

1	Vision, Mission and Program Educational Objectives	50
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1.1 State the Vision and Mission of the Department and Institution

A. Availability of the Vision & Mission statements of the Department

Institute Vision

- To develop technically proficient and ethically sound diploma engineers contributing to industry and society needs.

Institute Mission

- To impart quality technical education.
- To shape students towards sensitizing in ethical values and contributing in nature.
- To familiarize students with the world of work.

Department Vision:

To develop technically sound and ethically strong diploma electronics and communication engineers contributing to industry and society.

Department Mission:

- To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.
- To focus on inculcating ethical values and contributory approach.
- To provide effective teaching learning to students through continuous faculty development.

B. Appropriateness/Relevance of the Statements

1. Vision Statement

Vision:

"To develop technically sound and ethically strong diploma electronics and communication engineers contributing to industry and society."

Justification:

The vision statement of the department clearly articulates the long-term aspiration and desired future state. As per the definition, a vision statement should serve as an inspiring, future-oriented declaration that guides institutional efforts.

This vision is:

- **Clear and meaningful**, emphasizing both technical competence and ethical strength.
- **Aspirational and forward-looking**, addressing the contemporary demands of industry and society.
- **Aligned with professional and societal expectations**, reflecting the institution's commitment to producing responsible and capable diploma engineers.

Thus, it is **appropriate and correct from the definition perspective**, fulfilling the criteria of clarity, relevance, and alignment with long-term academic and professional goals.

2. Mission Statements

Mission:

1. To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.
2. To focus on inculcating ethical values and contributory approach.
3. To provide effective teaching learning to students through continuous faculty development.

Justification:

The mission statements precisely describe the operational strategies and immediate objectives through which the vision will be achieved. By definition, a mission statement should state the institution's purpose, address key stakeholders, and outline the means to accomplish the vision.

The given mission statements are:

- **Specific and relevant to the discipline of Electronics & Communication Engineering**, focusing on technical skill development and societal contribution.
- **Inclusive of core academic values** such as ethical practices and continuous learning.
- **Addressing key functional areas** like teaching-learning methodologies and faculty development, which are essential for maintaining academic excellence and delivering quality education.

The mission statements collectively ensure alignment with the vision and are **correctly framed, relevant, and appropriate from the definition perspective**.

3. Overall Appropriateness and Relevance

The Vision and Mission statements:

- **Maintain internal consistency and complement each other.**
- **Reflect the core purpose of a diploma-level technical education program.**
- **Address the needs and expectations of stakeholders** including students, faculty, industry, and society.
- **Are correct as per standard definitions**, being clear, relevant, purposeful, and aligned with the long-term objectives of the department and institution.

The department vision and mission statements are highly relevant and appropriate in the context of Outcome-Based Education (OBE) as promoted by the National Board of Accreditation (NBA). Here's an analysis of their appropriateness:

1. **Focus on Outcomes:** The vision and mission clearly define the desired outcomes for students - technically sound, ethically strong engineers who can contribute to industry and society. This aligns well with OBE's emphasis on defining clear, measurable outcomes for educational programs.
2. **Holistic Development:** The statements address both technical proficiency and ethical values, which corresponds to NBA's focus on developing well-rounded professionals. This approach supports the development of both hard and soft skills.
3. **Industry and Society Relevance:** There's a strong emphasis on serving industry and society, which aligns with NBA's goal of ensuring that education is relevant to real-world needs and produces graduates who can contribute effectively to their field.
4. **Continuous Improvement:** The mission includes a commitment to continuous faculty development, which supports OBE's principle of ongoing improvement in educational quality.
5. **Specificity to the Field:** The vision and mission are specific to electronics and communication engineering at the diploma level, allowing for targeted outcome definition as required in OBE.
6. **Measurable Objectives:** While not explicitly stated, the mission points provide a basis for developing measurable learning outcomes, which is crucial in OBE.
7. **Stakeholder Focus:** By mentioning industry, society, and faculty development, the statements acknowledge key stakeholders in the educational process, which is important in NBA's accreditation framework.
8. **Ethical Component:** The emphasis on ethics aligns with NBA's recognition of the importance of professional ethics and values in engineering education.
9. **Teaching-Learning Process:** The mission specifically mentions effective teaching-learning, which is a key component of OBE and NBA's evaluation criteria.

Overall, these vision and mission statements provide a solid foundation for developing an OBE-compliant program that would meet NBA's accreditation standards.

C. Consistency of the Department statements with the Institute statements

Consistency analysis/Alignment of Department Vision statement with AICTE, GTU, CTE and Institute Vision statements

Statement	Institute	Department	Consistency Analysis
Vision	Develop technically proficient and ethically sound diploma engineers contributing to industry and society needs.	Develop technically sound and ethically strong diploma electronics and communication engineers contributing to industry and society.	Strong Consistency: Both statements emphasize the development of technically competent and ethical graduates who can contribute to the industry and society. The Department's vision specifically targets electronics and communication engineering, demonstrating a clear focus within the broader Institute vision.
Mission 1	To impart quality technical education.	To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.	Strong Consistency: The Department's mission directly supports the Institute's mission by focusing on imparting technical education in a specific field. The emphasis on serving industry and society further reinforces the Consistency.
Mission 2	To shape students towards sensitizing in ethical values and contributing in nature.	To focus on inculcating ethical values and contributory approach.	Strong Consistency: Both statements prioritize the development of ethical students who are committed to contributing to society. While the Institute's mission is broader, the Department's mission specifically targets ethical values and a contributory approach within the context of electronics and communication engineering.
Mission 3	To familiarize students with the world of work.	To provide effective teaching learning to students through continuous faculty development.	Moderate Consistency: The Institute's mission focuses on preparing students for the workplace, while the Department's mission centres on improving teaching and learning. Faculty development can ultimately contribute to student preparedness.

AICTE vision

To be a world-class organization leading technological and socio-economic development of the country by enhancing the global competitiveness of technical manpower and by ensuring high quality technical education to all sections of the society.

GTU vision

To be a global university for the creation and dissemination of knowledge and innovation in science & technology, humanities and multidisciplinary domains for sustainable development and enrichment of human life.

