# **Institution Development Plan for JSCOE**

# **1. Academic Development**

#### 1. Vision and Alignment with NEP 2020

- Goal: To develop a learner-centric, innovative, and flexible education system in line with the National Education Policy (NEP) 2020, promoting holistic, interdisciplinary, and skill-based learning.
- Key Focus Areas:
  - Multidisciplinary education integrating technical, scientific, and humanities disciplines.
  - Flexibility in curriculum with **multiple entry and exit options**.
  - Emphasis on vocational skills, technology integration, and entrepreneurship.
  - Outcome-based education to foster creativity, critical thinking, and problem-solving abilities.

#### **11 2.** Academic Structure and Autonomy Implementation

- Proposed Autonomy Model:
  - Introduce a **173-credit system** to ensure comprehensive and well-rounded learning.
  - Formative Assessments (100 credits):
    - Continuous assessment through projects, assignments, quizzes, and presentations.
    - Emphasis on **conceptual clarity, skill application, and creativity**.
  - Summative Assessments (73 credits):
    - Final examinations and practical assessments to measure overall competence.
    - Ensuring rigor and consistency in evaluation standards.
- Curriculum Reforms:

- Include skill-oriented courses, industry certifications, and value-added programs.
- Integration of **research-based projects** from early semesters to enhance learning outcomes.

# **%** 3. Strengthening Experiential Learning

- Industry-Driven Projects:
  - Collaboration with **industries**, research centers, and startups for live projects.
  - Create an industry workplace for students.
  - Incorporate hands-on training, simulations, and real-world problem-solving.
- Internships and Industry Exposure:
  - Mandate internships, industrial visits, and field projects for all students.
  - Establish MoUs with leading companies for structured internship programs.
- Skill Development Workshops:
  - Organize **workshops on emerging technologies** and practical skill enhancement.
  - Foster innovation labs and maker spaces for prototype development.

#### 🔥 4. Domain-Specific Courses

#### • Specialized Programs:

- Introduce and promote **domain-specific elective courses** to meet industry demands:
  - Solar Energy and Renewable Energy: Green technology and sustainability practices.
  - Internet of Things (IoT): Embedded systems and smart device development.

- Cyber Security: Data protection, ethical hacking, and digital forensics.
- Collaborate with industry experts for curriculum design and guest lectures.
- Certification and Training Programs:
  - Encourage students to earn **international certifications** in niche areas.
  - Facilitate partnerships with technology providers and certification bodies.

### 15. Project-Based Learning and Competitions

- Innovative Project Initiatives:
  - Promote **project-based learning (PBL)** by integrating it into regular coursework.
  - Establish **dedicated project hours** and mentor support for ideation and execution.
- Participation in Competitions:
  - Actively engage students in **national and international-level hackathons**:
    - **KPIT Sparkle**: Encouraging innovation in mobility and sustainability.
    - **TATA Mind Rover**: Enhancing problem-solving skills through real-world challenges.
    - SIH (Smart India Hackathon) and other national-level competitions to promote innovation.
- Incubation Support:
  - Provide infrastructure, mentorship, and seed funding for promising projects.
  - Facilitate industry linkages for technology transfer and commercialization.
  - Support to convert projects to products.

# 🔧 6. Implementation and Monitoring

#### • Execution Roadmap:

- Define **milestones and timelines** for curriculum revisions and program launches.
- Assign **responsible teams** for industry collaborations, PBL execution, and competition coordination.
- Continuous Evaluation:
  - Establish **KPIs (Key Performance Indicators)** to monitor progress and effectiveness.
  - Conduct **regular feedback sessions** with students, faculty, and industry partners.
- Review and Refinement:
  - Periodic review of the curriculum and IDP to align with industry trends.
  - Incorporate feedback-driven improvements for continuous enhancement.



By implementing this Institute Development Plan, the institution will:

- Enhance student employability through skill-based, industry-aligned learning.
- Foster **entrepreneurship and innovation** through project-based and experiential learning.
- Strengthen industry-academia collaborations, boosting research and development.
- Position itself as a **leading institution** that nurtures technical competence, innovation, and holistic development.

# 2. Research & Innovation Development

1. Faculty Research & Industry Collaboration

• **Objective:** To foster a **research-driven ecosystem** by promoting faculty engagement in impactful research and strengthening industry-academia partnerships.

