

## **Institutional Development Plan 2025-2035**



## Institutional Development Plan Implementation Committee

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6.	Networking & Collaboration Enablers	Mr.Ismail Shaik, Assistant Professor (Mech)
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# 1. Institutional Overview

**Vidya Jyothi Institute of Technology (VJIT)**, established in 1998, has emerged as a premier destination for aspiring engineers. Renowned for its high standards in technical education, VJIT is an autonomous institute under UGC, accredited by NAAC with an A+ grade, approved by AICTE, and permanently affiliated with JNTU(H). The institute boasts Tier-1 NBA accreditation for all its eligible departments - CSE, ECE, EEE, MECH, IT, and Civil Engineering.

VJIT's reputation is further solidified by its impressive rankings: NIRF Innovation 151–300 rank band in 2023, and within the 201–300 band in 2024. The introduction of B.Tech Minor and Honors programs reflects the institute's commitment to offering diverse and in-depth academic opportunities.

## 2. Institute Vision-Mission

### Institute Vision

- To develop into a reputed Institution at National and International level in Engineering, Technology and Management by generation and dissemination of knowledge through intellectual, cultural and ethical efforts with human values.
- To foster scientific temper in promoting the world class professional and technical expertise.

### Institute Mission

- To create state-of-the-art infrastructure facilities for optimization of knowledge acquisition.
- To nurture the students holistically and make them competent to excel in the global scenario.
- To promote R&D and consultancy through strong industry-institute interaction to address the societal problems.

## 3. Programs Offered

### UG Programs offered

1. Computer Science & Engineering
2. Computer Science & Engineering (Data Science)
3. Computer Science & Engineering(AI&ML)
4. Information Technology
5. Electronics & Communication Engineering
6. Electrical & Electronics Engineering
7. Civil Engineering
8. Mechanical Engineering

## PG Programs offered

### M.Tech

1. Computer Science & Engineering
2. Structural Engineering
3. Electrical Power System
4. Embedded Systems
5. CAD/CAM

Master of Business Administration

## 4. Quality Policy

To ensure high standards to educate, enrich and excel in imparting professional education, by top-quality-faculty who endeavors to mould the students into socially responsible professionals through creative team-work, innovation and research.

## 5. Core Values

### Our core values are:

- **Integrity:** All the activities should be conducted in an ethical manner. Research and teaching shall be carried out in an environment of academic freedom and honesty.
- **Accountability:** The roles and responsibilities are assigned and people are held accountable for their deeds. We feel our liability towards the society and our actions add values to the Institute.
- **Responsibility:** Everybody in the Institute is expected to discharge his/her duties with due responsibility.
- **Transparency:** The general records of maximum aspects of the functioning are maintained online to encourage transparency.
- **Respect of Individual:** While carrying out the interactions at all levels, the dignity and respect of an individual is observed.
- **Faculty Empowerment:** Institute promotes and encourages faculty in their individual academic development and provides scope for enhancement in their participation in general governance.
- **Service to Nation:** Institute is committed to developing the skilled manpower to serve the Nation.
- **Environmental stewardship:** Committed in practicing green technologies for sustainable development of the Nation.

## 6. SWOC Analysis

### Strengths

1. Striving towards accomplishing Vision & Mission of the Institute
2. Quality facilities, labs & infrastructure strongly focused on experiential learning complimenting all academic programs

3. Student-First Approach in all academic programs and Good Quality of students admitted
4. Qualified and Experienced faculty and staff
5. Management Support in motivating faculty for research and qualification up gradation
6. NAAC A+ and NBA Accreditations
7. Autonomous Curriculum Design
8. Above 40% faculty registered for Ph. D
9. Senior faculty focused on growing research footprint of VJIT, by pursuing solutions to critical research with applied patents
10. Guidance in research projects granted from DST, UGC, DRDO
11. Harnessed 35+ MoU's in all departments with industries
12. Highly disciplined & rewarding academic culture and working environment leading to high satisfaction for students and faculty
13. Students encouraged for meritorious achievements with awards and rewards
14. Excellent Feedback & Mentoring System
15. Regular monitoring of attendance, academic performance and overall holistic development of students
16. Good Record in Placements and Students pursuing Higher Education
17. Good Sports facilities and well planned and executed extra-curricular Activities
18. Active Alumni Association with many alumni in coveted positions both in India & Abroad
19. Standard Procedures, Policies and Practices in place
20. Institute location easily accessible to all Stakeholders

### Weaknesses

1. Getting good senior professors with research aptitude
2. MoU's with core companies
3. Sanctioning of grants from DST/UGC and other agencies
4. Need to scale up research funding and patents
5. Less number of faculties with Ph.D.
6. R & D and consultancy activities are limited, and research culture needs to be strengthened.
7. Limited global academic partnerships

### Opportunities

1. Eligibility for University status
2. Leverage NEP 2020 and UGC reforms
3. Continuous efforts from departments in applying for Research Projects from various agencies.
4. VJIT plans to collaborate and interact with Research Laboratories, Institutes and Industry for research activities to enter formal MoUs.
5. Establishment of Research Centers in emerging areas in all departments
6. Offering Ph.D Programmes through JNTUH Research Centers
7. To provide seed-money to faculty for research in all departments of the institute to undertake inter-disciplinary research, the e-library facility available serves the cause.
8. Institution facilitates conducive environment for smooth progress & implementation of research schemes & projects providing support in terms of technology and information.
9. Prioritized Efforts for Consultancy Projects leading to vigorously improve Technical Skills and Re-sharpening Knowledge.

10. Having faculty members registered for Ph.D increased scope for research activity.
11. Autonomy enabled the Institute to address the shortcomings under affiliation system
12. Leveraging locational advantage to network with institutes of higher learning, industry and research organizations for consultancy, collaborative R & D Projects, sponsored research, academic interaction, student internships etc.
13. Strong Alumni Network engaged for Institutional growth.
14. Global initiatives through foreign university tie-ups.
15. Leverage NEP 2020 and UGC reforms
16. AICTE, DST, MSME funding avenues

### Challenges

1. Effective implementation of the National Education Policy (NEP)
2. Preparing and applying for Deemed University status
3. Establishing high-end laboratories for various courses with industry collaboration
4. Recruiting competent faculty members with Ph.D. qualifications across all departments
5. Developing industry-ready courses within the curriculum
6. Promoting a robust and effective research ecosystem within the institute.
7. Improving the quality of student intake in specific departments due to changing preferences.
8. Attracting major and core companies for campus recruitment drives
9. Ensuring paid internship opportunities for all students
10. Expanding student activities in professional bodies and student-run clubs.
11. Competition for top student intake
12. Rapid technology shifts in engineering education
13. Balancing growth with quality and sustainability

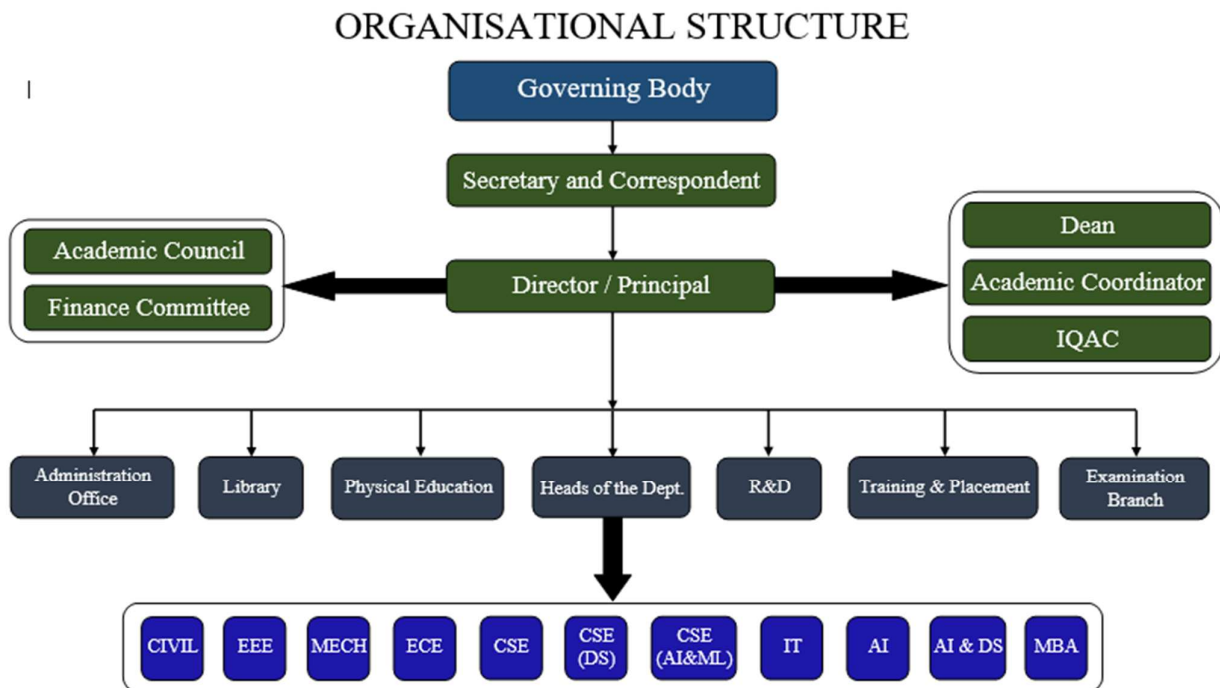
# 1. Governance Enablers

Governance enablers are vital for promoting transparency, accountability, and effective decision-making. They ensure that policies and processes are aligned with the mission of the Institute fostering effective leadership and active participation from all stakeholders.

By driving quality assurance and continuous improvement, these enablers create an environment that supports innovation, academic excellence, and sustainable growth. Their role is essential in maintaining compliance with regulatory standards and ensuring the long-term success of the Institute.

## Board of Governors, Academic Council, Finance Committee & Other Statutory Bodies

The Institute functions through a documented hierarchical structure, via Statutory Bodies – Board of Governors (BoG), Academic Council (AC), Finance Committee, having representation of diverse stakeholders.



## GOVERNING BODY

The Governing Body of the Institution has been constituted with a group of intellectuals from industry and academia. The Governing Body takes the responsibility of ensuring effective management of the Institution and for planning its future development. The Principal is the functional head of the college. He looks after academics, development of infrastructural facilities and overall institutional growth. The Principal demonstrates the primary objectives of teaching & research, and presents the proposals which include approving the strategic plan, identifying the financial and physical strategies to the Governing Body for its approval. The Governing Body is reconstituted every five years.

The Secretary & Correspondent is the Chief Executive of the College. He coordinates with the sponsoring Society, College Management Committee and the Governing Body.

## ACADEMIC COUNCIL

The Academic Council has been constituted with the Principal as the Chairman, all the Heads of Departments as members, Four senior faculty from the college, three members from the University as university nominees, four experts from outside the college representing areas such as Industry,

Education, Engineering, Sciences etc. nominated by Governing Body as members, A faculty member nominated by the Principal as Member Secretary. The Academic Council is reconstituted every three years.

The Academic Council is the principal academic body of this Autonomous Institute. The Principal is the chief academic administrator and a bridge between the Management, Staff and Students. The Academic Council is responsible for laying down, regulating, and maintaining the standards of instruction, education and examination within the institute. It has the right to advise the Governing Body on all academic matters.

### **BOARD OF STUDIES**

Each Department has constituted its own Board of Studies with Head of the department concerned as Chairman, all faculty members of respective Department members, two subject experts from outside the college as nominees of the Academic Council, one expert from affiliating university, one person from industry and one person of the College alumni to be nominated by the Principal/HoD.

### **FINANCE COMMITTEE**

The Finance Committee has been constituted with the Principal as Chairman, one person to be nominated by the Governing Body as member, one senior-most faculty member of the college to be nominated by the Principal as member and, two persons from Administration as members, Finance Officer/Officer in-charge of Finance &Accounts of the College and finance officer nominee from affiliating University JNTUH.

### **INTERNAL QUALITY ASSURANCE CELL (IQAC)**

The committee is a nodal agency for monitoring the working of the institution and is committed to overall quality enhancement in the institution. It is committed to the culture of quality through the process of continuous monitoring and improvement by developing a student centric approach. This provides a conducive teaching-learning and research environment with the ambience of creativity, wisdom and team spirit to orient the talents of students with human values for making a positive contribution to society.

The committee has been constituted with Principal as chairman, two persons from management as members, one senior faculty from the institute as coordinator, all heads of the departments as department representatives, two persons from the administration as members, one person from the industry as member, one person from the alumni, and two students from the institution as members.

### **THE INSTITUTE VISIONS THE FOLLOWING GOALS:**

#### **Short-term Goals**

- Digitalize all departments and administrative processes, moving towards a paperless administration.
- Establish MoUs with universities, R&D institutions, and industries to set up centers of excellence across all departments.
- Provide consultancy and testing services utilizing major equipment available at the institute.
- Develop the Institutional Development Plan (IDP) in accordance with guidelines from the UGC and Ministry of Education.
- Constitute a committee to periodically review the IDP, recognizing its dynamic nature and the necessity of regular progress assessments.

#### **Mid-term Goals**

- Leverage intellectual expertise from organizations and prestigious national and international institutions.
- Ensure regular monitoring of IDP initiatives through periodic reviews, aligning with stakeholder inputs and making timely adjustments based on progress and feedback.

### **Long-term Goals**

- Establish MoUs with leading universities and R&D institutions at the international level.
- Evolve into a top-ranking institution within the country.
- Launch industry-driven postgraduate programs in various disciplines.
- Achieve the status of a Deemed University.
- Assess the overall impact of the IDP on institutional growth, ensuring sustained alignment with strategic goals and continued compliance with regulatory standards.

## **QUALITY ASSURANCE**

### **Short-term Goals**

- Strengthen the Recruitment Section to oversee the recruitment, mentoring, and training of both teaching and non-teaching staff, with a particular focus on leadership, technology, digitalization, and communication skills.
- Delegate mentoring and training responsibilities to trained mid-level faculty for junior and entry-level faculty members
- Identify and introduce new courses aligned with emerging industry and academic trends.
- Organize refresher and training programs for faculty through institutions such as NITTTR, the Malaviya Mission Teacher Training Program, JNTUH (the affiliating university), and other reputed organizations.
- Conduct regular audits, including Academic and Administrative Audits, as well as Green, Energy, and Environmental audits.

### **Mid-term Goals**

- Introduce and promote interdisciplinary and multidisciplinary courses in addition to the existing single-discipline UG and PG programs.
- Strengthen the quality of academic publications, making high-quality publications a compulsory requirement for all faculty members
- Encourage inclusive and participatory decision-making processes by involving all campus stakeholders to improve governance and ensure institutional objectives are aligned with stakeholder needs.

### **Long-term Goals**

- Develop and implement a robust governance mechanism to enhance both academic and administrative structures.
- Achieve complete automation of administrative processes by continually developing and integrating new digital modules, thereby enhancing overall quality and efficiency.

## **FINANCIAL SOURCES AND MANAGEMENT**

### **Short-term Goals**

- Department-wise budget planning for all heads of accounts.
- Forecasting and estimation of revenue (including both Internal Revenue Generation [IRG] and External Revenue Generation [ERG]).
- Forecasting and estimation of expenditure for all departments and activities.
- Preparation of contingency and emergency financial plans **to** address unexpected situations.
- Budget formulation and approval through the Finance Committee.
- Planned expenditure management to ensure efficient use of resources.
- Monthly audits (internal and/or external) to maintain financial checks and balances.
- Implementation of procurement and financial policies to promote transparency and accountability.
- Digitalization of financial processes **to** improve accuracy and reduce paperwork.
- Timely disbursement of salaries, scholarships, and grants **to** promote financial stability.

### **Mid-term Goals**

- Encouragement of cost-effective sustainability measures such as the Green Campus Initiative (solar power, water conservation, waste recycling) to promote savings and environmental responsibility.
- Diversification of funding sources through partnerships, grants, donations, and alumni contributions.
- Development of a comprehensive investment policy to ensure optimal use of surplus funds.
- Automation of financial reporting and analytics for better financial decision-making.
- Regular financial training for staff **to** build financial management capacity within the institution.

### **Long –term Goals**

- Support institutional growth through enhanced research, consultancy, and training for increased revenue generation.
- Predicting and enhancing internal revenue generation from academic programs, consultancy, commercial activities, and intellectual property.
- Strategic growth and expansion plans supported by robust financial forecasting and risk assessment.
- Establishment of an endowment fund and corpus fund for long-term financial sustainability.
- Adoption of international best practices in finance and resource management.
- Periodic review and realignment of financial strategies to adapt to changing economic and educational landscapes.

## **LEADERSHIP**

### **Short-term Goals**

- Develop and implement Leadership Development Programs for Department Heads, Senior Professors, Professors, and Principals focusing on leadership, management, strategic thinking, and mentorship.
- Establish formal mentorship and handholding programs within departments and administrative units to identify and nurture potential leaders among faculty.
- Foster motivation through continuous engagement and meaningful interactions.
- Introduce partnership incentive plans to encourage responsibility and involvement.
- Cultivate a feedback-driven culture focused on continuous improvement.
- Promote transparency and inclusion throughout the institution.
- Require branch heads to present their annual plans and targets at the start of the calendar year.
- Form an expert committee to assess the potential of all current leaders.
- Begin performance evaluations based on defined metrics.

### **Mid-term Goals**

- Identify leadership gaps and recommend restructuring to address these gaps.
- Identify positions suitable for external recruitment.

- Review and realign roles and responsibilities to institutional needs.
- Provide regular opportunities for leadership development at all levels.
- Celebrate contributions and successes to enhance engagement.
- Benchmark leadership practices and career advancement policies against peer institutions.
- Implement additional monetary and welfare incentives to retain high-potential leaders.
- Strengthen mentorship programs and partnerships within the institution.

### **Long-term Goals**

- Enter into Memorandums of Understanding (MoUs) with leading management institutions in India and prestigious international organizations to offer periodic leadership training for senior academic and administrative personnel.
- Institutionalize a culture of transparency, inclusion, feedback, and continuous leadership development across all departments.
- Sustain and expand career advancement opportunities to create a strong leadership pipeline.
- Continuously evolve leadership frameworks based on benchmarking and emerging best practices.