CTE vision

To facilitate quality technical and professional education having relevance for both industry and society, with moral and ethical values, giving equal opportunity and access, aiming to prepare globally competent technocrats.

Institute vision

Develop technically proficient and ethically sound diploma engineers contributing to industry and society needs.

Department vision:

Develop technically sound and ethically strong diploma electronics and communication engineers contributing to industry and society.

Justification for Alignment:

Alignment with AICTE Vision: The department's focus on developing technically sound engineers aligns with AICTE's goal of enhancing the global competitiveness of technical manpower. The emphasis on ethical strength also contributes to the overall quality of technical education.

Alignment with GTU Vision: While the department's vision does not explicitly mention innovation or sustainable development, the focus on developing technically sound engineers can contribute to these areas. By producing skilled engineers, the department contributes to the creation and dissemination of knowledge and innovation.

Alignment with CTE Vision: The department's vision aligns strongly with CTE's goals of quality technical education, relevance to industry and society, and preparing globally competent technocrats. The focus on both technical proficiency and ethical strength ensures that the department's graduates are well-prepared for the industry.

Alignment with Institute Vision: The department vision is a specific extension of the institute's vision. By focusing on electronics and communication engineering, the department contributes to the overall goal of developing technically proficient and ethically sound diploma engineers.

Vision Statement	Focus Area	Alignment with AICTE Vision	Alignment with GTU Vision	Alignment with CTE Vision	Alignment with Institute Vision	Justification
Department	Technically sound and ethically strong diploma electronics and communication engineers	Strong	Partial	Strong	Strong	The department's vision aligns well with the AICTE, CTE, and institute visions, focusing on the development of technically proficient and ethically sound engineers. However, its focus is more specific than GTU's vision, which emphasizes a broader scope of knowledge and innovation.

Consistency analysis/Alignment of Department Mission statement with AICTE, GTU, CTE and Institute Mission statements

AICTE Mission

1. A true facilitator and an objective regulator
2. Transparent governance and accountable approach towards the society
3. Planned and coordinated development of Technical Education in the country by ensuring world-class standards of institutions through accreditation
4. Emphasis on developing high quality institutions, academic excellence, and innovative research and development programs.
5. Networking with/ or a network of institutions for optimum resource utilization
6. Dissemination of knowledge
7. Technology forecasting and global manpower planning
8. Promoting industry-institution interaction for developing new products, services, and patents
9. Inculcating entrepreneurship
10. Encouraging indigenous technology
11. Focusing on non-formal education
12. Providing affordable education to all
13. Making Technical Education in India globally acceptable

GTU Mission

1. To develop centers of academic excellence at university premises and at affiliated colleges in domains of science, engineering, technology, management, and environment for imparting comprehensive education, training, and research infrastructure as per the nation requirements.
2. To build resources, facilities, proficiencies and other related infrastructure of global standard for the development of knowledge, skills, and competencies in the various educational domains.
3. To develop research-oriented pedagogy for flourishing ideas and to nurture innovators, entrepreneurs and professionals of tomorrow
4. To build and enhance collaborations with other academic, research, industry, and government organizations as well as NGOs across the globe so that education, training and research at university and its affiliated colleges become aligned with national and global level requirements.
5. To encourage multidisciplinary research and develop flexible learning ecosystem.

CTE Mission

1. Quality technical and professional education with continuous improvement of all the resources and personnel
2. To promote conducive ecosystem for Academic, Industry, Research, Innovations and Startups
3. To provide affordable quality professional education with moral values, equal opportunities, accessibility and accountability
4. To allocate competent and dedicated human resources and infrastructure to the institutions for providing world-class professional education to become a Global Leader (“Vishwa Guru”)

Institute Mission

1. To impart quality technical education.
2. To shape students towards sensitizing in ethical values and contributing in nature.
3. To familiarize students with the world of work.

Department Mission:

- To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.
- To focus on inculcating ethical values and contributory approach.
- To provide effective teaching learning to students through continuous faculty development.

Justification for alignment:

- **Alignment with AICTE Mission:** The department mission aligns with elements of AICTE's mission, such as developing high-quality institutions (through proficient engineers) and promoting industry interaction (serving industry needs). However, it doesn't directly address technology forecasting, entrepreneurship, or affordable education (these may be addressed at the institute or university level).
- **Alignment with GTU Mission:** The department mission aligns with aspects of GTU's mission, like academic excellence (developing proficiency) and research (through faculty development). However, GTU's focus is broader, encompassing various disciplines and flexible learning, which are not explicitly mentioned in the department's mission.
- **Alignment with CTE Mission:** The department mission directly addresses all aspects of CTE's mission. It emphasizes quality technical education (developing proficiency), industry relevance (serving industry and society), ethical values (inculcating ethical values), and accessibility (through effective teaching-learning).
- **Alignment with Institute Mission:** The department mission aligns strongly with the institute's mission. Both focus on imparting quality technical education and shaping students ethically. The department mission provides a more specific focus on the field of electronics & communication engineering.

Mission Statement	Focus Area	Alignment with AICTE Mission	Alignment with GTU Mission	Alignment with CTE Mission	Alignment with Institute Mission	Justification
Department	Develop proficiency in electronics & communication engineering, inculcate ethical values, and provide effective teaching-learning	Strong	Partial	Strong	Strong	The department mission aligns well with all except GTU's broader focus on multiple disciplines and flexible learning.

Consistency Analysis and Mapping of Department Vision & Mission with NEP 2020

Introduction to NEP 2020

The National Education Policy (NEP) 2020 is a landmark education reform framework introduced by the Government of India, aiming to revamp the education system to meet the changing developmental needs of the country while retaining its cultural and human values. The policy emphasizes holistic, multidisciplinary, skill-based, and outcome-driven education, promoting equity, inclusivity, and value-based learning. It encourages vocational integration, ethical and humanistic education, continuous faculty development, and fostering employability through technical skill enhancement.