#### **%** Key Initiatives:

- Joint Research Initiatives:
  - Encourage faculty to undertake **collaborative research projects** with industry partners and multinational organizations.
  - Facilitate **MoUs with reputed industries and research institutions** for joint publications, technology development, and innovation.
  - Promote participation in government-funded and industry-sponsored R&D projects.
- Industry-Institute Interaction:
  - Organize industry-academia conclaves, expert talks, and technical symposiums for knowledge sharing.
  - Facilitate **industrial consultancy projects** for faculty to address real-world challenges.
  - Establish **research advisory committees** with industry experts to guide and validate ongoing projects.
- Faculty Development and Knowledge Enhancement:
  - Support faculty in attending and organizing Faculty Development Programs (FDPs) and Short-Term Training Programs (STTPs).
  - Provide funding and incentives for **presenting research papers** at national and international conferences.
  - Encourage research publications in high-impact journals and promote patent filings.

# 🚀 2. Student Innovation & Entrepreneurship

• **Objective:** To promote a **culture of innovation and entrepreneurship** by empowering students with the necessary skills, resources, and mentorship.

💡 Key Initiatives:

- Funding and Support for Student Innovation Projects:
  - Allocate a **dedicated budget** for student-led innovation and R&D projects.
  - Provide financial support for prototype development, testing, and validation.
  - Organize internal funding competitions and project grants to encourage creative ideas.
- Entrepreneurship Development Programs (EDPs):
  - Strengthen the **Entrepreneurship Development Cell (EDC)** with structured programs.
  - Partner with **industry experts**, **venture capitalists**, **and startup incubators** to provide mentorship and funding opportunities.
  - Conduct workshops on business model development, fundraising, and market analysis.
- Incubation Center for Startups and Patents:
  - Establish a **fully-equipped incubation center** with modern infrastructure, including:
    - Co-working spaces, prototyping labs, and technical support.
    - Legal and IP assistance for patent filing and commercialization.
  - Provide **seed funding, mentorship, and business guidance** for student startups.
  - Promote participation in **startup competitions and pitch events** to gain visibility and attract investors.

# **3. Implementation and Monitoring**

#### • Execution Roadmap:

- Define **clear milestones** for research project approvals, incubation setup, and student startup launches.
- Assign **dedicated coordinators** to oversee faculty-industry collaborations and student innovation programs.

#### • Continuous Evaluation:

- Track **research output metrics**, including the number of publications, patents filed, and industry projects completed.
- Measure **student startup success** through funding raised, products launched, and IP generated.
- Periodic Review and Refinement:
  - Conduct **biannual reviews** to assess the impact of research and innovation activities.
  - Incorporate feedback from faculty, students, and industry partners for continuous improvement.

### Outcome and Impact

By implementing this Research & Innovation Development Plan, the institute will:

- Establish itself as a **hub for cutting-edge research and innovation**.
- Increase **faculty and student participation** in impactful research and entrepreneurship.
- Strengthen **industry collaborations**, boosting research funding and real-world project exposure.
- Enhance the institute's reputation through **patents**, **publications**, and **startup success** stories.

# 3. Infrastructure & Digital Resource Development

#### **1. Infrastructure Upgradation**

• **Objective:** To enhance the **physical infrastructure and research capabilities** by creating modern, technology-enabled facilities that foster learning, innovation, and collaboration.

#### 🔧 Key Initiatives:

• Investment in Infrastructure Development:

- Allocate a good budget for the upgradation of:
  - Labs and research centers with advanced equipment, tools, and technology.
  - Modernize workshops, technical labs, and innovation spaces with industry-grade machinery and software.
- Renovate **classrooms and seminar halls** with improved seating, lighting, and AV systems.
- Enhance **campus amenities** such as libraries, cafeterias, and recreational areas.
- Establishment of Innovation Hubs:
  - Set up **state-of-the-art innovation hubs** with cross-disciplinary facilities, including:
    - Makerspaces and prototyping labs with 3D printers, CNC machines, and fabrication tools.
    - Collaborative workspaces with high-speed internet, interactive displays, and brainstorming zones.
  - Foster **multidisciplinary research and project-based learning** by integrating science, engineering, and technology resources under one roof.
- Green and Sustainable Infrastructure:
  - Integrate eco-friendly infrastructure solutions, including:
    - Energy-efficient lighting, solar panels, and rainwater harvesting systems.
    - Promote green campus initiatives by adding more green zones and using sustainable building materials.

