2. Quality Indicator Framework (QIF)

Criterion I – Curricular Aspects

Metric No.	Key Indicator – 1.1 Curriculum Design and Development
1.1.1 **Q₁M**	*Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific outcomes (PSOs) and Course Outcomes (COs) of the Programmes offered by the Institution.* (Write description in maximum of 500 words)

The institute is offering the following programmes in UG namely
- ❖ **Electronics and Communication Engineering**
- ❖ **Computer Science and Engineering**
- ❖ **Information Technology**
- ❖ **Mechanical Engineering**
- ❖ **Aeronautical Engineering**
- ❖ **Electrical and Electronics Engineering**

The institute is also offering the following PG programmes namely
- ❖ **M.Tech in VLSI & Embedded Systems**
- ❖ **M.Tech in Computer Science and Engineering**
- ❖ **M.Tech in Machine Design**
- ❖ **M.Tech in Thermal Engineering**
- ❖ **M.Tech in Aero Space Modelling**
- ❖ **Master of Business Administration**

The institute is also offering Doctoral programme in the following specialization
- ❖ **PhD Program in ECE**

The Programme Educational Objectives (PEOs), Program Specific Outcomes (PSOs), Program Outcomes (POs) and Course Outcomes (COs) defined for each programme have developed and implemented the curriculum which had relevance to the local, national, regional and global developmental needs.

The courses which have local, national, regional and global development needs are introduced in the curriculum for all the programmes offered in the college as mandatory courses right from the I Year I Semester till III Year II Semester.

The titles of the courses are:

Title of the Course: Environmental Science

Objective of the Course: **Environmental Science** is all about learning the way we should live and how we can develop sustainable strategies to protect the **environment**. It helps individuals to develop an understanding of living and physical **environment** and how to resolve challenging **environmental** issues affecting nature.

Title of the Course: Human Values and Societal Perspectives

Objective of the Course: Human values are most important in life—so important that people are and should be ready to sacrifice almost anything to live with their values. **Honesty**, integrity, love, and happiness are some of the end values or destination

values that human beings seek to attain, practice and live with.

Title of the Course: Gender Sensitization

Objective of the Course: **Gender Sensitization** is a basic requirement to understand the sensitive needs of a particular **gender**. It helps us to examine our personal attitudes and beliefs and question the 'realities' that we thought we know. ... Educational spaces instil thought and make one have a perception that they believe.

Title of the Course: Indian Constitution

Objective of the Course: The **Constitution** is the supreme law and it helps to maintain integrity in the society and to promote unity among the citizens to build a great nation. The main **objective** of the **Indian Constitution** is to promote harmony throughout the nation.

Title of the Course: Foreign Languages

Objective of the Course: Communicate effectively in a **foreign language** and interact in a culturally appropriate manner with native speakers of that **language**. Achieve functional proficiency in listening, speaking, reading, and writing. Recognize culture-specific perspectives and values embedded in **language** behavior.

Title of the Course: Technical Communication and Soft Skills

Objective of the Course: Humans are built for connection. ... Learning how to **communicate** effectively is not only a way to sharpen individual **soft skills**; it will also positively influence individual career, relationships, and problem-solving abilities.

Soft skills are personal attributes that influence how well you can work or interact with others. These **skills** make it easier to form relationships with people, create trust and dependability, and lead teams

Tile of the Course: Cyber Security

Objective of the Course: **Cybersecurity** refers to the use of network architecture, software, and other technologies to protect organizations and individuals from **cyber**-attacks. The **objective of cybersecurity** is to prevent or mitigate harm to—or destruction of—computer networks, applications, devices, and data.

Tile of the Course: Artificial Intelligence

Objective of the Course: The basic **objective of AI** (also called heuristic programming, machine **intelligence**, or the simulation of cognitive behavior) is to enable computers to perform such intellectual tasks as decision making, problem solving, perception, understanding human communication (in any language, and translate among them), and the like.

Title of the Course: Global Education and Professional Career

Objective of the Course: **Global education** aims at opening a **global** dimension and a holistic perspective in **education** in order to help people understand the complex realities and processes of today's world and develop values, attitudes, knowledge and skills that will enable them to face the challenges of an interconnected world.