Key highlights of NEP 2020 include:

1. Focus on skill-based and vocational education from an early stage.
2. Integration of value-based, ethical, and socially responsible learning.
3. Emphasis on continuous professional development of teachers.
4. Adoption of modern, student-centric, ICT-enabled teaching-learning methods.
5. Promotion of industry-academia collaboration and experiential learning.
6. Outcome-based and flexible curricula aligned with national priorities.

The policy envisions India as a global knowledge superpower with a robust, employable, ethical, and socially responsible technical workforce.

A. Detailed Mapping of Department Vision with NEP 2020

Department Vision Element	Relevant NEP 2020 Principle	Consistency Level	Justification for Alignment
To develop technically sound diploma electronics and communication engineers	Skill-based, vocational, and technical education; Employability-focused higher education	High	Aligns directly with NEP 2020's emphasis on promoting skill-based education and technical excellence for employability and meeting industrial demands.
To develop ethically strong engineers	Value-based, ethical and humanistic education; Constitutional and civic responsibility	High	Ensures technical graduates uphold integrity, fairness, and social responsibility, reflecting NEP's objective of integrating ethics into professional education.
Contributing to industry and society	Holistic and multidisciplinary education; National development; Sustainability and community engagement	High	Reflects NEP's vision for graduates to actively contribute to economic progress, sustainable development, and community welfare, supporting national goals.

B. Detailed Mapping of Department Mission with NEP 2020

Department Mission Element	Relevant NEP 2020 Principle	Consistency Level	Justification for Alignment
Develop students' proficiency in the field of electronics & communication engineering to serve the industry and society	Skill-based, vocational and technical education; Outcome-based education; Industry-academia collaboration	High	Prepares students with industry-relevant technical skills, in line with NEP's goal of outcome-based, employability-enhancing education integrated with industry exposure.
Inculcate ethical values and contributory approach	Value-based education; Humanistic, ethical outlook; National and societal contribution	High	Embeds ethics, moral reasoning, and social sensitivity into professional education, consistent with NEP's emphasis on holistic, value-driven learning.
Provide effective teaching-learning to students through continuous faculty development	Pedagogical reforms; Continuous teacher education and professional development; ICT-enabled teaching-learning processes	High	Supports NEP's directives for continuous faculty upskilling, modern teaching methodologies, and student-centric, technology-enabled learning environments.

Summary

The Department of Electronics & Communication Engineering's Vision and Mission statements are highly aligned with the principles of NEP 2020. Both emphasize:

- Technical skill development
- Ethical and value-based education
- Industry collaboration and societal contribution
- Outcome-based learning
- Continuous professional development for educators

This alignment ensures the department's educational strategies are contemporary, nationally relevant, and contribute meaningfully to the national goal of preparing an employable, ethical, and socially responsible technical workforce.

1.2. State the Program Educational Objectives (PEOs) Program Educational Objectives (PEOs)

PEO 1: Students will apply their knowledge and skills in the field of electronics and communication engineering, to solve problems and contribute effectively to industry and society.

PEO 2: Students will uphold ethical principles to contribute to their communities as entrepreneurs and professionals.

PEO 3: Students will be lifelong learners who are capable of adapting to technological advancements and emerging trends through career advancement and as professionals.

Justification for Appropriateness of Program Educational Objectives (PEOs)

(Diploma in Electronics and Communication Engineering)

The defined Program Educational Objectives (PEOs) are appropriately designed to reflect the vision, mission, stakeholder needs, and graduate attributes required by the NBA for diploma programs. Each PEO aligns with both technical competence and societal contribution, ensuring a well-rounded diploma graduate profile.

PEO 1: Application of Knowledge and Skills

"Students will apply their knowledge and skills in the field of electronics and communication engineering, to solve problems and contribute effectively to industry and society."

Justification:

- This objective ensures that diploma graduates are job-ready, fulfilling the NBA's emphasis on program relevance to industry and society.
- It reflects the practical orientation of diploma education and aligns with Program Outcomes (POs) like problem solving, application of engineering fundamentals, and modern tool usage.
- The objective is consistent with stakeholder feedback gathered through SWOT analysis, especially industry and alumni inputs emphasizing employability, hands-on skills, and applied problem-solving.
- By linking curriculum application to real-world challenges, it upholds the NBA's outcome-based education model.

PEO 2: Ethical and Professional Contribution

"Students will uphold ethical principles to contribute to their communities as entrepreneurs and professionals."

Justification:

- This PEO addresses the NBA-mandated emphasis on ethics, responsibility, and societal contribution, especially for diploma engineers working in the grassroots of technology deployment.
- Encouraging entrepreneurship aligns with national initiatives like Skill India and Start-up India, supporting self-reliant graduates.
- It also supports professionalism, which is vital in work environments where diploma holders take on critical implementation roles.
- Inclusion of ethics reflects the NBA's Graduate Attributes (GA) such as individual and team work, communication, and societal responsibility.

PEO 3: Lifelong Learning and Adaptability

"Students will be lifelong learners who are capable of adapting to technological advancements and emerging trends through career advancement and as professionals."

Justification:

- In the dynamic field of electronics and communication, continuous learning is essential to remain employable and innovative.
- This PEO prepares diploma engineers to pursue higher education, technical certifications, or lateral professional growth — all promoted by the AICTE and NBA guidelines for vertical mobility.
- It reinforces the lifelong learning attribute, ensuring pass outs to remain relevant as technologies evolve (e.g., IoT, AI, 5G).
- Encourages flexibility, critical thinking, and self-driven learning — vital in today's technology-driven and multidisciplinary workplaces.

1.3. Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders

- The mission and vision of the department are published on the institute and department website which can be viewed by all the stakeholders.
- The mission and vision displayed at prominent locations in the campus can be viewed by students, parents, faculty member and others.

