



# College of engineering and Management, Kolaghat (CEMK)

## Guidelines for Institutional Development Plan (IDP)

*(Prepared in Alignment with UGC Guidelines for Institutional Development Plan, NEP 2020, NCrF, ABC and Sustainable Development Goals)*

### 1. Preamble

The College of Engineering and Management, Kolaghat (CEMK) will prepare and implement its Institutional Development Plan (IDP) as a strategic roadmap for achieving academic excellence, research innovation, industry relevance, societal impact, and institutional sustainability. The IDP will align with the vision of the National Education Policy (NEP) 2020, National Credit Framework (NCrF), Academic Bank of Credits (ABC), Sustainable Development Goals (SDGs), and the evolving needs of engineering and management education.

The IDP will serve as a long-term planning framework for transforming CEMK into a leading multidisciplinary institution recognized for quality education, research, innovation, entrepreneurship, and community engagement.

### 2. Vision

To establish CEMK as a centre of excellence in engineering, management, innovation, and sustainable technology through quality education, cutting-edge research, industry collaboration, and societal contribution.

### 3. Mission

CEMK will strive to:

1. Deliver learner-centric, outcome-based education.
2. Promote innovation, entrepreneurship, and research culture.
3. Develop industry-ready and socially responsible graduates.
4. Foster multidisciplinary learning and skill integration.
5. Encourage sustainable development and environmental stewardship.
6. Strengthen regional, national, and global collaborations.
7. Ensure inclusive and equitable access to quality education.

### 4. Guiding Principles

The Institutional Development Plan of CEMK will be guided by the following principles:

- Academic excellence and continuous quality improvement.
- Student-centric teaching-learning processes.
- Multidisciplinary and interdisciplinary education.
- Integration of vocational and skill-based education.

- Research, innovation, and intellectual property creation.
- Inclusivity, diversity, and accessibility.
- Good governance and accountability.
- Digital transformation and technological advancement.
- Environmental sustainability.
- Community engagement and social responsibility.

## **5. Strategic Goals (2026–2035)**

### **A. Academic Excellence**

CEMK will:

- Fully implement NEP 2020 recommendations.
- Introduce multidisciplinary and flexible curricula.
- Implement Outcome-Based Education (OBE).
- Strengthen project-based and experiential learning.
- Increase use of blended and digital learning platforms.
- Enhance student employability through industry-oriented courses.
- Integrate Indian Knowledge Systems (IKS), ethics, and professional values into curricula.

#### **Key Targets**

- NBA Accreditation for all eligible programs.
- NAAC Accreditation with improved grade.
- Student satisfaction index above 85%.
- Graduate employability rate above 90%.

### **B. Research, Innovation and Intellectual Property**

CEMK will establish a robust research ecosystem by:

- Creating a Research and Development Cell.
- Encouraging interdisciplinary research.
- Increasing funded research projects.
- Promoting patents, copyrights, and technology transfer.
- Establishing innovation and incubation facilities.
- Strengthening industry-sponsored research activities.

#### **Key Targets by 2035**

- 100+ Scopus-indexed publications annually.
- 20+ patents filed annually.
- Establishment of Technology Transfer and Innovation Cell.
- At least 10 active funded research projects.

### **C. Industry Integration and Employability**

CEMK will:

- Strengthen industry-academia partnerships.
- Expand internships and apprenticeship opportunities.
- Involve industry experts in curriculum design.
- Promote certification programs in emerging technologies.
- Develop Centres of Excellence jointly with industry.

### **Emerging Areas**

- Artificial Intelligence and Machine Learning
- Data Science and Analytics
- Internet of Things (IoT)
- Renewable Energy Systems
- Electric Vehicles
- Robotics and Automation
- Industry 4.0 Technologies
- Business Analytics

### **D. Entrepreneurship and Start-up Ecosystem**

The College will:

- Strengthen incubation and innovation support.
- Organize hackathons, innovation challenges, and startup boot camps.
- Facilitate mentorship from entrepreneurs and alumni.
- Create seed funding support mechanisms.
- Promote student and faculty startups.

### **Target**

- Support creation of at least 20 student startups by 2035.

## **6. Infrastructure Development**

### **A. Physical Infrastructure**

The College will continuously upgrade:

- Smart classrooms.
- Advanced laboratories.
- Research laboratories.
- Innovation and incubation spaces.
- Seminar halls and conference facilities.
- Library and digital resource centres.
- Sports and recreational facilities.
- Green campus infrastructure.
- Hostel facilities.
- Healthcare and counselling facilities.

