INSTITUTIONAL DEVELOPMENT PLAN (IDP)

V.V.P. Engineering College, Rajkot

Kalavad Road, Virda Vajadi, Rajkot - 360005, Gujarat.

Phone No. : +91 91732 15401, +91 91577 17501

Email ID : info@vvpedulink.ac.in

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1. Executive Summary

Vyavasayi Vidya Pratishthan is established by Rajkot Nagrik Sahakari Bank Ltd to promote excellence in engineering education. The trust was founded in 1996 with the objective of meeting the technical requirements of Gujarat. V.V.P Engineering College has been marching ahead with a vision of transforming aspiring engineers into industry-ready engineers, serving the nation at large.

The disciplined academic environment strengthening the technical foundation of the students is the unique identity of V.V.P Innovation, creativity, team spirit, and entrepreneurship add to the scholastic achievements of the students and give them opportunities to enhance their personalities. The transparent governance and dedicated teaching by the qualified faculties make V.V.P. one of the most sought engineering colleges in Gujarat.

With the best theoretical and practical teaching in well-equipped classrooms and laboratories, V.V.P. is also well known for its modern library, wi-fi campus, training & placements programs, expert lectures, and strong alumni network.

Needless to say, that V.V.P.E.C. keeps no stone upturned in directing students toward research activities like the practice of research paper writing, patent drafting, paper presentation and poster presentation. Students interested in sports & Cultural Activities also find a convenient environment and guidance here, through various club activities.

Strategic goals

To achieve academic excellence through outcome-based education, continuous faculty development, and digital transformation aligned with global standards. To foster a strong research, innovation, and industry collaboration ecosystem that enhances employability and entrepreneurship. To promote sustainability, Indian Knowledge Systems, and global engagement for responsible, future-ready engineers committed to societal and national development.

Key Initiative

Key focus areas encompass strengthening academic quality, advancing research and innovation, enhancing faculty capabilities, modernizing infrastructure, deepening industry collaboration, improving student employability, accelerating digital transformation, promoting sustainability, and fostering international engagement.

2. Institutional profile

Year of establishment: 1996

Type of institution: Private

Accreditation & affiliations: Accredited three department (Civil, Electronics and Communication, Electrical) with NBA & affiliated with Gujarat Technological University (GTU) and approved by AICTE.

Programs offered:

Degree Courses:

Sr. No.	Name of course	Year of establishment	Sanctioned Intake for the Academic year 2025-26
1	Mechanical Engineering	1996	60
2	Electrical Engineering	1996	30
3	Chemical Engineering	1996	30
4	Information Technology	1999	120
5	Computer Engineering	2001	180
6	Electronics & Communication	2001	60
7	Bio-Technology	2004	30
8	Civil Engineering	2011	30

Diploma Courses:

Sr. No.	Name of course	Year of establishment	Sanctioned Intake for the Academic year 2025-26
1	Mechanical Engineering	2025	30
2	Electrical Engineering	2025	30
3	Chemical Engineering	2025	30
4	Information Technology	2025	30
5	Computer Engineering	2025	60
6	Civil Engineering	2025	30

Faculty and staff strength:

Sr. No.	Category	No. of Staff
1	Teaching	124
2	Non-Teaching (Technical)	42
3	Office Staff	17
4	Library Staff	05
5	Peon	20
6	Security Guard	11
7	Swiper	26

Student demographics (As on AY: 2025-2026):

Sr. No.	Region	Students (Boys)	Students (Girls)	Total
1	Rajkot (Local)	984	508	1492
2	Out of Rajkot	407	177	584
3	Out of India	23	11	34
4	Total	1414	696	2110

3. SWOC analysis

Strength

- Qualified, experienced & dedicated staff in diversified domain expertise
- Well-equipped laboratories with adequate infrastructure
- NABL (civil and chemical)
- Energy audit cell (Electrical, Mechanical and EC)
- Industry supported laboratories (Mechanical)
- Strong alumni support
- High retention ratio
- Good result
- Industrial exposure to students
- Overall grooming of students through Co – curricular, extra-curricular & pre-placement activities for students
- Association with professional bodies
- Good working/learning & disciplined environment
- Teamwork
- Imbibement of human values.
- Effective mentoring and counseling of students.
- Hons / Minor courses offered

