# 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. (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: 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	<ul><li>Programme Code</li><li>Names of the Programmes revised</li></ul>		

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 Course with Code	Activities with direct bearing on Employability / Entrepreneurship /Skill development	Name of the Programme	Date and Duration
1.	Airframe Structural Design R15A2188	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to DRDL	02 <sup>nd</sup> August 2017
2.	Aerospace Vehicle Structures –I R15A2105	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to Air Force Station	20 <sup>th</sup> September 2017
3.	Mechanisms & Mechanical Design R15A0365	Industrial Visit for Employability / Entrepreneurship /Skill development	Industrial Visit to BHEL	05 <sup>th</sup> July 2017
4.	Aircraft Systems R17A2115	Workshop for Employability / Entrepreneurship /Skill development	Industry Oriented Workshops On RC Aircraft	01 July to 06 <sup>th</sup> July 2019
5.	Computer Networks R15A0514	Training Program for Employability / Entrepreneurship /Skill development	CISCO CCNA certification	28th to 31st July 2017
6.	Big-Data Analytics R15A0531	Workshop for Employability / Entrepreneurship /Skill development	Two days workshop on Big data analytics	13&14 October 2017
7.	Web Technologies R17A0519	Workshop for Employability / Entrepreneurship /Skill development	Three Days Workshop On "Web Development"	6 <sup>th</sup> to 9th January 2018
8.	Introduction to Scripting Languages R17A1251	Training Program for Employability / Entrepreneurship /Skill development	One week Microsoft certification program	17 <sup>th</sup> to 23 <sup>rd</sup> January 2018
9.	Big-Data Analytics R17A0528	Seminar for Skill development	Two days' National seminar on "Big Data Analysis & IOT for Health Care Applications"	16 <sup>th</sup> to 17 <sup>th</sup> February 2018
10.	Technical Communication and Soft Skills R17A0007	Training Program for Employability / Entrepreneurship /Skill development	Campus Recruitment Training on Personal Development Skills by FACE Academy	26 <sup>th</sup> to 30 <sup>th</sup> June 2018

	14 ' D ' (	D D	ICCCCP/I	21st 0 22nd I 2010
	Major Project	Paper Presentation on	ICSCSP(International Conference	21st &22nd June 2018
11.	R17A0598	Research Work which	on Soft Computing & Signal	
	Mini Project R17A0596	leads to Skill development	Processing)	
	Digital Image	Seminar for Skill	C · C · W·	
10	Processing	development	Seminar on Computer Vision	26-27 February
12.	R15A0426	development	applications development using	2018
	K13A0420		MATLAB	
	Major Project	Workshop for	Two Day National Level	2.2 Folomomy 2019
13.	R15A0492	Employability /	Technical	2-3 February 2018
13.	Mini Project	Entrepreneurship /Skill	Symposium, Electrosurge-2K18	
	R15A0490	development		
	Embedded	Workshop for	Two Days Robotics Workshop	18-19January 2018
14.	Systems Design	Employability /	For	10-193ailuary 2016
11.	R17A0424	Entrepreneurship /Skill	I Year ECE Students	
		development	Treat EeE staaths	
	Web Technologies	Workshop for	Three days Workshop On	1-4 January 2018
15.	R15A0520	Employability /	Web Development for III	1-4 January 2010
10.		Entrepreneurship /Skill	ECE Year students	
		development		
	Technical	Training Program for	Four days training program on	29 August-01 –
16.	Communications	Employability /	Professional Skill Development	Sept,2017
	and Soft Skills	Entrepreneurship /Skill		
	R15A0007	development		
	Major Project	Paper Presentation on	International Conference on Soft	22 22 1 2010
1.7	R15A0492	Research Work which	Computing and Signal	22-23 June 2018
17.	Mini Project	leads to Skill development	Processing organized by	
	R15A0490		MRCET in association with	
	MINI DROJECT	Wantahan fan	Springer Two Day National Level	
	MINI PROJECT R15A0596	Workshop for Employability /	Two Day National Level Technical Symposium, ESPARK-	
18.	K13A0390		2K18	2-3 February 2018
		Entrepreneurship /Skill development	2K10	
	Robotics &	Workshop for	Two Days Robotics Workshop	
	Automation	Employability /	For I EEE Students	
19.	R17A0454	Entrepreneurship /Skill	For TEEE Students	22-23 January 2018
	KI/AU+3+	development		
		Workshop for	Multimedia Signal Transmission	12-13 June 2018
		Employability /	through Wireless Communication	12 15 valle 2010
20.		Entrepreneurship /Skill	in association with Capricot	
		development	Technologies Pvt.Ltd. Hyderabad	
	Power Electronics	Workshop for	Two Week ISTE FDP on Electric	10-15 July 2017
2.1	R17A0210	Employability /	Power System.	
21.		Entrepreneurship /Skill		
		development		
	BIG DATA	Seminar for Employability	National Seminar On Big Data	17 <sup>th</sup> & 18thFeb 2018
22.	ANALYTICS	/ Entrepreneurship /Skill	Analytics &I For Health Care	
	R17A0528	development	Application	
	WEB	Workshop for	Workshop on Web Development	6th-9 <sup>th</sup> Jan2018
22	TECHNOLOGIE	Employability /	1	
23.	S R17A0519	Entrepreneurship /Skill		
		development		
	BIG DATA	Workshop for	Two Days Workshop On Big	13th&14th Oct 2017
24.	ANALYTICS	Employability /	Data Analytics	
	R15A0530	Entrepreneurship /Skill		
-				