## **IT/WEB-BASED MANAGEMENT INFORMATION SYSTEM (MIS)**

### **Short-term Goals**

- **Centralized Student Information System:** Implement an integrated platform for student admissions, attendance, grades, and records management.
- **Online Payment System:** Enable digital fee payment and receipts for students and staff.
- **Faculty Portal:** Provide an online platform for faculty course materials, schedules, and communications.
- **Helpdesk Ticketing System:** Establish IT support ticketing and resolution tracking for users.
- **Cloud Storage Solutions:** Facilitate secure cloud storage for academic and administrative documents.
- **Virtual Meeting Infrastructure:** Set up platforms for seamless video conferencing and webinars.
- **Wi-Fi Connectivity Expansion:** Enhance campus-wide high-speed internet access.
- **Data Privacy Measures:** enforce data security protocols to protect personal and academic data.
- **Mobile App for Campus Services:** Launch an app for campus news, events, results, and notifications.

### **Long-term Goals**

- **AI-powered Analytics:** Integrate machine learning tools for predictive analytics in student performance and resource management.
- **IoT Integration:** Implement smart campus initiatives (e.g., smart lighting, smart attendance, energy management).
- **Digital Library Expansion:** Provide access to global research databases, e-books, and institutional repositories.
- **Virtual and Augmented Reality (VR/AR):** Use immersive technologies for advanced simulation and experiential learning.
- **Automated Administrative Workflows:** Streamline HR, payroll, procurement and maintenance systems digitally.
- **Unified Communication System:** ll Institution governance processes online for transparency and efficiency. Deploy a university-wide secure messaging and collaboration suite (email, chat, forums).
- **E-Governance Portal:** Centralize a Continuous Professional Development (CPD): Develop e-platforms for staff and faculty training and certification.
- **Alumni Networking Portal:** Maintain a robust MIS-supported alumni relations and career services platform.
- **Blockchain-based Academic Records:** Implement blockchain technology for secure, tamper-proof certificates and transcripts.

## **RISK MANAGEMENT ANALYSIS**

### **Short-term Goals**

- Conduct periodic workshops on cyber-security awareness.
- Update and test data backup and recovery plans.
- Perform regular vulnerability assessments of IT infrastructure.
- Implement training sessions on health and safety protocols for staff and students.
- Adopt strict access control and visitor management procedures.

### **Mid-term Goals**

- Policy formulation for risk assessment.
- Develop and implement an incident response plan (for IT/data breaches, physical security, and natural disasters).
- Establish a business continuity plan for critical Institute operations.
- Conduct risk assessments for all departments and periodically review them.
- Strengthen vendor risk management frameworks (assessing third-party risks).

### **Long-term Goals**

- The Institute shall reduce its environmental footprint by becoming single-use plastic-free campus.
- Integrate sustainability and resilience planning into all infrastructure development projects.
- Develop a robust alumni and external stakeholder engagement process for risk mitigation (including reputation management).
- Build a permanent crisis management committee with cross-departmental representation.
- Invest in renewable energy sources to reduce risks associated with energy dependency.

## **EXTERNAL ADVISORY BOARDS**

### **Short-term Goals**

Departmental Committees shall endeavor to include experts from organizations and institutions of national and international repute.

### **Mid-term Goals**

Nationally and internationally renowned academicians and representatives from regulatory bodies shall be involved in the Advisory capacity at various levels.

### **Long-term Goals**

An Advisory Council comprising representatives from government, education, industry and social sectors shall be established to offer diverse perspectives, enabling the Institute to address the evolving societal and economic challenges.

## **STUDENT FEEDBACK**

### **Feedback Mechanism and Student Engagement**

### **Long-term Goals**

- Student feedback shall be thoroughly analyzed using advanced software and data analytics tools, enabling the Institution to track trends and identify areas for further improvement, while prioritizing students' needs and interests.
- The feedback mechanism shall be integrated into strategic planning and decision-making processes at all levels.

- Periodic external audits and benchmarking of feedback practices shall be undertaken to ensure alignment with global best practices.
- The Institution will strive to foster a culture of continuous improvement and responsiveness, positioning feedback as a vital component in institutional excellence.

### **Short-term Goals**

- The Institution shall conduct workshops and sensitization programmes to educate students and faculty members on the importance of feedback and help them understand how it can lead to tangible effects.
- A systematic institutionalized mechanism for taking students' feedback periodically to ensure the satisfaction of students and improved quality.
- Clear, accessible channels for submitting anonymous feedback shall be established, encouraging open and honest communication.

### **Mid-term Goals**

- A dedicated feedback analysis team shall be established to monitor and analyse the pertinent points emerging out of the student feedback to address such issues.
- Student feedback shall be used to strengthen the teaching-learning and administrative process.
- Regular meetings shall be held between faculty, administration, and student representatives to discuss feedback results and action plans.

### **Long-term Goals**

- Student feedback shall be thoroughly analysed using advanced software, facilitating the Institute to identify the areas for further improvement prioritizing the interests and needs of the students.
- The feedback mechanism shall be integrated into strategic planning and decision-making processes at all levels.
- Periodic external audits and benchmarking of feedback practices shall be undertaken to ensure alignment with global best practices.
- The Institution will strive to foster a culture of continuous improvement and responsiveness, positioning feedback as a vital component in institutional excellence.

## **2. Financial Enablers and Funding Models**

The Finance Committee Institute proposes a comprehensive framework for achieving long-term financial flow and resource management. The framework includes the following mechanisms and responsibilities:

- Regularly examines accounts, monitors expenditure progress, and reviews all new financial proposals to ensure alignment with the provisions and allocations made in the budget.
- Evaluates the annual financial statements and budget estimates prepared by the Finance and Accounts Officer. These reports are then submitted to the Governing Body and Governing Council for further consideration and action.
- Acts as an advisory body to the Governing Body on matters related to budget estimates, financial policies, and management of grants received or receivable from funding agencies, as well as income from fees and other sources.
- Ensures the proper maintenance of audited accounts for all institutional income and expenditure, in accordance with regulatory standards and good governance practices.

### **FINANCIAL POLICIES**

#### **Short-term Goals**

- Formulate policies to support various academic initiatives, cutting-edge research endeavors, commensurate development of the physical infrastructure to adequately support the academic activities of the Institute.
- Expansion of academic activities shall require more space in the form of class rooms and similar such facilities. It shall require development of physical infrastructure where financial shall play a key role.
- Setup a dedicated Alumni Relation Office to strengthen the alumni network and motivate them to sponsor for meritorious students' scholarships and infrastructural development.

#### **Mid-term Goals**

- Enhance capital investment during the mid-term to support the Institute's ongoing infrastructure requirements and future expansion
- Conduct targeted fundraising campaigns in major cities across India and abroad, leveraging the alumni network to strengthen the Endowment Fund.
- Formulate and implement policies to promote a vibrant start-up ecosystem on campus through incubation facilities, while actively seeking to attract external funding and investment to support entrepreneurial initiatives.

#### **Long-term Goals**

- Institute shall focus on creating new way so fund raising through various external agencies.
- Encourage high net worth alumni and philanthropists to create named Chairs, research fellowships and scholarship programs.

### **ACTION PLAN AND BUDGETS**

#### **Short-term Goals**

- Maintenance and Audit of the assets shall be done on a regular basis. Auditing mechanism is to be aligned with budgeting.
- Stock management exercise shall be aligned with budget planning to reduce wastage and environmental impact from acquisition of new assets.
- Incorporate the social responsibility factor in the financial action plans such as resale, donation and re-use of end-of-life assets or depreciated assets.

### **Mid-term Goals**

- To align the funding sources with the institutional goals to address the additional expenses rising from internationalization, inclusivity, research and innovation initiatives.
- Identify and dispose of redundant assets in alignment with broader concepts of sustainability, the circular economy, and the SDGs.

### **Long-term Goals**

- Guidelines for identification of wasteful of expenses and targeted reduction in such expenses.

## **HARNESSING DIFFERENT SOURCES OF REVENUE**

### **Short-term Goals**

- Regular workshops be conducted to raise awareness of existing Government funding schemes.
- Invite ideas to identify new sources of funding.
- Encourage faculty members to focus on research and academic consultancies.
- Faculty members and research scholars shall be encouraged and rewarded for actively contributing to the advancement of research activities.
- The Institute shall regularly publish an Information Bulletin featuring abstract or brief overviews of ongoing research projects and consultancy activities. This initiative shall enhance visibility and attract additional research grants.
- Funds from Alumni Funds, Endowment Funds, CSR funding etc.
- The major equipment & facilities available in research labs shall be made available for specific use of other organizations/Industries.

### **Mid-term Goals**

- To generate external funds, the Institute shall focus on strengthening foreign collaborations in research activities.
- Formulate policies to develop future strategic partnerships with industries.
- Establish a dedicated office for Patents, IPR and technology licensing for faster processing and monetization of Patents.

### **Long-term Goals**

- Establish a dedicated office for Patents, IPR and technology licensing for faster processing and monetization of Patents.

## **LIAISON WITH GOI MINISTRIES/AGENCIES AND OTHERS FOR FUNDING AND ACCESS TO EXTERNAL GRANTS AND FUNDING**

### **Short-term Goals**

- The Institute will develop a centralized repository of information on international and national funding agencies, to be compiled by the respective departments.

- A mentoring program will be conducted to guide project proposers in preparing submissions for various funding agencies.
- Department-specific awareness programs will be organized to ensure active participation of stakeholders in funding opportunities.
- Initiate the process of building a network with empanelled private companies and industry associations to facilitate joint and collaborative research projects

#### **Mid-term Goals**

- Provide training to government and corporate executives

#### **Long-term Goals**

Target large-scale research grants from various government ministries and other agencies for the development of infrastructure equipped with the latest cutting-edge technology.

### 3. Academic Enablers

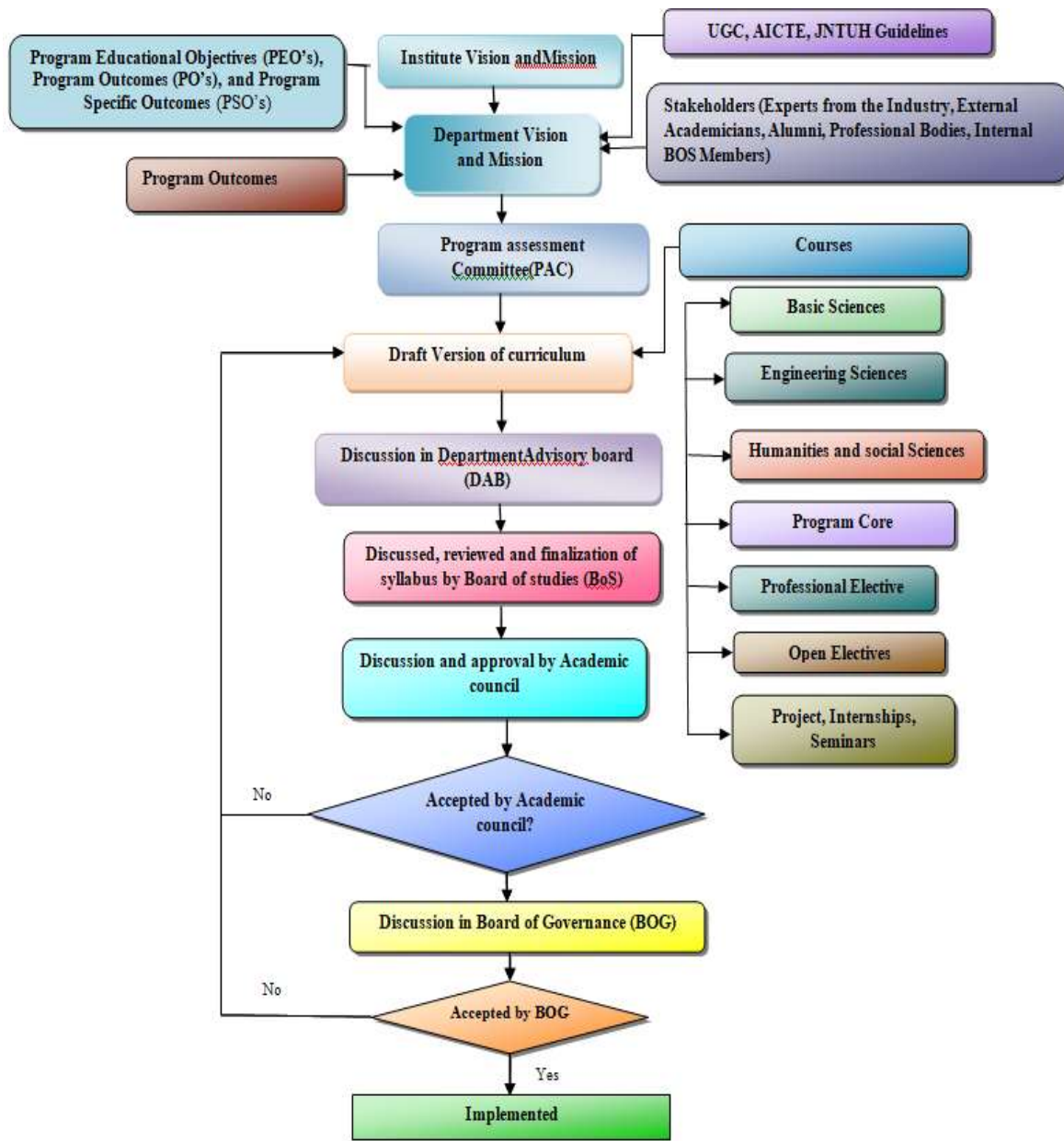
**Academic enablers** are defined as "attitudes and behaviors that allow a student to participate in and ultimately benefit from academic instruction in the classroom"—this includes engagement, interpersonal skills, motivation, and study skills. These skills and behaviors form a crucial complement to academic competencies and are supported by research as having a major impact on student achievement and success. Over the past 25 years of academic excellence at VJIT, has made noteworthy national contributions in teaching, research, and innovation. The institute strives to create an enabling and conducive environment for holistic development of its students.

#### **COURSES CATERING TO PROFESSIONAL/FUTURE REQUIREMENTS**

Vidya Jyothi Institute of Technology is affiliated to Jawaharlal Nehru Technological University Hyderabad (JNTUH) and has its own curriculum comprising Basic sciences, Engineering sciences, Humanities and Social Sciences, Professional Core, Program Electives, Open electives and Mandatory courses along with Projects, Mini-projects& Internships/Seminars. The Department frames its program curriculum based on the vision and mission of the Institution and the Department. The curriculum is designed to make the students industry ready and promote a curiosity amongst the students to take up research in the vast and diverse Civil Engineering discipline. Students are imbued holistic understanding by providing hands on training in basic concepts of Civil Engineering and exposing them to the emerging technologies and software tools that are being used for analyzing, designing, planning and scheduling of the construction projects.

The program curriculum is designed and structured by the Department according to the UGC, AICTE and JNTUH guidelines in order to fulfill the PEO's, POs and PSOs. The department also utilized the freedom of autonomy in order to improve the syllabus in accordance with the university syllabus by incorporating the industry oriented professional electives and modern tools driven laboratories in the curriculum. The course coordinator prepares the course contents, CIE & SEE evaluation rubrics in compliance with various Revised Blooms Taxonomy Level and maps course outcomes with POs and PSOs. Several key functional committees like PAC (Program Assessment Committee), DAB (Department Advisory Board), BOS (Board of Studies) and Academic council (AC) play very crucial role in drafting and implementing curriculum and assessment process (Detailed roles played by these committees are stated in table 2.1.1). The feedbacks from stake holders such as external academicians, industrial experts, alumni, parents, internal BOS members and students, are considered for the drafting of syllabus. The draft of syllabus content with respect to the curriculum will be discussed in the PAC meeting and further modifications will be considered in the subsequent DAB meeting. The finalized Curriculum and syllabus content will be presented in the BOS (Board of Studies) meeting for approval with corrections if any. The finalized version of the same will be forwarded to the Academic Council for the approval and implementation.

The PAC meets at the beginning of every semester. The DAB meets at the end of each academic year to review the course and syllabi prepared by the PAC. The DAB meeting will be followed by BOS meeting for ratification and forwarding the same to AC (Academic Council) for approval and implementation. The BOS consists of HOD, in-house faculty members at different levels with different specialization, subject experts from outside the college, academic expert from university nominated by JNTUH, representatives from industries/corporation sector/allied area related to placements, and UG meritorious Alumni nominated by HOD. Flow chart for design/revision of program curriculum is shown in Figure. 3.1



**3.1 Flow chart for the Design/revision of program curriculum**

The Institute aims to promote holistic development by emphasizing skill enhancement, value addition, and overall capacity building through the introduction of new courses. These initiatives underscore the Institute's commitment to shaping students into professional achievers and informed citizens who actively participate in a complex world.

#### Short-Term Goals

- The Institute aims to extend the NEP 2020 framework to its B.Tech and M.Tech/MBA postgraduate programs and introduced the following in **R25 regulations**
- Mathematics Laboratory: A new mathematics lab will be introduced for all students to promote analytical thinking through hands-on learning.
- MOOCs Flexibility: Students can register for Massive Open Online Courses (MOOCs) one semester in advance. If a student fails a MOOCs course, they may opt to take the equivalent regular course instead.

- Multiple Exit Option: Students may exit the program after the second year, provided they have passed all courses and earned two extra credits (including a six-week vocational course/internship). The exit declaration must be submitted at the beginning of the second semester of the second year. Rejoining in the third year is allowed.
- Skill Development Focus: Four 1-credit skill development courses will be introduced in the second and third years (one per semester). These will include either three domain-specific courses or one interdisciplinary course, or a 2+2 combination, evaluated like lab courses to impart industry-relevant skills.
- Flexible Credit Structure: The program requires 164 credits, with the best 160 credits considered for the Cumulative Grade Point Average (CGPA). Students may drop up to 4 credits from low-grade or failed subjects (excluding labs, seminars, projects, or internships).
- Design of Skill Enhancement and Value-Added Courses to cultivate life and soft skills, in collaboration with industry and societal experts.
- Departments will develop detailed flowcharts outlining the academic pathways for each program, along with potential employment opportunities, enabling students to make informed choices when selecting courses.
- The employability potential of these courses will be communicated to students through workshops and seminars conducted in collaboration with industry and societal leaders.
- The effectiveness of the mentor-mentee system will be evaluated through student satisfaction surveys and feedback mechanisms.
- Faculty skill development will be enhanced through participation in the Malaviya Mission Teacher Training Programs, NITTTR, NPTEL, and other reputed institutes' Faculty Development Programs (FDPs).

