

NMAMIT, NITTE, KARNATAKA
INSTITUTIONAL DEVELOPMENT PLAN (IDP)
2026-2032





Sir Mokshagundam Visvesvaraya

Sir M.V,s Ten Commandments

- Practice self help
- Know that knowledge is power
- Cultivate team work
- Practice team work
- Increase production and services
- Support Indian industries
- Restrict imports
- Maintain efficient standards
- Think and act institutionally
- Think in terms of the nation

Chancellor's Message



It gives me immense pleasure to present the Institutional Development Plan of NMAM Institute of Technology, an institution that has been at the forefront of engineering education for over four decades. Since becoming a constituent institution of Nitte (Deemed to be University) in 2022, NMAMIT has embraced a renewed vision of academic excellence, innovation and global engagement while remaining deeply rooted in the values on which it was founded.

From its humble beginnings with four engineering disciplines, NMAMIT has evolved into one of India's respected institutions for technical education. Today, with 14 engineering departments, 11 recognised research centres and a dedicated team of accomplished faculty, the institute continues to nurture graduates who are technically competent, ethically grounded and socially responsible.

The Institutional Development Plan 2026–2032 represents our collective vision for the future. It is more than a roadmap—it is a commitment to transform NMAMIT into a nationally and globally recognised centre of excellence in engineering education, research, innovation and entrepreneurship. The plan lays emphasis on academic distinction, multidisciplinary learning, impactful research, digital transformation, sustainable practices, strong industry partnerships and an innovation ecosystem that prepares our students to thrive in an increasingly dynamic world.

As technology reshapes every aspect of society, institutions must do more than impart knowledge—they must inspire curiosity, foster creativity and cultivate leaders who can solve complex global challenges with integrity and compassion. At NMAMIT, we aspire to create graduates who are not only highly employable but also lifelong learners, responsible citizens and ambassadors of the institution's enduring values.

The successful implementation of this Institutional Development Plan will require the collective commitment of our leadership, faculty, staff, students, alumni, industry partners and all stakeholders. Together, I am confident that we will build an institution that sets new benchmarks in quality, innovation and societal impact.

I congratulate the Principal, faculty, staff and all those who have contributed to the preparation of this Institutional Development Plan. Their dedication and vision reflect the spirit of excellence that defines NMAMIT.

I wish the institute every success as it embarks on this exciting journey towards a future of greater achievement and global recognition.

With best wishes

**Place: Nitte
Date: 30 June 2026**

**Vishal Hegde
Chancellor
Nitte (Deemed to be University)**

Vice Chancellor's Message



I extend my warm greetings to my colleagues at NMAM Institute of Technology (NMAMIT) on the formulation of its Institutional Development Plan (IDP) 2026–2032. It is indeed gratifying to note that the Heads of Departments, faculty members, and staff have actively participated in developing this comprehensive and forward-looking plan. As a constituent college of Nitte (Deemed to be University), NMAMIT has emerged as one of the most distinguished engineering institutions in Karnataka. It is therefore imperative that the Institute is guided by a well-defined strategic roadmap aligned with the University's vision, mission, and aspirations.

The Institutional Development Plan provides a clear framework for achieving institutional goals through well-articulated strategies and department-specific objectives. I am confident that the successful implementation of the initiatives outlined in this Institutional Development Plan will further strengthen NMAMIT's academic and institutional standing, positioning it among the leading destinations for technical education in the country.

With collective commitment and sustained efforts, I am confident that NMAMIT will continue to scale new heights of excellence and make significant contributions to higher education, research, innovation, and societal impact.

With best wishes

**Place: Nitte
Date: 30 June 2026**

**Prof. Dr. M.S. Moodithaya
Vice-Chancellor
Nitte Deemed to be University**

Principal's Message



NMAMIT is one of the well-recognised engineering college in Karnataka. Congratulations on New Institutional Development Plan 2026-2032 of NMAMIT. It is heartening to note that HODs, Faculty and Staff have participated in formulating well defined strategic plan under the guidance of University officials.

