of Vision & Mission Statement	Yes / No
Knowledge & Understanding of PEOs, POs / PSOs	Yes / No

Activity	**Observations w.r.t. Course File**		**Non-Conformance (if any)**	**NC / Ref**	**Remarks (if any)**
	Available	**Not available**			
Vision / Mission of the Institute*					
Vision / Mission of the Department*					
PEOs, PSOs & POs*					
Academic Calendar*					
Time Table*					
List of Students*					
Syllabus*					
Course Objectives / Outcomes*					
Course Description /					

Course Template *					
Lecture Notes*					
PPTs*					
Quality of e-Learning video content developed*	**Good**		**Need improvement**		
Mapping of Syllabus with Course Outcomes*					
Mapping of CO's with PO's*					
Mapping of CO's with PSO's*					
Usage of ICT tools**					
Schedule of Instruction*	**Scheduled**		**Delivered**		
Course Activity Diary Report**					
SEE Question Papers**					
SEE Solutions / Key for Evaluation					
SEE Questions Mapped to COs					
Assignments*	**Planned**	**Given**	**Checked**		
Tutorial Sheets*	**Planned**	**Given**	**Checked**		
Old Question Papers* (SEE)					
Quiz*	**Planned**	**Given**	**Checked**		
Quality of Tutorial Question Bank*	**Good**		**Need improvement**		
Quality of Concept Videos*	**Good**		**Need improvement**		
Quality of Tech Talk Topics*	**Good**		**Need improvement**		
List of Books Referred*					
Recommended NPTEL / MOOC's / Swayam Courses / Videos*					
Expert Lectures**	**Planned**		**Executed**		
Mapping of Concept videos / Tech Talks MOOCs Courses, Expert talks, Industry					

Visits, Tutorial Question bank, Open ended experiments with Course Outcomes*					
Gaps in Syllabus**					
Topics Beyond Syllabus**					
Assessment Methodologies*					
Proof of Assignment's, Tutorial's, Expert lectures, Industry Visits, MOOC's courses ***					
COs Attainment***					
POs Attainment***					

ADDITIONAL INFORMATION
(To be checked and verified by the concerned Auditor)

Activities	Actions		Remarks
Student Attendance Record (Hardcopy / Online)	**Available**	**Not available**	
Class Work Adjustments (Nos)	**Given**	**Taken**	
No. of Extra Classes held; if any	**Scheduled**	**Delivered**	
Minor Projects / Case studies Allotted to Students	**Allotted**	**Executed**	
Interactive Teaching Aids / Techniques Developed (give details).			
List of Students Who Are Currently Undertaking Massive Online Open Learning Courses (Moocs)	**Available**	**Not available**	
List of Virtual Labs Being Recommended / Conducted	**Available**	**Not available**	
List of Students Who Are Currently Enrolled / Using Virtual Lab(S)	**Available**	**Not available**	

* To be completed before start of the semester
** To be updated regularly during the semester
*** To be completed at the end of the semester

HOD Details:	
Name of the HOD	
Signature of the HOD	
Remarks / Recommendations, if any:	
Auditor Details	
Name of the Auditor-1	
Signature with date	
Remarks / Recommendations, if any:	
Name of the Auditor-2	
Signature with date	
Remarks / Recommendations, if any:	

Observations (In respect of the weightage of activities claimed)

Recommendation / Remedial Measures Suggested

Signature of the faculty

Dean of Internal Audit and Policies

Principal

Performance Appraisal Scoring System (PASS) - Ph.D Faculty

(APRIL / AUGUST / DECEMBER)

Name of the Faculty: _____ **Emp. ID:** _____

Designation: _____ **Department:** _____

Experience at IARE (in Years): _____ **Month and Year:** _____

General Instructions:

- If space provided in the columns is inadequate, *use separate sheet and mark it as annexure*
- **Filled in form** along with all supporting documents is to be submitted to Dean of internal audit and policies