#### **2.** Development of Digital Resources

• **Objective:** To build a **digitally advanced learning ecosystem** that enhances academic delivery, student engagement, and evaluation efficiency.

**d** Key Initiatives:

- Online Learning Platforms and LMS:
  - Allocate funds for expanding digital learning platforms, including:
    - Subscription to MOOCs (Massive Open Online Courses) and industry-certified courses.
    - Integration of Learning Management Systems (LMS) for course delivery, content sharing, and student progress tracking.
    - Enable **remote learning capabilities** with on-demand access to lectures and resources.
- Smart Classrooms and E-Learning Facilities:
  - Upgrade traditional classrooms into **smart classrooms** with:
    - Interactive boards, high-definition projectors, and multimedia systems.
    - **Real-time content sharing** and cloud-based storage for course materials.
    - Promote blended learning models by combining in-person and online sessions.
- AI-Based Assessment and Feedback Systems:
  - Implement AI-powered platforms for:
    - Automated student assessments with real-time scoring and analysis.
    - **Data-driven feedback mechanisms** to provide personalized learning recommendations.
    - Plagiarism detection and grading automation to streamline evaluations.
  - Utilize **learning analytics** to monitor student performance trends and suggest interventions.

### 📈 3. Implementation and Monitoring

• Execution Roadmap:

- Define **milestones and timelines** for infrastructure upgrades, digital resource integration, and technology deployment.
- Assign **dedicated teams** for project management and vendor coordination.
- Continuous Evaluation:
  - Monitor **infrastructure utilization rates** and student satisfaction with upgraded facilities.
  - Track **student engagement metrics** on LMS platforms and online learning modules.
- Periodic Review and Refinement:
  - Conduct **quarterly reviews** to assess infrastructure improvements and digital learning effectiveness.
  - Incorporate feedback from faculty, students, and staff for continuous optimization.

## Outcome and Impact

By implementing this **Infrastructure & Digital Resource Development Plan**, the institute will:

- Provide **cutting-edge facilities** that enhance learning, research, and innovation.
- Improve student and faculty productivity through digital learning tools and AI-based assessments.
- Foster a **technology-driven academic environment** that aligns with global educational standards.
- Strengthen the institute's reputation as a modern, future-ready educational institution.

# 4. Faculty & Staff Development

#### **Performance-Based Staff Appraisal**

• **Objective:** To implement a **structured and transparent appraisal system** that evaluates faculty contributions across multiple domains, promotes accountability, and recognizes excellence.

#### 🛠 Key Initiatives:

- Comprehensive Faculty Performance Evaluation:
  - Introduce a **performance appraisal framework** based on a **400-mark system**, covering the following parameters:
    - Academics (100 Marks):
      - Effectiveness of teaching methodologies and curriculum delivery.
      - Syllabus completion, course outcomes, and student progress.
    - Research & Innovation (100 Marks):
      - Publications in peer-reviewed journals, patents filed, and grants secured.
      - Participation in research projects, conferences, and workshops.
    - **Student Feedback (100 Marks):** 
      - Anonymous feedback from students on teaching effectiveness, communication skills, and mentoring.
      - Continuous tracking of feedback trends.
    - Department & Institute Activities (100 Marks):
      - Involvement in departmental and institutional development activities.
      - Contribution to administrative roles, committees, and extracurricular events.
- Recognition and Incentives:
  - Identify and reward outstanding faculty for exceptional contributions in:
    - **Teaching innovation** (use of creative pedagogies and technology).
    - **Research excellence** (publications, patents, and projects).
    - **Innovation and entrepreneurship** (mentoring startups and industry collaborations).
  - Introduce **monetary rewards, certificates, and recognition events** for top performers.

- Annual Performance Review:
  - Conduct annual appraisal reviews with transparent scoring criteria.
  - Provide **individual performance reports** with feedback and recommendations.
  - Use appraisal outcomes for promotion decisions, career growth, and professional development planning.

## 🔥 2. Skill Development Programs

• **Objective:** To promote **continuous learning and skill enhancement** among faculty, ensuring they stay updated with emerging trends and technologies.

