# MAR BASELIOS CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY

# Future Milestone Setting:

1. Current State Overview
2. Strategic Goals for 2035
3. Milestones 2025-2035
4. SWOT Analysis
5. Perspective Plan

# Target Focus for MBC

## AUTONOMOUS

- Curriculum Innovation and Flexibility
- Enhanced Academic Standards
- Industry Collaboration and Partnerships
- Global Recognition and Accreditation –NAAC B++

## DEEMED UNIVERSITY

- High Academic Standards
- Strong Research and Development Culture
- State-of-the-Art Infrastructure
- Financial Stability
- Strengthening Governance and Quality Assurance

## NBA / NAAC

- Civil and EEE Department up to 2025
- ME Department planning to submit the pre qualifier -2026
- CSE and ECE Department planning to submit the prequalified for -2027
- NAAC accreditation has to renew in 2026 Jan

# Strategic Goals for 2035

**1** Enhance Educational Programs

- Update curriculum, introduce new interdisciplinary courses such as Robotics and Automation, and Artificial Intelligence with Mechanical Applications, and incorporate modern teaching methods.

**2** Student Development

- Focus on soft skills training, entrepreneurship programs, and career guidance services, with a special emphasis on robotics, automation, and AI.

**3** Industry Collaboration

- create new collaborations in the fields of robotics, automation, and AI, and establish industry-driven projects and internships.

**4** Infrastructure Development

- Upgrade laboratory facilities with robotics and AI equipment, enhance digital infrastructure, and expand campus facilities.

# PERSPECTIVE PLAN –VISION 2035

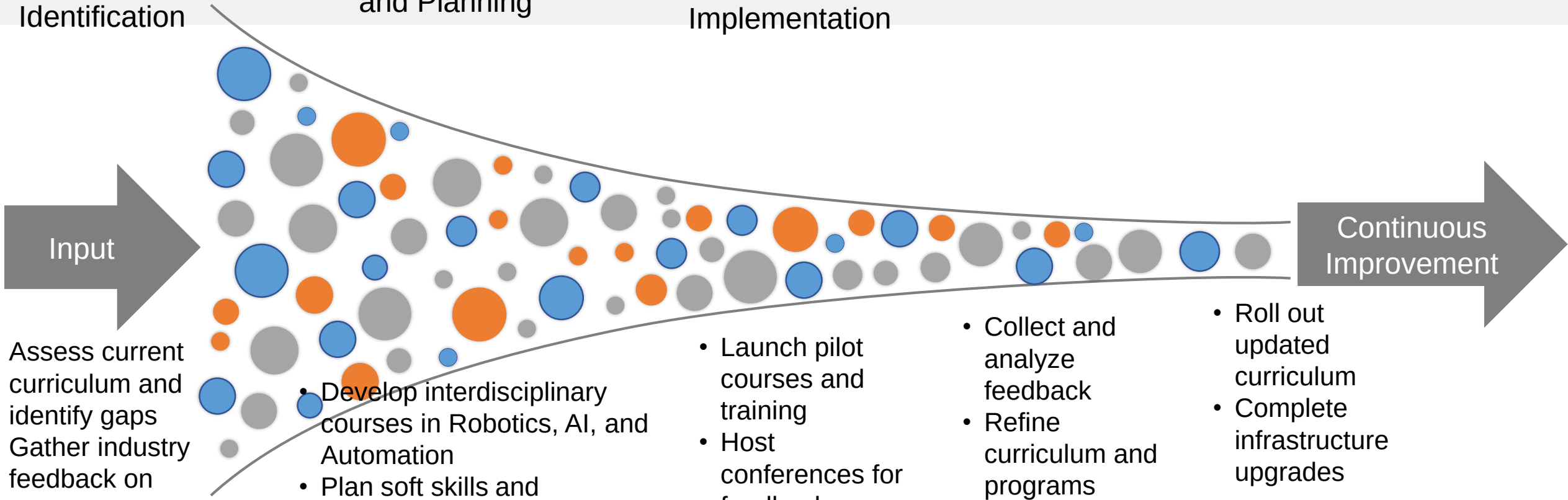
Curriculum Needs Identification

Program Design and Planning

Pilot Programs and Initial Implementation

Evaluation

Implementation




- Assess current curriculum and identify gaps
- Gather industry feedback on required skills
- Propose updates and new courses