### **Mid-Term Goals**

- Conduct regular reviews and evaluations of all academic programs to ensure continuous improvement and alignment with industry standards. Applying for accreditation for the eligible B.Tech programs.
- Develop and introduce interdisciplinary programs that combine multiple fields of study, enabling students to gain diverse skills and perspectives increasingly valued in the job market.
- Establish partnerships with a range of industries and organizations, both locally and abroad, to facilitate internships, placement opportunities, and collaborative research projects. This ensures students gain practical experience and exposure to real-world challenges.
- Implement ongoing professional development programs for faculty, focusing on innovative teaching methodologies, curriculum development, and research initiatives that align with emerging trends and technologies.
- Develop comprehensive student support services, including career counseling, mental health resources, and academic advising, to assist students in achieving their career goals.

### **Long-Term Goals**

- Transform the Institute into a leading research and innovation hub by establishing research centers focused on key societal challenges, fostering collaboration among faculty, students, and industry partners.
- Integrate sustainability and social responsibility into the curriculum and institutional practices, encouraging students and faculty to engage in initiatives that address environmental and social problems.

- Fully integrate digital technologies into teaching, learning, and administrative processes, creating a smart campus environment that enhances both the educational experience and operational efficiency.
- To enhance the learner-centric experience in the digital era, the Institute will engage faculty members to develop a bank of recorded video lectures and comprehensive academic materials.

### **3.1 CURRICULUM ALIGNED WITH INDUSTRY REQUIREMENTS**

The institute has made significant progress in aligning its curriculum with the evolving demands of industry. All departments conduct Value Added Courses (VACs) based on emerging industry trends, designing programs that emphasize essential life skills, soft skills, and relevant industry knowledge.

#### **Short-Term Goals**

- Collaborate with industry experts to identify gaps in the current curriculum and make timely updates to address immediate market needs.
- Launch new Skill Development Courses and Value added courses that focus on specialized industry-relevant knowledge.
- Create relevant skill course modules to provide students with the digital skills necessary for the modern workplace.
- Organize workshops, guest lectures, and seminars led by industry professionals to offer students practical insights into current market trends and expectations.

#### **Mid-term Goals**

- Conduct a comprehensive review of all programs across departments, ensuring the curriculum remains relevant to long-term industry needs by incorporating emerging fields like AI, data analytics, and sustainability.
- Introduce interdisciplinary courses that combine technical skills with industry knowledge, allowing students to explore cross-cutting areas such as business and technology or health and data sciences.
- Strengthen partnerships with companies to provide more internships, real-world projects, and industry-based research opportunities embedded in the curriculum.
- Implement continuous professional development programs for faculty to ensure that they stay updated with industry trends and integrate this knowledge in to their teaching.

#### **Long-term Goals**

- Establish centers of excellence dedicated to research and innovation in key industries, promoting collaboration between academia, industry, and government on projects that influence the future of various sectors.
- Develop and offer lifelong learning programs, including advanced certifications enabling alumni and professionals to return to the Institute to up skill and remain competitive in their fields.
- Ensuring that graduates are prepared for both local and international markets while adapting the curriculum to global industry trends.
- Implement a system of continuous curriculum revision, conducted in consultation with industry experts, to ensure that programs remain dynamic, responsive to technological advancements, and aligned with shifting market conditions.

### **3.2 CURRICULUM EMBEDDED WITH EMPLOYABILITY SKILL**

VJIT has integrated employability skills into its curriculum through a variety of initiatives aimed at enhancing the practical application of knowledge. By adopting an inter disciplinary and multidisciplinary approach, the Institute equips students with diverse skill set that transcends traditional learning methods. This innovative teaching strategy, which extends beyond the classroom, directly enhances students' employability, preparing them for future challenges. Through these efforts, the Institute is continuously working to align its programs with the evolving demands of the job market, ensuring graduates are well-prepared for professional success.

#### **Short-term Goals**

- Expand interdisciplinary courses that merge multiple fields of study to sharpen critical thinking and adaptability, addressing immediate industry demands.
- Strengthen collaborations with industries for guest lectures, short-term projects, and workshops that offer students real-world insights into evolving job markets.
- Introduce skill-based workshops focused on practical applications in areas liked at a analytics, coding, entrepreneurship, and digital marketing to boost employability.
- Encourage faculty to implement innovative teaching methods such as case-based, flipped classroom, project-based learning, and simulations to foster real-world problem-solving abilities.

#### **Mid-term Goals**

- Conduct a thorough review of all courses to ensure employability skills are integrated at every level, keep it in academic programs aligned with the latest industry trends.
- Establish formal partnerships with industries to provide more structured internships and apprenticeships as well as hands-on industry experience.
- Create an institutional framework guiding departments to embed essential employability skills like communication, teamwork, problem-solving, and digital literacy into their curricula.

#### **Long-term Goals**

- Make employability skills a core component of all academic programs, with continuous revisions to ensure alignment with changing global and local job market demands.
- Establish a dedicated centre for fostering collaboration between industry and academia, focusing on research, skill development, and innovation that directly impacts curriculum design and student employability.
- Develop lifelong learning programs for alumni, enabling them to return to the Institute for up skilling and reskilling, to meet industry demands throughout their careers.

### **3.3 CURRICULUM EMBEDDED WITH SKILL ENHANCEMENT COURSES**

VJIT has actively integrated Skill Enrollment Courses in to its curriculum in alignment with NEP2020. These courses are designed to provide students with practical skills that enhance their employability and adaptability in a rapidly changing job market. The courses focus on hands- on training in areas like communication, data analysis, digital literacy, entrepreneurship, and other industry-relevant fields.

The Institute collaborates with industry experts to ensure these courses address current workforce demands, equipping students with skills that extend beyond traditional academic knowledge. By combining classroom instruction with projects, internships, and workshops, students are better prepared to excel in their profession.

### **Short-term Goals**

- Introduce new courses in emerging fields like AI, Data science, Digital marketing, and entrepreneurship to address immediate industry needs.
- Build stronger partnerships with industry to keep SECs updated with the latest trends and ensure students acquire skills that are in demand.
- Provide students with short-term certification programs and workshops that complement their SECs, helping them strengthen their professional profiles.
- Promote the use of appropriate platforms such as Eduskills, Code Tantra, IIT Bombay Spoken Tutorials & Cisco etc., to provide students with critical digital literacy and work place skills.
- Each department shall identify specific skills required for their students and offer skill courses aligned with the National Council for Vocational Education and Training (NCVET) and the National Skills Qualification Framework (NSQF). The number of courses shall be designed to encourage a multidisciplinary approach.

### **Mid-term Goals**

- Conduct a detailed review of all courses to ensure they remain relevant to both local and global industry trends, striking a balance between soft and technical skills.
- Integrate mandatory internships or industry-based projects within SECs, allowing students to gain practical experience for academic credit.
- Develop SECs that combine technical skills with industry-specific knowledge.
- Offer continuous professional development programs for faculty to ensure they stay current with industry standards and can effectively teach emerging skills.
- Departments shall collaborate with industry-leading institutions to certify skill enhancement courses, allowing students to earn industry-recognized certifications alongside academic credits.

### **Long-term Goals**

- Establish centres dedicated to enhancing employability through skill development, research, and industry collaboration, ensuring SECs evolve with emerging technologies.
- Create opportunities for alumni to engage in SECs for up skilling and reskilling, ensuring that graduates remain competitive in their fields throughout their careers.
- Develop a system for regularly updating SECs based on industry feedback, alumni experiences, and technological advancements, ensuring courses remain relevant to the evolving work force.

## **3.4 CURRICULUM EMBEDDED WITH EMERGING TECHNOLOGIES TO BE INTEGRATED WITH FUTURE OF WORK**

VJIT has proactively embedded emerging technologies into its curriculum in response to the evolving demands of the workforce. In 2019, the Institute launched the B.Tech program in Artificial Intelligence, followed by the B.Tech program in Data Science in 2020. Further expanding its offerings, VJIT introduced B.Tech programs in Artificial Intelligence & Machine Learning as well as Artificial Intelligence & Data Science in 2022.

Courses in these domains are developed in collaboration with industry experts to ensure students gain skills relevant to the future of work. The Institute actively encourages students to

pursue programs aligned with global industry trends, aiming to prepare them not only for current opportunities in the job market but also for future roles shaped by ongoing

technological advancements

### **Short-term Goals**

- Introduce more courses focused on AI, Block Chain, Data Science, Machine Learning, and Cyber Security to address immediate workforce needs.
- Strengthen the curriculum to ensure students acquire cutting-edge skills in emerging technologies.
- Establish partnerships with leading tech companies and start-ups to deliver guest lectures, seminars, and practical workshops focused on real-world applications of emerging technologies.
- Incorporate hands-on learning experiences like coding boot camps, hackathons, and short-term projects to provide students with practical knowledge of these technologies.
- Offer certification programs in emerging technologies to student's employability and prepare them for immediate workforce demands.
- Encourage students to apply their learning by developing applications for the institution, potentially leading to revenue-generating initiatives, intellectual property, or patents.

### **Mid-term Goals**

- Develop interdisciplinary programs that combine emerging technologies.
- Conduct periodic reviews to ensure the curriculum remains aligned with technological advancements, integrating fields like robotics, quantum computing, and sustainability.
- Implement mandatory internships or industry-led projects focused on emerging technologies, allowing students to gain practical experience and solve real-world problems.
- Invest in continuous professional development programs for faculty, ensuring that faculty remain informed on the latest technological advancements and can teach emerging technologies effectively.

### **Long-term Goals**

- Create dedicated Centres of Excellence focused on cutting-edge research and development in AI, machine learning, quantum computing, and renewable energy. These centres shall promote collaboration between academia, industry, and government.
- Implement a system of continuous curriculum updates, informed by industry feedback, new research, and technological developments, to ensure courses remain relevant to future workforce demands.
- Develop lifelong learning opportunities for alumni, enabling them to return to the Institute for up skilling and reskilling in emerging technologies, thus staying competitive in the ever-evolving job market.

## **3.5 FACULTY/TEACHING STAFF**

The Faculty at the VJIT play a pivotal role in shaping students' academic and holistic development. With the implementation of the National Education Policy (NEP) 2020 and the affiliating University R25 regulations, the Institute emphasizes enhancing faculty skills, promoting inter and multi-disciplinary research, and fostering industry-academia collaborations. provides supports through Faculty Development Programs (FDPs), conferences, and research opportunities, while they contribute to curriculum design, digital content, and initiatives like Skill Enhancement Courses (SECs), Value Added Courses (VACs), and MOOCs.

### **Short-term Goals**

- Each department shall actively engage in creating detailed lesson plans, assessment modules, and reading lists for new courses.
- Each faculty member shall organize or participate in at least one FDP in promoting discipline-specific expertise.
- Foster inter-institutional faculty visits under existing MoUs for collaborative curriculum development, research projects, and knowledge exchange. Institutions shall hold weekly guest lectures by faculty from allied departments to encourage a multidisciplinary educational approach.
- Organize FDPs and workshops on the integration of technologies like AI, Data Analytics, and Digital teaching tools, enhancing classroom engagement.
- Encourage faculty to undertake training in platforms such as MOOCs to integrate them into their teaching practices, supporting NEP2020 goals.
- Encourage faculty to adopt diverse instructional strategies such as blended learning, project-based learning, and case studies to keep pace with global educational trends.
- Provide faculty with greater incentives for engaging in research, including access to grants and opportunities for national and international collaborations.

### **Mid-term Goals**

- Strengthen partnerships with industry to ensure faculty are well-versed in current trends and can bring real-world applications into the classroom
- Encourage faculty to take part in industry-led projects, internships, and consultancy work, helping bridge the gap between academic knowledge and professional practice.
- Establish global partnerships for faculty exchange programs, collaborative research, and participation in international conferences and seminars.
- Establish Centres of Excellence in areas such as AI, sustainability, and interdisciplinary studies to provide faculty with platforms for high-impact research and industry collaboration.
- Ensure faculty has the resources and training to integrate new technologies into their teaching practices, preparing students for future industry needs.
- Implement faculty mentorship programs where senior faculty guide junior staff on research methodologies, curriculum innovation, and publication.
- Introduce incentive-based schemes for faculty who engage in activities like content creation, student projects, and start-up incubation.

### **Long-term Goals**

- Establish a system for lifelong learning where faculty regularly undergo advanced training, certification, and upskilling programs to stay updated on global trends and advancements in education and technology
- Foster long-term partnerships with government and private sector organizations for research funding, consultancy services, and the practical application of research findings.
- Create platforms for faculty to participate in the development of educational policies, curriculum reform, and planning, ensuring that Institute remains at the fore front of academic innovation.

## **3.6 CONTINUOUS FACULTY DEVELOPMENT**

The Institute through Malviya Mission Teacher Training (MMTTC) certifications facilitates continuous learning and development for teaching staff. These kind of

certifications play a critical role in enhancing the skills, knowledge, and pedagogical techniques of faculty members. The Institute aims to expand its faculty development initiatives through increased engagement with industry experts and other professional networks.

#### **Short-term Goals**

- VJIT plans to leverage its connections with industry by involving experts from various disciplines in FDPs and workshops
- The training programs offered through MMTTCs & NITTTR and other skill enhancement programs, ensuring that faculty are equipped to teach in the evolving higher education landscape.

#### **Mid-term Goals**

- Faculty development programs are aligned with current industry needs and trends. College Academic Committee conducting shall provide insights into curriculum updates, training needs, and emerging skills, helping faculty members stay relevant and prepared for the changing educational environment.
- Develop specialized FDPs tailored for different faculties and departments based on the latest developments in their respective fields, ensuring that each department receives focused training relevant to their discipline.

#### **Long-term Goals**

- VJIT shall establish Teaching Learning center to offer global teaching certifications, encouraging faculty members to participate in international exchanges and advanced leadership training.
- Establish a system for continuous faculty learning and development, including ongoing assessment of their skills and teaching methods, to ensure that faculty members are constantly updating their knowledge and expertise in line with technological and pedagogical advancements.

### **3.7 NON-TEACHING STAFF**

The non-teaching staff at the VJIT are vital to its functioning, playing a crucial role in administration, support services, and overall institutional operations.

VJIT is committed to enhancing their skills and professional development to ensure the smooth operation of academic and administrative activities. This effort aligns with the evolving needs of modern educational institutions, where administrative efficiency, digital literacy, and communication skills are key.

At present, the non-teaching staff at the Institute includes adverse range of roles, from administrative officers to support staff, each contributing to the institution's day-to-day operations. However, with the increasing digitalization of processes and the growing complexity of educational administration, there is a recognized need to up skill non-teaching personnel in areas such as digital literacy, communication, and the implementation of new government regulations.

#### **Short-term Goals**

- The Institute shall conduct periodic training programs for administrative staff. These programs shall focus on updating staff with the latest government by laws, institutional regulations, and University procedures. Additionally, training shall be provided on using digital tools and platforms for efficient management of Institute operations.
- Organize workshops to familiarize staff with new or updated government policies, ensuring that the Institutes administrative practices comply with legal and regulatory

changes.

### Mid-term Goals

- Implement training modules that focus on enhancing soft skills, human resource management, and conflict resolution, particularly for staff who interact with students and the public, improving the overall Institution experience.

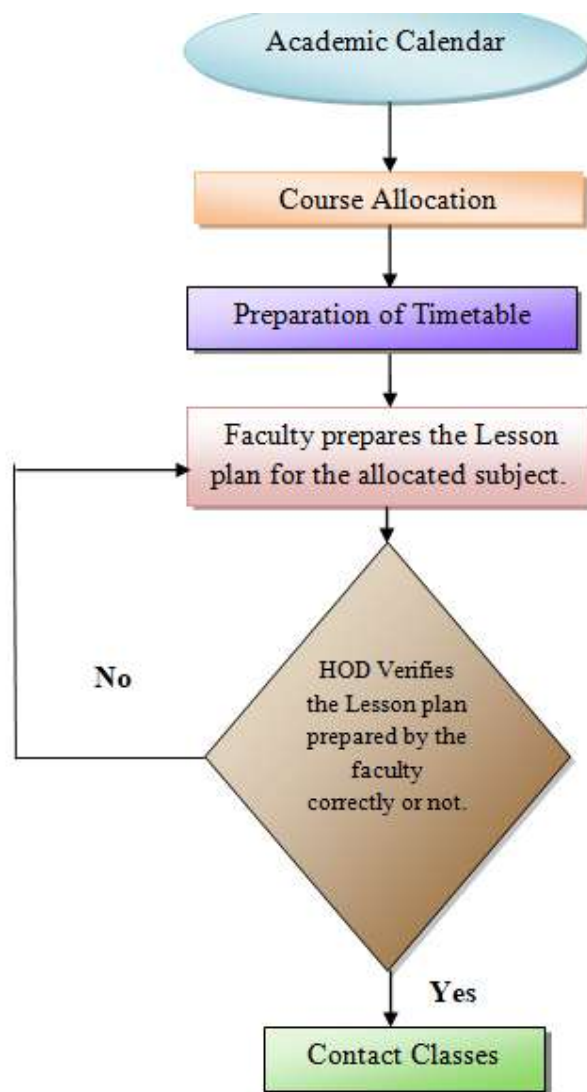
### Long-term Goals

- Develop career progression pathways for non-teaching staff, including leadership development programs for those in middle and senior administrative roles. This shall create opportunities for professional growth and help staff within the Institute.

## 3.8 COURSE WISE TEACHING PLAN

### Preparation of Lesson Plan:

Course faculty prepares the Lesson Plan before the commencement of each semester as per the academic calendar.



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### 3.9.1 Preparation for course wise lesson plan

#### Short-term Goals

- Standardizing session wise teaching plan across all departments, ensuring consistency,

and making sure study material links are easily accessible for all students

- Regular communication between departments, continuous training for faculty, and enforcing deadlines for submitting teaching plans shall likely enhance consistency.

#### **Mid-term Goals**

- Incorporating continuous feedback from students into session plan during the mid-semester shall be highly useful.
- Creating a digital system to improve the quality of study materials and session plans.

#### **Long-term Goals**

- A centralized initiative to streamline academic planning across all departments on par with the reputed institutes.

### **3.10 COMPREHENSIVE LEARNING RESOURCES FOR STUDENTS**

Students at the Institute often rely on external textbooks and publications, with many recommended by faculty at the start of the semester.

- Departments provide their own study material in the form of syllabus booklets, lecture notes.
- These are usually curated by the faculty members and made available through the department library or through D-Space link of departments. Many faculty members upload lecture notes, presentations, and additional reading materials on Google Classroom or CAMPAX Learning Management Systems (LMS). Additionally, platforms like Swayam and e-PG Pathshala, developed by the Ministry of Education, are utilized by some students. The Institute has a well-established library system with access to physical and digital resources, including journals and e-books.