NMAMIT has 14 disciplines with 6800+ students in undergraduate, 998 students in PG and 160+ research scholars in 11 disciplines. Being a Constituent college of Nitte Deemed to be University, we need a well-defined Institutional Development Plan for the institute. The theme for the Institutional Development Plan covers all good governance aspects of the institution. Once all the points mentioned in this IDP are fully realized, the Institute will definitely achieve the status of most preferred institution for pursuing technical education. The strategic development focuses in formulating institutional goals, strategies, and departmental goals.

I place on the record, committed University support, HODs, Faculty and Staff's active participation in preparing this Institutional Development Plan document.

With Best Wishes

Place: Nitte
Date: 30 June 2026

Prof. Dr. Niranjan N. Chiplunkar
Principal
NMAM Institute of Technology, Nitte

Acknowledgements

We place on record our deep appreciations and thanks to the Chancellor, Vice Chancellor, Registrar, HODs, Faculty, Staff and students for their valuable inputs and active participation towards formulating the “Institutional Development Plan 2026-2032”.

Place: Nitte
Date: 30 June 2026

Prof. Dr. Niranjana N. Chiplunkar
Principal
NMAM Institute of Technology, Nitte

Overview

Strategic planning is a continuous process with a specific focus on accomplishing short, mid and long-term goals in this highly competitive world. Institutional Development Plan (IDP) analyses current environment, expected future scenarios and envisages the direction of the institution towards achieving its VISION and MISSION.

The first part of IDP is revisiting VISION, MISSION along with core values. These are achieved through many deliberations with all the stake holders (management, leadership, HODs, faculty, staff, industry, students and parents). Scientific scanning of internal and external environment is done through SWOT exercise. After scanning the environment, institutional goals were set up and strategies to achieve them are arrived at for the institution.

Twelve Institutional strategic goals and strategies are formed with action plans. The process of implementation is worked out and informed to all the departments. Financial budgets and allocations are worked out which are maintained separately by the Head of the Institution. IDP evaluation through IQAC has been clearly spelt out. The final outcomes are discussed and approved by the University

It is highly exhilarating to note that most of the inputs are drawn from stake holders through active participation and collective inputs. The IDP will enhance the capability of the NMAMIT in delivering results to all the stake holders. The institution will no doubt grow and be a torch bearer in technical education for many decades to come thereby leading to accomplishing its Mission and Vision.

About the Institution:

NMAM Institute of Technology was founded in 1986, in memory of **Nitte Mahalinga Adyanthaya**, a distinguished engineer of the district. The institute is located at Nitte Education Trust (NET) Campus at Nitte, 53 kms. away from Mangalore. The campus is spread over a sprawling area of over 110 acres. Nitte is easily accessible by road, rail and air.

In 2022, NMAMIT was made one of the Constituent colleges in the off-campus centre of Nitte Deemed to be University (NDU). Nitte University is established in the year 2008. NDU was formed by Nitte Education Trust (NET). NET was founded by late Justice K. S. Hegde, a well-known judge of Supreme Court and former speaker of Lok Sabha. Nitte Deemed University, a NAAC accredited A+ grade University runs about 30 Institutions in various areas of education.

NMAMIT was affiliated to Mangalore University from 1986 to 1998 and was brought under the umbrella of Visvesvaraya Technological University (VTU) Belgaum from 1998 onwards. In 2007 the Institution obtained the Autonomous Status under VTU Belgaum. From 2022, it is now part of Nitte Deemed to be University

Under Graduate Programmes	Post Graduate programmes
Civil Engineering	Master of Computer Application
Mechanical Engineering	
Electronics & Communication Engineering	
Electrical & Electronics Engineering	
Computer Science & Engineering	M.Tech in Computer Science & Engineering
Information Science & Engineering	M.Tech in Structural Engineering
Biotechnology Engineering	M.Tech in VLSI Design and Embedded systems
Artificial Intelligence & Machine Learning	M.Tech in Mechatronics
Artificial Intelligence & Data Science	M.Tech in Cyber Security
Cyber Security	
Computer & Communication Engineering	
Advanced Communication Technology	
VLSI design & Technology	
Robotics and Artificial Intelligence	

