# 2. Quality Indicator Framework (QIF)

## Criterion I – Curricular Aspects

| Metric No. | Key Indicator – 1.1 Curriculum Design and Development |
|---|---|
| **1.1.1**<br><br>**Q$_l$M** | *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.*<br>(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**

The institute is also offering the following PG programmes namely

❖ **M.Tech in VLSI & Embedded Systems**
❖ **M.Tech in Systems & Signal Processing**
❖ **M.Tech in Computer Science and Engineering**
❖ **M.Tech in Machine Design**
❖ **M.Tech in Thermal Engineering**
❖ **M.Tech in Aero Space Engineering**
❖ **Master of Business Administration**

The institute is also offering Doctoral programme in the following specialization

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: 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

| 1.1.2<br><br>$Q_nM$ | ***Number of Programmes where syllabus revision was carried out during the year:***<br>Data Requirement:<br><ul><li>Programme Code</li><li>Names of the Programmes revised</li></ul> |
|---|---|

| Name of all Programmes where syllabus revision was carried out |
|---|
| **Computer Science and Engineering** |
| **Information Technology** |
| **Electronics and Communication Engineering** |
| **Mechanical Engineering** |
| **Aeronautical Engineering** |
| **Master of Business Administration** |
| **All M.Tech Programmes** |

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

| 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 | VLSI Design A60432 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on Embedded Linux on Zynq -7000 SOC using Vivado | 9/25/2015, 1 Day |
| 2 | Embedded Systems Design A70440 | Guest Lecture For Employability / Entrepreneurship /Skill Development | Guest lecture on Embedded system and Real world Applications | 9 March 2016, 1 Day |
| 3 | Computer Programming A10501 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on Android App Development for III Year Students | 15-17 October 2015, 3 Days |
| 4 | Web Technologies, A60512 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on Web designing for II Year students | 12-14 October 2015, 3 Days |
| 5 | Major Project Work A80088 | Paper Presentations For Employability / Entrepreneurship /Skill Development | Electrosurge 2K16 | 1-2 April 2016, 2 Days |
| 6 | Major Project Work A80088 | Industrial Visit For Employability / Entrepreneurship /Skill Development | Industrial visit to Nationa Remote Sensing Centre | 6-Apr-16 |

| | | | | |
|---|---|---|---|---|
| 7 | Linear and Digital IC Applications ,A50425 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on "Analog & Digital CMOS IC Design flow using Mentor Graphics EDA Tools" | 9-10 June 2016, 2 Days |
| 8 | Software Testing Methodologies A60525 | Workshop For Employability / Entrepreneurship /Skill Development | Casper Studio Workshop on Gaming | 28-29 September 2015, 2 Days |
| 9 | Scripting Languages A80537 | Workshop For Employability / Entrepreneurship /Skill Development | Android App development | 3-5 October 20, 3 Days |
| 10 | Web Technologies, A60512 | Workshop For Employability / Entrepreneurship /Skill Development | Website Designing and Development | 8-10 October 2015, 3days |
| 11 | Cloud Computing, A70519 | Workshop For Employability / Entrepreneurship /Skill Development | TASK-IBM Bluemix workshop on Cloud Computing | 27th Nov 2015,1 Day |
| 12 | Java Programming, A40503 | Training Program For Employability / Entrepreneurship /Skill Development | Microsoft Training associate – Certification on Java and Dot net | 5-10 Jan, 2016, 6 Days |
| 13 | Computer Programming A10501 | Workshop For Employability / Entrepreneurship /Skill Development | workshop on C programming skills | 18-19 March,2016, 2 Days |
| 14 | Industry Oriented Mini Project  A80087 | Industrial Visit For Employability / Entrepreneurship /Skill Development | Industrial Visit Infosys, Hyderabad | 1/10/2015, 1 Day |
| 15 | Robotics, A70355 | Workshop For Employability / Entrepreneurship /Skill Development | One Day Workshop on 3D Printing | 6/10/2016, 1 Day |