S No	Parameter	Expected value	Details		
1	Research publication titles in refereed and indexed journals (SCI/SCIE/Scopus) **(Max. score 20)**	2			
2	Research publication titles in Scopus indexed International Conferences **(Max. score 10)**	2			
3	Chapters in books published by National and International Level publishers, with ISBN/ISSN number **(Max. score 5)**	1			
4	Text/Reference books published by International Publishers, with ISBN/ISSN number **(Max. 10 per book for single author)**	1			
5	Citation Index Count **(3)** *Source: Scopus* / Google Scholar	-	Earlier *(Till Last month)*	At Present	
	h – Index**(2)** *Source: Scopus* /Google Scholar	-	Earlier *(Till Last month)*	At Present	
6	IPR Activities (Patents / Industrial Designs under institutional ownership only) Source: IPO / WIPO **(Max. score 10)**	1+1+1	Filled **(2)**	Published **(3)**	Granted **(5)**
7	IPR Activities (Patents / Industrial Designs under faculty ownership) Source: IPO / WIPO **(Max. score 5)**	1+1+1	Filled **(1)**	Published **(1)**	Granted **(3)**
8	Submitted any proposal/s for Funded Research Project **(Max. score 10)** *brief details*	2			
9	Submitted proposal/s for Funded Research Scheme **(Max. score 5)**	1	*(FDP / Workshop / Seminar / Conference / Awareness Programs / Science fair / Brain Storming Sessions etc.)*		
10	Innovation in Product development - Proposal/submitted to MSME / ASPIRE / HIBI / DSIR / Others **(Max. score 10)**	1			
11	Consultancy Work undertaken **(Max. score 10)** *brief details*				
12	SELF-TARGET: Three research project proposals you would like to carry out in the next 3 months		1.		
			2.		
			3.		
	SELF-TARGET: Three schemes you would like to carry out in the next 3 months		1.		
			2.		
			3.		
	SELF-TARGET: Three products you would like to develop in the next 3 months		1.		
			2.		
			3.		
13	Differentiate yourself from previous month/quarter in research activity				
14	ORCID ID				
15	ResearchGate ID				
16	Academia ID				
17	Rate yourself the satisfaction level of your research work *(on a ten-point scale, zero is the lowest & ten is the highest)*	1	2	3	4	5	6	7	8	9	10
	Justify your rating										

Date: **Signature of the Faculty**

HOD Details:	
Name of the HOD	
Signature of the HOD	
Remarks / Recommendations, if any:	
Auditor Details	
Name of the Auditor-1	
Signature with date	
Remarks / Recommendations, if any:	
Name of the Auditor-2	
Signature with date	
Remarks / Recommendations, if any:	

Observations (In respect of the weightage of activities claimed**)**

Recommendation / Remedial Measures Suggested

Dean of Internal Audit and Policies **Principal**

Performance Appraisal Scoring System (PASS)Non Ph.D Faculty

(APRIL / AUGUST / DECEMBER)

Name of the Faculty: _____ **Emp. ID:** _____

Designation: _____ **Department:** _____

Experience at IARE (in Years): _____ **Month and Year:** _____

General Instructions:

- If space provided in the columns is inadequate, *use separate sheet and mark it as annexure.*
- **Filled in form** along with all supporting documents is to be submitted to Dean of internal audit and policies.

S No	Parameter	Expected value	Details		
1	Research publication titles in refereed and indexed journals (SCI/SCIE/Scopus) **(Max. score 20)**	2			
2	Research publication titles in Scopus indexed International Conferences **(Max. score 10)**	2			
3	Chapters in books published by National and International Level publishers, with ISBN/ISSN number **(Max. score 5)**	1			
4	Text/Reference books published by International Publishers, with ISBN/ISSN number **(Max. 10 per book for single author)**	1			
5	Citation Index Count **(3)** *Source: Scopus* / Google Scholar	-	Earlier *(Till Last month)*	At Present	
	h – Index**(2)** *Source: Scopus* /Google Scholar	-	Earlier *(Till Last month)*	At Present	
6	IPR Activities (Patents / Industrial Designs under institutional ownership only)Source: IPO / WIPO **(Max. score 10)**	1+1+1	Filled **(2)**	Published **(3)**	Granted **(5)**
7	IPR Activities (Patents / Industrial Designs under faculty ownership) Source: IPO / WIPO **(Max. score 5)**	1+1+1	Filled **(1)**	Published **(1)**	Granted **(3)**
8	Submitted proposal/s for Funded Research Scheme **(Max. score 10)**	1			
9	Innovation in Product development - Proposal/submitted to MSME / ASPIRE / HIBI / DSIR / Others **(Max. score 15)**	1			
10	Consultancy Work undertaken **(Max. score 10)** *brief details*				
11	SELF-TARGET Three product development proposals you would like to carry out in the next 3 months (submit a copy of 200 word abstracts)	1.			
		2.			
		3.			
12	ORCID ID				
13	ResearchGate ID				
14	Academia ID				
15	Rate yourself the satisfaction level of your research work *(on a ten-point scale, zero is the lowest & ten is the highest)*	1	2	3	4	5	6	7	8	9	10
	Justify your rating										