Weakness

- Few numbers of patents
- Less industrial exposure to faculty
- Less excess to E resources
- No in-house hostel facility,
- Less government grants

Opportunity

- Start up (entrepreneur) Govt. sectors and Private jobs 'Atmnirbhar bharat'
- Strength of Alumni Interaction/ support of Alum
- Meritorious students
- Scope for more placement in multinational companies
- Energy audit work
- Scope for research grant
- Multidisciplinary approach for development
- Scope for faculty development (professional development for all departments)

Challenge

- Soft skills
- Learn new languages and platforms
- Growing competitive pressure
- Keeping a pace with advancement in technology
- Lower meritorious students
- To make the students industry ready (gap between industry and institution)
- Lower preference given by competent candidates for teaching profession
- Decline trends towards engineering and hard branches
- Less awareness about selection of branch
- Result improvement
- Less core industries in vicinity (chemical, EC, Electrical)
- Cultivation of logical aptitude /skill among students

4. Vision, Mission, and Core values

Vision

- To be an exemplary institute, transforming students into competent professionals with human values.

Mission

- To provide a conducive academic environment for strengthening technical capabilities of the students.
- To strengthen linkages with industries, alumni and professional bodies.
- To organize various co-curricular and extracurricular activities for overall development of the students.
- To practice good governance and conduct value- based activities for making students responsible citizens.

Core institutional values

- **Academic Quality and Excellence** – Upholding high standards in teaching–learning, assessment, and outcome-based education supported by digital and innovative practices.
- **Student-Centric Growth and Employability** – Promoting holistic student development through skill enhancement, career readiness, and lifelong learning opportunities.
- **Faculty Empowerment and Leadership Development** – Strengthening faculty competencies, leadership skills, and industry readiness through continuous professional development.
- **Research, Innovation, and Entrepreneurship** – Fostering a culture of inquiry, technological innovation, intellectual property creation, and startup innovations.
- **Ethical Governance and Transparency** – Ensuring integrity, accountability, and compliance with academic, professional, and legal frameworks across all institutional processes.
- **Sustainable and Socially Responsible Practices** – Integrating environmental sustainability, community engagement, and responsible engineering aligned with national and global goals.
- **Collaboration, Global Outlook, and Indian Knowledge Systems** – Encouraging interdisciplinary, industry, and international collaboration while promoting India's knowledge traditions and values.

5. Strategic Goals and Objectives

Short Term goals

- Strengthening academic quality through outcome-based education, curriculum enrichment, and digital learning tools.
- Enhance student employability via structured internships, skill certification programs, and placement training.
- Upgrade faculty competencies through FDPs, research orientation, and industry exposure.
- Establish transparent governance, student mentoring systems, and value-based co-curricular activities.

Middle Term goals

- Develop a strong research and innovation ecosystem with funded projects, publications, and research projects.
- Modernized infrastructure includes advanced laboratories, smart classrooms, and digital governance systems.
- Expand industry, alumni, and professional body collaborations for projects and placements.
- Integrate sustainability practices, Indian Knowledge Systems, and leadership development into academic programs.

Long Term goals

- Emerge as a nationally recognized institute for academic excellence, innovation, and ethical engineering education.
- Create a self-reliant ecosystem producing socially responsible professionals, entrepreneurs, and future leaders.
- Establish the institute as a benchmark for good governance, green campus practices, and community impact.