#### **Short-term Goals**

- The Institute shall reach out to collaborate with established organisations to ensure efficient production and distribution of books for undergraduate and postgraduate courses.
- Each department shall establish a content development committee to create learning material, including question banks, lecture notes, and multidisciplinary study guides. Faculty teams within departments shall begin compiling comprehensive study materials aligned with the current curriculum.
- Improve access to digital resources and learning materials through the Institute digital portals like Google Class room or CAMPAX Learning Management Systems (LMS).
- Encourage faculty to regularly upload course materials, reading lists, and supplementary notes on these platforms.
- Each department shall create a repository of question papers from the last five years for each course and publish them on their website for ease of access.

#### **Mid-term Goals**

- Ensure that book lists for all courses, especially at the post graduate level, are updated annually to include recent developments and publications. Faculty members shall work with department committees to revise and enhance the books every academic year while maintaining key classical texts.
- Create a centralized digital repository of question banks, compendiums, and previous years' exam papers accessible to all students. Departments shall collaborate to digitize and upload these resources to a Institute portal.
- Each department shall create a probable set of diverse questions every year to benefit slow learners.

### **Long-term Goals**

- The Institute shall establish a peer review system for rationalizing its study material once every three years, which shall involve national and international subject experts. Each department shall identify a list of experts in their respective sub-disciplines and domains.
- Work with the UGC and other academic bodies to align curricula and study materials, ensuring that Institute produced books and resources can be adopted nationwide.
- Transition towards digital publishing of text books and study materials, offering open-access content for all students, not just those enrolled in the Institution.

### **3.11 ASSIGNMENTS AND ASSESSMENTS**

As per the regulations drafted by the Institute, Assessments usually include mid-term exams, end-semester exams, and internal assessments such as quizzes, practical, or viva voce.

#### **Short-term Goals**

- Standardize Assignment Guidelines across departments. Faculty members shall follow uniform guidelines for structuring assignments as per the Regulations. These guidelines shall be made available to students at the beginning of each semester.
- Submission of assignments through online CAMPAXLMS platforms.
- Each department shall compile and provide students with sample assignments from previous years, available on the department's web site

#### **Mid-term Goals**

- Feedback Mechanism: Implement a formalized feedback system for assignments. Faculty members shall provide constructive feedback on each submission, detailing areas of improvement and achievements.
- Establish a repository of assessments across different courses. Departments shall compile past question papers and sample assignments from arrange of courses, which can serve as a reference for students when preparing for future assessments.
- Peer Review Assignments: Introduce peer-reviewed assignments where students are encouraged to review and provide feedback on each other's work under faculty supervision. This shall foster collaboration and improve critical thinking skills.

#### **Long-term Goals**

- Develop rubric-based assessment tools to ensure transparent and objective grading across assignments. Faculty members shall be trained to use these rubrics, which shall provide clear grading parameters and minimize subjectivity.
- Transition towards online assessments, using tools that allow students to take quizzes, submit assignments, and undergo online exams securely. Invest in proctoring technologies and other digital tools to ensure the integrity of the assessment process.
- Align assessments closely with the course curriculum and learning outcomes. Each department shall revise their assessment methods every three years to ensure that assignments and assessments are relevant, modern, and encourage the development of critical thinking and problem-solving skills.

### **3.12 VALUE ADDED COURSES**

Value-added courses are offered through certain courses and departments that aim to provide students with interdisciplinary skills beyond their core curriculum. These courses focus on soft skills, technical proficiency, and industry-specific knowledge to enhance employability and overall competency. While some departments offer certification

programs as value added courses.

### **Short-term Goals**

- Each department shall introduce at least one skills enhancement course per year. These course(s) shall focus on industry-relevant skills, such as communication, data analysis, digital literacy, and entrepreneurship. Departments can collaborate with industry experts to design these courses, ensuring relevance and applicability.
- Collaborate with platforms like Swayam, Coursera, or edX to offer free/affordable online courses that students can take to develop additional skills.
- Establish short-term certificate programs that focus on specific skill sets such as public speaking, leadership, or advanced Excel, which are essential for work place readiness. These programs will be offered during semester breaks or as electives.
- Offer workshops and seminars that focus on soft skills development like teamwork, time management, and critical thinking. These workshops shall be made available to students of all departments to ensure comprehensive skills enhancement.
- The Institute shall make efforts towards introducing Indian Traditional Skill courses so that such skills are promoted and preserved from being lost in future.
- Develop more value addition courses to strengthen value education.

### **Mid-term Goals**

- Develop interdisciplinary value-added courses that allow students from different departments to collaborate on projects, encouraging knowledge exchange and the development of multi-Disciplinary skills.
- Introduce a system where value-added courses are reviewed annually and updated to reflect emerging trends in the job market and industry requirements. Departments shall engage with industry professionals, alumni, and subject matter experts to ensure that the courses are aligned with current needs.
- Collaborate with companies and organizations to offer skill-enhancement internships that align with value-added courses. These internships shall provide practical, hands-on experience in areas related to the skills covered in the courses.
- Organize Institute-wide competitions and hackathons related to innovation, entrepreneurship, and technology skills.

### **Long-term Goals**

- The Institute shall channelize its MoUs and collaborations with industry and societal institutions of importance for initiating skill enhancement and value-added courses which shall be taught by skill equipped faculty as well as industry/society experts.
- Make it mandatory for students to take a certain number of value-added skill enhancement courses to graduate. These courses shall cover both technical and soft skills relevant to each field of study.
- Collaborate with global certification bodies to provide students with internationally recognized certifications.

## **3.13 PEDAGOGICAL TEACHING METHODS TO BE EMPLOYED**

Pedagogical Initiatives - Content Delivery (method of instruction)

Pedagogies play an important role in delivering contents of syllabus. Course allocation is made based on the choice/ expertise of the faculty members in advance by following a well-defined process before the commencement of each semester. Each Course faculty

prepares a detailed lesson plan, assignment questions, quiz questions, Course handouts containing teaching materials and question bank comprising previous question papers etc. for the allocated course.

Various pedagogical methods adopted for effective teaching and learning process to achieve the expected outcomes of teaching are:

- **ICT based learning:** Use of LCD projectors, using power point presentation and provision for interactive teaching learning. ICT can impact student learning when teachers are digitally literate and understand how to integrate it into curriculum. The use of ICT in education creates a learning environment that focuses on students and addresses the gap between teacher and learner centred environments
- **Collaborative learning:** It is the educational approach of using group activities to enhance learning through working together. Groups of three or more learners work together to solve problems, complete tasks, or learn new concepts. This approach makes students actively engage in the learning process and synthesize information and concepts.
- **Demonstration Based Learning:** An instructional method through which students are shown proper techniques, equipment, or information about processes and procedures of a real world system (Its process /parts of whole system) are demonstrated using tools
- **Digital laboratory for self-learning (Virtual Labs):** Virtual Labs are simulated learning environments that allow students to complete laboratory experiments online and explore concepts and theories without stepping into a physical science lab. This approach facilitates the students to operate labs anytime anywhere during their preparation for lab sessions or clarifying their doubts after lab sessions.
- **Google Classroom:** The Google classroom is an innovative tool which is very effectively used in our campus for few courses. Faculty members add all students to it before commencement of every semester for every course. They also upload course plans, eBooks, course materials, video lectures, question banks etc. It helps the students to come prepared to the class. The tools in the Google class room facilitate online assessment of students, which can be used to measure the outcomes of each course.
- **NPTEL and SWAYAM (Self- learning Courses):** The students are using E-sources such as NPTEL and SWAYAM courses for effective teaching and learning respectively. These not only strengthen the teaching-learning process for the students, but also generate academic discipline, scientific attitude, innovativeness and inculcate self-learning. The following tables show the NPTEL courses successfully completed by our students.
- **Value added courses:** Value added course is the short term training course which enhances the proficiency in core knowledge in collaboration with the current industrial requirements coped up with the curriculum for the knowledge enhancement of the internal stakeholder.
- **Field and Industrial Visits:** Construction site visits are the most powerful learning aid in the civil Engineering to explain the concept practically. Industrial visits to Research laboratories, Green Building Centres, working construction Site etc, help to explore an opportunity and allow the students to make real-life decisions and to become lifelong learners.
- **Internship:** At the end of III-year II semester the students are encouraged to carry out internship in reputed industries/companies to get practical exposure from industries. It helps the students to bridge the gap between the subject studies and industrial need. This internship also helps students develop ideas for real time projects.

- **Project Based Learning (PBL):** As a Part of Curriculum students undergo with major projects within a group of 3-4 students. And they identify the project area / title; obtain the consent of faculty/industry professionals to guide them. Finally, the projects will be evaluated by the internal and external faculty members.
- **Conference/Workshop/Seminars/Expert Lecture:** The Department organizes conferences/workshops/seminars/expert lectures every year to enrich the knowledge of students. This provides a platform for both the faculty and students to share their knowledge and to hold discussions with eminent speakers from both academia and industry and also with their peers. These Events help the students to acquire different soft skills

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### **Short-term Goals**

- Introduce a blended learning model where online learning materials are combined with in-person instruction. Faculty shall be encouraged to create video lectures, online quizzes, and reading material for students to access through LMS platforms like Google Classroom or Moodle. These can complement face-to-face classes, allowing students to review material at their own pace.
- Promote the use of active learning techniques such as group discussions, case studies, and problem-solving activities during class sessions. Faculty shall include more in-class assignments that encourage students to apply what they've learned, rather than passively absorb information.
- The flipped classroom model be used in all the departments to enable effective use of classroom time for discussion, application, and problem-solving. To this end, the different pedagogies, including flipped classroom shall form part of the modules for teachers' training/FDP/Capacity Building.
- There shall be a periodic assessment of the teaching skills of every faculty member with the help of a peer review system to improve their skills.
- Invest in educational technology tools such as smart boards, classroom response systems, and virtual labs. These tools can enhance interactive learning, enabling real-time assessments and deeper engagement with course content.

### **Mid-term Goals**

- The departments/colleges shall organize workshops and training programmes to upgrade the faculty pedagogical skills to disseminate the various institutes NPTEL and MMTTC
- Institute can incorporate Problem-Based Learning (PBL) across more departments, where students learn by working on real-world problems that require them to research, collaborate, and apply concepts to find solutions. This method can enhance critical thinking, creativity, and collaborative skills.

### **Long-term Goals**

- Implement a full-fledged Outcome-Based Education (OBE) system where each course is designed with clear learning outcomes. Faculty shall align their teaching methods and assessments to ensure that students achieve these outcomes by the end of the course. Regular review of these outcomes shall help ensure that teaching methods remain effective
- Establish comprehensive faculty development programs to train teachers in modern pedagogical methods, including digital learning tools, problem-based learning, and flipped classrooms. Continuous professional development shall help faculty stay updated with the latest teaching strategies and technologies.

## **3.14 EXTRACURRICULAR ACTIVITIES AS PART OF LEARNING**

Institute engages students in various extracurricular activities that complement their academic learning, including cultural events, sports, workshops, and seminars through department clubs. While these activities are valuable for holistic development, they often operate independently of the formal curriculum. There is a lack of integration between academic studies and extracurricular activities, which limits opportunities for students to apply their learning in real-world contexts. Enhanced collaboration and structured involvement in other activities can significantly enrich the educational experience.

### **Short-term Goals**

- Encourage departments to integrate co-curricular activities into their academic programs. Faculty shall plan activities such as debates, workshops, guest lectures, and field trips related to course content, allowing students to connect theoretical knowledge with practical applications.
- Incorporation of one physical activity in a student's daily routine to reduce stress and sedentary lifestyle. Also, to alleviate the risk of rising lifestyle diseases amongst youth, there shall be goal-based reward for maintaining basic lifestyle achieving milestones.
- Introduce community service projects that encourage students to apply their skills in real-world settings. Departments shall collaborate with local organizations for students to participate in volunteering activities, which can enhance their understanding of societal issues while developing a sense of social responsibility.

### **Mid-term Goals**

- Organize Institute-wide competitions and cultural festivals that celebrate student talent in various fields, including academic competitions, art shows, and sports events. These events shall be aligned with learning objectives and provide opportunities for students to showcase their skills and creativity.
- Encourage students to engage in research projects outside of their regular coursework. Departments shall provide mentorship and support for students interested in pursuing research, enhancing their analytical skills and fostering a culture of inquiry.

### **Long-term Goals**

- Develop an alumni mentorship program that connects current students with alumni who can share insights from their experiences and provide guidance on career paths. Regular alumni events and talks can enhance networking opportunities and expose students to different career trajectories.
- Implement a system to regularly evaluate and gather feedback on extracurricular activities and their impact on student learning. This mechanism shall help in refining and enhancing the programs offered, ensuring they meet the needs and interests of students.

## **3.15 FLEXIBILITY AND MULTI-DISCIPLINARITY**

The Institute follows a more traditional discipline-based structure, which may limit students' ability to explore courses outside their primary fields of study. With the introduction of flexible credit structure, Minor and Major programs, a multidisciplinary approach has been introduced at the undergraduate level. Increasing flexibility in course selection and promoting a multidisciplinary approach can enhance learning and prepare students for the interconnected nature of modern challenges.

### **Short-term Goals**

- Implement a more flexible course registration process that allows students to enroll in courses from other departments or faculties without excessive prerequisites. This shall encourage students to explore interests outside their primary field of study and promote a broader academic experience.
- Introduce interdisciplinary minor programs that allow students to pursue additional studies in complementary fields.
- Organize cross-departmental workshops and seminars where faculty can present research and topics that intersect various disciplines. This shall encourage students to see connections between fields and foster collaborative learning.
- Develop flexible learning pathways that guide students in selecting courses and experiences that align with their career goals and interests. Advisors shall be trained to help students navigate these pathways effectively.

### **Mid-term Goals**

- Create formal interdisciplinary programs to address real-world issues, such as climate change or public health, drawing from the expertise of various departments.
- Encourage collaborative projects between different departments where students from diverse disciplines can work together on research or community service initiatives.

### **Long-term Goals**

- Establish partnerships with other universities and research institutions to create collaborative programs that allow students to take courses across disciplines. This could include joint degrees or exchange programs that enhance students' educational experiences.
- Implement a comprehensive evaluation system to assess the effectiveness of multidisciplinary initiatives and flexible learning options.
- Regular feedback from students, faculty, and industry partners shall be essential for continuous improvement and ensuring the relevance of programs offered.

### **3.16 Innovation and Entrepreneurship**

Ministry of Education's Innovation Cell (MIC) has envisioned creation of Institution's Innovation Council (IIC) across selected HEIs. A network of these IICs will be established to promote innovation in the Institution through infinite modes leading to an innovation promotion eco-system in these campuses.

#### **Focus of IIC**

- To create a vibrant local innovation ecosystem.
- Start-up supporting Mechanism in HEIs.
- Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework (ARIIA).
- Smart India Hackathon (SIH).
- National Innovation and Start-up Policy for Students and Faculties.
- Establish Function Ecosystem for Scouting Ideas and Pre-incubation of Ideas.
- Develop better Cognitive Ability for Technology Students.

The Institute has Incubation Center, MSME Recognized Business Incubation center with registration ID:HI/BI Registration Number: HIBITS000288 with effective from 10<sup>th</sup> January

2020.

An impressive amount of funds has already been released to support and incubate various ideas.

### **Funding Received**

- Grant of Rs. 12000/- Received towards to conduct events under Impact Lecture Session scheme for the AY 2021-22.
- Mentor Institute for Mentor-Mentee Scheme 2023-24 with funding assistance of 2.25 lakhs from MIC-IIC, AICTE to mentor 5 institutes.

### **Achievements:**

- Received Band of 151-300 in the NIRF-Innovation 2023
- Received 3.5 star rating by Innovation Cell, Ministry of Education, and Govt. of India to promote Innovation and Start-up in campus during the IIC calendar year 2020-21 & 2021-22 and 3 star rating during the IIC calendar year 2022-23.
- Received **Band Excellent** under the category "Colleges/Institutes (Private / Self Financed) (Technical)" in ARIIA 2021

### **Funding received towards innovative ideas:**

1. Dinesh Reddy Palle, a student from AI department received a grant of 10 lakhs for the project titled "Share Ride" in the MSME Idea Hackathon 4.0
2. Ms K Shailaja and team under the guidance of Mr Shireesha, Assistant Professor, IT Department received Rs.15 Lakhs from MSME, Govt. of India, in February 2024 for innovative idea presentation.
3. Raju Nayak and team under the guidance of Dr. V.G. Sivakumar received Rs.10.72 Lakhs from MSME, Govt. of India, in June 2022 for innovative idea presentation.
4. Nithish Reddy and team under guidance of Mr.Y. Praveen Kumar received Rs. 2.15 Lakh from MIC-IIC, AICTE, Govt. of India, in March 2022 for innovative idea presentation.
5. Bold and Unique Idea Lead Development (BUILD) Projects granted: Two projects were given funding of 1 lakh Rupees from iTIC Incubator at IIT Hyderabad under Bold and Unique Idea Lead Development (BUILD) program.

**Looking ahead, the Institute seeks to enhance its impact and outreach through the following**

### **Strategic actions:**

#### **Short-term Goals**

- Conducting awareness programs across the Institute to attract more students and young entrepreneurs.
- Establish mentorship opportunities by connecting start-ups with experienced industry professionals.
- Host regular pitch events and innovation challenges to encourage idea generation and early-stage development.

#### **Mid-term Goals**

- Establishment of Section 8 company for the Institute

- Create a dedicated seed fund and resources for start-ups transitioning from the incubation stage to market entry.
- Build strategic partnerships with industry leaders, investors, and government bodies to provide additional support to incubated start-ups.
- Implement skill development workshops, focusing on critical areas like product development, marketing, and financial management to equip entrepreneurs with the necessary tools to scale.

### **Long-term Goals**

- Set up a robust alumni network of successful start-ups that can give back through mentoring and funding future cohorts.
- Expand the scope of incubation to a broader range of sectors, including social entrepreneurship, green technologies, and digital transformation.

## 4. RESEARCH, INTELLECTUAL PROPERTY, AND SUPPORTIVE ENABLERS

VJIT identifies research, intellectual property (IP) generation, and technology translation as core pillars of its Institutional Development Plan. The Institute treats research as a complete pathway: from socially relevant problem identification, to funded and mentored project work, to protectable IP, and finally to deployment through prototypes, start-ups, or direct societal use. This agenda is aligned with national priorities, regional needs, and the Sustainable Development Goals. To support this, the Institute strengthens its Research & Development ecosystem through four measures:

- (i) Structured topic selection and interdisciplinary teams.
- (ii) Access to advanced laboratories and common facilities.
- (iii) mentoring for research design, ethics, documentation, publication, and IP protection, and
- (iv) A review process that evaluates novelty, societal relevance, and patentability before project closure.