#### **Wey Initiatives:**

- Faculty Development Programs (FDPs):
  - Organize regular FDPs on:
    - Pedagogical innovations, including blended learning and e-teaching techniques.
    - Emerging technologies such as AI, IoT, cloud computing, and data science.
    - Soft skills and leadership development for improved classroom management and mentorship.
- Short-Term Training Programs (STTPs):
  - Conduct STTPs on:
    - **Technical skill enhancement**, including advanced lab experiments and simulations.
    - **Industry-driven topics** in collaboration with corporate trainers.
    - Research methodologies and publication skills to boost academic contributions.
- Lab Setup and Interdisciplinary Collaboration:
  - Encourage faculty to **develop and modernize lab setups** by:

- Introducing cutting-edge equipment and software tools.
- Promoting hands-on experiments and simulations.
- Foster interdisciplinary collaborations by:
  - Initiating joint projects across departments.
  - Organizing interdisciplinary workshops to share expertise and ideas.
- Continuous Learning and Certifications:
  - Support faculty in obtaining industry certifications in specialized fields.
  - Facilitate online courses and webinars for flexible skill enhancement.

# 📈 3. Implementation and Monitoring

- Execution Roadmap:
  - Establish a faculty appraisal committee to oversee performance evaluations.
  - Define **timelines for performance reviews**, skill programs, and recognition events.

#### • Continuous Evaluation:

- Track faculty participation in FDPs, STTPs, and interdisciplinary projects.
- Measure the **impact of skill development programs** on teaching quality and research output.
- Periodic Review and Refinement:
  - Conduct **annual feedback sessions** with faculty to assess the effectiveness of appraisal and skill programs.
  - Refine the **appraisal criteria and skill initiatives** based on faculty input and institutional goals.

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By implementing this **Performance-Based Staff Appraisal & Skill Development Plan**, the institute will:

- Foster a culture of excellence, accountability, and continuous improvement.
- Enhance **faculty effectiveness** through regular skill upgrades and industry collaborations.
- Recognize and retain top-performing faculty, boosting morale and productivity.
- Improve academic quality, research output, and industry relevance.

# 5. Student Career & Skill Development

#### 1. Industry-Oriented Training

• **Objective:** To enhance **student employability and industry readiness** by providing comprehensive training in technical, career, and soft skills.

#### **%** Key Initiatives:

- Investment in Training & Placement Programs:
  - Allocate dedicated funds for:
    - Industry-specific training programs focusing on in-demand technologies and skill sets.
    - Placement support services, including mock interviews, aptitude tests, and resume-building workshops.
    - Engagement of industry experts and placement consultants for skill-based training sessions.
- Career Skills and Soft Skills Training:
  - Conduct regular career skills workshops covering:
    - Aptitude and reasoning: Logical and analytical problem-solving.
    - **Technical skills**: Hands-on training in emerging technologies like AI, data science, and cloud computing.
    - **Soft skills development:** 
      - Communication, presentation, and public speaking skills.
      - Team collaboration, leadership, and time management.

- Business etiquette and workplace ethics.
- Industry Certification Programs:
  - Collaborate with **leading certification bodies** to offer industry-recognized courses.
  - Encourage students to obtain certifications in **domain-specific technologies**, boosting their job prospects.
- Placement and Career Guidance:
  - Establish a Career Development Cell (CDC) to provide:
    - **One-on-one career counseling** and job market insights.
    - Alumni mentoring sessions to offer industry exposure and guidance.
    - **Pre-placement talks and campus drives** in collaboration with reputed companies.

### **6** 2. Internships & Field Projects

• **Objective:** To provide students with **practical exposure and real-world experience** through internships and field projects, fostering industry-relevant skills.

#### **Wey Initiatives:**

- Industry Collaboration for Internships:
  - Establish **MoUs with leading companies** to facilitate structured internship programs.
  - Ensure **100% student participation** in industry internships during their academic tenure.
  - Offer credit-based internships as part of the academic curriculum.
  - Encourage **international internship programs** through partnerships with multinational firms.
- Real-World Field Projects:
  - Integrate multi-disciplinary field projects into the academic curriculum.