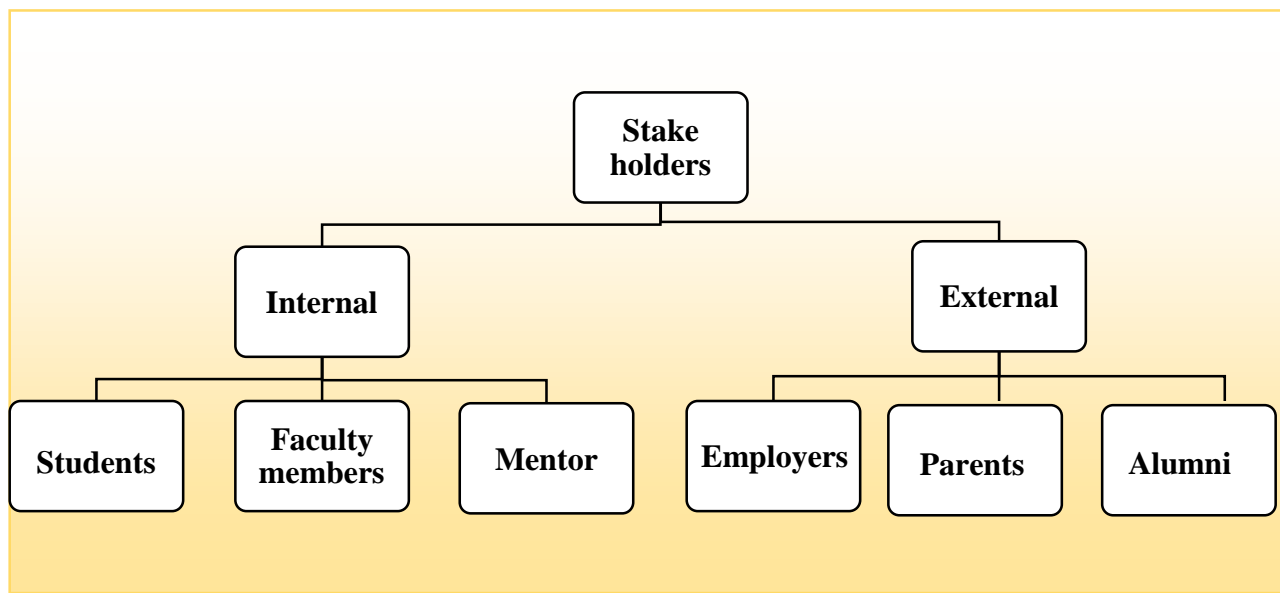


Figure-1. Diagram Showing the Various Types of Stake holders

Students:

- They have most important role in the program.
- Their feedback helps institute/department to improve pedagogy, to implement innovative teaching-learning methodologies, to improve other facilities and to organize various extracurricular and co- curricular activities.

Faculty:

- They are important stake holders as they directly interact with the students through regular classes/laboratories and assess their performance through various evaluation techniques.
- They are members of various committees which execute/monitor curricular and co-curricular activities.
- They are contributing for framing Vision, Mission, PEOs, and Course Outcomes.

Mentor:

The **Mentor** plays a crucial role in guiding and supporting the institution or department throughout the NBA accreditation process. Their responsibilities include:

1. Guidance and Advice:

- The mentor provides expert guidance on how to prepare for NBA accreditation, sharing best practices and helping the institution understand NBA's criteria and expectations.

2. Review and Feedback:

- They review the **Self-Assessment Report (SAR)** and offer constructive feedback, suggesting improvements and clarifications where needed.

3. Support in Documentation:

- The mentor helps ensure that documentation is accurate, complete, and well-organized, in line with NBA's quality requirements.

4. Preparation for Visit:

- They assist in preparing the faculty and staff for the NBA **team visit**, including **mock interviews** and ensuring that the physical and digital infrastructure aligns with NBA standards.

5. Continuous Improvement:

- The mentor emphasizes **Outcome-Based Education (OBE)** and continuous improvement, helping the institution align its **vision, mission, PEOs, POs, and COs** with NBA guidelines.

6. Problem Solving:

- Acts as a resource for addressing challenges or gaps in compliance with accreditation standards.

Employers:

- They are one of the end users of the diploma engineers.
- They provide suggestion for curriculum gap to make the students industry ready and improve institute-industry interactions.

Parents:

- They entrust the program so that their wards meet their career goals.

Alumni:

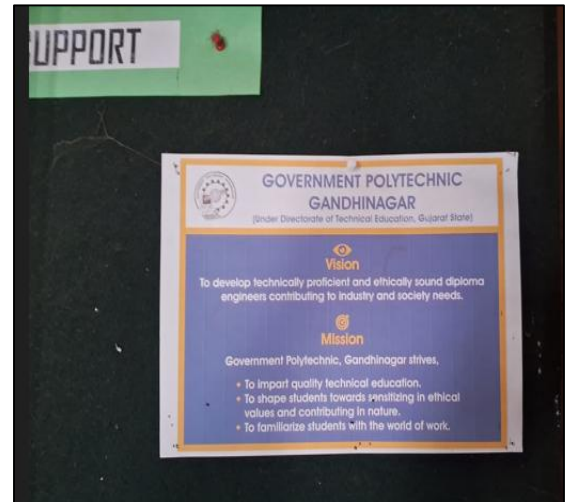
- They are the ambassadors of the program and their good footprint indicates long term success of the program.
- Their feedback helps to make necessary changes in curriculum to meet the challenging demands of the real world.

The vision, mission and PEOs are disseminated to the stakeholders of the program i.e., management, faculty, students, staff, alumni, parents and current and prospective employers through continuous interaction. The Vision and Mission of the department are published and disseminated through following:

Sr. No.	Place of Dissemination	Meant For
1	Institute Website- http://www.gpgh.cteguj.in/	Internal & External Stakeholder
2	Department Website- https://sites.google.com/polytechnicgnr.gujarat.gov.in/electronics/home	Internal & External Stakeholder
3	Display Board at the entrance of department and Corridors	Internal & External Stakeholder
4	Departmental Notice Board	Internal & External Stakeholder
5	H.O.D. Office, Departmental Laboratories and Faculty cabins	Internal Stakeholder
6	Orientation/Induction Program	Internal & External Stakeholder
7	Course File	Internal Stakeholder
8	Brochure of department	Internal & External Stakeholder
9	Department email id signature (HOD-EC email id)	Internal & External Stakeholder
10	Newsletter of department	Internal & External Stakeholder