6. Key Focus Areas

Our focused areas for development of institute are:

6.1 Academic Excellence

- Outcome-Based Education (OBE) aligned with NBA
- Well-structured curriculum mapped to POs, PSOs, and COs
- Strong student performance in university examinations
- Faculty with PhD qualifications and active research profiles
- Regular curriculum enrichment through MOOCs
- Effective continuous assessment and transparent evaluation system
- High student progression to PG studies, research, and competitive exams
- Integration of industry-relevant tools, software, and labs
- Active research culture with funded projects and publications (SSIP)
- Encouragement of innovation, patents, and startups
- Mentoring system for slow and advanced learners
- Interdisciplinary learning and project-based education
- Academic collaborations with industries and universities
- Regular guest lectures, workshops, and FDPs
- Emphasis on ethical values, critical thinking, and lifelong learning

6.2 Research and Innovation

- Well-defined Research and Innovation Policy aligned with institutional vision
- Dedicated Research & Development (R&D) Cell to promote funded projects
- Faculty involvement in UGC/AICTE/DST/GTU/ISRO funded research
- Active publication culture in Scopus, Web of Science, and IEEE journals
- Encouragement and support for patents, copyrights, and IPR filing
- Student participation in research projects, hackathons, and competitions
- Regular organization of conferences, workshops, and FDPs on research

6.3 Faculty Development

- Continuous upskilling through FDPs, STTPs, workshops, and MOOCs
- Support for faculty to pursue PhD, post-doctoral research, and certifications
- Training in Outcome-Based Education (OBE) and NBA accreditation processes
- Regular programs on emerging technologies
- Pedagogical training on innovative teaching–learning methods
- Encouragement for industry internships, sabbaticals, and consultancy
- Faculty exposure to research methodology, IPR, and grant writing
- Mentoring system for young and newly recruited faculty members
- Performance appraisal through Performance Appraisal Report (PAR)
- Participation in national and international academic collaborations
- Leadership and administrative skill development for academic roles
- Training on digital tools, virtual labs, and online teaching platforms

6.4 Infrastructure Development

- Well-planned campus master plan supporting academic and research growth
- Adequate classrooms, tutorial rooms, and seminar halls with ICT facilities
- State-of-the-art laboratories aligned with curriculum and industry standards
- Regular upgradation of equipment, software, and computing facilities
- High-speed campus-wide Wi-Fi and internet connectivity
- Central library with print books, e-books, e-journals, and digital databases
- Well-maintained workshops, drawing halls, and project development spaces
- Adequate power backup, renewable energy, and green initiatives
- Modern auditorium and conference facilities for academic events
- Safe campus with CCTV, fire safety, and disaster management systems
- Regular maintenance, audit, and optimal utilization of infrastructure

6.5 Industry Collaboration

- Active MoUs with industries, startups, and professional bodies
- Guest lectures and expert talks by industry professionals
- Mandatory internships, in-plant training, and industrial visits
- Joint industry-sponsored projects for students
- Skill development programs aligned with current industry needs
- Regular placement training and recruitment drives with industry involvement
- Organization of hackathons, design challenges, and problem-solving events
- Alumni working in industry contributing as mentors and collaborators
- Continuous feedback from industry to improve graduate employability

6.6 Student Support and Employability

- Dedicated Training and Placement Cell with structured employability programs
- Career guidance for higher studies, competitive exams, and entrepreneurship
- Soft-skills training in communication, teamwork, and professional ethics
- Technical skill development aligned with industry and emerging technologies
- Internship support through industry partnerships and MoUs
- Continuous aptitude, coding, and interview preparation programs
- Mentoring and counseling system for academic and personal support
- Student participation in hackathons, competitions, and technical clubs
- Alumni mentoring for career guidance and placement preparation
- Support for skill certification programs
- Promotion of internships, live projects, and industry-based learning
- Grievance redressal, anti-ragging, and student welfare mechanisms
- Tracking of student progression, placement, and employability outcomes

6.7 Digital Transformation

- Robust ERP system for students as well as faculties
- Smart classrooms with ICT-enabled teaching tools
- Adoption of virtual labs, simulation software, and remote experimentation
- Digital library with access to e-books, e-journals, and research databases
- Integration of MOOCs into curriculum
- ERP-based admission, finance and administration processes
- Online portals for internships, placements, and alumni engagement
- Online grievance redressal and student support systems