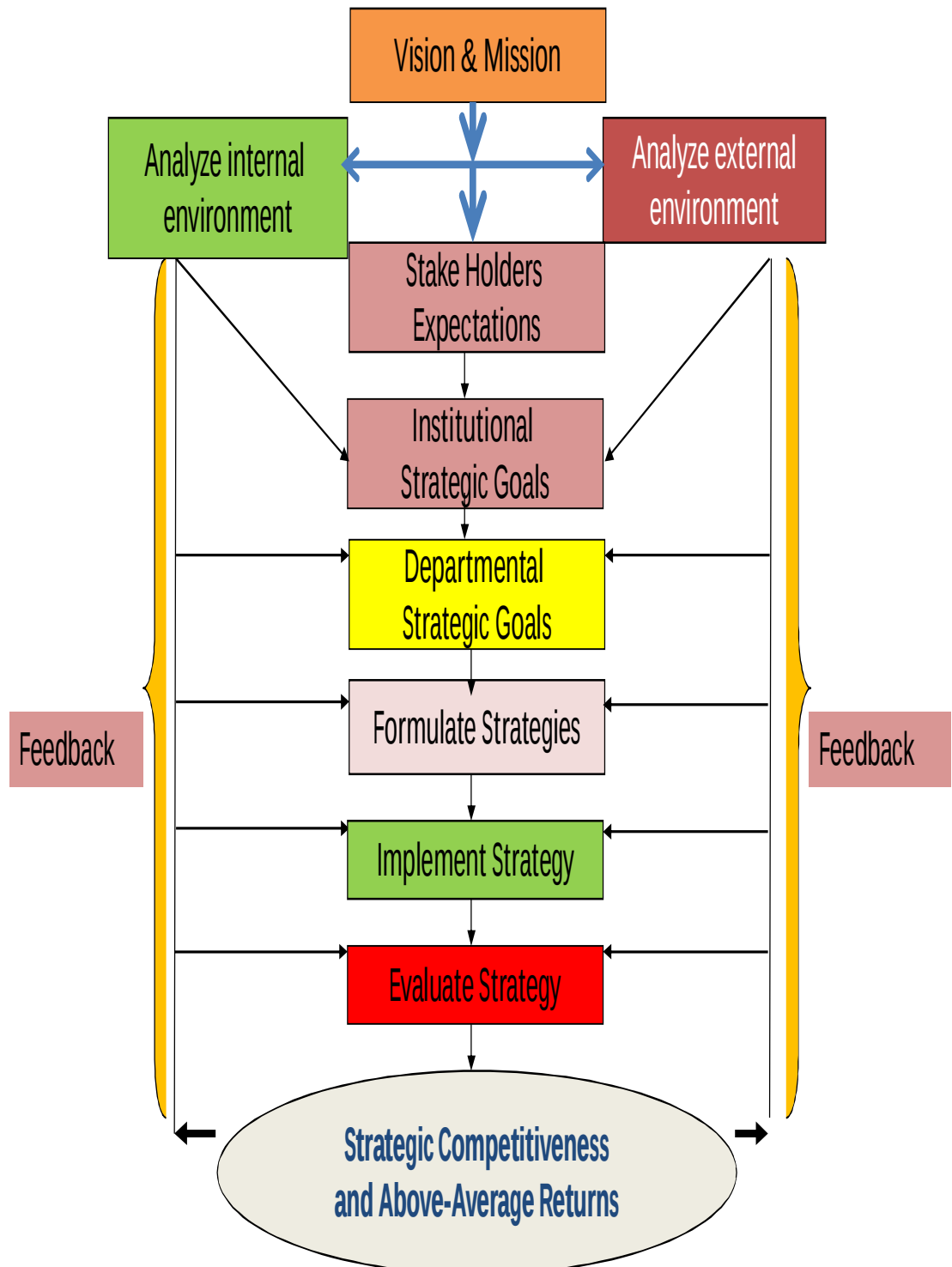
The annual intake of our UG programs is 1620 (excluding 15% PIO quota and 5% TFW quota). The annual intake of PG program is 139+180 (M.Tech. and MCA,). All our eligible Under-Graduate Programmes are accredited by National Board of Accreditation (NBA), New Delhi.