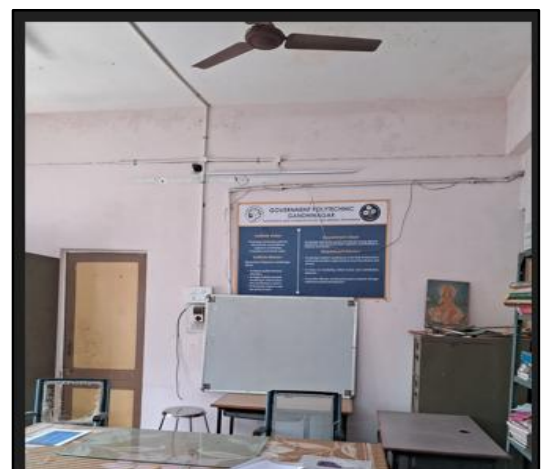
Corridor



Notice Board



Laboratory /Faculty seating



HOD Cabin



Classroom



Orientation/Induction Program

The PEOs of the department are published and disseminated through:

Sr. No.	Place of Dissemination	Meant For
1	Institute Website- http://www.gpgh.cteguj.in/	Internal & External Stakeholder
2	Department Website- https://sites.google.com/polytechnicgnr.gujarat.gov.in/electronics/home	Internal & External Stakeholder
3	Departmental Notice Board	Internal & External Stakeholder
4	H.O.D. Office, Departmental Laboratories, and Faculty cabins	Internal Stakeholder
5	Course File	Internal Stakeholder

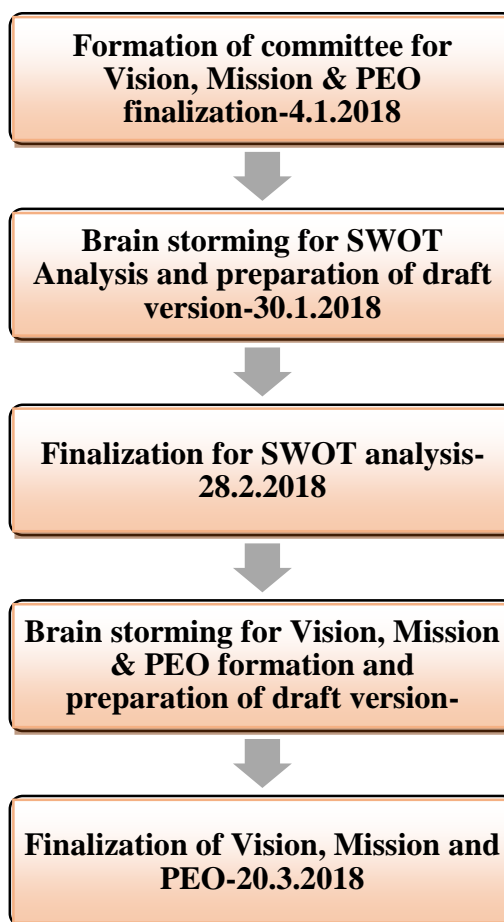
Process of Dissemination among stakeholders

Vision, Mission and PEOs are disseminated to all the stakeholders of the program through faculty meetings, student workshops, parent meetings and placement and training activities at regular intervals. They are disseminated during lectures and lab sessions (In lab manuals) too. The Vision, Mission and PEOs are also disseminated during the first-year orientation program by department faculty members.

	Place of Display	Dissemination	Publication
Vision, Mission and PEO	<ul style="list-style-type: none"> • HOD Chamber • Notice Boards • Classrooms • Laboratories • Staff Rooms • Corridor 	<ul style="list-style-type: none"> • Seminars/Workshops • Alumni Meetings • Parents-Teacher Meeting • First Year orientation program • Meeting with HRs during placement drives 	<ul style="list-style-type: none"> • Institute Website http://www.gpgh.cteguj.in/ • Department Website- https://sites.google.com/polytechnicgnr.gujarat.gov.in/electronics/home • Newsletter (Vision, Mission) • Course files • Department Brochure (Vision, Mission) • Lab manuals (Vision, Mission) • Department email id signature (HOD-EC email id) (Vision, Mission)

1.4. State the process for defining the Vision and Mission of the department, and PEOs of the Program

- **Timeline and steps for SWOT, Vision, Mission and PEO formation**



Timeline and steps for SWOT, Vision, Mission and PEO formation

SWOT Analysis – Draft Version

Strengths

1. **Strategic Location** – Situated in the state capital, close to GIDC electronics estate, enabling better industry connectivity.
2. **Qualified & Motivated Faculty** – Balanced mix of young, experienced, and self-driven teaching staff.
3. **Adequate Infrastructure** – Sufficient facilities to support academic and co-curricular activities.
4. **AICTE Approval** – Recognized and approved diploma program in Electronics & Communication.
5. **Teamwork Culture** – Strong collaboration between faculty and students.
6. **Updated Curriculum** – Recently revised syllabus aligned with current industry trends.
7. **Academic Discipline** – Strict adherence to academic calendar and schedules.
8. **Resource-Rich Library** – Well-stocked with relevant books and reference materials.

9. **Modern Laboratories** – Equipped with necessary instruments for practical learning.
10. **Internet Connectivity** – Sufficient access to support teaching-learning activities.
11. **Industry Linkages** – Active Industry-Institute interaction for student benefit.

Weaknesses

1. **Insufficient Supporting Staff** – Limited non-teaching manpower for smooth departmental functioning.
2. **No Department-Level Purchase Power** – Hurdles in quick procurement of materials/equipment.
3. **Low Student Enrolment** – Declining intake over recent years.
4. **Lower Merit Students** – Entry-level academic standards need improvement.
5. **Lack of Library Automation** – Manual processes impacting efficiency.
6. **Faculty Transfers** – Frequent changes affecting continuity.
7. **Limited Hands-on Exposure** – Students lack adequate practical exposure in curriculum.
8. **Inadequate Industry Visits/Exposure** – Limited real-world industry experience integrated into studies.