Date: **Signature of the faculty**

HOD Details:	
Name of the HOD	
Signature of the HOD	
Remarks / Recommendations, if any:	
Auditor Details	
Name of the Auditor-1	
Signature with date	
Remarks / Recommendations, if any:	
Name of the Auditor-2	
Signature with date	
Remarks / Recommendations, if any:	

Observations (In respect of the weightage of activities claimed)

Recommendation / Remedial Measures Suggested

Dean of Internal Audit and Policies **Principal**

HOD's Self Evaluation Report

Name of the Department :

Month and Year :

ACADEMIC ACTIVITIES (300 Marks)

1. Faculty interaction with outside world/achievements /awards/events organized (40)

1.1 Interaction with Outside World– Invited Talks/Keynote Address (10)

S.No	Name of the faculty	Lecture Topic	Event Name	Date(s)	Place	No. of Participants

Self-Assessment Score:

1.2 Faculty Achievements and Awards (10)

S.No	Name of the faculty	Title of the Event	Date	Place	Achievements / Awards

Self-Assessment Score:

1.3 Events Organized –Convener/ Coordinator (10)

S.No	Name of the Event	Convener / Coordinator	Resource Persons and their affiliations	Dates	No. of Participants

Self-Assessment Score:

1.4 MOOC Courses Completed (10)

S.No	Name of the faculty	Name of MOOC Course	Month and Year	Name of the organization

Self-Assessment Score:

2. Faculty Research publications/Seminars/Conference/FDP/Workshops attended (65)

2.1 Papers Published in conferences (10)

S.No	Name of the Author	National / International	Name of the conference	Indexing	Title of the Paper	Date	Venue

Self-Assessment Score :

2.2 Papers Published in journals (20)

S.No	Name of the author	Name of the journal	Title of the paper	Vol.No. and Page Nos	Month &Year	Indexing

Self-Assessment Score:

2.3 Books Published (10)

S.No	Name of the author	Name of the book	Date of publication	Publisher

Self-Assessment Score:

2.4 Book Chapters Contributed (5)

S.No	Name of the author	Name of the book	Book Chapter	Date of Publication	Publisher

Self-Assessment Score:

2.5 Faculty attended FDP/Seminar/ Conference / Refresher course / Workshop (20)

S.No	Name of the faculty	Designation	Title of the Seminar/Workshop/ Conference	Place	Dates

Self-Assessment Score:

3. Faculty Consultancy Activities/Patents/Copyrights/Industry Designs/Research Grant (100)

3.1 Consultancy Activities (10)

S.No	Name of the faculty	Name of the activity	Company name	Amount (Rs.)	Status

Self-Assessment Score:

3.2 Patents Filled/Published/Granted (20)

S.No	Name of the faculty	Title	Date	Status

Self-Assessment Score:

3.3 Copyrights Received (10)

S. No	Name of the faculty	Title	Date	Status

Self-Assessment Score:

3.4 Research Grants sanctioned (20)

S. No	Name of the faculty	Title	Organization	Sanctioned Amount (Rs.)	Date	Status

Self-Assessment Score:

3.5 Research Proposals / schemes submitted (10)

S. No	Name of the faculty	Title	Organization	Date	Status

Self-Assessment Score:

3.6 Usage of Equipment or Machine (10)

S. No	Name of the equipment	Type of work done	Outcome of work	Date(s)

Self-Assessment Score:

3.7 Number of ELRV's created (Theory and Lab) (10)

S. No	Name of the faculty	Name of the course	Number of hours completed	Date(s)

Self-Assessment Score:

3.8 Initiations towards slow learners and advanced learners (10)

S.No	Type of learner	Initiation taken	Number of students	Date(s)

Self-Assessment Score:

4. Student Internships/ Industry Visits / Certifications /Participations (40)

4.1 Student Industry Visits (10)

S.No	Name of the organization	Place	No. of students	Date

Self-Assessment Score:

4.2 Student Internships (10)

S.No	Roll Number	Name of the student	Name of the Company	Place	Date(s)

Self-Assessment Score:

4.3 Student Certifications (10)

S.No	Roll Number	Name of the student	Details of course	Name of the Company / University	Place	Date

Self-Assessment Score:

4.4 Student Participation in Conferences / Workshops/ Seminars (10)

S.No	Title of the paper	Authors Names	National / International	Name of the conference	Place	Date

Self-Assessment Score:

5. Students Project Presentations/ Design Challenges / Professional societies (30)

5.1 Design Challenges Participated/Registered (10)

S.No	Roll Number	Name of the student	National / International	Title of the design	Name of the contest	Date	Place