- Develop interdisciplinary courses in Robotics, AI, and Automation
- Plan soft skills and entrepreneurship training programs
- Design dedicated research centers

- Launch pilot courses and training
- Host conferences for feedback

- Collect and analyze feedback
- Refine curriculum and programs

- Roll out updated curriculum
- Complete infrastructure upgrades

# Road Map Year 2035 –Computer Science and Engineering

**2026**

- Strengthen the alumni network to provide mentorship and industry connections for the students.
- All faculties will register for PHD
- Introduction of B. Tech courses in the variants of AI and CSE.
- Achieve NBA Accreditation.

**2029**

- Establishment of an industry-academia innovation lab and AICTE idea lab.
- Launch of online certification programs.
- Increase funded research projects and publications

**2032**

- All faculty members are required to pursue and register for a PhD program.
- Collaborations from a foreign university to start a new program.
- Enhanced partnerships with global technical companies for internships and job placements.

**2034**

- Upgrade facilities to include super computer labs, AI-driven research labs

# Road Map Year 2035 –Electronics & Communication Engineering

**2026**

- Achieve NBA Accreditation..
- Strengthen the alumni network to provide mentorship and industry connections for the students.
- Introduction of B. Tech course in Artificial Intelligence and Robotics Engineering.

**2029**

- Establishment of an industry-academia innovation lab.
- Launch of online certification programs.
- Increase funded research projects and publications, provide GATE coaching for students

**2032**

- M.Tech in Semiconductor Technology.
- Collaborations from a foreign university to start a new program.
- Enhanced partnerships with global technical companies for internships and job placements.

**2034**

- Upgrade facilities to include quantum labs, AI-driven research environments.
- B.Tech in Quantum Computing / Semiconductor Technology

# Road Map Year 2035 – Electrical and Electronics Engineering Department

**2025**

- Starting of New B Tech in Electric Vehicle Technology, 30 seats
- Renewal of NBA program of the Department

**2026**

- Starting a M Tech Program on Control systems
- Improvements are planning in Research Achievements and Industrial Collaborations with latest AI tools
- Autonomous status need to achieve
- New B Tech course - Energy Engineering, 30 seats