Opportunities

1. **ICT-Based Teaching** – Adoption of modern digital tools for enhanced learning.
2. **Faculty Development** – Training in latest and emerging technologies.
3. **Student Startup Support** – Encouraging entrepreneurship and innovation.
4. **External Funding** – Potential to attract funds from donors, alumni, industries, and foundations.

Threats

1. **Declining Interest in Diploma EC** – Fewer students opting for the branch.
2. **Competition from Private Institutes** – Self-financed institutions in the vicinity.
3. **Limited Electronics Industry in Gujarat** – Scarcity of design and manufacturing opportunities.
4. **High Dropout Rates** – Students leaving before completion of the course.

The Vision and Mission Statements of the department have been revised by considering the institutional Mission & Vision. The department has adopted a consultative approach to establish its vision and mission by involving the stakeholders of the institute such as faculty, students, staff, parents, alumni, industrial experts, and employers. While articulating the vision and mission statements for the department the future technology and societal requirements were also considered. Considering the institutional Vision and Mission as the base and incorporating global projections in the field of electronics and communication engineering, the Vision and Mission Statements of the department have been defined. The faculty members of the department met number of times to develop and cultivate a strong and meaningful Vision and Mission statements. SWOT analysis was done for the department as below.

Strength

- Located in state capital nearby GIDC electronics estate
- Good blend of young, qualified, experienced and self-motivated faculty members
- Adequate infrastructure
- AICTE approved diploma EC
- Excellent team work among faculty and students
- Revised and updated curriculum of diploma EC
- Academic calendar is strictly adhered to the schedule
- Rich library
- Well-equipped laboratory
- Enough Internet access
- Good Industry Institute interaction

Weakness

- Major lack of supporting staff
- No purchase power at department level
- Poor student enrollment
- Low merit students
- Lack of Library Automation
- Transfer of faculty
- Lack of exposure to students for hands on experience in curriculum
- Lack of industry exposure to students in curriculum

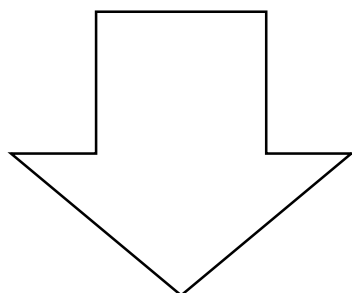
Opportunities

- ICT based teaching learning
- Training of faculty members in emerging areas
- Student startup support
- Possibility of fund raising from Donors/Alumnus/Business/Foundation

Threats

- Decreasing interest of students opting for diploma EC
- Self financed institutes in surroundings
- Lack of design and manufacturing industries in electronics field in Gujarat
- Major dropout of students

Overcoming Weaknesses of the Department over the time



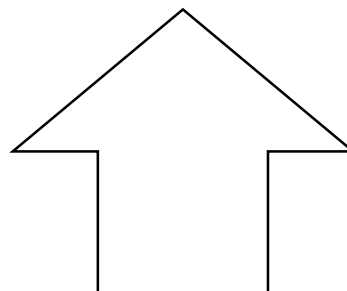
Strength

1. Library Automation (Since April-2022 in institute library)
2. Micro project introduced in most of the subjects in curriculum for students for hands on experience (In curriculum developed w.e.f. 2021)



Weaknesses

1. Lack of Library Automation
2. Lack of exposure to students for hands on experience in curriculum
3. Lack of industry exposure to students in curriculum



A series of discussions were conducted simultaneously among parents, students, alumni, Industry experts and expert from NBA accredited institute to finalize the Vision, Mission and PEOs.



Stake Holder meeting for formation of vision, mission and PEOs of the department

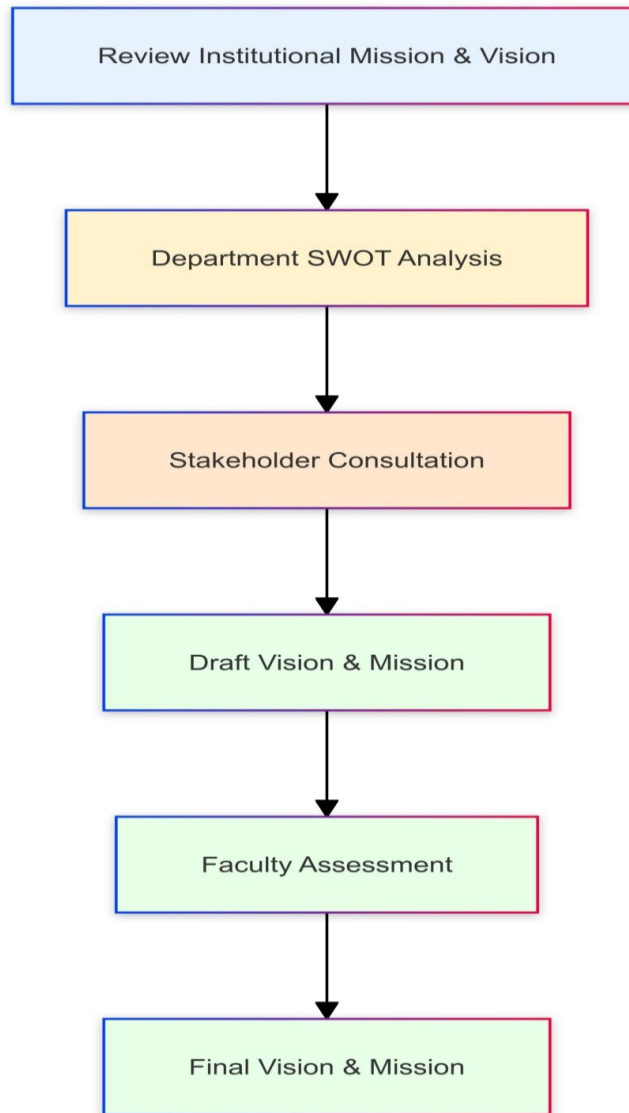


Stake Holder meeting for formation of vision, mission and PEOs of the department



Department level meeting to develop and cultivate a strong and meaningful Vision, Mission and PEOs statements of the department

A. Description of process of defining Vision & Mission of the Department



Process for Defining Vision and Mission of the Department

This flowchart describes the process of developing a department's vision and mission statement. The process flows from top to bottom with the following main steps:

1. The process starts by considering the institutional Mission & Vision.
2. SWOT analysis of the department is conducted in consultation with stakeholders.
3. A draft version of the Vision and Mission statements is formed based on inputs from various stakeholders (faculty, students, staff, parents, alumni, industrial experts, and employers).
4. An assessment of the draft version is done by faculty members.
5. Finally, the final Vision and Mission Statements are formed.