The Institute has 349 faculty members out of which 45 are Professors, 75 are Associate Professors, and remaining are Assistant Professors. 61% of Faculty members are with Ph.D. qualification.

All departments of our institution are recognized Research Centres of Nitte Deemed to be University. Our staff members have published 761 Scopus indexed and 154 WoS indexed papers during the calendar year 2025. The Institute has received Rs.30 Lakhs worth funded research projects during 2025-26. Institute has excellent infrastructural facilities which include spacious and air-conditioned class rooms, seminar halls, well equipped laboratories, auditorium, large playground, Indoor stadium, Hostel rooms with Twin sharing attached bathroom, bank ATMs, Post office, emergency medical facility & Guest house. All class rooms have LCD Projectors, internet connection & access to Moodle intranet e-learning facility. Wi-Fi facility has been extended to the Hostels. The Institute has 3 Gbps Internet leased line connectivity. Central library has been equipped with digital library features & subscribes to online journals.

Nitte DU is placed at 80th position in NIRF 2025 and NMAMIT is placed in the rank band of 151-200 in NIRF 2025. Our goal is to bring NMAMIT within 100 in the NIRF ranking.

Institutional Development Plan Process Diagram



Institutional Development Plan process methodology:

The University has felt that there is a need to have Institutional development plan for the institute in a formal written document format for the year 2026-32. The mandate was given to the Principal to develop Institutional plan 2026-2032 for the institute. The top leadership team met and brain stormed on stake holders expectations. The Leadership team met many times, deliberated at Vision, Mission, quality policy and core values for NMAMIT and found that existing one may be continued. The team also discussed about institutional strategic High-Level Goals (ISG/HLG) to be achieved by 2032.

Institutional strategic goals formed main theme for arriving at strategies, sub strategies to achieve them. Each Strategy was deliberated and sub-strategies were arrived at and plans were discussed towards implementing them. Implementation plan worked out all details such as budget, resources needed and leader responsible to implement with time lines. This implementation is separately maintained by the head of the institution.

Departments play a pivotal for the institution; hence each department worked out on their Vision, Mission and short and goals. The implementation plan for the departments also reflected all details such as budget, resources needed as well as leader responsible with time lines.

Institutional Development Plan emphasises on evaluation measures, monitoring team along with deviation steps if any over a period of time. The evaluative components for each stake holder are clearly spelt out along with periodicity of performance evaluation reviews.

Institute vision Statement

- Pursuing excellence,
- Empowering people,
- Partnering in community development.

Institute Mission Statement

To develop NMAM Institute of Technology, Nitte , as Centre of Excellence by imparting quality education to generate competent, Skilled and Humane Manpower to face emerging Scientific, Technological, Managerial and Social Challenges with Credibility, Integrity, Ethics and Social Concern.



Core Values

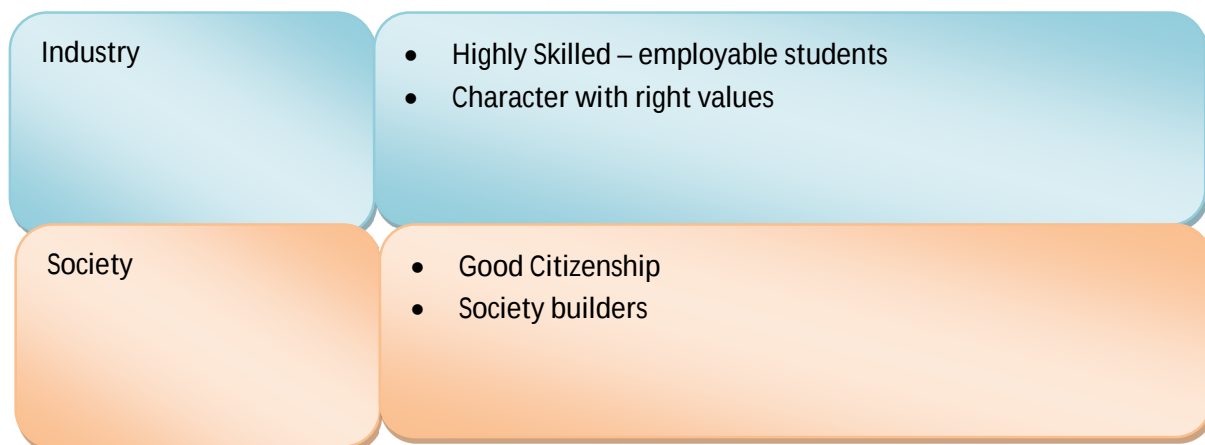
- Professionalism
- Integrity
- Innovation
- Team Work

