# 2. Quality Indicator Framework (QIF)

#### <u>Criterion I – Curricular Aspects</u>

Metric No.	Key Indicator – 1.1 Curriculum Design and Development
1.1.1	Curricula developed and implemented have relevance to the local, national,
$Q_lM$	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
	(COs) of the Programmes offered by the Institution. (Write description in maximum of 500 words)
	(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: Professional English**

Objective of the Course: The course will enrich the students to express themselves appropriately and fluently in professional contexts. It will enhance their employability through regular participation in group discussions and interview skills. It lays foundation with writing strategies for the future workplace needs. The students will acquaint with different components of professional presentation skills.

**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: Green Energy Systems**

Objective of the Course: The course aims to highlight the significance of alternative sources of energy, processes, provides the theory and working principles of probable sources of renewable and green energy systems that are environmental friendly

1.1.2	Number of Programmes where syllabus revision was carried out during the year:	
	Data Requirement:	
Q <sub>n</sub> 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:	
1.1.3	Data Requirement:	
Q <sub>n</sub> M	<ul> <li>Name of the Course with Code</li> <li>Activities with direct bearing on Employability/ Entrepreneurship/Skill development</li> <li>Name of the Programme</li> </ul>	

S.No	Name of the	Activities with direct	Name of the Programme	Date and Duration
	Course with Code	bearing on Employability / Entrepreneurship /Skill		
	Couc	development		
1.	Aircraft Performance R17A2107	Training Program for Employability / Entrepreneurship /Skill development	Workshop on Aeromodelling	8 <sup>th</sup> and 9 <sup>th</sup> Feb 2019
2.	Aerospace Propulsion R15A2103	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to Turbojet Engines	29th DEC 2018
3.	Aerospace Vehicle Structures -II R15A2109	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to Air Force Station	20 <sup>th</sup> February 2019
4.	Major Project R15A2190	Training Program for Employability / Entrepreneurship /Skill development	Essential Computational Techniques for Research	01 July to 06 <sup>th</sup> July 2019
5.	Computer Programming With C R17A0501	Training Program for Employability / Entrepreneurship /Skill development	One Day Workshop On Data Science Using R	05-01-2019
6.	Data Structures Using Python R17A0553	Training Program for Employability / Entrepreneurship /Skill development	Three days workshop on python & data science	28-29 January 2019
7.	Scripting Languages R15A0541	Training Program for Employability / Entrepreneurship /Skill development	Microsoft Certification Course On Machine Learning Using Python	28 <sup>th</sup> January to 2 <sup>nd</sup> February 2019
8.	Power Systems – II R18A0208	Training Program for Employability / Entrepreneurship /Skill development	Campus Recruitment Training by TIMES Academy	18 <sup>th</sup> to 22 <sup>nd</sup> Feb 2019
9.	Mini Project	Training Program for	ICSCSP(International Conference	21st &22nd June 2019

	(R15A0596) Major Project (R15A0598)	Employability / Entrepreneurship /Skill development	on Soft Computing & Signal Processing)	
10.	Mini Project (R17A0490) Major Project (R17A0492)	Workshop for Employability / Entrepreneurship /Skill development	Two Day National Level Technical Symposium ,Electrosurge-2K19	1-2 March 2019
11.	Technical Communications and Soft Skills R17A0007	Training Program for Employability / Entrepreneurship /Skill development	CRT training in association with TIME Institute III Year ECE students	18-23 February 2019
12.	Python programming R17A0554	Training Program for Employability / Entrepreneurship /Skill development	Three day workshop on Python and Data Science for II ECE-C&D	7-9 February 2019
13.	Antennas and Wave Propagation R17A0416	Industrial visit for Employability / Entrepreneurship /Skill development	II ECE Industrial Visit-National Remote Sensing Centre(NRSC),Hyd	10 February 2019
14.	Data Structures using Python R17A0553	Workshop for Employability / Entrepreneurship /Skill development	Three day workshop on Python and Data Science for II Year ECE-A&B	4-6 February 2019
15.	Data Structures using Python R17A0553	Training Program for Employability / Entrepreneurship /Skill development	Microsoft Certification on Machine Learning using Python for III Year ECE students	4-9 February 2019
16.	Mini Project R17A0490 Major Project R17A0492	Industrial visit for Employability / Entrepreneurship /Skill development	III Year ECE Industrial Visit- MCEME	30 January 2019
17.	Antennas and Wave Propagation R17A0416	Seminar for Employability / Entrepreneurship /Skill development	Guest lecture on "Antenna and Wave Propagation "by VSR SURESH	22 January 2019
18.	Wireless Communications & Networks R15A0432	Workshop for Employability / Entrepreneurship /Skill development	Two Day Workshop On Internet Of Things With IBM Cloud	30-31 August 2018
19.	Major Project R17A0598 Mini Project R17A0596	Workshop for Employability / Entrepreneurship /Skill development	Two Day National Level Technical Symposium ,ESPARK-2K19	1-2 March 2019
20.	Technical Communication & Soft Skills (R17A0007)	Seminar for Employability / Entrepreneurship /Skill development	CRT training for II EEE in association with TIME Institute	18-23 February 2019
21.	Data Structures Using PYTHON R17A0553	Workshop for Employability / Entrepreneurship /Skill development	Three days workshop on Python and Data Science for II EEE	7-9 February 2019
22.	Electrical Machines – I	Workshop for Employability /	Guest lecture on "Electrical Systems" by Mohammed Abdul	29 January 2019