Self-Assessment Score:

5.2 Technical Events (5)

S.No	Roll Number	Name of the student	National / International	Event Details	Name of the contest	Date	Place

Self-Assessment Score:

5.3 Project Presentations (5)

S.No	Roll Number	Name of the student	National / International	Title of the Project	Name of the Contest	Date	Place

Self-Assessment Score:

5.4 Professional bodies / chapters and organizing engineering events (10)

S.No	Name of the professional body	Title of the event	Name of the expert	Type of the event	Date	No of students attended

Self-Assessment Score:

6. Co-curricular Activities / Extra-Curricular Activities / NSS Activities (25)

6.1 Co-curricular Activities (Through Technical Associations) (10)

S.No	Roll No.	Name of the Student	Activity details	Date(s)	Place

Self-Assessment Score :

6.2 Extra-Curricular Activities (within college) (5)

S.No	Roll No	Name of the student	Activity details	Date(s)	Prize

Self-Assessment Score:

6.3 Extra-Curricular Activities (Outside the college) (10)

S. No	Roll No	Name of the student	Activity details	Date(s)	Prize

Self-Assessment Score:

Total Self-Assessment Score by HOD:

Score by the Internal Audit and policies office:

Date:

Signature

Place:

Head of the Department

Internal Quality Assurance Centre

Academic And Administrative Audit

Name of the department: Date:

S No	Description	Max marks	Marks awarded	Remarks on non-compliance
Criterion 1: Teaching Learning Processes				**Max marks: 300**
1.1	**Initiative for improvement of quality in teaching and learning (95)**			
1.1.1	Availability of academic / activity calendar of the department and its effective compliance / implementation and adherence to schedule (5 Marks)			
	Availability	2		
	Implementation	3		
1.1.2	a. Implementation of student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences (5 Marks)			
	Implementation	3		
	Impact analysis	2		
	b. Teachers use ICT enabled tools including online resources for effective teaching and learning process (5 Marks)			
	Usage of tools	3		
	Impact analysis	2		
	c. Usage of assessment tools	3		
	Usage of additional resources for learning in addition to the course full stack	2		
1.1.3	Guidelines to identify slow learners and advanced learners, identification and actions taken thereof	2		
	Impact observed and recorded	3		
1.1.4	Classrooms and seminar halls with ICT - enabled facilities *100% class rooms - 5 Marks, 90% to 99% classrooms - 4 Marks, 80% to 90% classrooms - 3 Marks, 70% classrooms - 2 Marks, 60% classrooms - 1 Marks, <60% - 0 Marks*	5		
1.1.5	a. Quality in effective conduction of long and short experiments	5		
	b. Usage of rubrics for laboratory assessment	5		
	c. Preparation for the open-ended experiments, mapping of CO-PO/PSO attainments	10		
1.1.6	a. Conduction of class committee meetings (at least monthly once)	2		
	b. Student feedback collection and analysis	3		
	b. Actions taken	5		
	c. Impact of action recorded **Check action taken exactly matches with the analysis*	5		
1.1.7	Identification of curricular gaps	3		
	New courses / laboratories introduced	4		
	Analysis and action taken	3		
1.1.8	Average percentage of courses having focus on employability / entrepreneurship / skill development offered by department. *Score = 5 * No. of courses focus on such categories / Total number of courses*	5		
1.1.9	Number of value-added courses for imparting transferable and life skills offered and students enrolled (5 Marks)			
	If No. of Value-added courses > 3 and enrolled students count > 50% of the class strength	5		
	If 3 > No. of Value-added courses <=1 and enrolled students count > 25% of the class strength	3		
	Otherwise - 0 Marks	0		
1.1.10	Structured feedback for design and review of syllabus (semester wise / year wise) (10 Marks)			
	Students	1		
	Faculty	1		
	Employers	1		
	Alumni	1		
	Action taken and impact analysis	6		
1.2	**Quality of end semester examination, internal semester question papers, AAT and evaluation (30)**			
1.2.1	Process of CIE question paper setting, scheme of evaluation and its compliance, existence of committee	5		
1.2.2	Question paper validation to ensure desired standard from outcome attainment perspective as well as learning levels perspective (Quality of question papers) (10 Marks)			
	Continuous Internal Examinations	3		
	Alternative assessment tool and quiz	2		
	Semester end examinations	5		
1.2.3	Mapping of questions with the Course outcomes, Blooms taxonomy, and indicating the above with percentage wise weightage.	10		
1.2.4	Assignments / case studies / seminars etc. to promote self-learning, (for coverage of non-technical POs and also higher levels of Blooms taxonomy) survey of contents from multiple sources, AAT / assignment evaluation and feedback to the students, mapping with the COs.	5		
1.3	**Quality of student projects (30)**			
1.3.1	Procedure for projects identification and guide allocation	5		
1.3.2	**Process to assess individual and team performance (10 Marks)**			
	Continuous monitoring mechanism and evaluation system	5		
	Usage of rubrics for project assessment methodology	5		
1.3.3	Projects classification (application, product, research, review etc.) consideration to factors such as environment, safety, ethics, cost, standards (non - domain factors) and mapping with PO/PSOs.	5		
1.3.4	Quality of publication (preferably in journal) / Nature of project competition in which award has been won for the projects Publications: SCI / Scopus / UGC care list - 3 Marks for each publication, and for others - 1 Mark per publication) Project expos: International level - 10 Marks, National level competition – 5 Marks, State level - 3 Marks, Regional level - 1 Mark	10		
1.4	**Industry related interaction (25)**			
1.4.1	Industry supported laboratories	5		
1.4.2	Industry involvement in the program design and curriculum. (Board of Studies - 3 Marks, other - 2 Marks)	5		
1.4.3	Industry involvement in partial delivery of any regular courses for students	5		
1.4.4	Impact analysis of industry institute interaction and actions taken thereof	5		
1.4.5	Industrial / internship / summer training of more than two	5		