**CORE
VALUES!**



STAKE HOLDERS EXPECTATIONS

University	• Brand • Expansion • Social Service/ Responsibility • In top 100 rank band of NIRF
Leadership Team	• Committed Management • Best Faculty • State of the art Infrastructure • Best Results
Faculty & Staff	• Good academic and work ambience • Best compensation & benefits • Good Students input
Students	• Best teaching- learning • Good placements • State of the art infrastructure
Parents	• Best teaching- learning • Disciplined and well-developed students • Good placements



External environment analysis

Economic Factors are analysed. AI and its growing relevance, International geo political conditions will pose a challenge to job market and number of students getting placement. Placement will get affected and this will have a direct bearing on admissions.

Social Factors are analysed and large parenting community is focussing on job oriented courses only but not on real education. This may pose great danger for pursuing quality learning on the part of the student. Only placement focussed learning may dilute academic standards.

Technological Factors were discussed and use of technology and AI tools in teaching-learning may have to be extensively used for higher effectiveness, meeting competition and to save time. Syllabus review to match concurrent technologies needs a re-look on the curriculum revision on a periodical basis. Emerging technologies are posing challenges in training faculty with latest changes happening in the industry. E-learning /online learning/online examination may replace traditional class room teaching-learning practice

Political Factors at the state and National level looked more stable and not many changes due to this factor. Higher education is getting a big priority from political decision making.

Regulatory Factors are more or less stable. NMAMIT is a constituent college of Nitte Deemed to be University following all UGC and AICTE guidelines. NEP 2020 guidelines are being followed.

Market /Competition Factors are posing some challenges as many Deemed /Private state universities- Industry lead universities / engineering colleges are getting started in many states. Other states inflow may be less and may affect admissions.

Institution - Internal Environment Analysis :SWOT

<u>Strengths</u> • Good Brand • Committed Visionary University Management • Best Faculty • Decades of Expertise • Good placement • Good Campus & Infrastructure • Recognized Research Centers • Rural Location giving very good ambience for studies	<u>Weaknesses</u> • Geographical disadvantage to attract excellent staff and students • Township Development • Located far away from industries
<u>Opportunities</u> • New Courses in Engineering • Continual education with industries • Innovative learning & teaching • Global initiatives • Use of latest technology like AI • Collaborative Research & Development activities with industries • Developing more Centers of Excellence • Consultancy Opportunities	<u>Threats</u> • New emerging Technologies • Foreign Universities entry • Competition – Admission of Quality Students • Faculty retention • Continuation of Industry recession – especially IT services