6.8 Sustainability and Green Campus Initiatives

- Well-defined Green Campus Policy aligned with SDGs and national missions
- Use of renewable energy (solar power, LED lighting, energy-efficient systems)
- Campus-wide energy audit and implementation of conservation measures
- Rainwater harvesting and groundwater recharge systems
- Efficient water management through reuse and low-flow fixtures
- Plastic-free and paperless administrative practices
- Environmental awareness through courses, workshops, and campaigns
- Student involvement in environmental clubs and green activities
- Use of eco-friendly lab practices and safe chemical disposal
- Regular environmental audits and compliance with regulations

6.9 Internationalization

- Academic collaborations with GTU to register with ICCR students.
- Organization of international conferences, workshops, and webinars
- Participation in global competitions, hackathons, and innovation challenges
- Visiting professors and global experts for teaching and research
- Support for foreign students (admissions, mentoring, cultural integration)
- Faculty participation in international FDPs and training programs
- Use of global certifications and international MOOCs
- Membership in international professional bodies and societies

6.10 Promotion of knowledge of India

- Research on indigenous technologies and traditional engineering practices
- Guest lectures by experts on IKS and Indian scientific heritage
- Promotion of ethics, values, and professional conduct rooted in Indian philosophy
- Student projects addressing local and societal problems using indigenous knowledge
- Establishment of committee as per NEP-2020 guidelines
- Organization of workshops, seminars, and exhibitions on Indian innovations
- Encouragement of interdisciplinary research linking IKS with modern technology
- Celebration of national science days, heritage days, and cultural events
- Awareness of intellectual property protection for traditional knowledge

7. Action Plan / Implementation Strategy

- Implement outcome-based education through structured lesson plans, course files, PBL, and continuous student assessment.
- Strengthen faculty capabilities, mentoring, and performance appraisal through FDPs, feedback, and academic reviews.
- Enhancing research, innovation, and industry collaboration via funded projects, internships, and university's support.
- Upgrade academic, digital, and laboratory infrastructure with a focus on quality, sustainability, and governance.
- Expand international engagement, ethical practices, and community-oriented initiatives for long-term institutional excellence.

8. Monitoring and Evaluation

- Continuous evaluation of student performance through mid-term examinations, end-term assessments, Vivas, project reviews, and Problem Based Learning.
- Structured feedback on faculty and staff performance, academic support, and learning environment, followed by corrective actions
- Departmental review done through QIC and institute-level reviews done through IQAC to analyze performance data, identify gaps, and implement continuous improvement measures.
- Taken Performance appraisal report from staff based on teaching effectiveness, research output, lesson plans, course files, PBL implementation, and student feedback.

9. Risk Management

- **Academic and Skill Relevance Risk** – Periodic curriculum review, industry advisory boards, and integration of emerging technologies to ensure academic quality and employability.
- **Faculty Capacity and Retention Risk** – Continuous faculty development, research incentives, mentoring, and transparent appraisal systems to sustain academic excellence.
- **Infrastructure and Digital Obsolescence Risk** – Phased modernization plans, annual audits, and adoption of scalable digital platforms to maintain learning effectiveness.
- **Governance, Compliance, and Sustainability Risk** – Strong internal quality assurance, ethical governance frameworks, and sustainability policies to ensure regulatory compliance and institutional resilience.

10. Budget and Financial Plan

The management of V.V.P. Engineering College is strongly committed to supporting new initiatives aligned with the institute's vision and strategic priorities, including student support in whole way, research and innovation, industry collaboration, sustainability initiatives, and international engagement. Adequate financial reserves and fixed deposits are maintained to ensure financial stability, risk mitigation, and uninterrupted institutional operations.

A transparent budgeting mechanism, periodic financial audits, and outcome-linked expenditure planning ensures optimal utilization of resources, accountability, and long-term financial sustainability of the institution.

11. Organizational Structure