	weeks and post training assessment and report			
1.5	**Factors related to Outcome based education (100)**			
1.5.1	Explanation of articulation matrix for COs and PO/PSOs and also mechanism adopted proper threshold, target attainment levels of CO/PO/PSOs. (Check faculty awareness)	15		
1.5.2	Inclusions of various tools for direct and indirect assessments for CO/PO/PSOs attainments (CIA/SEE for direct assessment and surveys from students, alumni, employer, parents etc., for indirect assessment).	15		
1.5.3	Updating the data of CO/PO/PSO assessment in a time bound manner and action / measures taken and impact analysis - physical check (40 Marks)			
	Initiatives for faculty and student awareness on OBE	10		
	Updation and documentation including OBE booklet, regulation wise	15		
	Verification of faculty and student awareness on OBE	10		
	Impact analysis	5		
1.5.4	CO attainment tools based on CIA / SEE evaluation and procedures followed (Based on assessment, question wise in students' performance)	15		
1.5.5	Action taken on non-attainment of CO/PO/PSOs	15		
1.6	**Laboratory facilities (20)**			
1.6.1	Maintenance and overall ambience in all the laboratories (check physically whether the equipment is working or not)	5		
1.6.2	Safety initiatives and Do's and Don'ts in all the laboratories (including charts, fire extinguisher and first-aid equipment)	5		
1.6.3	Additional equipment / facilities created for improving the quality of learning (10 Marks)			
	Working models	2		
	Monograms / charts / display of information	2		
	Experiments designed	2		
	Software's used	2		
	Open ended experiments	2		
Criterion 2: Student Performance		**Max marks: 200**		
2.1	**Success rate (90)**			
2.1.1	a) Success rate of students who cleared program without backlogs in any year of study including lateral entry = 20 × (Students graduated / Students admitted)	20		
	b) Improvement in success rate from previous years (1 Mark for each percent increase)	5		
2.1.2	a) Success rate in any year of study including lateral entry = 15 × (Students graduated / Students admitted)	15		
	b) Improvement in success rate from previous years (1 Mark for each percent increase)	5		
2.1.3	Academic performance in third year Academic performance = 1.5 * API (Academic Performance Index) **API** = (3rd Year Grade Point Average of all successful Students on a 10 point scale X number of successful students) / number of students appeared in the examination)	15		
2.1.4	Academic performance in second year (same as above formula in 2.1.3)	15		
2.1.5	Academic performance in first year (same as above formula in 2.1.3)	15		
2.2	**Student enrollment (>=90% - 15M; >=80% - 10M; >=70% - 5M; otherwise – 0M)**	15		