- Collaborate with industries, research organizations, and startups to:
  - Identify real-world problems for student projects.
  - Enable students to work on live industry projects and case studies.
- Promote industry-mentored capstone projects in final-year courses.
- Project-Based Learning (PBL):
  - Introduce **PBL modules** across all programs, focusing on:
    - Hands-on experimentation and problem-solving.
    - **Team-based projects** with defined deliverables and assessments.
    - Showcase events where students present projects to industry panels.

#### • Evaluation and Certification:

- Recognize outstanding internship and project performances with **certificates and awards**.
- Encourage students to **publish project outcomes** in journals or present them at conferences.

# **3. Implementation and Monitoring**

#### • Execution Roadmap:

- Define **milestones and timelines** for initiating industry collaborations, internship programs, and field projects.
- Assign a **dedicated T&P (Training & Placement) team** to oversee industry linkages and student placements.

#### • Continuous Evaluation:

- Track **internship participation rates** and industry feedback on student performance.
- Measure **employability outcomes**, including placement percentages and salary packages.
- Periodic Review and Refinement:

- Conduct **quarterly reviews** with industry partners to align training programs with market needs.
- Incorporate **feedback from students and recruiters** for continuous improvement.

### **\*** Outcome and Impact

By implementing this Industry-Oriented Training & Internship Plan, the institute will:

- Enhance **student employability** through industry-aligned training and practical exposure.
- Strengthen industry-academia partnerships, boosting placement opportunities.
- Equip students with technical, career, and soft skills, making them job-ready.
- Foster a **culture of experiential learning**, bridging the gap between academics and industry.

### 6. Administrative & Governance Reforms

#### **Strengthening Institutional Autonomy**

• **Objective:** To promote **independent decision-making, transparency, and accountability** by empowering governing bodies and streamlining administrative processes.

#### 🛠 Key Initiatives:

- Enhancing the Role of Governing Bodies:
  - Empower the Governing Council (GC) to:
    - Formulate and approve **strategic policies** and institutional development plans.
    - Ensure **financial autonomy** by approving budgets, investments, and resource allocations.
    - Monitor and evaluate **institute performance metrics**.
  - Strengthen the Academic Council (AC) by:

- Increasing faculty and industry representation for diverse academic perspectives.
- Promoting **curriculum reforms** and interdisciplinary programs.
- Regularly reviewing and updating **academic regulations**.

#### • Finance Committee Reforms:

- Enable the Finance Committee to:
  - Ensure efficient fund allocation for infrastructure, research, and student development.
  - Review and approve **financial statements and budget proposals**.
  - Monitor resource utilization and cost-effectiveness.
- Promoting Transparency and Accountability:
  - Implement transparent decision-making processes by:
    - Regularly publishing governing body meeting minutes and financial reports.
    - Encouraging **stakeholder feedback** on institutional decisions.
  - Strengthen administrative accountability by:
    - Introducing **regular performance audits**.
    - Establishing **KPIs (Key Performance Indicators)** for departments and committees.

# 🔥 2. Committees for Holistic Development

• **Objective:** To foster a **safe, inclusive, and student-centric campus environment** by strengthening key committees for student welfare, grievance redressal, and entrepreneurship support.

#### **Wey Initiatives:**

- Anti-Ragging Committee:
  - Strengthen the Anti-Ragging Committee by:

- Conducting regular sensitization programs on anti-ragging policies.
- Implementing strict monitoring and grievance redressal mechanisms.
- Setting up helplines and anonymous reporting systems.
- Grievance Redressal Committee:
  - Enhance the Grievance Redressal Mechanism by:
    - Introducing an online grievance portal for easy and confidential complaint submission.
    - Ensuring timely resolution with defined SLAs (Service Level Agreements).
    - Conducting **awareness sessions** to educate students about their rights.

#### • Alumni Committee:

- Strengthen the Alumni Committee to:
  - Foster **strong alumni connections** through regular events, webinars, and reunions.
  - Encourage **alumni mentoring programs** to guide current students.
  - Involve alumni in **fundraising**, guest lectures, and industry linkages.
- Entrepreneurship Committee:
  - Reinforce the Entrepreneurship Development Committee by:
    - Organizing workshops on business planning, funding, and market analysis.
    - Facilitating mentorship from industry experts and successful entrepreneurs.
    - Promoting startup incubation and funding opportunities.

#### • Hostel Committee:

- Strengthen the Hostel Committee by:
  - Ensuring regular maintenance and safety checks.