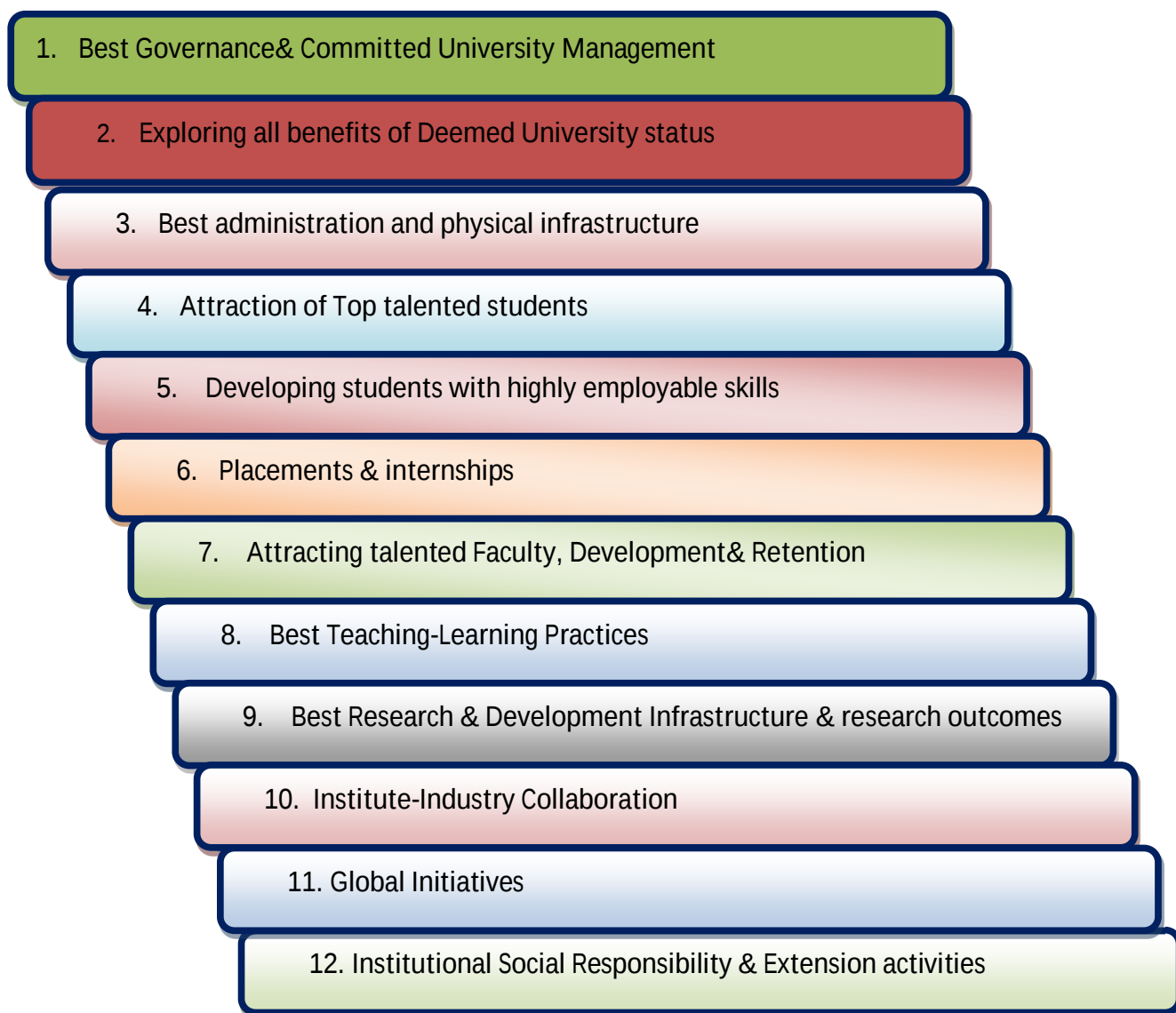
SWOT

Critical Success Factors analysis has been discussed at length and the following factors have been identified.

- Best quality students attraction
- Best teaching- learning practices
- Best placement opportunities
- Attraction and retention of best faculty
- State of the art infrastructure
- Industry- institute interface collaboration
- Research & Innovation

Institutional Strategic Goals

Leadership Team having brain stormed Vision, Mission, quality policy, core values, environmental factors and SWOT analysis, has come out with following high level goals which have been identified (HLG) which are also called Institutional Strategic Goals (ISG)



1. Best Governance & Committed Management



Visionary Management

- Vision, Mission articulation
- Good governance
- Institutional Strategic development plan



Board of Management

- Board Members –selection based on merit and experience
- Performance management of Board members
- Monitoring Head of the institution performance