2.3	**Placement, higher studies and entrepreneurship: 50 X (students placed + admitted to higher studies + 3 X entrepreneurs) / (Total students)**	50		
2.4	***Achievements in curricular, co-curricular and extra - curricular activities (45)***			
2.4.1	Students' paper, model presentations etc. in International Level (IL), National Level (NL), State Level (SL) ***Marks = 2.5x (10 x IL + 5x NL + 2.5 x SL) / TNS*** TNS = Total number of students in 2nd, 3rd and 4th year	25		
2.4.2	Certificate programs or MOOCs through NPTEL / Swayam / Coursera etc. attended by students (20 Marks) Assessment = 20×Sum of points/0.5 x No. of students			
	Participation for 4 weeks / student	3		
	Participation for 4 to 8 weeks / student	5		
	Participation more than 8 weeks / student	10		
National level (Paper, model presentation etc) conducted in-house is treated as State level				
Criterion 3: Faculty contributions				**Max Marks: 250**
3.1	Average percentage of full-time faculty with Ph.D. Number of available PhDs in the department >=20% - 10M 20% <Number of available PhDs in the department >10% - 5M	**10**		
3.2	**Research Guidance (20)**			
3.2.1	Number of faculty recognized as research guides Score: 30% faculty - 5 Marks, 25% faculty - 4 Marks, 20% faculty - 3 Marks, 15% faculty - 2 Marks, 10% faculty - 1 Mark	5		
3.2.2	M.Phil / M.Tech / (1 Mark per faculty)	15		
3.2.3	Ph.D. (5 Marks / faculty)			
3.3	***Research projects funded by government and non-government agencies during the last five years (45)***			
3.3.1	Major project (More than 10 lakhs): 15 Marks / project	25		
3.3.2	Minor project (less than 10 lakhs): (5 Marks / project)			
3.3.3	Patents (10 M/ patent) (granted - 10 Marks, filed - 5 Marks)	10		
3.4	Revenue generated from consultancy: More than 2 Lakhs: 10 marks < 2 Lakhs: 5 marks	10		
3.5	**Publications (75)**			
3.5.1	Number of books and book chapters in edited volumes / books published during the last five years (5 Marks / each chapter) ***Only books / book chapters with ISBN/ ISSN numbers are considered**	10		
3.5.2	Publication in journals: Marks awarded = 50 X P/F F = number of faculty and P = (1xSCI+0.6xWOS+0.6xScopus+0.3xUGC Care) / (No. of publications)	50		
3.5.3	Bibliometrics of the publications during the last five years based on average citation index in Scopus / Web of Science or PubMed.	15		

Year	Total no. of citations		Total no. of publications	
	Scopus	Web of Science	Scopus	Web of Science
2021-2022				

3.6	***Papers presented in seminars / conferences (30)***			
3.6.1	Marks = 30 x (1.5 x NFPI + 0.5 x NFPN) / TNF NFPI=number of faculty presented in international seminars/ conferences NFPN = number of faculty presented in national seminars/ conferences TNF = Total number of faculty	30		
3.7	***Seminars / Conferences / Workshops / Symposia wherein served as resource person (10)***			
3.7.1	Keynote Speaker / Convener / Co- Convener / Distinguished Guest / Speaker/ Chair etc.	10		

	International: 4 Marks / session; National: 2 Marks / session			
3.8	***Membership in editorial boards and number of papers reviewed*** *(*2.5 Marks / paper)	5		
3.9	***Membership / executive positions in professional bodies and their related activities (***2.5 Marks / activity)	5		
3.10	**Development activities** (product development, instructional materials, working models, monogram etc.) 2.5 Marks / activity	5		
3.11	**Guest lectures delivered by faculty in Industry / research organizations / Universities / Institutes -** 2.5 Marks / lecture	5		
3.12	Teachers awarded national / international fellowship and honors for advanced studies/research during 2021-22 (only academic bodies and Govt. Organizations) - 2.5 Marks/ award	5		
3.13	Faculty Qualification, FQ =1.5x [(10X +6Y)/F)] where X - the no. of regular faculty with Ph.D., Y - the no. of regular faculty with M.Tech., F - the no. of regular faculty required to comply 1:20 Faculty Student ratio including LE.	15		
3.14	Faculty participation in faculty development / training activities / STTPs (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course). A Faculty scores maximum five points for participation • Participation in 2 to 5 days: 3 Marks • Participation > 5 days: 5 Marks Assessment = 3×Sum of points / 0.5RF where RF is Required Faculty as per 1:20 faculty student ratio	20		
Criterion 4: Co-curricular activities				**Max Marks: 100**
4.1	**Competency building visits (Max. 15 Marks)**			
	From foreign universities / IITs/NITs / research organizations/ companies per visit	5		
	From universities / institutes etc. per visit	4		
4.2	Number of workshops / seminars / FDP / STTP conducted / sponsored for faculty during the year. 2 day - 2/3, 5 day - 3/5, two week - 5/10	15		
4.3	Department Newsletter / Magazine	3		
	Regular updation of department homepages	2		
4.4	Capacity development and skills enhancement activities are organised for improving students' capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology 5. Student clubs Marks = 15*(Unique no. of students participated / Total number of students)	15		
4.5	***Alumni association meetings***	**5**		
4.6	*Contributions from Alumni* (Technical collaboration / technology transfer / employment providers / aid for infrastructure improvement / scholarships) (1 Mark / activity)	5		
4.7	Number of extension and outreach programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC, etc., Marks = 10*(Unique no. of students participated /Total number of students)	10		
4.8	Number of functional MoUs with institutions of national, international importance, industries, corporates etc. year wise during year (only functional MoUs with ongoing activities to be considered) (1 Mark per MoU and 1 Mark per activity)	3		