	R17A0202	Entrepreneurship /Skill development	Nayeem for II EEE	
23.	Electrical Power Generation, Transmission And Distribution-I R17A0207	Workshop for Employability / Entrepreneurship /Skill development	Industrial Visit To 33kv/11kv Substation- Ghatkesar, Hyd	25 January 2019
24.	Technical Communication & Soft Skills (R17A0007)	Training Program for Employability / Entrepreneurship /Skill development	CRT training in association with TIME Institute for II EEE	25-30 June 2018
25.		Training Program for Employability / Entrepreneurship /Skill development	Workshop on Block Chain Technology &Devops	30th Nov-1stDec 2018
26.	Python Programming R18A0513	Training Program for Employability / Entrepreneurship /Skill development	Workshop on Python & D.A	31st Jan-2nd Feb 2019
27.	Smart Manufacturing Technologies (R18A0321)	Conference for paper presentation on research work which leads to Skill development	Workshop on Microsoft Certification	28th Jan-2nd Feb 2019
28.	Technical Communication & Soft Skills (R17A0007)	Industrial Visit for Employability / Entrepreneurship /Skill development	II Year CRT Classes	26 <sup>th</sup> to 30thJun 2018
29.	Technical Communication & Soft Skills (R17A0007)	Seminar for Employability / Entrepreneurship /Skill development	III Year CRT Classes	2nd to 7th Jul 2018
30.	Manufacturing Management R15A0343	Guest Lecture for Employability / Entrepreneurship /Skill development	Seminar On Smart Manufacturing & Future Technologies In Industry	12 March 2019 1 Day
31.	Major Project R17A0394 Mini Project R17A0392	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit To Mahindra & Mahindra Farm Division Plant Zaheerabad	09-March 2019
32.	Major Project R17A0394 Mini Project R17A0392	Industrial Visit for Employability / Entrepreneurship /Skill development	Yantrotsav-2019 Techno Cultural Fest Organizing By Mechanical Engineering Department	01-02 March 2019
33.	CAD/CAM R17A0322	Workshop for Employability / Entrepreneurship /Skill development	Two Day Workshop on CATIA V5 For II Year ME Students.	29 Jan-1 Feb 2019
34.	Project-I R18A0492	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit To NFC Hyd III Year Mechanical Engineering Students	17-19 Sep 2018

35.	Mini Project (Summer Internship) R18A0394	Industrial Visit for Employability / Entrepreneurship /Skill development	One Week CRT PROGRAMME On C, C++ For III rd Year Mechanical Engineering Students	02-07 July 2018
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
37.	CAD/CAM R17A0322	Training Program for Employability / Entrepreneurship /Skill development	Seminar On E- LEARNING(CATIA SOFTWARE) For II & III Year Students In Collaboration With EDS Technologies	02 July 2018
38.	CAD/CAM R17A0322	Training Program for Employability / Entrepreneurship /Skill development	Ten Days Training On "NX 9" Software For IV Year Students	18- 27 June 2018
39.	Technical Communication & Soft Skills (R17A0007)	Training Program for Employability / Entrepreneurship /Skill development	Five Day CAMPUS RECRUITMENT TRAINING FOR II & IV YEAR Students	25 -29 June 2018
40.	Major Project R17A0394 Mini Project R17A0392	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial visit to Vishaka Industries	25 August 2018
41.	Engineering/IT Workshop R18A0082	Training Program for Employability / Entrepreneurship /Skill development	Workshop on Hardware Components and Formatting System (ITM)	7 September 2018
42.	Technical Communication & Soft Skills (R17A0007	Workshop for Employability / Entrepreneurship /Skill development	A Two Day workshop on Corporate Readiness	3-4 October 2018
43.	Human Resource Management R17MBA11	Workshop for Employability / Entrepreneurship /Skill development	EYE: Emerging Young Executives Programme	9 October 2018
44.	Project Work R17MBA27	Workshop for Employability / Entrepreneurship /Skill development	TROIKA -2018 Intra Management Fest	17 November 2018
45.	Innovative Entrepreneurship- Case Study R17MBA26	Workshop for Employability / Entrepreneurship /Skill development	A Two day workshop on Career Mapping	12-13 December 2018
46.	Project Work R17MBA27	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to Vijaya Dairy Milk	28 January 2019
47.	Innovative Entrepreneurship- Case Study R17MBA26	Workshop for Employability / Entrepreneurship /Skill development	Two Day Workshop on "Manageria Skill Development Programme" - An Awareness Program on Corporate Readiness for Career Success	8-9 February 2019