1.1.2	*Number of Programmes where syllabus revision was carried out during the year:*
	Data Requirement:
Q$_n$M	• Programme Code
	• Names of the Programmes revised

None of the Programmes of the college Syllabus revision was done

		Number of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the year: Data Requirement:
1.1.3 **Q_nM**		*Number of courses having focus on employability/* *entrepreneurship/ skill development offered by the institution during the year:* Data Requirement: • Name of the Course with Code • Activities with direct bearing on Employability/ Entrepreneurship/ Skill development • Name of the Programme

S.No	Name of the Course with Code	Activities with direct bearing on Employability / Entrepreneurship /Skill development	Name of theProgramme	Date and Duration
1.	Mini Project Major Project R17A0492	Paper Presentation on Research Work which leads to Skill development	Third International Conference on Soft Computing and Signal Processing (ICSCSP-2020)	21-22 August,2020 2 Days
2.	Human Values & Societal Perspectives R18A0003	Seminar for Skill development	One day seminar on Ethics and Etiquette for Effective Research Work	22 February 2020 1 Day
3.	C Programming C++Programming R18A0501	Training Program for Employability / Entrepreneurship /Skill development	CRT Programme on C & C++ Programming- Project Based Training for II Year ECE Students	05-08 AUG 2019 4 Days
4.	Technical Communication & Soft Skills R17A0007	Training Program for Employability / Entrepreneurship /Skill development	CRT Programme in association With Time Institute for III-year Students	05-08 AUG 2019 4 Days
5.	ENTERPRISE RESOURCE PLANNING R18A0353	Training Program for Employability / Entrepreneurship /Skill development	CSI Student chapter Inauguration by Mr G V Seshu Kumar, CSI Chairman, Hyderabad and Global Head, Wipro for Virtual Desk	02 November, 2019 1 Day
6.	Block Chain Technology R18A0534	Technical Talk for Employability / Entrepreneurship /Skill development	Tech talk on " Blockchain Technology" by Mr Prashant Sahoo, DevOps Engineer, certified Block Chain Expert and Scrum Master,TCS	02November, 2019 1 Day
7.	Advanced Algorithms R18A0532	Training Program for Employability / Entrepreneurship /Skill development	Machine Learning for IBM certifications	9-14 March 2020 6 Days
8.	Power System Analysis R17A0215	Guest Lecture for Employability / Entrepreneurship /Skill development	Department of EEE organizing A Guest lecture on SMART GRID	28 February 2020 1 Day
9.	Mini Project (R18A0491)	Industrial Visit for Employability / Entrepreneurship /Skill development	INDUSTRIAL VISIT TO Dr. NARLA TATA RAO thermal power station(VTPS), Vijayawada	01 February 2020 1 Day
10.	Switch Gear and Protection (R18A0217)	Workshop for Employability / Entrepreneurship /Skill development	One Week Hands – on Workshop on Electrical Switchgear & its Applications In Association with DBSON	20-28 December 2019 9 Days

11.	Enterprise Resource Planning R18A0353	Training Program for Employability / Entrepreneurship /Skill development	CRT training for III EEE in association with TIME Institute	9-14 December 2019 6 Days
12.	Technical Communication & Soft Skills (R18A0006)	Training Program for Employability / Entrepreneurship /Skill development	CRT training for III EEE in association with TIME Institute	27-30 september2019 4 Days
13.	Technical Communication & Soft Skills R17A0007	Training Program for Employability / Entrepreneurship /Skill development	CRT training for II EEE in association with TIME Institute	17-19 September 2019 3 Days
14.	Power Systems-I R18A0207	Industrial visit for Employability / Entrepreneurship /Skill development	One day industrial visit to 400 kv substation malkaram, hyderabad	17 August 2019 1 Day
15.	Object Oriented Programming R18A0502	Workshop for Employability / Entrepreneurship /Skill development	Four days workshop on C & C++ Programming – Project Based Training for II EEE	5-8 August 2019 4 Days
16.	Technical Communication & Soft Skills R17A0007	Training Program for Employability / Entrepreneurship /Skill development	CRT training for III EEE in association with TIME Institute	11-13 July 2019 3 Days
17.	Power System Operation & Control R17A0221	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit To Srisailam Left Bank Hydro Electric Station(900MW)	7-8 July 2019 2 Days
18.	Aircraft Vehicle Structures R18A2111	Seminar for Employability / Entrepreneurship /Skill development	Emerging Technologies in Structural and Fluid Modeling & Analysis	30th July-1st August 2020 3 Days
19.	Aircraft Stability and Control R17A2111	Workshop for Employability / Entrepreneurship /Skill development	Remote controlled Aeromodeling workshop	27-01-20 to 01-02-20 5 Days
20.	Aerodynamics R17A2104	Seminar for Employability / Entrepreneurship /Skill development	Seminar on helicopter aerodynamics BY Martin Fiddler staff ordshire university	15-02-2020 1 Day
21.	Machine Learning R18A0526	Workshop for Employability / Entrepreneurship /Skill development	One week workshop on Machine learning using Watson studio	10th to 14th March 2020
22.	Programming For Problem Solving (R18A0501)	Workshop for Employability / Entrepreneurship /Skill development	One day workshop on C&C++ by IIT Bombay	29th February 2020
23.	Artificial Intelligence R18A1205	Workshop for Employability / Entrepreneurship /Skill development	CSIR sponsored "Two days national level workshop on Machine learning for human-Robot collaborate and Artificial Intelligence awareness"	22-23 November 2019