	Number of students/faculty benefitted through MOUs	2		
4.9	***Adjunct faculty (Minimum 30 hours engagement / semester) (5 Marks)***			
	Outcome of the engagement and content delivered	5		
4.10	Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university (2 Marks)/ state (3 Marks)/ national (5 Marks)/ international (10 Marks) level (award for a team event should be counted as one).	10		
4.11	Presence of an active student council and representation of students on academic and administrative bodies / committees of the department	5		
Criterion 5: Student support systems				**Max. Marks 85**
5.1	**Mentoring system (15 Marks)**			
5.1.1	Implementation mechanism like circulars and allotment of the mentors etc.	5		
5.1.2	Impact analysis	10		
5.2	**Self-learning (15 Marks)**			
5.3.1	Scope for self-learning	5		
5.3.2	The facilities provided such as materials for learning beyond syllabus, webinars, MOOCs etc. and demonstrate its effective utilization	10		
5.3	**Career Guidance, Training, Placement (15 Marks)**			
5.3.1	Number of students participated by career counselling and guidance for competitive examinations	5		
5.3.2	Number of students benefited by career counselling and guidance for competitive examinations. 0 - 25% - 2 Marks, 26 - 50% - 3 Marks, 51 - 75% - 4 Marks, >76% - 5 Marks	5		
5.3.3	Number of students appearing against qualifying in state / national / international level examinations (eg: IIT/JAM/ NET/ SLET/GATE/GMAT/CAT/GRE/TOEFL/PSU/Civil Services/ State government examinations, *etc.*) 0 to 25% - 2 Marks, 26 to 50% - 3 Marks, 51 to 75% - 4 Marks, >76% - 5 Marks	5		
5.4	**Entrepreneurship (25 Marks)**			
5.4.1	Courses offered related to Entrepreneurship	5		
5.4.2	Entrepreneurship activities	5		
5.4.3	Number of students stipend	5		
5.4.4	Proposals submitted to MSME or any other funding agencies	5		
5.4.5	Innovative projects / products	5		
5.5	Grievance redressal system for the students and action taken	5		
5.6	**Department library (10 Marks)**			
5.6.1	No. of volumes, titles, journals and magazines available in the department library	5		
5.6.2	Usage of department library by teachers and students	5		
Criterion 6: Continuous Improvement				**Max. Marks: 40 Marks**
6.1	PO/PSO attainment (2 Marks for each 1% increase) 2016 - 2020 batch to 2018 - 2022 batch	8		
6.2	Pass percentage (2 Marks for each 1% increase)	8		
6.3	Students' admission cut-off ranks (Improvement in mean rank in open category - 5M) + (> 95% seats filled - 5 Marks; 90 - 95% seats filled - 3 Marks, and below 90% - 0 Marks)	8		
6.4	Student placements, higher studies and entrepreneurship (1 Mark for each 1% increase)	8		
6.5	Faculty publications (1 Mark for each 1% increase)	8		
Criterion 7: Innovative / Best practices and their impact				**Max Marks: 25**
7.1	Describe the best practices in the department, claims to have a	15		

	niche for itself in the areas such as teaching learning process, community engagement, co-curricular activities, evaluation, feedback system, student participation in other activities, alumni activities etc., (which makes the dept unique)			
7.2	Impact analysis	10		

Format for Presentation of Best Practices (Criteria 7.1)
(Department should submit the Best Practices in this format only as Annexure)

1. Title of the Practice
This title should capture the keywords that describe the practice.

2. Objectives of the Practice
What are the objectives / intended outcomes of this "best practice" and what are the underlying principles or concepts of this practice? (about 20 words)

3. The Context
What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice? (about 30 words)

4. The Practice
Describe the best practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced? (about 50 words)

5. Evidence of Success
Provide evidence of success such as performance against targets and benchmarks, review/results. What do these results indicate? Describe in about 40 words.