Undergraduate and postgraduate projects are not treated as routine academic requirements; they are formally channeled towards publication, patent filing, prototype development, or translational outcomes. The Institute assists students and faculty in drafting research papers and filing patents to create a culture of innovation. In line with the UGC's emphasis on supportive and facilitative enablers, the Institute is institutionalizing mentorship, incentive and recognition mechanisms, incubation support, and Centres of Excellence. These structures ensure that high-performing research groups, including student teams, receive guidance in proposal writing, ethical practice, data quality, and scientific communication. The plan is to strengthen and improve the research facilities in the institution.

### 4.1 QUALITY RESEARCH PUBLICATIONS/RESEARCH PROJECTS

#### Short-term goals

- Upgrade research infrastructure and ease laboratory access at the undergraduate and postgraduate levels to enable early-stage research engagement.
- Align UG/PG project topics with national priorities and Sustainable Development Goals, with emphasis on real societal/industrial problems rather than abstract coursework problems.
- Embed structured mentorship: senior faculty members guide students in topic selection, research design, ethical conduct, documentation quality, and publication readiness.
- Formalise interdisciplinary student teams so that projects cut across departments and directly address complex, real-world challenges.
- Begin internal review of each project for technical merit, novelty, societal relevance, and patentability potential before closure/submission. This links student output to protectable IP.

#### Mid-term goals

- Modernise departmental research spaces with advanced equipment, dedicated research bays, shared instrumentation, and qualified technical support staff.
- Sustain interdisciplinary research by building collaborations between internal departments and external institutes / industry, with joint problem statements and shared infrastructure.
- Create stable mentorship programs so every serious student project is anchored to a research-active faculty mentor and is tracked for publication, conference presentation, or patent filing.
- Promote funded project culture: encourage proposal writing, seed internal grants, and targeted calls in emerging areas where the Institute has strength and societal relevance.

#### Long-term goals

- Position each department as a recognised research hub/ centre of excellence with clear thematic strengths, high-impact publications (Scopus/ WoS indexed), and patentable technologies.

- Maintain a full research pipeline from UG students to PG students to faculty members; where projects lead to journal publications, patents, prototypes, start-up concepts, or funded translational work, and not just internal reports.
- Institutionalise mentorship so that guided student research, grant-seeking behavior, and structured IP filing become routine expectations rather than isolated cases.
- Establish and sustain an institute-wide research ecosystem that is competitive nationally and internationally, with visible contribution to SDG-linked problem statements and affordable, deployable technologies.

Specific measures would be required to undertake quality research projects as it calls for a structured approach that aligns with the institute's existing strengths, resources and goals. The department-wise research groups with their focus areas of research are presented in Table 1.

**Table 1.** Department-wise research groups with their focus areas of research

S.No	Department	Research group	Research group	Research group	Research group
1.	Civil Engg.	Structural Engineering	Geotechnical Engineering	Transportation and Environmental Engineering	-
2.	EEE	Power Electronics	Power Systems	Renewable Energy Systems	-
3.	Mech. Engg.	3D Printing, Wood Technology and reverse Engineering	Advanced manufacturing and materials	Thermal Engineering	-
4.	ECE	Communications (RF and Microwave)	VLSI	Embedded and IOT	Signal and Image Processing
5.	CSE	Networking and Blockchain	Programming Paradigms and Software Engineering	Quantum Computing and Emerging Technologies	IoT and Cloud Computing
6.	IT	Machine Learning & Deep Learning	Cloud Computing	Natural Language Processing	Block Chain
7.	CSE(AI&ML)	Artificial Intelligence and Machine Learning	Programming Paradigms and Software Engineering	-	-
8.	CSE(DS)	Data Analytics Group	Quantum Computing Group	Data Visualization Group	-
9.	Mathematics	Algebra	Mathematical Modelling	Fluid Dynamics	-
10.	Physics	Materials Science	-	-	-
11.	MBA	Marketing	Finance	HR	-

The department-wise research groups are intended to function as focused, continuous research clusters rather than one-time student project topics. Each group will:

- identify high-impact problem statements aligned with national priorities, industry needs, and SDGs;
- generate UG/PG projects that are technically rigorous, ethically compliant, and publication-ready;
- develop protectable intellectual property (IP) and prototypes suitable for incubation, consultancy, or technology transfer; and
- mentor students in research methods, documentation discipline, professional authorship, and presentation.

## **4.2 TARGETED AND COLLABORATIVE RESEARCH**

### **4.2.1. Research Focus and Thematic Strength**

The Institute's research output is increasingly concentrated in defined thrust areas led by active faculty groups. Department-wise contributions to Scopus-indexed publications demonstrate that faculty and student work is not diffused, but anchored in priority domains with clear technical depth. The major thematic concentrations include:

- Advanced manufacturing, materials, and sustainable product development.
- Energy systems, clean technologies, and circular economy initiatives.
- Artificial intelligence, machine learning, cybersecurity, data science, and emerging digital technologies.
- Intelligent infrastructure, smart mobility, and resilient urban systems.
- Healthcare, safety, and human-centric engineering solutions.

These thrust areas reflect both internal competence and external relevance to national priorities and Sustainable Development Goals (SDGs). They guide hiring, laboratory upgrading, seed funding, and mentoring focus.

### **4.2.2. Collaboration and Research Partnerships**

The Institute adopts a collaboration-driven research model. Departments are expected to co-develop problem statements with other departments, industry partners, external research laboratories, and relevant government or community stakeholders. Collaboration is defined in operational terms as:

- Joint supervision of UG/PG projects by more than one department for complex, real-world problems.
- Shared access to laboratories, specialised equipment, testing facilities, data, and technical staff.
- Co-authorship of journal papers and conference proceedings.
- Joint patent/IP filings.
- Externally funded projects (government, industry, CSR) executed by interdisciplinary teams.

Priority collaboration domains include:

- AI, machine learning, cybersecurity, data science, and quantum computing for intelligent systems.
- Clean and affordable energy, electrification, alternative fuels, and sustainable manufacturing.
- Smart infrastructure, mobility, and safety systems with community-facing impact.
- Healthcare-adjacent engineering solutions and human-centric assistive technologies.

For every targeted collaborative project initiated under these domains, the expected primary outcome must be specified at inception as one (or more) of the following:

- Indexed publication.
- Patent / design registration / technology disclosure.
- Functional prototype or demonstrator.
- Funded project or consultancy deliverable.

This ensures that collaborative research is outcome-driven rather than informal.

#### **4.2.3. Societal Relevance and SDG Alignment**

Targeted research is expected to address recognised societal and industrial challenges, in line with national missions and the Sustainable Development Goals. Outputs in these areas are monitored not only for academic value, but also for translation potential (prototype readiness, deploy-ability, consultancy use, or policy relevance), and will be channeled toward incubation or field-level demonstration where feasible. Focus areas include:

- Clean energy access and transition.
- Resource efficiency and circular use of materials.
- Affordable and inclusive digital technologies.
- Safer, smarter, and more resilient public infrastructure.
- Health, safety, and quality of life.

#### **4.2.4 Goals and Implementation Timeline**

##### **Short-term goals**

- Announce and formalise high-priority thrust areas in each department, based on current publication strengths and SDG relevance.
- Conduct focussed ideation workshops within these thrust areas to define 1-2 concrete, externally relevant problem statements per area.
- Initiate at least one structured collaboration (e.g. MoU-driven activity, shared-lab work, joint supervision) in each thrust area with an industry partner, research lab, or government body.

##### **Mid-term goals**

- Build interdisciplinary project teams to execute those problem statements using shared infrastructure and co-supervision, rather than isolated single-department projects.
- Seek and secure external funding (government schemes, industry sponsorship, CSR support) for these teams and channel their outputs towards indexed publications, patents, and working prototypes.
- Host focussed thematic events (workshops, symposia etc.) in each thrust area to consolidate progress, attract collaborators, and refine follow-on proposals.

##### **Long-term goals**

- Evolve the high-output thrust areas into recognized Centres of Excellence that anchor sustained research, IP generation, consultancy, incubation, and translational activity for that domain.
- Establish the Institute as a reliable solutions partner in select SDG-linked domains, with a demonstrable pathway from concept → publication → IP → prototype → deployment.
- Maintain an auditable annual record of publications, patents, funded projects, prototypes, and SDG-linked societal/industrial outcomes for each thrust area.

### **4.3. STUDENTS INVOLVEMENT IN RESEARCH**

The Institute treats students as contributors to research and intellectual property, not only as recipients of instruction. Undergraduate and postgraduate students are formally integrated into ongoing research, innovation, and IP generation activities under structured faculty guidance.

##### **Short-term goals**

- Integrate structured research exposure into UG and PG programmes through project-based work aligned with real societal / industry problems and SDG-relevant themes.
- Assign every serious UG/PG project to a designated faculty mentor for technical guidance, ethics, documentation quality, and milestone tracking.

- Require students to prepare project work in publication-ready form (abstract, methodology, results, and conclusions) instead of informal reports.
- Conduct internal review of each project for novelty, data integrity, and basic IP potential before final submission.
- Begin student participation in departmental research colloquia, Institute-level technical events, and focused mini-symposia to develop scientific communication skills.
- Provide introductory sensitization on IPR: prior art, inventorship, and basic filing steps.

#### **Mid-term goals**

- Form interdisciplinary student research teams (cross-department) around the Institute's identified thrust areas and collaborative problem statements.
- Support selected student projects to reach external visibility: conference presentations, indexed publications with faculty co-authorship, patent disclosures, or working prototypes.
- Create department-level student research labs / innovation cells where students can access shared facilities, instrumentation, and mentoring for prototype development.
- Offer structured recognition and limited financial/academic support (credits, awards, travel/presentation support) for high-performing student researchers.
- Link high-quality PG and final-year UG work to incubation cells, consultancy-style problem solving for industry / community, or seed-funded mini-projects.

#### **Long-term goals**

- Establish a sustained pathway in which UG work matures into PG specialisation, PG work matures into funded faculty research or IP, and those outputs mature into translational prototypes, start-up candidates, or deployable solutions.
- Maintain an annual audit of student-originated outputs: publications, patents/IP filings, prototypes demonstrated, funded mini-projects, and SDG-linked societal or industrial impact.
- Embed research participation, ethical practice, IP awareness, and technical communication as core graduate attributes for all outgoing students, not only a select group.
- Build an alumni- and industry-supported mentoring and incubation network to help student-originated solutions move beyond the Institute.

### **4.4. FACULTY ENCOURAGEMENT FOR BOOK PUBLICATIONS, RESEARCH PUBLICATIONS AND PATENTS**

VJIT will cultivate a faculty-first scholarly ecosystem that systematically converts research into books, indexed publications, and protectable intellectual property. Recognition and incentives will reward originality, rigor, collaboration, and mentorship, not volume alone. Outputs with translational promise will be channeled to technology transfer and incubation with transparent benefit-sharing. A living institutional repository will archive books, articles, datasets, and disclosures to enhance visibility, attribution, and auditability.

#### **Short-term goals**

- Publication Fund: Increase allocations for quality journals; publish clear eligibility and caps; fast-track reimbursements.
- Seed Grants: Small, rapid grants for near-term publishable/ patentable outputs.
- Empower IPR Cell: Expand staffing and support for filing IPs
- IPR Cell: Operationalize filing support and regular workshops/ seminars on publishing ethics & patent basics.
- Repository & Profiles: Mandate uploading accepted papers; train faculty on Google Scholar/Scopus/Web of Science and Vidwan IDs to improve visibility.
- Conference Enablement: Priorities travel/presentation support for conference disseminations.

### **Mid-term goals**

- Monetary Incentives & API Linkage: Tie rewards to indexed publications, granted patents, funded projects, and mentorship; reflect in API-based appraisal.
- Empower IPR Cell: Expand staffing and support for filing IPs.
- Institutional Repository: Connect repository to open-access/search engines; track citation metrics institute-wide.
- Targeted Research Support: Channel funds and collaboration to thrust areas where research papers/patents probability is high.
- Curated Events: Run targeted, theme-based events designed to seed manuscripts and edited volumes.

### **Long-term goals**

- Centres of Excellence: Use thematic CoEs to consistently produce books with leading presses, top-tier publications, and protectable IP.
- Patent Commercialization & Technology Transfer Office: Adopt a clear licensing/royalty policy; build a Technology Transfer Office for protection, licensing, and monetization.
- IPR Fund: Create a corpus that finances filings, prosecutions, prototype development, and scholarly book support.
- Own/Partner Press & Citation Services: Explore institute press/series and citation services to accelerate scholarly publishing and reduce costs.
- Extended Scholarship Leave: Enable faculty to develop books and flagship papers through planned sabbaticals.

## **4.5. ORGANIZING MORE STRUCTURED AND PURPOSEFUL CONFERENCES**

The Institute will run conferences as research accelerators and not ceremonial events. They will be designed to improve rigor, visibility, and translation. Each event will map to Institute thrust areas and SDG-linked problems, use transparent selection and review, and intentionally feed publication, IP, prototype, and collaboration pipelines. Smaller, curated, technically deep programs will be preferred over large, diffuse agendas. Governance will include external co-chairs, conflict-of-interest controls, and integrity checks. Outputs (papers, special issues, edited volumes, disclosures, demos) will be archived in the institutional repository and routed to the IPR Cell and Incubation Cell for follow-through.

### **Short-term goals**

- Launch quarterly department/cross-department colloquia with explicit scopes and review rubrics.
- Standardize call for proposals, review forms, acceptance criteria, and ethics/similarity checks.
- Coach presenters on abstracts/slides/data, and launch Best Paper/Prototype awards.
- Setup support desks: Create research publications desk and IPR desk for prior review of the outputs and provide necessary guidance.
- Archive all artifacts of an academic event/conference in the institutional repository within 30 days.

### **Mid-term goals**

- Establish an annual flagship conference in a priority theme; co-host biannual mini-symposia with industry/labs.
- Formalize publication pipelines: MoUs for special issues/edited volumes; conference-to-journal mentoring tracks.
- Integrate prototype/demo tracks linked to incubation slots and pilot studies with partners.

- Introduce KPIs per event: acceptance rate, reviewer turnaround, % external/industry participation, # manuscripts submitted, # disclosures, # prototypes shortlisted.
- Create a small grants scheme for student/faculty travel and post-event manuscript polishing.

#### **Long-term goals**

- Achieve national recognition in at least two themes; sustain proceedings/special-issue partnerships with reputable outlets.
- Convert conference outputs into measurable impact yearly: indexed papers, patent families, licensed IP, funded collaborations.
- Institutionalize a rolling three-year conference calendar aligned to thrust areas and Centre-of-Excellence roadmaps.
- Maintain public dashboards of outcomes (publications, IP, prototypes, MoUs, repository analytics) to drive continuous quality improvement.

### **4.6. INDUSTRY AND INSTITUTIONAL COLLABORATION & CONSULTATION**

The Institute will convert partnerships into a channel for co-defined problems, shared facilities, joint supervision, funded projects, consultancy, internships, and technology transfer. Collaborations will be governed by clear MoUs, NDAs, IP/revenue-sharing, and data-sharing policies; managed through a single liaison; and tracked via annual KPIs (projects, funds, publications, patents, pilots, placements).

#### **Short-term goals**

- Create a Partnerships & Consultancy Cell (single window: MoUs, NDAs, IP terms, billing, vendor onboarding).
- Publish a rate card for consultancy/testing, with SLAs and report templates.
- Build a problem bank with industry/public-sector partners; map to research groups and capstones.
- Launch industry hours: monthly clinics with domain experts; appoint adjunct/visiting industry faculty.
- Formalize student pipelines: internships, apprenticeships, co-ops, and joint capstones with co-supervision.
- Start faculty mobility: short visits/sprints to partner labs/plants; invite partner engineers as co-mentors.
- Quick-win testing services: open key labs for standard tests; publish capabilities and turnaround times.

#### **Mid-term goals**

- Establish joint labs / centres with anchor partners (shared equipment, staff, problem statements, and IP pipeline).
- Secure multi-party funded projects (industry + government/CSR) with defined deliverables (paper, patent, and prototype, pilot).
- Operate a Consultancy Desk for MSMEs/startups (design for manufacturability, reliability, data/AI enablement).
- Co-create micro-credentials / executive modules with partners (stackable into electives).
- Run pilot deployments of institute technologies at partner sites; capture TRL growth and field data.
- Introduce sponsored PhD/PG fellowships and industrial chairs in thrust areas.
- Implement a partner portal (dashboards for MoUs, projects, invoices, IP, student placements, safety/ethics compliance).

### **Long-term goals**

- Build flagship consortia in 2-3 themes (e.g., sustainable manufacturing, clean energy/transport, AI-for-industry) with rolling roadmaps.
- Create a Technology Transfer Office (licensing, spin-outs, revenue distribution) and maintain an industry sandbox for continuous piloting.
- Achieve national node status for at least two domains; host recurring partner summits and challenge calls.
- To see that more than 30% major projects are co-supervised by partners and more than 50% internships in relevant areas are also taken care by partners.
- Maintain a public scorecard of annual consulting revenue, funded projects, patents/licenses, pilots scaled, placements, and partner satisfaction.

## **4.7. INCUBATION CENTRES**

The Institute will operate incubation as a translation engine, moving promising research, student/faculty projects, and industry-backed ideas to prototypes, pilots, and ventures. Incubation will be governed by clear policies (eligibility, IP/benefit-sharing, conflict-of-interest), offer shared facilities and mentoring, and connect teams to funding, customers, and pilots. Outcomes will be tracked via transparent KPIs (prototypes, pilots, grants, revenues, jobs).

### **Short-term goals**

- Establish an Incubation Cell (single window): policy, intake, agreements, and basic finance/compliance support.
- Publish Incubation Policy: eligibility, stages (pre-incubation to incubation to acceleration), IP& equity/royalty terms, faculty-student start-up norms.
- Launch Pre-Incubation: Ideation workshops, problem statements, and mentor office hours, pitch templates, demos.
- Provide shared resources: maker space/prototyping bays, test & measurement access, safety/EHS (Environment, Health, and Safety) orientation, basic procurement SOPs.
- Create micro-grants and service vouchers (design, CAD/CAE, fabrication, UI/UX, legal/IP basics, accounting).
- Stand up an Incubation Board (internal + external mentors) and a Selection Panel with rubric-based scoring.
- Start an alumni & partner mentor network; run a quarterly Investor/Partner Day (lite) for feedback, not funding alone.
- Integrate with IPR Cell (for Patentability pre-screening, prior-art scan, filing support) and Partnerships Cell (pilot access, MoUs).