48.	Financial Management R17MBA12	Training Program for Employability / Entrepreneurship /Skill development	Budget Talk Program	14-16 February2019
49.	Production and Operations Management R17MBA15	Workshop for Employability / Entrepreneurship /Skill development	CM to GM (Common Man to Great Man) Program	21-23 February2019
50.	Project Work R17MBA27	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to Coca-cola	22 February2019
51.	Innovative Entrepreneurship- Case Study R17MBA26	Training Program for Employability / Entrepreneurship /Skill development	Guest Lecture on Live Trading of Financial Market CA Praveen Kumar, CEO-Planet finance Educational Institute	27 February2019
52.	Project Work R17MBA27	Workshop for Employability / Entrepreneurship /Skill development	National Level Mega Management Fest-SANKALP 2K19	1-2 March2019
53.	Innovative Entrepreneurship- Case Study R17MBA26	Workshop for Employability / Entrepreneurship /Skill development	A Two Day workshop on Managerial Skill Development Program	15-16 March2019

Metric No.	Key Indicator – 1.2 Academic Flexibility		
1.2.1	Number of new courses introduced of the total number of courses across all		
Q <sub>n</sub> M	programs offered during the year		
	Data Requirement:		
	<ul> <li>Name of the new course introduced</li> </ul>		
	Name of the Program		

Name of the new course introduced	Name of the Program
JAVA Programming	Aeronautical Engineering
Data Structures using python	Aeronautical Engineering
Intellectual Property Rights	Aeronautical Engineering
Database Systems	Computer Science and Engineering
Python Programming	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
Intellectual Property Rights	Electronics and Communication Engineering
Enterprise Resource Planning	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	Electrical and Electronics Engineering
Enterprise Resource Planning	Electrical and Electronics Engineering
Enterprise Resource Planning	Information Technology
Python Programming	Information Technology
Intellectual Property Rights	Information Technology
Data Base Systems	Mechanical Engineering
Introduction to JAVA Programming	Mechanical Engineering
Data Structures using python	Mechanical Engineering
Cross Culture Management	Master Of Business Administration
Management Information Systems & ERP	Master Of Business Administration

Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented	
Data Requirement:	
<ul><li>Names of all Programmes adopting CBCS</li><li>Names of all Programmes adopting elective course system</li></ul>	
•	

Name of all Programmes adopting CBCS
Computer Science and Engineering
Information Technology
<b>Electronics and Communication Engineering</b>
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	Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability,
Q <sub>l</sub> M	Human Values into the Curriculum 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
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The institute is also offering the following PG programmes namely

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- **\*** 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: Green Energy Systems**

Objective of the Course: The course aims to highlight the significance of alternative sources of energy, processes, provides the theory and working principles of probable sources of renewable and green energy systems that are environmental friendly

1.3.2	Number of value-added courses for imparting transferable and life skills offered during year
Q <sub>n</sub> M	Data Requirement:
	Names of the value-added courses with 30 or more contact hours
	<ul> <li>No. of times offered during the year</li> </ul>
	<ul> <li>Total no. of students completing the course in the year</li> </ul>

Names of the value-added courses with 30 or more contact hours		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
<b>Environmental Science</b>	One Time	1080
Indian Constitution	One Time	1080
Technical Communication and Soft Skills	One Time	1080

	Number of students enrolled in the courses under 1.3.2 above:
1.3.3	Data Requirement:
Q <sub>n</sub> M	<ul> <li>Names of the value added courses (beyond the curriculum) with 30 or more contact hours</li> </ul>
	<ul> <li>No. of times offered during the year</li> <li>Total no. of students completing the course in the year</li> </ul>
	• List of students enrolled

# List of the students enrolled is enclosed in Annexure IA

124	Number of students undertaking field projects/internships/student	
1.3.4	projects:	
	Data Requirement:	
Q <sub>n</sub> M	Names of the Programme	
	<ul> <li>No. of students undertaking field projects / internships / student</li> </ul>	
	projects	

Names of the Programme	No. of students undertaking			
	Field Projects	Internships	<b>Major Projects</b>	Total
UG				
ECE	20	04	241	265
CSE		04	224	228
IT		12	43	55
MECH	18	12	148	178
ANE	09	03	42	54
PG				
M.Tech-CSE			32	32
M.Tech-VLSI & ES		08	16	24
M.Tech-MD		12	12	24
M.Tech-TE		08	16	24
M.Tech-ASE	04		27	31
MBA	195	15	30	240

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

A: All 4 of the above

1.4.2	The feedback system of the Institution comprises of the following:
	A. Feedback collected, analysed and action taken and report made
Q <sub>n</sub> M	available on website
	B. Feedback collected, analysed and action taken
	C. Feedback collected and analysed
	D. Feedback collected
	E. Feedback not obtained

B: Feedback Collected, analyzed and action take