Integrity & Ethics

- Integrity & Ethics policy articulation
- Control & accountability
- Zero- tolerance policy for violations



Identification of Good Leadership

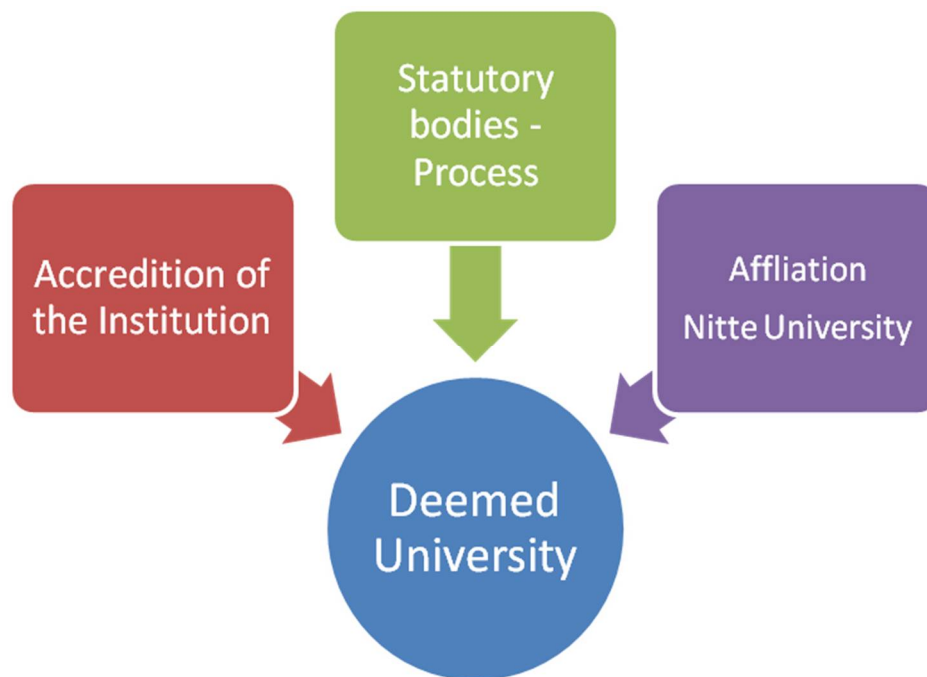
- Identification & Merit based hiring for senior leadership
- Succession –leadership pipe line planning
- Senior Leadership performance review –critical people retention plans



Policies, procedures formulation

- One time diagnostic study of all existing polices
- Service conduct rules and new polices formulation & approval
- New polices circulation, implementation & review every year

2. Deemed University status



Accreditation of the institution

- Identification of accreditation agency (NAAC/NBA/ABET)
- Training of staff and Applying for the Letter of interest
- Preparation of Self assessment Report
- Better NIRF ranking