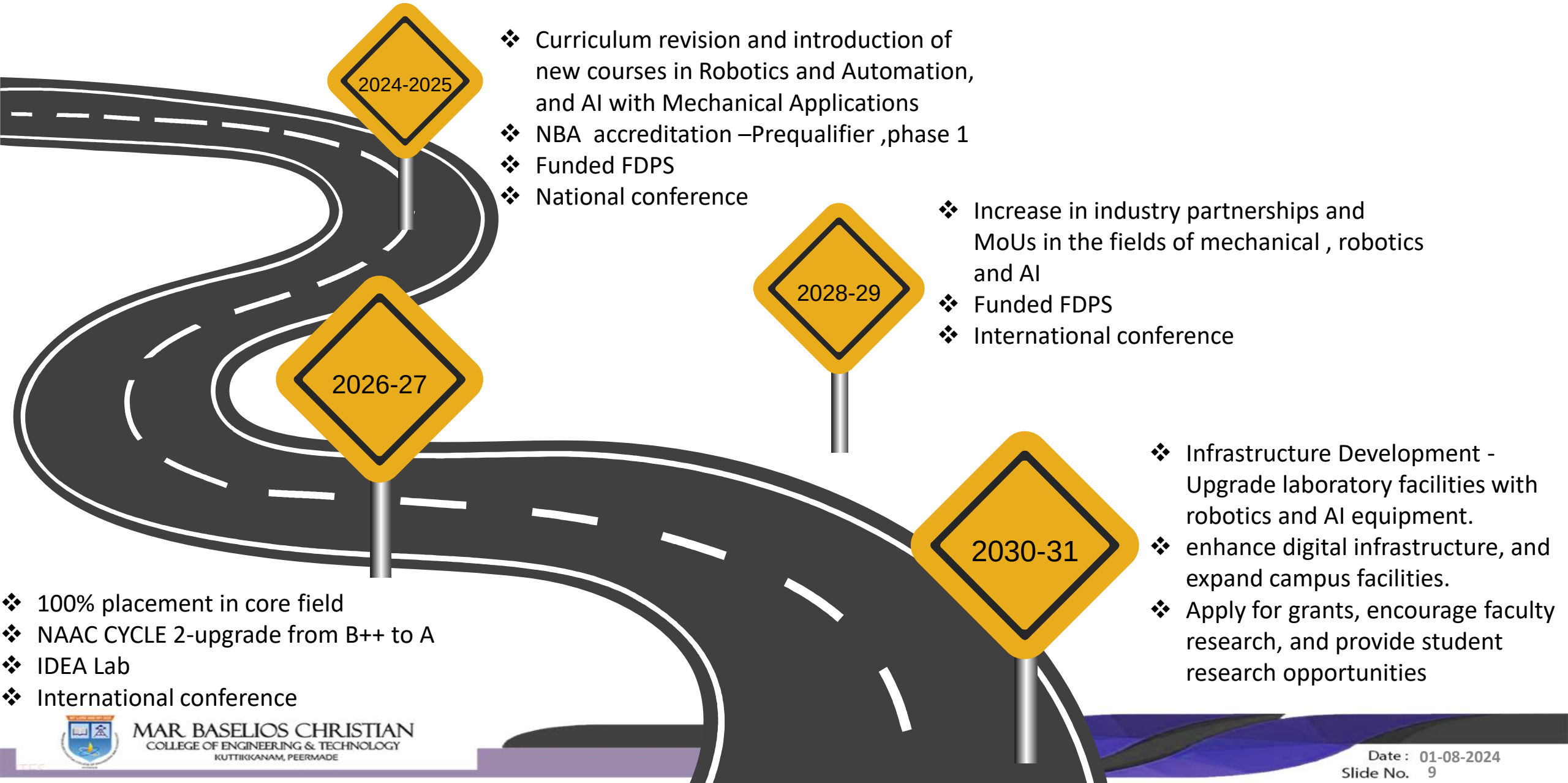
**2030**

- Starting of M Tech and Research facility on Electrical Vehicle Technology and Renewable Energy Systems
- Collaborations from a foreign university to start a new program

**2034**

- Starting of the School of Electrical Engineering
- New B Tech course - Alternate Energy Engineering, 30 seats
- Updations in the infrastructure and lab facilities