| | | | | |
|---|---|---|---|---|
| 16 | Project Work A80088 | Paper Presentations For Employability / Entrepreneurship /Skill Development | YANTROSTAV-2k16 | 1-2 April 2016, 2 Days |
| 17 | CAD/CAM,A70328 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on Advanced AUTOCAD | 23-29 Aug 2015,6 Days |
| 18 | | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on Fusion 360 | 1/9/2016, 1 Day |
| 19 | CAD/CAM,A70328 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on Advanced AUTOCAD | 14-21 Sept 2015, 6 Days |
| 20 | Renewable Energy Sources,A80324 | Guest Lecture For Employability / Entrepreneurship /Skill Development | Guest Lecture on Prodcut Life Cycle Management | 14 Sept 2015, 1 Day |
| 21 | Industry Oriented Mini Project A80087 | Paper Presentations For Employability / Entrepreneurship /Skill Development | INGENIUM-2k15 | 15 Sept 2015, 1 Day |
| 22 | Robotics, A70355 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on 3D Printing | 18 Aug 2015, 1 Day |
| 23 | Project Work A80088 | Paper Presentations For Employability / Entrepreneurship /Skill Development | DISHA-2k15 | 7/31/2015, 1 Day |
| 24 | Automobile Engineering A62405 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on Automotive Systems | 3/19/2016, 1 Day |

| | | | | |
|---|---|---|---|---|
| 25 | Web Services, A80551 | Workshop For Employability / Entrepreneurship /Skill Development | Casper Studio Workshop on Gaming | 28-29 September 2015, 2 Days |
| 26 | Scripting Languages A80537 | Workshop For Employability / Entrepreneurship /Skill Development | Android App development | 3-5 October 20, 3 Days |
| 27 | Web Technologies A60512 | Workshop For Employability / Entrepreneurship /Skill Development | Website Designing and Development | 8-10 October 2015, 3days |
| 28 | Cloud Computing, A70519 | Workshop For Employability / Entrepreneurship /Skill Development | TASK-IBM Bluemix workshop on Cloud Computing | 27th Nov 2015,1 Day |
| 29 | Java Programming, A40503 | Training For Employability / Entrepreneurship /Skill Development | Microsoft Training associate – Certification on Java and Dot net | 5-10 Jan, 2016, 6 Days |
| 30 | Computer Programming A10501 | Workshop For Employability / Entrepreneurship /Skill Development | workshop on C programming skills | 18-19 March,2016, 2 Days |
| 31 | Industry Oriented Mini Project  A80087 | Industrial Visit For Employability / Entrepreneurship /Skill Development | Industrial Visit Infosys, Hyderabad | 1/10/2015, 1 Day |
| 32 | Aero dynamics 1 A42102 | Workshop For Employability / Entrepreneurship /Skill Development | Aeromodelling Workshop | 3- 4 Sept 2015, 2 Days |
| 33 | CAD/CAM,A70328 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on 3D Printing | 4-5  March 2016, 2 Days |
| 34 | Launch vehicle and Missile Technology A82132 | Seminar For Employability / Entrepreneurship /Skill | Seminar on  Rocket Trajectories And Design Calculations | 2/4/2015, 1 Day |

| | | | Development | |
|---|---|---|---|---|
| 35 | Mechanisms And Mechanical design A72123 | Seminar For Employability / Entrepreneurship /Skill Development | Seminar on Geometric Dimensioning And Tolerances | 8/19/2015, 1 Day |
| 36 | Major Project Work A80088 | Paper Presentations For Employability / Entrepreneurship /Skill Development | Conference on ICEMS | 18-19Dec 2015, 2 Days |
| 37 | Computational Aero dynamics A62114 | Workshop For Employability / Entrepreneurship /Skill Development | Computational Fluid Dynamics And Its Application To Aerospace | 21-27 August 2015, 6 Days |
| 38 | Major Project Work A80088 | Paper Presentations For Employability / Entrepreneurship /Skill Development | Techfest for students on Aerodyne | 01-02 April 2016, 2 Days |
| 39 | Management Information Systems R15MBA18 | Skill Development Program For Employability / Entrepreneurship /Skill Development | Workshop on "Interview Process" | 21 Nov, 2015, 1 Day |
| 40 | Marketing Management , R15MBA15 | Guest Lecture For Employability / Entrepreneurship /Skill Development | Workshop on "Overview Of Marketing" | 7 Nov, 2015, 1 Day |
| 41 | Human Values & Professional Ethics R15MBA22 | Workshop For Employability / Entrepreneurship /Skill Development | Workshop on "Career Opportunities" | 31 October, 2015, 1Day |
| 42 | Human Values & Professional Ethics R15MBA22 | Workshop for Employability / Entrepreneurship /Skill development | Workshop on "Student Counseling" | 9 October, 2015, 1Day |

| 43 | Business Environment , R15MBA09 | Guest lecture for Employability / Entrepreneurship /Skill development | Workshop on "Importance of Business Communication" | 3 August, 2015, 1Day |