24.	Block Chain Technology R18A0534	Technical Talk for Employability / Entrepreneurship /Skill development	CSI inauguration and technical talk on block chain technology	2nd November 2019
25.	Mini Project R17A0490 Major Project R17A0492	Training Program for Employability / Entrepreneurship /Skill development	CRT on C,C++ programming – project based training	09,10 August 2019 & 13,14 August 2019
26.	Technical Communication & Soft Skills (R18A0006)	Training Program for Employability / Entrepreneurship /Skill development	One-week crash course on Innovation and Entrepreneurship	04-11 JUNE 2020 8 Days
27.	Major Project (R15A0394)	Conference for paper presentation on research work which leads to Skill development	Intelligent Manufacturing And Energy Sustainability (ICIMES-2020)	19,20 June 2020 2 Days
28.	Embedded Systems Design (R17A0424)	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit To Radiant Electronics And Home Appliances for III year students	8 March 2020 1 Day
29.	Nano Technology (R18A0354)	Seminar for Employability / Entrepreneurship /Skill development	A seminar on NANO MATERIALS	6 February 1 Day
30.	Electrical and Hybrid Vehicles R17A0231	Guest Lecture for Employability / Entrepreneurship /Skill development	Guest Lecture on Advanced Battery And Fuel Cell Development For Electric Vehicle	24 January 2020 1 Day
31.	Electrical Power Generation, Transmission and Distribution-II (R17A0208)	Industrial Visit for Employability / Entrepreneurship /Skill development	Visit to Vizag Steel Plant For Training And Internship for III year students	2-15 December 2019 14 Days
32.	Mini Project R17A0392	Industrial Visit for Employability / Entrepreneurship /Skill development	Visit to Hindustan Shipyard Ltd for training and internship for III Year students	1-15 December 2019 15 Days
33.	Industrial and Allied Electrical Systems R18A0224	Workshop for Employability / Entrepreneurship /Skill development	Two Day Workshop On Current Technology of Electric Propulsion Engines.	11-12 November 2019 2 Days
34.	Mini Project R17A0490	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to BHEL-Ramachandrapuram, HYD for III-year students	5-10 October 2019 6 Days
35.	Mini Project (Summer Internship) R18A0394	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to Mahindra & Mahindra, Zaheerabad for II-year students	5 October 2019
36.	Enterprise Resource Planning R18A0353	Training Program for Employability / Entrepreneurship /Skill development	Five Day Campus Recruitment Training For II- & IV-YEAR Students	25 -29 June 2019 5 Days

Metric No.	Key Indicator – 1.2 Academic Flexibility
1.2.1 QnM	*Number of new courses introduced of the total number of courses across all programs offered during the year* Data Requirement: • Name of the new course introduced • Name of the Program