These stakeholders provide input into the drafting process. The flowchart indicates a structured approach to creating a department's vision and mission, incorporating perspectives from various stakeholders associated with the institution.

Government polytechnic, Gandhinagar

Electronics & Communication Engineering Department

Draft Vision and Mission

Following points are to be considered while forming Vision and Mission of the department.

Department Vision: Empowering innovative electronics and communication engineers who drive technological advancement with integrity and societal impact.

Department Mission:

1. **Cultivate expertise:** Provide cutting-edge education in electronics and communication engineering, bridging academic knowledge with industry demands.
2. **Foster ethics:** Nurture responsible professionals who prioritize ethical considerations in their technical pursuits.
3. **Enhance learning:** Continuously improve educational quality through faculty development and innovative teaching approaches.
4. **Inspire impact:** Encourage students to apply their skills towards solving real-world challenges and contributing to societal progress.

Pre-final version of Vision and Mission

Department Vision:

To create diploma graduates in electronics and communication engineering who are technically proficient and ethically grounded, making significant contributions to industry and society.

Department Mission:

- To equip students with a strong foundation in electronics and communication engineering, preparing them to meet the needs of the industry and society.
- To instil ethical values and a sense of responsibility in students, encouraging them to contribute positively.
- To ensure a high-quality learning experience through ongoing faculty development and effective teaching methodologies.

Final version of Vision and Mission

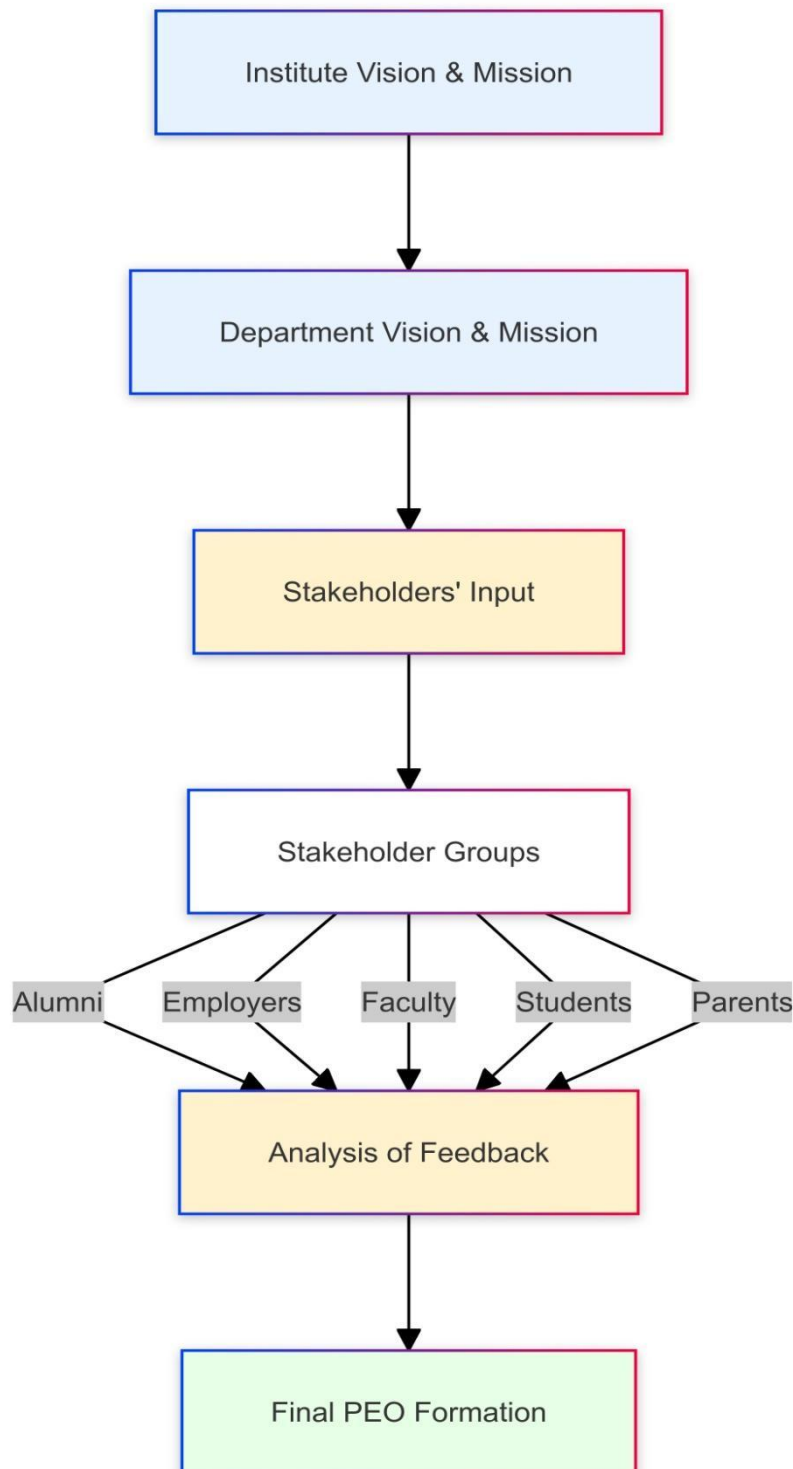
Department Vision:

Develop technically sound and ethically strong diploma electronics and communication engineers contributing to industry and society.

Department Mission:

- To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.
- To focus on inculcating ethical values and contributory approach.
- To provide effective teaching learning to students through continuous faculty development.

B. Description of process involved in defining the PEOs of the program



Process for Defining PEOs of the Department

PEO-Definition:

Broad **long-term career goals** that describe what diploma pass out students are expected to achieve **3–5 years** after completing the program.