### **Mid-term goals**

- Build a Proof-of-Concept/TRL Fund for prototype maturation, verification, and certifications; define TRL gates.
- Set up domain pods (e.g., energy, advanced manufacturing, digital/AI, health-tech): pod leads, shared equipment, curated mentors.
- Operationalise pilot pathways with industry/public-sector partners; maintain a catalogue of pilotable sites and test beds.
- Offer Entrepreneur-in-Residence (EIR) fellowships for faculty/students to take leave and develop ventures.
- Formalise follow-on funding channels (government/CSR/angel networks); run workshops (IP, regulatory, financial).
- Provide commercial enablement: pricing, contracts, procurement readiness, data protection, and vendor onboarding support.

- Create a portfolio dashboard: prototypes built, pilots run, grants raised, customers signed etc.

### **Long-term goals**

- Evolve into a Technology Transfer & Incubation Center with clear licensing, spin-out, and revenue-sharing frameworks.
- Anchor flagship accelerators in 2-3 Institute thrust areas; run national challenge calls with partners.
- Launch an alumni/partner seed fund; target recurring follow-on rounds for top ventures.
- Maintain corporate innovation pods on campus (co-development bays, joint IP, dedicated pilot funnels).
- Integrate incubation with Centres of Excellence ensuring a durable translation loop from lab to market.

## **4.8. INSTITUTION PUBLICATIONS & CITATION SERVICE**

The Institute will operate a centralized Publications & Citation Service (PCS) to improve visibility, accuracy, and impact of scholarly output. PCS will: (i) standardize author identities (ORCID/Vidwan/Scopus/WoS), (ii) archive outputs (articles, books/chapters, theses, datasets, code etc.), (iii) support compliant open access. Transparent dashboards will track publications, citations, h-index, collaborations, and SDG mapping at institute/department/author levels.

### **Short-term goals**

- Create the PCS helpdesk (single window for IDs, profiles, repository deposits, DOIs).
- Mandate ORCID + Vidwan for all faculty and research scholars; verify Scopus/WoS author profiles and affiliations.
- Stand up the institutional repository (pre/post-prints, books/chapters, theses, datasets, posters, slides) with clear deposit policy.
- Provide editorial support: reference management (Zotero/Mendeley), citation styles, artwork specs, plagiarism checks, and language polishing guidance.
- Publish a journals quality guide (Scopus/WoS lists, predatory-journal red flags).
- Launch monthly research dashboard: collect newly accepted/online-first items and update dashboards.

### **Mid-term goals**

- Integrate repository with ORCID/Google Scholar/Scopus/WoS for auto-harvest and de-duplication; enable auto-feeds to departmental pages.
- Run bibliometrics clinics and author identity repair sessions.
- Curate special issues/edited volumes from institute events; provide end-to-end citation and layout support.
- Publish open access & rights guidance (publisher policies, embargoes, Creative Commons) and APC support rules.
- Roll out SDG tagging and acknowledgment auditing (grants, facilities, ethics, data availability) for all outputs.

### **Long-term goals**

- Maintain a public scholarly dashboard: publications, citations, collaboration maps, SDG links, and repository analytics; enable benchmark comparisons.
- Establish an Institute Press/Series (with reputable partners) for books/proceedings; embed ISBN/DOI workflows and quality control.
- Operate a Citation & Impact Lab to advise on strategy (co-authorship networks, topic clustering, visibility campaigns) and support major reviews/monographs.

- Achieve near-complete coverage ( $\geq 95\%$ ) of institute outputs in the repository with persistent IDs and machine-readable metadata.
- Link PCS to performance and recognition (accurate records for appraisals, promotions, awards) and to technology transfer (IP-aware deposition, disclosure cross-checks).

#### **4.9. TARGET PATENT CLAIM FOR UNDERGRADUATE AND POST-GRADUATE PROJECTS IN PROFESSIONAL SUBJECT AREAS**

The Institute will treat selected UG/PG projects as potential sources of patentable inventions without forcing filings where novelty is absent. A structured, quality-first pathway will screen projects for patentability, protect timelines (publish vs. file), and develop students' claim-drafting literacy. Clear rules on inventorship, ownership, and benefit-sharing will apply. Targets will be evidence-based (disclosures, provisional/non-provisional filings, grants, licences), and integrity safeguards (ethics, NDAs, prior-art checks) will be mandatory.

##### **Short-term goals**

- Create a Patentability gateway in the project workflow: problem freeze  $\rightarrow$  prior-art scan  $\rightarrow$  novelty memo  $\rightarrow$  route (patent / design / copyright / publish).
- Launch Claim-Basics Clinics for UG/PG: invention disclosure forms (IDF), claim types, enablement, drawings, and timing (provisional vs. complete).
- Define eligibility rubric (novelty, non-obviousness, utility, data strength, TRL evidence) and a quick go/no-go checklist.
- Set timelines: internal review  $\leq 10$  working days; provisional filing window  $\leq 30$  days post-review; publication sequencing to preserve novelty.
- Establish inventorship & ownership norms (student-faculty co-inventorship; institute ownership/assignment; benefit-sharing).
- Targets: IDFs from  $\geq 15\%$  of final-year UG projects and  $\geq 30\%$  of PG theses in professional areas; 25-40% of eligible IDFs proceed to filing.

##### **Mid-term goals**

- Run advanced claim-drafting workshops with attorneys (independent/dependent claims, scope strategy, design claims where fit).
- Introduce domain examiners (faculty panels) for fast, field-specific novelty feedback and IPC/CPC classification guidance.
- Build evidence packages: test reports, comparative data, prototypes, and drawings to support enablement and office actions.
- Pilot cost-share models (sponsored filings with industry/CSR/funders) and milestone-based support.
- Integrate publication coordination: embargo/early disclosure policies; defensive publications when patenting is not viable.
- Targets: IDFs from  $\geq 25\%$  of UG projects and  $\geq 50\%$  of PG theses;  $\geq 60$  filings/year institute-wide (mix of provisional/complete/design), with  $\geq 10\%$  licensed or piloted.

##### **Long-term goals**

- Maintain a balanced portfolio (core patents, continuations, and designs) aligned to thrust areas and Centres of Excellence.
- Operate a Claim Quality Review (annual) scoring clarity, breadth, enforceability, citations received, office-action outcomes.
- Link patents to translation (prototypes, pilots, licences, spin-outs) with transparent revenue/royalty distribution.
- Institutionalise global filings for high-potential inventions.

## 5. Human Resources Management Enablers

### **Student and Learner Enablers: Holistic Admission, Merit and Equity based Financial Aid, Academic Success Programs:**

#### **Short-term**

Students can get in through entrance tests like TS EAMCET for B.Tech, TS PGECET or GATE for M.Tech, and TS ICET for MBA. After that, there is a counselling process at the state level. There are also Category "A" seats, which are filled based on the tests mentioned above, and Category "B" seats, which the college manages based on merit rules. People with diplomas can also take the ECET test to get into the second year of B.Tech.

- Go to schools and talk to students about VJIT's programs and culture. Find students that need money and make the scholarship procedure transparent and easy to follow.
- Give merit-based scholarships to the best students and need-based help to kids who are having trouble paying for school.
- Use merit-based scholarships and financial aid to help groups that are not well represented to get into school and get smart kids.
- Making programs stronger to improve the academic environment and make sure that all of its students flourish in all areas through mentoring, tutoring, counselling, and career guidance.
- Make student feedback systems even well by setting up ongoing feedback loops between students and teachers.
- Hold workshops on how to study, manage the time, and get ready for tests. Set up a Student Support and Counselling Cell to help with both academic and emotional health.

#### **Mid-term**

- Put in place a thorough, holistic admissions policy that takes into account both academic performance and personal and extracurricular achievements.
- Provide bridging courses or foundation programs for students who come from diverse types of schools.
- Use data analytics to keep an eye on student profiles and success rates in order to improve admission tactics.
- Start new scholarship programs and increase financial aid to incorporate merit-cum-means support.
- Set up peer tutoring programs and academic buddy systems (ask former students to help current students).
- Use data-driven academic monitoring to find and help students who are at danger early on.
- Help students meet possible investors, industry partners, and business incubators.
- Regularly conducting events where students can pitch their ideas, get feedback, and meet important people in the entrepreneurial environment.
- Give students knowledge about market trends, entrepreneurship, and business, and encourage them to do research and come up with new ideas that meet the demands of society and industry through value-added courses and field trips.
- Make classrooms places where students can actively learn by creating adaptive learning systems that are based on how well each student does.

#### **Long-term**

- Make a student community that is varied and welcoming, with students from different locations and economic backgrounds.
- Work with schools in other countries and in the US to set up student exchange programs and early outreach activities.
- Regularly look at and add to scholarship programs based on how student needs and demographics change.
- Encourage a culture of lifelong learning by offering flexible, personalised academic paths.
- Use AI-based learning analytics to keep track of and improve how well students learn.
- Keep making the mentorship program better by filling in the gaps and making sure it fits with the students' academic and career aspirations.
- Create a career coaching system that is well-established and can adjust to changes in the job market so that students may easily move into the workforce.

### **Staff Empowerment Enablers:**

VJIT implements a transparent and competency-based recruitment approach through open advertisements for all job opportunities. The VJIT makes earnest efforts for timely promotions of faculty in accordance with Career advancement scheme guidelines received from UGC from time to time.

The non-teaching staff, promotions are based on transparent rules and regulations of the Institution, through duly constituted committees of the Institution.

### **Short-term**

- Review and update the recruitment process to focus on skills, values, and attitude, not just qualifications.
- Define clear job roles and competency requirements for each position.
- Introduce a structured induction program to help new staff understand VJIT's vision, policies, and culture.
- Organize regular orientation and skill-based workshops for all faculty and administrative staff.
- Create a feedback mechanism where staff can share needs, suggestions, and challenges openly.

### **Mid-term**

- Develop a Competency Framework to map every employee's strengths, training needs, and career goals.
- Launch Professional Growth Plans including opportunities for higher studies, certifications, and industry internships.
- Strengthen leadership and mentoring programs to identify and prepare future leaders from within the institution.
- Ensure inclusive practices in recruitment, induction, and promotions to promote gender equity and diversity.
- Recognize and reward outstanding contributions in teaching, research, and institutional service.

### **Long-term**

- Build a continuous learning culture, where faculty and staff regularly update their skills through in-house and global programs.
- Create a Center for Staff Excellence to manage training, mentoring, and career development for all employees.
- Develop strategic partnerships with universities, industries, and professional bodies for staff exchange and collaborative training.
- Implement succession planning to ensure smooth leadership transitions and long-term institutional stability.
- Become a model autonomous institution known for empowered, competent, and satisfied staff members.

## **Faculty and Researcher Enablers:**

### **Short-Term Goals**

- Make the recruitment process open and transparent, focusing on merit, qualifications, and potential.
- Clearly define job roles, expectations, and responsibilities for all faculty and researchers.
- Organize orientation and induction programs for new faculty to help them understand the institution's vision, policies, and academic culture.
- Conduct training workshops on modern teaching-learning methods, use of technology in classrooms, and foundational research skills.
- Encourage mentoring programs where experienced teachers support new or young faculty members in teaching and research activities.
- Promote interdisciplinary research projects across departments.
- Motivate non-Ph.D. teaching staff to enroll in Ph.D. programs at reputed universities.
- Inspire faculty to undertake research addressing local challenges and development needs of Telangana State.

### **Mid-Term Goals**

- Establish a Faculty Development and Research Support Cell to systematically plan and execute capacity-building programs.
- Encourage faculty to undertake funded research projects, publish in reputed journals, file patents, and engage in academia–industry collaborations.
- Implement a transparent, structured performance appraisal system linked to teaching quality, research output, and institutional contribution.
- Create career progression frameworks with clear promotion pathways based on merit and measurable achievements.
- Provide incentives and recognition for innovation, impactful teaching, and outstanding research contributions.
- Introduce pedagogical innovation grants to support experimentation with new teaching-learning methodologies.

### **Long –Term Goals**

- Establish a Center for Teaching, Learning, and Research Excellence to promote continuous professional development in advanced pedagogy, research, and leadership.
- Strengthen interdisciplinary and international research collaborations with reputed universities, industries, and consortia.
- Institutionalize a tenure and promotion system rewarding sustained excellence in teaching, research, and institutional service.

- Facilitate faculty participation in international conferences, exchange programs, and prestigious fellowships for global exposure.
- Develop a structured academic leadership pipeline, grooming faculty for senior academic and administrative roles.
- Achieve a goal of having at least 90% of faculty members with doctoral degrees.

## **Cross-Functional Enablers**

### **Short-Term Goals**

- Start a recognition and reward program to celebrate achievements in teaching, research, and service.
- Conduct well-being sessions such as yoga, mindfulness, and stress management workshops.
- Organize team-building activities to improve communication and collaboration across departments.
- Offer short leadership roles or responsibilities to interested faculty and staff to help them grow in confidence.

### **Mid-Term Goals**

- Develop a transparent reward and recognition policy that values innovation, teamwork, and contribution.
- Establish a Well-being and Resilience Cell to provide regular wellness activities, counseling, and support services.
- Introduce leadership development programs for faculty, researchers, and administrators.
- Encourage collaborative projects across departments and with external partners like industry and research bodies.
- Promote a peer appreciation culture where support and teamwork are recognized along with individual excellence.

### **Long-Term Goals**

- Create a Leadership Academy to nurture and train future academic and administrative leaders.
- Build a permanent culture of recognition, where appreciation is an integral part of work life.
- Integrate well-being and work-life balance principles into institutional policies.
- Foster national and international collaborations for innovation, leadership exchange, and institutional growth.

## **Strategic Funding and Emotional Support Enablers**

### **Short-Term Goals**

- Encourage faculty and students to apply for research grants and innovation challenges.
- Set up a Counseling and Mentoring Cell for emotional well-being and guidance.
- Conduct interactive workshops on self-awareness, empathy, and stress management.
- Create peer-support and mentoring programs for students and new faculty.
- Celebrate Well-being Days to promote positivity, inclusion, and campus unity.

### **Mid-Term Goals**

- Establish an Endowment Fund for scholarships, research, and community outreach programs.

- Strengthen industry partnerships and consultancy services to generate additional institutional revenue.
- Promote entrepreneurial projects and encourage innovation-based funding among faculty and students.
- Introduce transparent budgeting and reporting systems to ensure trust and accountability.
- Develop a Well-being and Resilience Center offering regular counseling, life skills, and motivation programs.
- Train faculty and staff in emotional intelligence and mentoring skills to support students effectively.
- Introduce team-building and empathy-building programs for faculty and staff.
- Recognize and reward emotional leadership and community spirit among campus members.

### **Long-Term Goals**

- Build a sustainable financial ecosystem with multiple revenue streams — research collaborations, patents, incubation centers, and alumni endowments.
- Form global partnerships with industries and academic institutions for joint funding and development projects.
- Ensure financial autonomy to continuously reinvest in quality education, research, and student development.
- Establish a Center for Emotional Intelligence and Life Skills to promote holistic development among students and staff.
- Integrate emotional well-being and resilience training into institutional policies and the academic environment.
- Collaborate with mental health and leadership organizations for ongoing professional development.
- Build a culture of empathy, inclusiveness, and mutual care, where every individual feels valued and supported.

## **Pedagogical Enablers**

### **Short-Term Goals**

- Encourage teachers to use interactive and innovative teaching methods such as case studies, projects, and group learning.
- Conduct training sessions and workshops on Outcome-Based Education (OBE), effective assessment methods, and use of digital tools.
- Introduce blended learning through online platforms and digital content alongside classroom teaching.
- Create a peer learning system, where teachers share best classroom practices.
- Collect regular feedback from students to improve teaching methods and course delivery.

### **Mid-Term Goals**

- Set up a Teaching-Learning and Innovation Cell (TLIC) to promote continuous improvement and new teaching practices.
- Encourage faculty to undertake research in teaching-learning methods and publish in academic journals.
- Strengthen digital learning infrastructure with smart classrooms and an efficient Learning Management System (LMS).

- Develop interdisciplinary and experiential learning modules connecting classroom knowledge to real-world problems.
- Organize faculty exchange programs and pedagogical innovation awards to recognize and share teaching excellence.

### **Long-Term Goals**

- Establish a Center for Teaching and Learning Excellence to support innovation, faculty development, and pedagogy research.
- Integrate AI and data analytics into teaching and learning to track student progress and personalize learning experiences.
- Promote global collaboration in pedagogy through partnerships with universities and international faculty.
- Build a strong culture of continuous improvement and reflective teaching among faculty.

### **Supportive-Facilitative Enablers:**

#### **1. Accessibility & Proximity**

- Convenient campus location with easy access to transport, hostels, and academic blocks.
- Student-friendly campus layout ensuring quick access to classrooms, labs, and administrative offices.
- Proximity to industry hubs enabling internships, projects, and expert interactions.

#### **2. Rich Communication Channels**

- Multi-modal communication (emails, notice boards, WhatsApp groups, LMS(CAMPX)).
- Regular updates on academic schedules, events, assessments, and opportunities.
- Open-door communication policy between management, faculty, and students.

#### **3. Role Model Influence**

- Faculty who inspire through professionalism, ethics, research, and student mentorship.
- Student achievers showcased as inspiration for peers.
- Inviting distinguished alumni and industry leaders to act as role models.

#### **4. Institutional Values (Core Values)**

- The institution's Vision, Mission, and Core Values guide students' IDP planning.
- Values like integrity, respect, excellence, and social responsibility shape career goals.
- Embedding ethics and professionalism in decision-making and student development.
- Core values are embedded in curriculum, behavior expectations, and campus culture.

#### **5. Vision-Driven Culture**

- Vision is communicated through orientations, displays, faculty briefings, and student mentoring.
- All academic, administrative, and student-support processes are structured to fulfil the institutional vision.
- Vision-oriented planning ensures that teaching, research, and innovation remain aligned with long-term societal needs.
- Development and articulation of Vision and Mission
- Redefining of short-term and long-term institutional goals

- Institutional Strategic development plan
- Institutional Strategic goals setting

## **6. Trust among Stakeholders & Outsiders**

- Transparent admission processes, academic policies, and evaluation systems.
- Reliable academic quality builds trust with parents, recruiters, and society.
- This trust enhances student motivation and confidence in career planning.
- Consistent communication with parents, alumni, recruiters, and society.
- Ethical and reliable institutional practices that build long-term trust.
- Transparent evaluation, ethical governance, and reliable placement outcomes build trust among students, parents, industry, and society.
- Regular parent meetings, feedback systems, and community engagement further reinforce credibility.