Name of the new course introduced	Name of the Program
Data Structures using Python	Aeronautical Engineering
Green Energy Systems	Aeronautical Engineering
Intellectual Property Rights	Aeronautical Engineering
Data Visualization	Computer Science and Engineering
Knowledge Management	Computer Science and Engineering
Introduction to Database Management systems	Computer Science and Engineering
Data structure using Python	Computer Science and Engineering
Cyber Security	Electronics and Communication Engineering
Data Structures using Python	Electronics and Communication Engineering
Apps Design & Development	Electronics and Communication Engineering
Database Systems	Electronics and Communication Engineering
Python programming	Electronics and Communication Engineering
Data Structures using Python	Electrical and Electronics Engineering
Database Systems	Electrical and Electronics Engineering
Intellectual Property Rights	Information Technology
Data Visualization	Information Technology
Enterprise Resource Planning	Information Technology
Data Structures using Python	Mechanical Engineering
Web Technologies.	Mechanical Engineering
Web Technologies.	Mechanical Engineering
Elements of Electrical Engineering	Mechanical Engineering
Robotics & Automation	Mechanical Engineering
Cross Culture Management	Master Of Business Administration
Management Information Systems & ERP	Master Of Business Administration

| 1.2.2 QnM | Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented

Data Requirement:
• Names of all Programmes adopting CBCS
• Names of all Programmes adopting elective course system |
| --- | --- |

Name of all Programmes adopting CBCS
Computer Science and Engineering
Information Technology
Electronics and Communication Engineering
Electrical and Electronics Engineering
Mechanical Engineering
Aeronautical Engineering
Master of Business Administration
All M.Tech Programmes

Name of all Programmes adopting elective course system
Computer Science and Engineering
Information Technology
Electronics and Communication Engineering
Electrical and Electronics Engineering
Mechanical Engineering
Aeronautical Engineering
Master of Business Administration
All M.Tech Programmes

Metric No.	Key Indicator – 1.3 Curriculum Enrichment
1.3.1 QlM	Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability, Human Values into the Curriculum
Write description in maximum of 500 words

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Objective of the Course: Global education aims at opening a **global** dimension and a holistic perspective in **education** in order to help people understand the complex realities and processes of today's world and develop values, attitudes, knowledge and skills that will enable them to face the challenges of an interconnected world.

1.3.2 Q_nM	*Number of value-added courses for imparting transferable and life skills offered during year* Data Requirement: • Names of the value-added courses with 30 or more contact hours • No. of times offered during the year • Total no. of students completing the course in the year

Names of the value-added courses with 30 or more contact hours	No. of times offered during the year	Total no. of students completing the course in the year
Human Values and Societal Perspectives	One Time	1080
Foreign Language-French	One Time	840
Foreign Language-German	One Time	240
Environmental Science	One Time	1080
Indian Constitution	One Time	1080
Technical Communication and Soft Skills	One Time	1080

1.3.3 Q_nM	*Number of students enrolled in the courses under 1.3.2 above:* Data Requirement: • Names of the value added courses (beyond the curriculum) with 30 or more contact hours • No. of times offered during the year • Total no. of students completing the course in the year • List of students enrolled

List of the students enrolled is enclosed in Annexure IA

1.3.4 QₙM	*Number of students undertaking field projects/ internships / student projects:* Data Requirement: • Names of the Programme • No. of students undertaking field projects / internships / student projects

Names of the Programme	No. of students undertaking			
	Field Projects	Internships	Major Projects	Total
UG				
ECE	10	12	228	250
CSE	--	15	210	225
IT	--	12	43	55
MECH	45	32	99	176
ANE	24	06	37	67
PG				
M.Tech-CSE	--	18	12	30
M.Tech-VLSI & ES	--	12	13	25
M.Tech-MD	--	13	11	24
M.Tech-TE	--	09	15	24
M.Tech-ASE	--	19	11	30
MBA	196	26	18	240

Metric No.	Key Indicator – 1.4 Feedback System
1.4.1 QₙM	*Structured feedback for design and review of syllabus (semester wise / year wise) is obtained from 1) Students, 2) Teachers, 3) Employers, 4) Alumni* *Options:* A. *All 4 of the above* B. *Any 3 of the above* C. *Any 2 of the above* **Opt One** D. *Any 1 of the above* E. *None of the above*

<p style="text-align:center"><strong style="color:red">A: All 4 of the above</p>

1.4.2 QₙM	*The feedback system of the Institution comprises of the following :* A. *Feedback collected, analysed and action taken and report made available on website* B. *Feedback collected, analysed and action taken* C. *Feedback collected and analysed* D. *Feedback collected* E. *Feedback not obtained*

<p style="text-align:center"><strong style="color:red">B: Feedback Collected, analyzed and action take</p>