- Organizing **student engagement activities** to promote a positive hostel environment.
- Addressing grievances related to facilities, food quality, and cleanliness.

# 📈 3. Implementation and Monitoring

#### • Execution Roadmap:

- Define **milestones and timelines** for strengthening autonomy and forming proactive committees.
- Assign responsible teams and coordinators to oversee committee functions.

#### • Continuous Evaluation:

- Monitor **committee effectiveness** through regular reports and student feedback.
- Track **governing body decisions** and measure their impact on institutional growth.
- Periodic Review and Refinement:
  - Conduct biannual reviews of committee performance.
  - Refine policies and procedures based on feedback and best practices.



By implementing this **Institutional Autonomy & Holistic Development Plan**, the institute will:

- Enhance **governance efficiency** through empowered bodies and transparent processes.
- Foster a safe, student-friendly, and inclusive campus environment.
- Strengthen **stakeholder confidence** by promoting transparency and accountability.
- Boost student engagement and support systems through proactive committees.

# 7. Internationalization & Cross-Border Collaborations

#### 1. International Partnerships & Exchange Programs

• **Objective:** To provide **students and faculty with global exposure** through exchange programs, international collaborations, and cross-cultural learning experiences.

#### **%** Key Initiatives:

- Partnerships with International Universities:
  - Establish MoUs with reputed global universities for:
    - Student exchange programs to enable short-term and semester-long overseas study opportunities.
    - Faculty exchange programs for teaching and research collaborations.
    - Dual-degree and twinning programs, allowing students to earn degrees from both institutions.
  - Collaborate with **international educational organizations** to facilitate:
    - Summer schools, global internships, and study tours.
    - Participation in international certification courses and skill enhancement programs.
- Cross-Cultural Learning Experiences:
  - Encourage students to participate in international conferences, hackathons, and competitions.
  - Introduce **language and cultural exchange sessions** to prepare students for overseas experiences.
  - Promote **cultural immersion programs** with international partner institutions.

#### 🔬 2. Cross-Border Research & Innovation Projects

• **Objective:** To foster **international collaborations in research and innovation**, promoting knowledge exchange and interdisciplinary advancements.

💡 Key Initiatives:

- Collaborative Research Projects:
  - Partner with international research organizations and universities for:
    - Joint R&D projects in emerging technologies and global challenges.
    - Multinational grant applications (e.g., Horizon Europe, NSF grants) for funding opportunities.
    - Shared access to research labs, facilities, and resources.
  - Encourage faculty and PhD students to collaborate on:
    - **Co-authored publications** in international journals.
    - **Joint patent filings** with global research teams.
- International Innovation & Entrepreneurship Projects:
  - Facilitate joint innovation initiatives with global startup ecosystems.
  - Organize international ideation and startup boot camps in partnership with foreign institutions.
  - Encourage students to participate in **global incubator programs** and seek international venture funding.
- Participation in Global Competitions:
  - Promote student participation in global tech competitions, business plan contests, and innovation challenges.
  - Provide **financial and logistical support** for attending international events.
  - Showcase **winning projects and innovations** to enhance the institute's global reputation.

#### **3. Implementation and Monitoring**

#### • Execution Roadmap:

- Identify and formalize international partnerships through MoUs.
- Establish a **Global Engagement Cell** to oversee exchange programs and research collaborations.

#### • Continuous Evaluation:

- Track **participation metrics** (students, faculty, and projects) in international programs.
- Monitor the **impact of global exposure** on academic performance, research output, and career opportunities.
- Periodic Review and Refinement:
  - Conduct **annual reviews** of international collaborations and exchange programs.
  - Refine partnerships and initiatives based on student and faculty feedback.

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By implementing this Global Exposure Plan, the institute will:

- Enhance **student and faculty competencies** through international learning experiences.
- Strengthen research collaborations and increase global publications and patents.
- Improve **global employability** of students through exposure to international industries.
- Boost the institute's reputation as a globally connected institution.

#### **Implementation Timeline**

- **Short-Term (0-1 Year)**: Digital resource development, faculty training, research collaborations.
- Medium-Term (1-3 Years): Infrastructure enhancement, industry partnerships, innovation hubs.center of excellence, industry supported labs.
- Long-Term (3+ Years): Strengthening autonomy, international tie-ups, large-scale entrepreneurship programs.