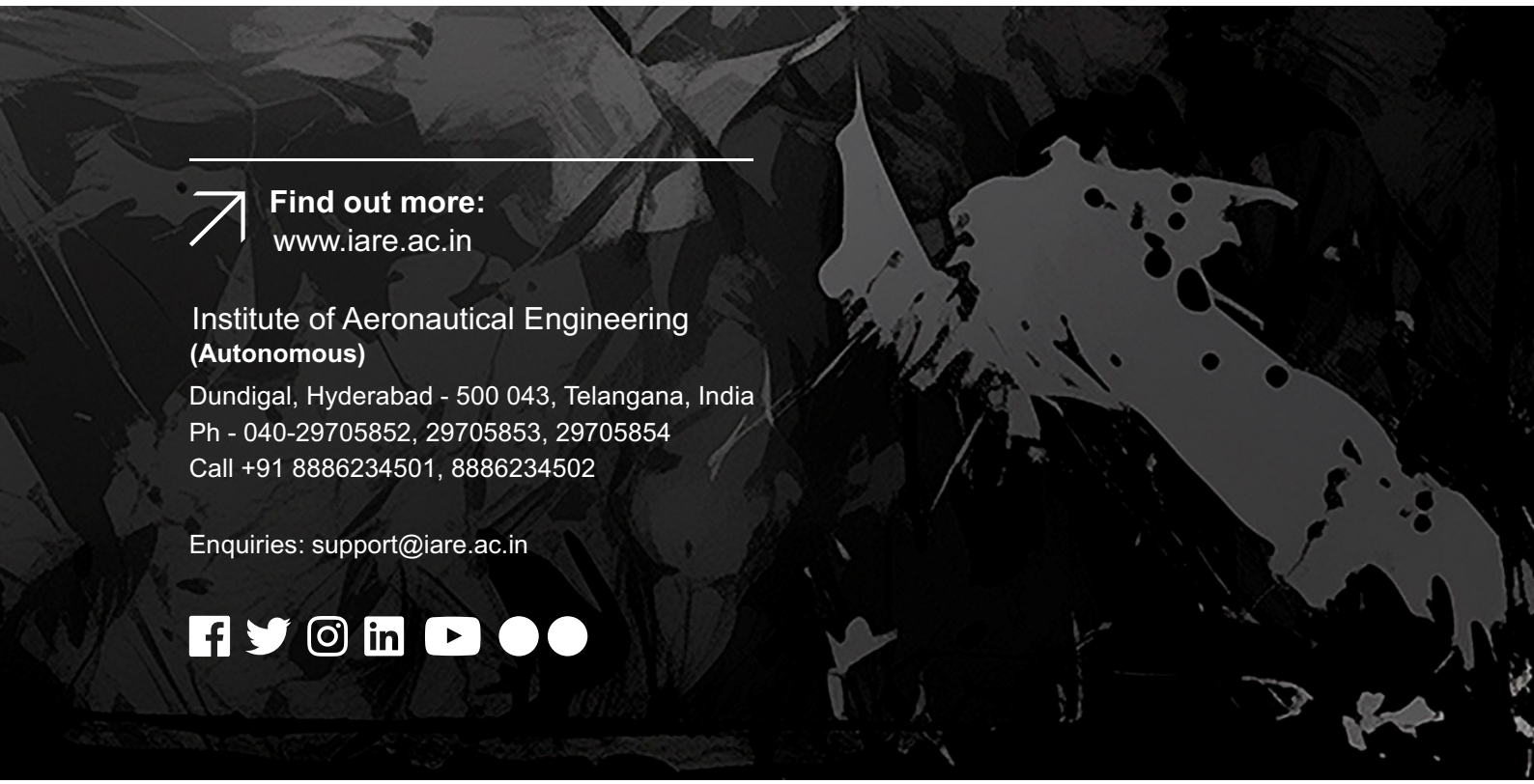
Weightage distributions criterion wise:

Criterion 1:	Teaching - Learning Processes	300 Marks
Criterion 2:	Student's Performance	200 Marks
Criterion 3:	Faculty contributions	250 Marks
Criterion 4:	Co-curricular activities	100 Marks
Criterion 5:	Students support systems	85 Marks
Criterion 6:	Continuous improvement	40 Marks
Criterion 7:	Best Practices	25 Marks
Total Marks		1000 Marks

Critical observations, comments of the auditors if any:

Signature of Auditor - 1 Signature of Auditor - 2 Signature of Auditor - 3

Dean, Policies and Internal Audit Dean, IQAC PRINCIPAL



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