## **Green Campus Initiatives**

- Solar energy utilization.
- Rainwater harvesting.
- Waste management systems.
- Energy-efficient buildings.
- Green landscaping and biodiversity conservation.

## **B. Digital Infrastructure**

CEMK will create a digitally empowered campus through:

- High-speed campus-wide internet.
- Learning Management Systems (LMS).
- ERP-enabled administration.
- Smart classrooms and virtual laboratories.
- Digital library services.
- Academic Bank of Credits integration.
- Cybersecurity and data privacy systems.
- Cloud-based academic and administrative services.

### **Target**

- 100% digitization of academic and administrative processes by 2030.

## **7. Faculty Development**

The College will:

- Recruit and retain qualified faculty members.
- Encourage higher studies and doctoral qualifications.
- Support faculty participation in FDPs, workshops, and conferences.
- Promote collaborative research.
- Introduce performance-linked incentives for research and innovation.

### **Targets**

- Minimum 80% faculty with Ph.D. qualification by 2035
- Annual FDP participation by all faculty members
- Increased faculty publications and funded projects

## **8. Student Development and Support**

CEMK will provide:

- Career guidance and placement support
- Soft skill and communication training
- Competitive examination coaching
- Entrepreneurship mentoring
- Mental health and counselling services
- Financial aid and scholarships

- Support for disadvantaged and differently-abled students

### **Student Outcome Targets**

- Placement rate above 90%
- Higher education progression above 20%
- Entrepreneurial participation above 10%

### **9. Governance and Leadership**

The College will establish:

- An Institutional Development Plan Steering Committee
- Strategic Planning and Monitoring Cell
- Internal Quality Assurance Cell (IQAC) integration
- Transparent decision-making mechanisms
- Data-driven governance and performance monitoring systems

### **Governance Principles**

- Accountability
- Transparency
- Participation
- Institutional autonomy
- Continuous quality assurance

### **10. Networking and Collaborations**

CEMK will actively pursue collaborations with:

- Industry partners
- Research institutions
- Universities in India and abroad
- Government agencies
- Alumni networks
- Community organizations

### **Targets**

- 50+ active MoUs by 2030
- International academic collaborations
- Joint research and exchange programmes

### **11. Financial Sustainability**

The College will diversify revenue sources through:

- Research grants.
- Consultancy projects.
- Industry-sponsored laboratories.
- Alumni contributions.
- CSR partnerships.

- Continuing education and certification programmes.
- Intellectual property commercialization.

### **Objective**

Develop a financially sustainable institutional model capable of supporting long-term growth and innovation.

### **12. Centres of Excellence (CoEs)**

CEMK will establish specialized Centres of Excellence in:

1. Renewable Energy and Green Hydrogen Technologies
2. Artificial Intelligence and Data Analytics
3. Smart Manufacturing and Industry 4.0
4. Electric Mobility and Sustainable Transportation
5. Innovation, Entrepreneurship and Start-up Development
6. Rural Technology and Community Development

These CoEs will focus on interdisciplinary research, innovation, patents, industry collaboration, and societal impact.

### **13. Monitoring and Review Mechanism**

An *Institutional Development Plan Monitoring Committee (IDPMC)* will be constituted to:

- Review progress every six months.
- Monitor Key Performance Indicators (KPIs).
- Conduct annual SWOC analysis.
- Recommend corrective actions.
- Publish annual IDP progress reports.

### **14. Implementation Timeline**

<b>Area</b>	<b>Timeline</b>
Digital Infrastructure	1–2 Years
Physical Infrastructure	2–3 Years
Academic Excellence Initiatives	3–5 Years
Governance Strengthening	3–5 Years
Financial Sustainability Measures	3–5 Years
Research & Innovation Ecosystem	5–7 Years
Networking & Global Collaborations	5–10 Years

These timelines are aligned with the UGC Institutional Development Plan framework.

### **Declaration**

*The College of Engineering and Management, Kolaghat (CEMK) commits itself to implementing this Institutional Development Plan as a dynamic strategic document to achieve academic excellence, research leadership, innovation-driven growth, social*

*responsibility, and sustainable institutional development in alignment with UGC Guidelines, NEP 2020, and national development priorities.*