## **7. Institutional Traditions & Rituals**

- Orientation, Graduation Day, Tech Fests, Clubs Day, NSS activities, and Annual Day.
- Meaningful campus rituals that strengthen belongingness and institutional identity.
- Celebration of national festivals, Regional Festivals, cultural heritage, and community initiatives.

## **8. Alternative Strategy & Support Networks**

- Career support networks via placement cell, alumni, and professional mentors.
- Remedial classes, bridge courses, slow-learner support, peer learning groups.
- Academic advisors and counsellors for personalized guidance.

## **9. Goal Setting in Every Student**

- Mentor–mentee system encouraging personal, academic, and career goals.
- Goal-tracking mechanisms through IDPs (Individual Development Plans).
- Workshops on time management, career planning, and self-improvement.

## **10. Safety & Security**

- CCTV surveillance, trained security personnel, anti-ragging committee, women protection cell, Grievance Redressal Committee and emergency response systems.
- Safe transportation and well-lit campus pathways.
- Zero tolerance for bullying, harassment, or violence.

## **11. Search for Proximity: Local Connections**

- Availability of local food, cultural activities, and regional language support.
- Building comfort for non-local students through inclusive campus culture.
- Local language mentors supporting non-local students.
- Events promoting Telangana culture, food festivals, and traditional celebrations.
- Encouragement for students to participate in community engagement programs.
- NSS, clubs, and outreach activities strengthen social awareness.

## **12. Legacy of the System**

- Strong alumni engagement through mentorship, guest lectures, and recruitment drives.
- Preservation of long-standing academic discipline, professionalism, and service mindset.
- Documentation of institutional achievements, milestones, and success stories.

### **13. Openness for Information**

- Transparent exam policies, result communication, academic calendars, and course outcomes.
- Transparent policies for admissions, placements, scholarships, and grievances.
- Free access to academic materials, research repositories, LMS(CAMPX), NPTEL, digital libraries and institutional documents.
- Students receive timely academic communications through ERP, LMS, notice boards, and WhatsApp groups.
- Encouraging open dialogue between students, faculty and administrators.

### **14. Ability of the Institution to Deliver Promises**

- Smart boards
- Multimedia and support equipment
- E-Learning facilities Digitization of Library resources
- Establishing cloud based e-library & online access Developing sports(indoor/outdoor)facilities
- Hobby clubs, Canteen & community centre
- Hostel facility for boys & Girls with in the campus Aesthetic Classrooms, Tutorials, Seminar halls
- State of the art Laboratory & equipment Strengthen Alumni association and engagement Invite industry experts for guest lecturers/talks/seminars
- Partner with industry for syllabus reviews/advisory roles
- Design curriculum as per all graduate attributes and expectations of stake holders
- Placement-readiness programs, certifications, and industry collaboration.
- Timely completion of syllabi, regular assessments, digital classrooms, modern labs, learning resources, and experienced faculty.
- Strong placement support and industry tie-ups.
- Delivering consistent academic results and student satisfaction.

### **15. Accountability Measures**

- Monitoring teaching quality, attendance, research output, and student support.
- Result analysis and corrective action plans for continuous improvement.
- Regular academic audits, course reviews, faculty appraisals, and performance analytics.
- Student feedback used for improving teaching methods and curriculum delivery.
- IQAC monitors institutional quality and supports continuous enhancement.
- Clear guidelines for responsibilities at all administrative and academic levels.
- Transparent evaluation and grievance redressal systems.

### **16. Mental Health & Emotional Well-Being**

- On-campus counselling services, and emotional support groups should be there.
- Mentors observe behavioural changes and recommend timely psychological assistance.
- Creating a compassionate, non-judgmental environment for every learner.
- Stress-relief programs, yoga, mindfulness workshops, and wellness cells.
- Confidential reporting systems for emotional distress or discrimination.

## 6. Enablers for Networking and Collaborations

Networking and collaborations are critical to advancing an Institution's mission of academic excellence, research, and global engagement. By fostering relationships both internally (across departments, faculties, and students) and externally (with other academic institutions, industries, and governments), Institutions can enhance their capacity to innovate, share knowledge, and create meaningful impact. These collaborations not only improve the learning environment but also provide real-world opportunities for students and faculty alike. Effective networking creates opportunities for joint research, skill development, cultural exchange, and resource-sharing.

Developing Networking Enablers:

To cultivate a thriving ecosystem for networking and collaboration, Institution needs to focus on the following goals across different timelines:

### Short-Term Goals

**Establish Collaborative Platforms:** Set up digital platforms (e.g., academic portals, social networks, collaborative tools) to facilitate communication among students, faculty, and external partners. These tools can be used for sharing research, hosting virtual seminars, and collaborating on projects.

- **Host Networking Events:** Organize academic and professional networking events such as webinars, workshops, and industry meetups. These events will provide immediate opportunities for interaction and partnership formation.
- **Strengthen Local Partnerships:** Develop short-term collaborations with local industries, startups, and nearby Institutions. This can include hosting guest lectures, joint workshops, and internships to create early-stage collaboration opportunities.
- **Promote Cross-Departmental Initiatives:** Encourage collaboration among various departments within the Institution to create interdisciplinary projects, research groups, and student activities.

### Mid-Term Goals

**Build International Partnerships:** Expand networking efforts to include international academic institutions, research centers, and global industries. Establish exchange programs, joint research grants, and international conferences to strengthen global connections.

- **Research and Industry Collaboration Programs:** Set up joint research programs, technology transfer offices, and partnerships with companies for collaborative innovation. This could involve research sponsorships, internships, and collaborative projects with industry experts.
- **Faculty and Student Development:** Create opportunities for faculty and students to attend international conferences, participate in collaborative research, and develop professional networks through institutional support such as grants, travel funding, and time allowances.
- **Collaboration with Government and NGOs:** Develop partnerships with governmental bodies, NGOs, and policy think tanks to create opportunities for collaborative research on societal issues, community outreach, and policy development.

### Long-Term Goals

**Establish a Global Network of Academic Alliances:** Build a solid network of strategic global

partners, including top-tier Institutions, international research organizations, and global corporations. This network should be an integrated part of the Institution's international strategy and foster long-term collaborative projects and student exchange programs.

- **Create Innovation Hubs:** Develop physical or virtual innovation hubs, incubators, or research centers that bring together students, faculty, and external collaborators (e.g., industry professionals, startups, and government agencies) to work on cutting-edge research and technology commercialization.
- **Sustainability in Collaborations:** Institutionalize frameworks that ensure ongoing, sustainable collaborations in research, innovation, and community engagement. This includes developing long-term funding opportunities, endowments for collaborative research, and creating mechanisms for sustaining cross-sector partnerships.
- **Global Impact Projects:** Launch large-scale, long-term global projects focused on addressing pressing issues such as climate change, public health, or global education. These initiatives would involve Institution partners, governmental bodies, international organizations, and communities.

By aligning networking and collaboration efforts across short, mid, and long-term goals, Institutions can establish a comprehensive and sustainable ecosystem that enhances their academic offerings, research output, and global engagement.

This structure ensures a continuous and evolving cycle of collaboration, benefiting students, faculty, and external partners while enhancing the Institution's global standing.

## **7. Physical Enablers:**

### **7.1. Smart Campus/Green Campus:**

#### **Short Term Goals**

- Establish seamless high-speed connectivity network infrastructure across campus with Wi-Fi, fiber cables, and LAN in classrooms, offices, and hostels.
- Introduce solar panels on rooftops to provide eco-friendly electricity for academic buildings and hostels
- Install automated lighting control, EV charging infrastructure in the campus.
- Introduce CCTV Surveillance Network, Access Control & RFID Systems, and Fire Safety & Alarm Systems.

#### **Mid Term Goals**

- Introduce campus-wide IoT-enabled smart meters and automated lighting systems for improved energy efficiency and monitoring. Expand solar-powered and sensor-based lighting in academic and hostel zones. Enhance EV charging stations for 4 wheelers.
- Upgrade campus-wide digital connectivity through advanced high-speed Wi-Fi and enhanced optical fiber backbone networks.
- Strengthen LAN infrastructure and integrate digital platforms to support online learning, smart classrooms, and e-governance applications.
- Renewable energy generation capacity through the installation of additional rooftop solar panels across institutional and hostel buildings.

#### **Long Goals**

- Transform the institution into a fully digital and smart campus with AI-driven network optimization and integrated campus management systems.
- Integrate all campus facilities with a centralized smart grid for real-time energy optimization. Deploy AI-based predictive maintenance for utilities, expand EV charging infrastructure, and achieve measurable reductions in energy wastage through intelligent control systems and sustainability analytics.
- Achieve substantial self-reliance in energy through large-scale solar and hybrid renewable energy systems. Establish energy storage and microgrid facilities to ensure uninterrupted power supply.
- Develop an AI-enabled, fully integrated campus safety and emergency response system. Utilize smart surveillance with facial recognition, behavioral analytics, and IoT-based environmental monitoring for proactive risk prevention.

### **7.2 Green/ Sustainable Building:**

#### **Short Term Goals**

- Incorporation of natural ventilation and daylighting to reduce energy demand.
- Installation of LED lighting and energy-efficient appliances.
- Provision for rainwater harvesting and wastewater treatment systems.
- Implementation of waste segregation and recycling mechanisms.
- Landscaping with native, drought-resistant plant species.

## Midterm Goals

- Replace all conventional lighting with LED fixtures and deploy motion sensors and automated lighting controls across classrooms, corridors, and outdoor areas.
- Install rainwater collection systems on all major academic and hostel buildings with underground storage tanks and initiate greywater recycling for landscape irrigation and sanitation.
- Establish designated waste segregation units at source and introduce composting units for biodegradable waste; partner with recyclers for plastic and e-waste disposal.
- Develop green zones using native, drought-tolerant plants with drip irrigation systems to minimize water consumption and maintain local biodiversity.

## Long Goals

- Transition towards self-sustaining green buildings with advanced passive design features, high-performance insulation, and building-integrated solar PV systems.
- Integrate IoT-based monitoring for real-time analysis of energy, lighting, and water usage across campus buildings to achieve measurable reductions in consumption.
- Achieve full-scale reuse of treated wastewater through decentralized treatment plants and 100% rainwater utilization for non-potable purposes.
- Implement campus-wide circular waste management—composting, recycling, and upcycling—to eliminate landfill contribution.
- Expand green cover with climate-resilient vegetation, develop biodiversity zones, and integrate green roofs and vertical gardens for improved air quality and thermal comfort.

### 7.3 Infrastructure to Commute (Transportation & Mobility Systems)

A smart campus commute infrastructure ensures safe, inclusive, and eco-friendly campus mobility by providing improved internal road networks, signage's, and sustainable transport solutions. The infrastructure will ensure seamless connectivity across all blocks and facilities while emphasizing accessibility and environmental responsibility.

#### Short Term Goals

- Well-marked internal roads and directional signage's for smooth vehicular and pedestrian movement.
- Dedicated pathways for differently-abled persons (PwD) ensuring barrier-free access to all buildings.
- Electric Vehicle (EV) charging points and parking bays to promote clean mobility.
- Smart lighting and surveillance along campus pathways to enhance safety and comfort.
- Establish a Digital Transport Management System for tracking college buses in real-time.

#### Midterm Goals

- Redesign and resurface internal campus roads with clear lane markings, directional signages, and pedestrian crossings to ensure smooth traffic flow and enhanced safety for vehicles and pedestrians.
- Develop dedicated, accessible pathways and ramps for differently-abled persons (PwD) connecting all major buildings, ensuring compliance with universal design standards.
- Install EV charging stations at key parking zones (faculty, students) and allocate eco-friendly parking bays to promote the use of electric and hybrid vehicles.
- Deploy energy-efficient LED streetlights equipped with motion sensors and integrate CCTV surveillance across pathways, parking zones, and entry/exit points for safety and monitoring.

- Implement a campus-level digital transport management system for real-time tracking of college buses, route optimization, and punctuality monitoring using GPS-based technologies.

### Long Goals (Desirable-10 Years)

- Develop a fully integrated, sensor-based smart traffic and parking management system across the campus with automated vehicle entry, RFID-based access control, and digital signboards displaying parking availability and route guidance.
- Expand EV charging infrastructure to support the entire campus transport fleet and encourage the use of shared electric shuttles, e-bikes, and bicycles for internal commuting.
- Achieve 100% accessibility compliance by upgrading all existing and new infrastructure including tactile walkways, automated ramps.
- Integrate IoT-based adaptive street lighting systems with real-time monitoring, solar-powered lighting poles, and AI-enabled surveillance for improved security and sustainability.

### 7.4 Administrative Block:

The Administrative Block serves as the central hub for institutional governance and student-facing services such as admissions, counselling, and record management.

### Short Term Goals

- Dedicated spaces for admission, counselling, and student services with appropriate ICT infrastructure.
- Digitized administration systems for document management and real-time service tracking.
- Strengthen existing administrative infrastructure and streamline operations through basic modernization and digital integration.
- Implement *Institutional ERP software* for student records, fee collection, and academic operations to promote paperless governance.
- Upgrade front office and student help desk with digital display systems, grievance redressal mechanisms, and visitor management systems.
- **Staff cubicles** and departmental offices with modern furnishings and adequate workspace

### Midterm Goals

- Renovate existing Principal, Deans, and Administrative Officer offices with ergonomic furniture and ICT-enabled facilities.
- Interconnect all administrative sections (Accounts, Establishment, Exam, and Student Affairs) through a centralized Digital Document Management and E-Office System.
- Establish a modern, ICT-enabled board room with video conferencing, smart boards, and virtual meeting capabilities for academic and administrative governance.
- Create exclusive spaces for Training & Placement Cell, Alumni Relations, and Student Welfare Office with data management systems.

### Long Goals

- Establish a fully automated administrative complex integrating AI-enabled analytics for HR, finance, student services, and infrastructure monitoring.
- Implement an institution-wide Digital Governance Dashboard for real-time tracking of attendance, performance, finances, and resource utilization.
- Develop a Quality Governance Centre to coordinate global collaborations, accreditation, and benchmarking activities.

## **7.5 Library and Digital Resource Centre**

The Library and Digital Resource Centre serves as the academic backbone of the institution, supporting teaching, learning, and research through a blend of physical and digital resources. The focus is on creating a technology-driven, student-centric, and collaborative learning environment.

### **Short Term Goals**

- Upgrade the central library with ergonomic furniture, proper lighting, and dedicated reading areas for students and faculty.
- Establish a Digital Resource Centre with high-speed internet, e-learning terminals, and access to online databases such as IEEE, Springer, Elsevier, and NPTEL.
- Implement Library Management Software (LMS) integrated with barcode/RFID systems for circulation, cataloguing, and user access.
- Develop an institutional digital archive for storing thesis, project reports, and research publications.
- Create separate reading zones for UG, PG, and faculty users with Wi-Fi connectivity and quiet study areas.
- Turnitin access for research validation of faculty publications and student projects.

### **Midterm Goals**

- Expand the existing library into a Digital Knowledge Resource Centre with extended study spaces and group discussion cabins.
- Develop a single-window digital access portal linking the library with LMS and campus ERP.
- Implement remote login facilities for accessing e-resources off-campus.
- Create VJIT Institutional Repository store faculty publications, project reports, and theses
- Expand e-resources to include Elsevier, Springer, and ProQuest.

### **Long Goals**

- Construct a standalone Library and Learning Resource Complex integrated with innovation labs.
- Incorporate green building features such as natural lighting, solar panels, and rainwater harvesting.
- Enhanced reading environment and research-focused library infrastructure.
- Digital library management system with RFID tagging, automated check-in/check-out, and inventory tracking.
- Wi-Fi-enabled reading spaces, multimedia access terminals, and quiet study zones for students and faculty.
- Transform into a Smart Digital Learning Hub offering AI-based content curation, data analytics for learning trends, and cloud-based resource sharing.
- Establish a Research Support Cell within the library to provide data analytics, literature surveys, and AI-based publication tracking

## **7.6 Lecture Complex, Classrooms/ Tutorial and Discussion Rooms**

The institution's Lecture Complex and Classroom infrastructure is designed to foster interactive, technology-enabled, and inclusive learning experiences. All teaching spaces will be developed to support modern pedagogical methods, flexible learning formats, and collaborative engagement among students and faculty.

## Short Term Goals

- Renovate existing classrooms and lecture halls with improved ventilation, acoustics, ergonomic seating, and adequate lighting.
- Create separate tutorial rooms for small-group interactions, remedial sessions, and mentor-mentee meetings.
- Introduce digital teaching aids in selected classrooms and equip classrooms with computer, digital podiums, projectors, high-speed Wi-Fi, audio systems and LAN connectivity to support multimedia presentations and online sessions.

## Midterm Goals

- Convert all major classrooms into fully ICT-enabled smart classrooms integrated with the college Learning Management System (LMS) for real-time recording, online classes, interactive smart boards, and digital content sharing.
- Redesign classrooms to support modular seating and collaborative learning setups suitable for flipped classrooms and group projects.
- Develop interactive tutorial clusters near academic departments for personalized mentoring, peer discussions, and project reviews.
- Introduce an Automated Classroom Scheduling and Booking System for optimal utilization of academic spaces.

## Long Goals

- Develop an AI-driven Lecture and Learning Hub with adaptive lighting, attendance tracking, and automated content capture and analytics.
- Integrate classrooms, tutorials, and discussion rooms with cloud-based LMS, virtual laboratories, and immersive (AR/VR) learning tools.
- Enable hybrid and international collaborative learning through advanced video conferencing and virtual classroom technologies.
- Implement real-time analytics for classroom utilization, attendance, and performance tracking to aid academic planning.

## 7.7 Examination Branch

A dedicated Examination Branch is established to manage all assessment-related activities with the highest standards of confidentiality, accuracy, and transparency. The design and workflow ensure secure handling of examination materials and efficient coordination of academic evaluations.