Focus:

Professional achievement, lifelong learning, societal contribution, and ethical practice.

Audience:

Intended for **diploma pass outs** after they enter the workforce or pursue higher studies.

The image depicts a flowchart illustrating the process of developing and refining a department's vision and mission within an educational institution. This process involves multiple stakeholders and follows a structured approach. Here's a detailed description of the process shown:

1. Institute Vision and Mission:

The process begins with the overarching vision and mission of the institute. This serves as the foundation and guiding principle for all subsequent steps.

2. Department Vision and Mission:

Building on the institute's vision and mission, a preliminary department-specific vision and mission is formulated. This step ensures alignment between the department's goals and the broader institutional objectives.

3. Stakeholders' View:

This is a crucial phase where input is gathered from various stakeholders. The stakeholders included in this process are:

- **Alumni:** Former students who can provide perspectives based on their experiences.
- **Parents & Students:** Current students and their parents, offering insights into expectations and experiences.
- **Employers:** Organizations that hire graduates, providing industry perspectives and requirements.
- **Faculty Members:** Academic staff who are integral to implementing the vision and mission.
- **Students:** Current students who are directly affected by the department's policies and direction.

These stakeholders contribute their views, likely through surveys, meetings, or other feedback mechanisms. Their diverse perspectives ensure a comprehensive understanding of the department's role and impact.

4. Summarize and Analyse Views:

After collecting input from all stakeholders, the next step involves consolidating and analyzing the gathered information. This likely includes identifying common themes, priorities, and areas of concern across different stakeholder groups.

5. Accept:

Based on the analysis of stakeholder views, the department leadership makes decisions on what aspects to incorporate into the vision and mission. This step may involve discussions and refinements to ensure the final version adequately reflects stakeholder input while aligning with institutional goals.

6. PEOs (Program Educational Objectives):

The final step in this process is the formulation of Program Educational Objectives. These are specific, measurable goals that the department sets for its educational programs, directly informed by the newly refined vision and mission.

This systematic approach ensures that the department's vision, mission, and educational objectives are not created in isolation but are instead the result of a collaborative effort that considers multiple perspectives. It demonstrates a commitment to inclusivity and responsiveness to the needs and expectations of various groups connected to the department and institution.

1.5 Establish consistency of PEOs with Mission of the Department

The PEOs ensure the accomplishments of the mission of the Department with special emphasis on technical competence of engineers, value addition, and sustainable solutions to engineering problems. For the mapping of PEOs and Mission, several meetings of the faculty members were conducted at department level. The feedback of the faculty members was taken into consideration and the mapping was finalized as below.

The Vision, Mission and PEOs were also finalized based on the following components:

- Departmental meeting
- Feedback from industries
- Feedback from students/ alumni
- Feedback from training and placement department
- Parents meet



Department level meeting-1 for mapping of PEOs and Mission



Department level meeting-2 for mapping of PEOs and Mission

A. Preparation of a matrix of PEOs and elements of Mission statement

PEO	Mission	Mapping Level
PEO 1: Students will apply their knowledge and skills in the field of electronics and communication engineering, to solve problems and contribute effectively to industry and society.	M1: To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.	3
PEO 1: Students will apply their knowledge and skills in the field of electronics and communication engineering, to solve problems and contribute effectively to industry and society.	M2: To focus on inculcating ethical values and contributory approach.	1
PEO 1: Students will apply their knowledge and skills in the field of electronics and communication engineering, to solve problems and contribute effectively to industry and society.	M3: To provide effective teaching learning to students through continuous faculty development.	2
PEO 2: Students will uphold ethical principles to contribute to their communities as entrepreneurs and professionals.	M1: To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.	2
PEO 2: Students will uphold ethical principles to contribute to their communities as entrepreneurs and professionals.	M2: To focus on inculcating ethical values and contributory approach.	3
PEO 2: Students will uphold ethical principles to contribute to their communities as entrepreneurs and professionals.	M3: To provide effective teaching learning to students through continuous faculty development.	1
PEO 3: Students will be lifelong learners who are capable of adapting to technological advancements and emerging trends through career advancement and as professionals.	M1: To develop students' proficiency in the field of electronics & communication engineering to serve the industry and society.	3
PEO 3: Students will be lifelong learners who are capable of adapting to technological advancements and emerging trends through career advancement and as professionals.	M2: To focus on inculcating ethical values and contributory approach.	2
PEO 3: Students will be lifelong learners who are capable of adapting to technological advancements and emerging trends through career advancement and as professionals.	M3: To provide effective teaching learning to students through continuous faculty development.	2

B. Consistency/justification of co-relation parameters of the above matrix

PEO	Mission	Mapping Level	Justification
PEO1	M1	3	This is strongly aligned (level 3) because both the PEO and M1 focus on developing proficiency in electronics and communication engineering to serve industry and society.
PEO1	M2	1	The weak alignment (level 1) is due to M2's focus on ethical values, which is not explicitly mentioned in PEO 1.
PEO1	M3	2	There's a moderate alignment (level 2) as effective teaching and faculty development indirectly support students' ability to apply knowledge and skills.
PEO2	M1	2	There's moderate alignment (level 2) as serving industry and society relates to contributing to communities, though ethics aren't explicitly mentioned in M1.
PEO2	M2	3	This is strongly aligned (level 3) due to the direct focus on ethical values in both PEO 2 and M2.
PEO2	M3	1	The weak alignment (level 1) is because faculty development doesn't directly address ethical principles or community contribution.
PEO3	M1	3	There is a strong alignment (level 3) as proficiency in the field directly supports adaptability to advancements, though lifelong learning.
PEO3	M2	2	The moderate alignment (level 2) comes from the contributory approach in M2, which relates to professional development, though it doesn't directly address technological adaptation.
PEO3	M3	2	This also has moderate alignment (level 2) because continuous faculty development indirectly supports the concept of lifelong learning, though it doesn't explicitly address students' adaptability.

1. Slight (Low) 2.Moderate (Medium) 3. Substantial (High)