		development		
25.	Technical Communications and Soft Skills R15A0007	Training Program for Employability / Entrepreneurship /Skill development	Professional skill development program	6th to 9th sep 2017
26.	Computer Networks R15A0514	Industrial Visit for Employability / Entrepreneurship /Skill development	Cisco Certification	28th to 31st Jul 2017
27.	Mini Project R15A0392	Industrial Visit for Employability / Entrepreneurship /Skill development	One Day Industrial Visit To BHEL, Hyderabad For Mechanical Faculty	14 JUN 2018
28.	CAD/CAM R17A0322	Workshop for Employability / Entrepreneurship /Skill development	Two Day Workshop on AutoCAD for B.Tech I Year Students	19 -20 JAN 2018
29.	COMPUTER INTEGRATED MANUFACTURI NG R17A0316)	Workshop for Employability / Entrepreneurship /Skill development	Two Day Workshop on 3D PRINTING	11-12 JAN 2018
30.	Total Quality Management R17MBA09	Workshop for Employability / Entrepreneurship /Skill development	One Day Work Shop Finite Element Analysis using ANSYS	13 SEP 2017
31.	Business Environment & Business Laws R17MBA05	Guest lecture for Employability / Entrepreneurship /Skill development	Guest Lecture about the Nuclear Fuel Complex	6 SEP 2017
32.		Guest lecture for Employability / Entrepreneurship /Skill development	Invited Lecture on  MANUFACTURING SCIENCE	02 AUG 2017
33.	CAD/CAM R17A0322	Workshop for Employability / Entrepreneurship /Skill development	Three day Workshop on ADVANCED AUTOCAD for B.Tech II year Students	31 Aug-2 SEP 2017
34.		Workshop for Employability / Entrepreneurship /Skill development	Nine Day Workshop on ANSYS Software for B.Tech IV year Students	26JULY-3 AUG 2017
35.	CAD/CAM R17A0322	Workshop for Employability / Entrepreneurship /Skill development	One Day Workshop on AUTOCAD	03 JUNE 2017
36.	Marketing Management R17MBA13	Workshop for Employability / Entrepreneurship /Skill development	A One day workshop on Digital Marketing	21 July 2017
37.	Management	Workshop for	IIM-Identify Identity of	16 October 2017