### Short Term Goals

- A strong room of adequate size to securely store confidential documents, question papers, and answer scripts.
- Digitized examination management system for registration, scheduling, evaluation, and result processing.
- Renovate the Examination Section with dedicated spaces for confidential work, secure storage, printing, and evaluation.
- Establish fireproof and restricted-access record rooms for storing question papers, answer scripts, and confidential documents.
- Implement Examination Management Software for registration, hall ticket generation, internal marks entry, and grade processing.
- Set up a separate, ICT-enabled workspace for digital evaluation and result compilation.

- Install high-speed printers, scanners, and photocopiers within a restricted-access area for secure paper handling.

### **Midterm Goals**

- Introduce an Online Assessment and Evaluation Portal linked to the collegeLMS for conducting quizzes, assignments, and tests digitally.
- Establish a centralized Digital Valuation Hall with computer systems and document scanners for on-screen evaluation of answer scripts.
- Fireproof and climate-controlled storage for sensitive records and archives.
  - Equip all examination-related zones with surveillance cameras, RFID entry systems, and restricted staff access

### **Long Goals**

- Develop smart exam halls with secure digital exam terminals, biometric verification, and real-time proctoring system
- Implement blockchain technology for tamper-proof digital certification, transcripts, and secure data sharing with affiliating university or external agencies.
- Connect the examination system with national education frameworks such as *NAD (National Academic Depository)* and *DigiLocker*.

## **7.8 Facilities to Faculty and Staff**

### **Short Term Goals**

- Provide well-furnished faculty cabins/workspaces with seating, storage, computer systems, and internet connectivity in all departments.
- Create comfortable faculty and staff common rooms equipped with rest areas, water dispensers, and basic amenities.
- Ensure all faculty and administrative staff are equipped with institutional email IDs, access to ERP systems, and ICT-enabled workstations.
- Provide health insurance facility, first-aid facilities, health check-up camps, and tie-ups with nearby hospitals for emergency medical care.
- Establish an on-campus Health and Wellness Centre with a doctor-on-call facility, physiotherapy, gym, and mental health counseling

### **Midterm Goals**

- Renovate and modernize faculty rooms and staff offices with ergonomic furniture, energy-efficient lighting, and proper ventilation.
- Provide dedicated faculty collaboration spaces for project discussions, mentoring, and research meetings.
- Provide limited staff quarters or housing support for essential services and wardens.
- Introduce performance-based awards, research incentives, and appreciation programs for academic excellence and innovation.

### **Long Goals**

- Develop a green residential complex with housing for faculty and staff, daycare, mini supermarket, and recreation facilities.

- Create a Faculty & Staff Welfare Fund to support medical emergencies, research grants, and welfare initiatives.

## **7.9 Meeting Rooms and Office Rooms**

The institution shall establish adequate meeting rooms across departments and administrative units to facilitate smooth coordination, academic discussions, and decision-making. Each room will be designed to promote collaboration and incorporate modern communication technology for hybrid and digital interactions.

### **Short Term Goals**

- Dedicated board rooms' department levels are equipped with ICT enabled Meeting spaces built as per standard norms with adequate seating capacity and ventilation.
- Establish departmental meeting rooms with basic audiovisual aids for faculty discussions, departmental reviews, and student-faculty interactions. Install CCTV surveillance and fire safety systems in all major office and meeting zones.

### **Midterm Goals**

- Equip meeting spaces with video conferencing systems, interactive smart boards, and soundproofing for virtual and hybrid meetings.
- Upgrade all departments with organized office suites consisting of HoD rooms, staff offices, and discussion cabins.
- Develop a large, multi-functional Conference and Meeting Hall with modular seating and projection systems for governing body meetings, seminars, and workshops.

### **Long Goals**

- Implement an institution-wide unified communication network linking all office and meeting spaces via video, voice, and data channels.
- Deploy AI-based scheduling, occupancy sensors, and data analytics tools to optimize meeting room usage and energy efficiency.

## **Laboratories and Research Centres**

The institution emphasizes the establishment of modern laboratories and research centres across disciplines to foster innovation, experiential learning, and high-impact research. The focus is on creating state-of-the-art facilities that promote interdisciplinary collaboration and support both academic and industry-oriented R&D activities.

- Introduce industry-supported advanced labs like Center of excellence Qlik, Oracle, Salesforce, ZenAI, Infosys ICT Academy, AWS Academy, and Cisco Networking Academy. Integrate virtual labs (NPTEL / IIT initiatives) with physical practical for hybrid learning.
- Introduce small-scale R&D facilities in collaboration with industry partners for student projects and internships.
- Install essential laboratory safety equipment—fume hoods, fire extinguishers, gas sensors, emergency showers, and first-aid kits.
- Set up interdisciplinary labs for project-based learning.

### 7.11 Computer Centre / Multimedia Studios

The institution maintains a centrally managed Computer Centre that serves as the digital backbone for academic, research, and administrative operations. Complementing this, Multimedia Studios support digital content creation, e-learning material development, and virtual teaching innovations — fostering a technology-driven academic environment.

- Dedicated computer center equipped with high end desktop systems, servers, licensed software, high-speed internet, printers, backup power, air conditioning, and secure access to support students and faculty in learning and research.
- Add additional computer systems with advanced specifications and high-resolution monitors.

### 7.12 Cafeteria / Dining Room / Mess Facility

The institution maintains a well-planned **Cafeteria and Dining Facility** to cater to students, faculty, staff, and visitors within the campus. The cafeteria provides hygienic, nutritious, and affordable food options throughout the day in a pleasant and safe environment. Separate **hostel mess facilities** are also available for resident students.

- Modern kitchen with stainless-steel equipment, clean water supply, LPG-based cooking, and exhaust systems.
- Renovate existing cafeteria and dining areas with upgraded lighting, ventilation and adequately furnished dining halls accommodating a large number of students.
- Introduce digital billing and feedback systems for better management.

### 7.13 Games & Sports Facility

The institution is committed to promoting physical fitness, sportsmanship, and holistic development among students and staff by providing comprehensive indoor and outdoor sports infrastructure. The sports facilities are designed to support both recreational and competitive activities, ensuring inclusivity, accessibility, and alignment with national and international standards.

- Playgrounds and indoor stadiums of adequate size to accommodate a variety of games and sporting events.
- Establish Outdoor facilities for cricket, football, basketball, volleyball, athletics, and other field games.
- Indoor sports equipped for badminton, table tennis, chess, and other indoor activities.
- Modern gymnasium and fitness centres with cardio and strength equipment to encourage health and well-being.
- Dedicated coaching zones **and** training infrastructure for professional skill development in sports.
- Upgrade existing indoor sports facilities with improved flooring, lighting, and ventilation.
- Procure modern sports equipment for badminton, table tennis, chess, carrom, yoga, and aerobics.
- Introduce fitness and wellness centres with gym equipment, strength-training, and cardio zones.

### 7.14 Auditorium and Conference Rooms

The institution has an auditorium designed to host academic, cultural, and professional events such as conferences, seminars, guest lectures, workshops, and annual functions. It serves as a central venue for institutional gatherings, fostering intellectual exchange and student engagement.

## **Short Term Goals**

- Renovate existing auditorium with improved seating, flooring, and acoustic insulation, air-conditioning systems, fire alarms, and LED-based lighting.
- Upgrade audio-visual systems with digital projectors, surround sound, and wireless microphones. Introduce centralized control panels for sound, light, and multimedia management.
- Renovate Conference rooms in academic and administrative blocks to host meetings, training sessions, and interactive programs.
- Introduce Digital presentation tools, high-definition projection systems, and video conferencing facilities to support hybrid events.

## **Long Goals**

- Construct a New Multi-Functional Auditorium Complex with increased seating capacity (1000–2000 persons).
- Integrate smart stage control systems, automated lighting rigs, and soundproof interiors.
- Establish recording and broadcasting facilities for academic events and webinars.

### **7.15 Hostels**

The institution provides well-furnished hostel accommodation for both boys and girls within the campus, ensuring a comfortable, safe, and conducive living environment for academic and personal growth..

- Separate hostels for boys, girls, ensuring privacy, safety, and inclusivity.
- Fully furnished rooms with adequate ventilation, internet connectivity, and hygienic sanitation facilities.
- Common areas for study, recreation, and group activities to promote a healthy residential learning environment.
- 24×7 security and surveillance systems, along with wardens and grievance redressal mechanisms.
- Dining halls and indoor amenities such as reading corners, laundry spaces.

### **7.16 Parking**

The institution provides organized parking spaces within the campus premises to ensure smooth vehicular movement and safety for students, faculty, staff, and visitors.

## **Short Term Goals**

- Reorganize and expand existing parking spaces with proper lane markings and signages.
- Introduce dedicated parking areas for students, faculty, and visitors to ensure systematic usage.
- Install CCTV surveillance, LED lighting, and security booths in all parking zones.
- Create parking provisions for PwD, including accessible pathways and ramps.
- Implement solar-roofed shelters in selected parking areas for shade and energy generation.

## **Midterm Goals**

- Develop multi-level or semi-covered parking structures to accommodate growing vehicle numbers.
- Allocate separate parking zones for buses, service vehicles, and emergency use.

## **Long Goals**

- Develop underground or multi-tier parking hubs near main academic and residential zones.
- Expand EV infrastructure to promote 100% green mobility on campus.
- Integrate parking data with Digital Transport Management System (DTMS) for real-time coordination with college buses and e-vehicles.

### **7.17 Exhibition Hall**

To fulfill the requirements of all curricular, co-curricular, and skill development activities — including academic, vocational, and skilling programs — the institution shall ensure the provision of an adequate number of well-equipped exhibition halls and display spaces. These facilities will serve as dedicated venues for showcasing student projects, research outputs, innovations, vocational models, and industry-linked products, thereby promoting experiential learning, creativity, and knowledge exchange across departments.

### **7.18 Guest Accommodation**

The institution maintains guest accommodation facilities within the campus to host visiting faculty, examiners, industry experts, recruiters, resource persons, and parents. These facilities ensure comfort, convenience, and professionalism in institutional hospitality.

- Construct a dedicated Guest house with basic interiors, furnishings, and fixtures.

### **7.19 Commercial Shops**

The institution provides commercial shops within the campus to cater to the daily needs of students, faculty, and staff. These facilities enhance the convenience and self-sufficiency of the campus community while maintaining institutional discipline and safety.

- Stationery and Book Store: Provides textbooks, lab records, stationery, and academic supplies.
- Photocopying and Printing Centers: Facilitate document printing, scanning, and lamination services for students and staff.
- On-campus ATM and digital payment services for financial convenience.

### **7.20 Health and Well-being**

The institution provides essential Health and Well-being facilities to ensure the physical, mental, and emotional wellness of students, faculty, and staff. These facilities are designed to promote a healthy learning environment and support preventive, curative, and emergency healthcare needs. Establish a fully functional dispensary offering inpatient services 24×7, managed by qualified doctors and nursing staff.

- Equipped medical room with first-aid facilities, basic diagnostic equipment, and essential medicines.
- Emergency medical response systems and first aid facilities available across the campus.
- Periodic health check-up camps, vaccination drives, and wellness programs for students and staff.
- Telemedicine and digital health record systems for remote consultation and data management
- Develop a comprehensive Health and Wellness Centre equipped with consultation rooms, pharmacy, diagnostic area, and counseling cabins.

### **7.21 Student Recreation Facilities**

The institution provides a range of student recreation facilities to promote physical fitness, creativity, cultural expression, and overall well-being among students. These facilities encourage a balanced campus life and support holistic.

- Provide modern indoor game equipment and fitness facilities in hostels and common areas.
- Organize regular student recreation programs, yoga, and wellness workshops.
- Establish cultural and hobby clubs with institutional support and funding
- Develop a dedicated Student Recreation and Cultural Centre integrating indoor sports, gymnasium, music, and hobby zones.
- Construct amphitheatres and open-air cultural arenas for performances and film screenings.

### **7.22 Incubation Centre and Research Park**

The institution has established an Innovation and Incubation Centre aimed at fostering a culture of research, innovation, and entrepreneurship among students, faculty, and alumni. It provides necessary support for transforming innovative ideas into viable products, technologies, and startups.

- Strengthen the existing Innovation and Incubation Centre with modern workstations, co-working spaces, and digital infrastructure.
- Establish Prototype Development Labs (Makerspaces) equipped with 3D printers, CNC machines, IoT kits, and testing equipment.
- Establish a Research and Innovation Park adjacent to the academic zone, integrating industry R&D units, startups, and faculty research labs and develop collaboration agreements (MoUs) with national and international research organizations.

### **7.23 Vocational Education, Training and Skilling Infrastructure**

The institution has established dedicated **Vocational Education and Skilling Facilities** to complement academic programs with practical, industry-relevant training. These facilities aim to enhance students' employability, technical proficiency, and entrepreneurial capabilities through structured vocational and skilling programs.

- Develop a Centre for Vocational Excellence offering advanced training programs in high-demand areas (AI/ML, Mechatronics, Green Energy, Smart Manufacturing, Cybersecurity, etc.).
- Establish Industry-Sponsored Skill Labs within departments for real-time project-based learning.
- Build Vocational Placement and Career Counselling Cells for job linkages and entrepreneurship guidance.

## 8. Digital Enablers

### Short-Term Goals

*Focus: Laying the foundation for digital connectivity, accessibility, and transparency.*

- Establish high-speed internet connectivity across the campus for access to all.
- Develop and maintain an updated institutional website to share official information, notifications, and academic details.
- Create online messaging groups (e.g., WhatsApp, Telegram, ERP chat) for communication between faculty, students, and administration.
- Enable Wi-Fi connectivity in classrooms, library, and laboratories for continuous online access.
- Upload study materials in text, audio, and video form to the institutional website or LMS for student support.
- Provide access to a digital library through NDL, DELNET, or other e-resource platforms.
- Begin digitization of administrative processes to promote a paperless office culture.
- Publish examination results through the institutional website to ensure transparency.
- Introduce plagiarism checking tools (Turnitin, Grammarly, URKUND) to maintain academic integrity.
- Create and manage official social media pages for institutional branding, outreach, and communication.

### Mid-Term Goals

*Focus: Strengthening digital infrastructure, evaluation systems, and online learning environments.*

- Upgrade internet bandwidth and security for smooth access to all digital services.
- Enhance the institutional website with portals for students, faculty, and alumni including dashboards for attendance, marks, and assignments.
- Implement an ERP-based internal communication platform for automated circulars, messages, and notifications.
- Launch course-specific online blogs or sites to share daily progress, assignments, and course updates.
- Expand Wi-Fi access to hostels and open spaces within the campus with secure logins.
- Introduce a full-fledged Learning Management System (LMS) to host all e-learning content and class recordings.
- Strengthen the digital library by subscribing to online journals, research databases, and e-books.
- Adopt academic and administrative ERP systems to promote a paperless environment.
- Provide NAD (National Academic Depository) facilities for safe and secure storage of academic credentials.
- Conduct online admission tests with AI-based remote proctoring for transparency and efficiency.
- Make plagiarism detection software accessible to all faculty, researchers, and students for pre-submission checking.
- Share institutional activities, student achievements, and research updates through public online platforms for open information access.
- Enhance institutional visibility through continuous social media engagement and digital marketing campaigns.
- Implement Online Evaluation Systems for automated, digitized assessment processes to save evaluator time and improve transparency.

- Develop Video Documentation for each course and college, recording activities, projects, and classroom innovations.
- Publish Video Documentation of institutional events and academic activities on online public platforms (YouTube, institutional site).
- Establish a Studio for Video and Online Classes equipped with recording and editing facilities for faculty to produce e-content.

### **Long-Term Goals**

*Focus: Achieving full digital transformation, global connectivity, and automation of academic processes*

- Develop a smart digital campus with IoT-enabled internet access and AI-based security systems.
- Transform the institutional website into a complete digital ecosystem integrating ERP, LMS, and online payment systems.
- Introduce AI-powered chatbots and voice assistants for automated support and communication with stakeholders.
- Create interactive online learning communities and course websites with peer discussions and student e-portfolios.
- Upgrade to cloud-based Wi-Fi infrastructure for seamless connectivity across the entire campus.
- Adopt AI-curated and personalized e-learning modules to support adaptive learning experiences.
- Expand the digital library into a comprehensive knowledge hub integrated with global repositories and VR-based learning environments.
- Establish a Digital Publication Division for publishing institutional books, newsletters, journals, magazines, and examination papers.
- Introduce Online Paperless Examinations to replace traditional methods, ensuring sustainable, secure, and efficient assessments.
- Fully implement Education ERP integrating academics, administration, and finance, HR, and examination processes under a single platform.
- Launch an Online Open Publication System to share institutional research outputs and knowledge globally through open-access platforms.
- Strengthen the NAD system for globally verifiable academic records and secure data exchange.
- Introduce AI-driven plagiarism detection systems linked directly to institutional repositories for thesis and research submissions.
- Promote institutional knowledge dissemination through public digital platforms for open learning and innovation exchange.
- Enhance global visibility through AI-based social media analytics and international collaborations.
- Integrate advanced ICCT technologies —
  - AI: Smart grading, predictive analytics, intelligent tutoring systems
  - BA (Business Analytics): Data-driven institutional decision making
  - CC (Cloud Computing): Unified data storage and collaborative work
  - DS (Data Science): Academic data analysis and learning trend monitoring
  - MB (Mobile-Based Learning): On-the-go campus applications
  - OC (Open Content): MOOCs, OER integration, and open courseware
  - VR & AR: Virtual classrooms, labs, and experiential simulations for immersive learning

## **Concluding Notes**

The Institutional Development Plan (IDP) of VJIT serves as a comprehensive strategic blueprint guiding the institution's growth and transformation in consonance with its Vision and Mission. It reflects the unwavering commitment of the institution to achieving its short-term (1-2 years), mid-term (3 to 5 years), and long-term (6 to 10 years) goals through a structured and sustainable approach. The IDP encompasses all critical dimensions of institutional functioning across eight key enablers — Governance, Academics, Research and Innovation, Human Resources, Finance, Networking and Collaboration, Physical Infrastructure, and Digital Infrastructure.

Each of these focus areas is supported by well-defined objectives and actionable strategies, formulated through a pragmatic, participatory, and phased approach to ensure feasibility and long-term viability. The plan emphasizes continuous monitoring, evaluation, and realignment based on institutional performance indicators and emerging trends in higher education.

Through dedicated teamwork, evidence-based decision-making, and a culture of innovation, VJIT aims to evolve as a distinguished institution recognized for academic excellence, impactful research, and social responsibility. The IDP thus stands as a dynamic and living document — one that not only charts the course for institutional transformation but also positions VJIT as a role model in higher education, fostering an empowered academic community and contributing meaningfully to national development and global progress.