# Road Map Year 2035 – Mechanical Engineering

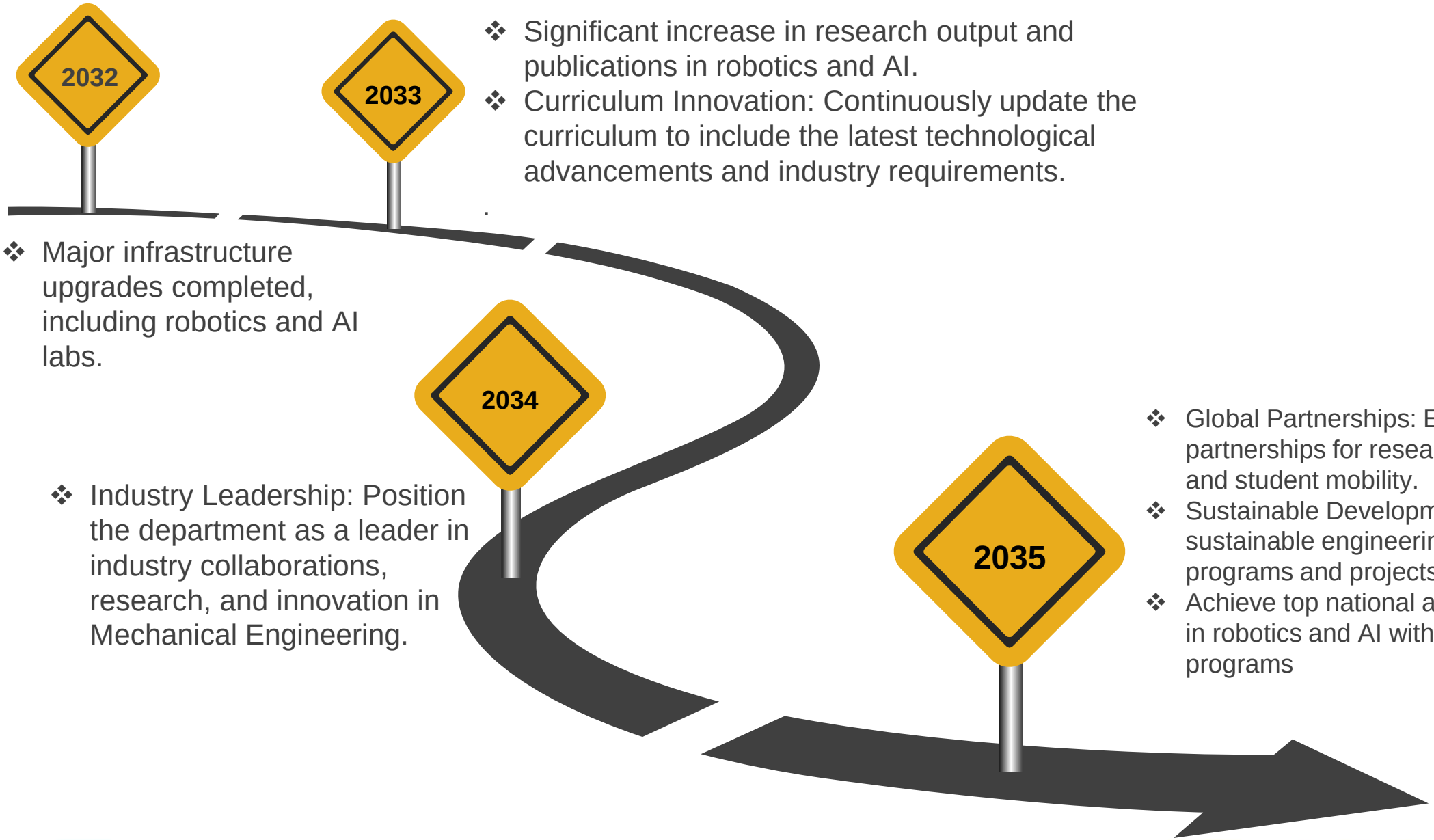



- Curriculum revision and introduction of new courses in Robotics and Automation, and AI with Mechanical Applications
- NBA accreditation –Prequalifier ,phase 1
- Funded FDPS
- National conference

- Increase in industry partnerships and MoUs in the fields of mechanical , robotics and AI
- Funded FDPS
- International conference

- 100% placement in core field
- NAAC CYCLE 2-upgrade from B++ to A
- IDEA Lab
- International conference

- Infrastructure Development - Upgrade laboratory facilities with robotics and AI equipment.
- enhance digital infrastructure, and expand campus facilities.
- Apply for grants, encourage faculty research, and provide student research opportunities




- Significant increase in research output and publications in robotics and AI.
- Curriculum Innovation: Continuously update the curriculum to include the latest technological advancements and industry requirements.

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- Major infrastructure upgrades completed, including robotics and AI labs.

- Industry Leadership: Position the department as a leader in industry collaborations, research, and innovation in Mechanical Engineering.

- Global Partnerships: Establish strategic global partnerships for research, faculty exchange, and student mobility.
- Sustainable Development: Integrate sustainable engineering practices across all programs and projects
- Achieve top national and international rankings in robotics and AI with mechanical engineering programs

# SWOT Analysis

## Strengths

- High Demand and Versatility
- Technological Advancements
- Global Opportunities
- Strong Theoretical and Practical Foundation
- Can attract more students to the departments
- Experienced and qualified faculty
- Diverse research areas
- High employability rate of graduates

## Weaknesses

- Strong Industrial Collaborations are required.
- Rapid Technological Changes
- Updating Academic curriculum can be challenging.
- Strong advertisement and publicity required.

**SWOT**
**Analysis**

## Opportunities

- Growth in emerging technologies
- Interdisciplinary Collaboration
- Fostering a culture of entrepreneurship through incubation centers and startup .
- Growth in emerging technologies; 5G/6G communications, quantum electronics, AI, autonomous systems.
- Technological advancements in AI and automation
- Government initiatives and funding for research
- Expansion of online and remote learning

## Threats

- Increased competition from other universities.
- Rapid Technological Change.
- May affect the core branch admission
- Fees sometimes need to reduce in order to overcome the competitions
- Economic fluctuations affecting funding
- Changes in industry requirements
- Regulatory changes