	Information	Employability /	Management Concepts	
	Systems & ERP	Entrepreneurship /Skill		
	R17MBA17 Project Work &	development Industrial Visit for		
38.	Comprehensive Viva-Voce R17MBA27	Employability / Entrepreneurship /Skill development	Industrial Visit to NSIC (ECIL)	27 October 2017
39.	Statistical Data Analysis-Case Study R17MBA23	Guest lecture for Employability / Entrepreneurship /Skill development	Guest Lecture on Stock Market (NSE)	30 October 2017
40.	Human Resource Management R17MBA11	Workshop for Employability / Entrepreneurship /Skill development	A Two Day workshop on Innovative HR Practices	10-11 November 2017
41.	Marketing Management R17MBA13	Workshop for Employability / Entrepreneurship /Skill development	A one day workshop on "Managerial Skill Development Program	17 November 2017
42.	Human Resource Management R15MBA13	Training Program for Employability / Entrepreneurship /Skill development	HR-Summit-2017 Corporate Readiness – an Initiative for Skill Development	9 December 2017
43.	Innovative Entrepreneurship- Case Study R15MBA30	Workshop for Employability / Entrepreneurship /Skill development	Entrepreneurship Development Programme (EDP) from the Entrepreneurs Academy Hyderabad.	22 December 2017
44.	Technology & Innovation Management R15MBA23	Industrial Visit for Employability / Entrepreneurship /Skill development	One Day Industry Interaction Programme  • Mr. Sudhakar, HR Manager, ICICI Prudential  • Mr. Venu Gopal, Senior Executive, Birla Mutual Funds Dr. Suresh, Senior-Trainer for RTC, Oriental Insurance Co. Ltd.	28 February 2018
45.	Marketing Management R15MBA15	Workshop for Employability / Entrepreneurship /Skill development	One Day Program on Job Market Awareness Mr. Balraj Menthula, Regional Manager, Hiremeth Electronics Pvt. Ltd	7 march 2018
46.	Human Values & Professional Ethic R15MBA22	Workshop for Employability / Entrepreneurship /Skill development	A Two day workshop on Enhancing Soft Skills	18-19 April 2018
47.	Project Management R15MBA19	Workshop for Employability / Entrepreneurship /Skill development	NDA in MBA Season-2: Nurturing Dynamic Abilities	28-30 June 2018

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

Name of the new course introduced	Name of the Program
Green Energy systems	Aeronautical Engineering
JAVA Programming	Aeronautical Engineering
Data Structures using python	Aeronautical Engineering
Introduction to Scripting Languages	Computer Science and Engineering
Intellectual Property Rights	Computer Science and Engineering
Data Structures using Python	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	
Intellectual Property Rights Information Technology	
Management Science	Information Technology
Embedded Systems and Design	Information Technology
Managerial Economics and Financial Analysis	Mechanical Engineering
Production and Operations Management	Mechanical Engineering
Intellectual Property Rights	Mechanical Engineering
Cross Culture Management	Master Of Business Administration
Management Information Systems & ERP	Master Of Business Administration
Intellectual Property Rights	Master Of Business Administration

1.2.2 O <sub>n</sub> M	Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented	
Qnivi	Data Requirement:	
	Names of all Programmes adopting CBCS	
	<ul> <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>
<b>Electrical and Electronics Engineering</b>
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,	
$Q_lM$	Human Values into the Curriculum	
	Write description in maximum of 500 words	

The institute is offering the following programmes in UG namely

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The institute is also offering Doctoral programme in the following specialization

### **❖ PhD Program in ECE**

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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.

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**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.

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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.

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# **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: 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:
	<ul> <li>Names of the value-added courses with 30 or more contact hours</li> </ul>
	<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	960
Foreign Language-French	One Time	720
Foreign Language-German	One Time	240
<b>Environmental Science</b>	One Time	960
Indian Constitution	One Time	960
Technical Communication and Soft Skills	One Time	960

1.3.3	Number of students enrolled in the courses under 1.3.2 above:
	Data Requirement:
Q <sub>n</sub> M	• Names of the value added courses (beyond the curriculum) 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>
	List of students enrolled

List of the students enrolled is enclosed in Annexure IA

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

Names of the Programme	N	No. of students	undertaking	
	Field Projects	Internships	<b>Major Projects</b>	Total
UG				
ECE	15	06	235	256
CSE		08	222	230
IT		04	49	53
MECH	15	06	166	187
ANE	13		57	70
PG				
M.Tech-CSE			33	33
M.Tech-VLSI & ES	05	03	16	24
M.Tech-MD	18	02	04	24
M.Tech-TE	16	02	06	24
M.Tech-ASE	01		28	29
MBA	194	16	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