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

| Name of the new course introduced | Name of the Program |
|---|---|
| Launch Vehicle and Missile Technology | Aeronautical Engineering |
| Flight Scheduling and Operations | Aeronautical Engineering |
| Intellectual Property Rights | Aeronautical Engineering |
| Intellectual Property Rights | Electronics and Communication Engineering |
| Satellite Communications | Electronics and Communication Engineering |
| Telecommunication Switching Systems and Networks | Electronics and Communication Engineering |
| Human Values and Professional Ethics | Electronics and Communication Engineering |
| Intellectual Property Rights | Computer Science Engineering |
| Computer Graphics | Computer Science Engineering |
| Embedded Systems | Computer Science Engineering |
| Human Values and Professional Ethics | Electronics and Communication Engineering |
| Intellectual Property Rights | Mechanical Engineering |
| Robotics | Mechanical Engineering |
| Renewable Energy Sources | Mechanical Engineering |
| Human Values and Professional Ethics | Mechanical Engineering |
| Launch Vehicle and Missile Technology | Aeronautical Engineering |
| Flight Scheduling and Operations | Aeronautical Engineering |
| Human Values and Professional Ethics | Aeronautical Engineering |
| Intellectual Property Rights | Information Technology |
| Human Values and Professional Ethics | Information Technology |
| Embedded Systems | Information Technology |
| Business Law and Regulation | Master of Business Administration |
| Business Ethics and Corporate Governance | Master of Business Administration |

| 1.2.2 QₙM | *Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented* <br><br> Data Requirement: <br> • Names of all Programmes adopting CBCS <br> • Names of all Programmes adopting elective course system |
|---|---|

| Name of all Programmes adopting CBCS in I Year |
|---|
| Computer Science and Engineering |
| Information Technology |
| Electronics and Communication Engineering |
| Mechanical Engineering |
| Aeronautical Engineering |
| Master of Business Administration |
| All M.Tech Programmes |

| Name of all Programmes adopting elective course system in I Year |
|---|
| Computer Science and Engineering |
| Information Technology |
| Electronics and Communication 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* <br> Write description in maximum of 500 words |

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**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.

| 1.3.2 <br><br> $Q_nM$ | *Number of value-added courses for imparting transferable and life skills offered during year* <br> Data Requirement: <br> • Names of the value-added courses with 30 or more contact hours <br> • No. of times offered during the year <br> • 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 | 720 |
| Human Values and Professional Ethics | One Time | 750 |
| Environmental Studies | One Time | 750 |
| Advanced Communication Skills | One Time | 750 |

| 1.3.3 <br><br> $Q_nM$ | *Number of students enrolled in the courses under 1.3.2 above:* <br> Data Requirement: <br> • Names of the value added courses (beyond the curriculum) with 30 or more contact hours <br> • No. of times offered during the year <br> • Total no. of students completing the course in the year <br> • 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: <br> Data Requirement: <br> • Names of the Programme <br> • 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 | 08 | 06 | 180 | 194 |
| CSE | -- | 07 | 236 | 243 |
| IT | -- | 04 | 49 | 53 |
| MECH | 12 | 05 | 119 | 136 |
| ANE | 08 | 02 | 105 | 115 |
| PG | | | | |
| M.Tech-CSE | -- | 03 | 27 | 30 |
| M.Tech-SSP | 01 | 02 | 15 | 18 |
| M.Tech-VLSI & ES | - | 02 | 22 | 24 |
| M.Tech-MD | 01 | 01 | 22 | 24 |
| M.Tech-TE | 02 | 02 | 20 | 24 |
| M.Tech-ASE | 01 | 02 | 29 | 32 |
| MBA | 142 | 12 | 86 | 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 <br> Options: <br>    A. All 4 of the above <br>    B. Any 3 of the above <br>    C. Any 2 of the above     Opt One <br>    D. Any 1 of the above <br>    E. None of the above |

**A: All 4 of the above**

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

**B: Feedback Collected, analyzed and action take**