Statutory bodies (UGC/AICTE/University)- Process

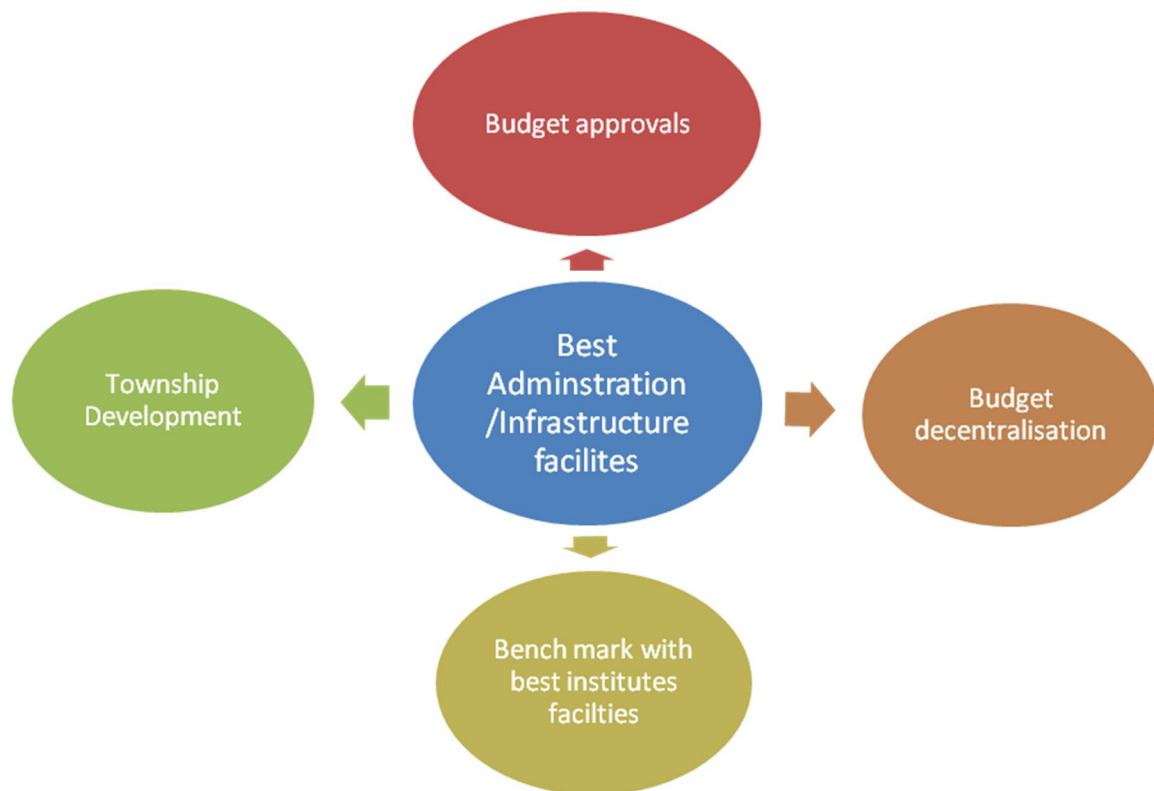
- Preparing internal team for regular statutory body visit
- Inspection by Expert Committee



Constituent college of Nitte University

- Following University policies and procedures
- Working towards improving the ranking of the University

3. Best administration and physical infrastructure



Budget approvals

- Budget planning and preparation (Zero based /bottom up budget)
- Budget approval by the Board / Chancellor
- Audit Committee formulation, checks and balances



Budget Decentralisation

- Approved budget communication to all the departments
- Budget authorization / decentralization up to HoD level



Bench mark with best institutes' facilities

- Diagnostic study of existing and other best institute facilities
- Benchmarking with best standards
- Management commitment towards implementation



Township Development

- Budget approval towards Township Development
- Budget and execution plan

4. Attraction of Top talented students



Scholarships

- At the time of admission based on entry criteria of NUCAT
- Based on their academic performance semester / yearly
- Based on best placements / internships



Branding

- Advertisement
- Website professional outlook with latest updates
- Students/Alumni as brand ambassadors



Best Teaching-Learning

- Student centric academic ambience
- State-of-the-art Library with online access
- Outcome Based Education equipped with employable skills



Best infrastructure

- Best model classrooms and laboratory facilities
- High speed Internet facility to students
- Good hostel facility



Extra-curricular & Sports

- Best-in-class infrastructure for indoor and outdoor games / sports
- Rewards / recognition for achievements
- Hobby / professional clubs
- Professional associations (IEEE, CSE, IE, ISTE chapters....etc.)



Placements & Internships

- History of past placements and internships database
- Vibrant Alumni Association

5. Developing students with highly employable skills



Syllabus alignment with latest industry need

- Industry participation in curriculum design and development.
- Train the faculty in latest technological updates.
- Bench marking the syllabus at par with the premier institutes / international professional bodies (ABET).



Domain Skills Development

- Conceptual depth in the domain expertise
- Participation in Professional Certifications
- Industrial visits / real time projects



Soft Skills Development

- Standardization of Soft Skills syllabus as per industry needs
- Imparting soft skills training from first year onwards



Extra Coaching for Weak & Best students

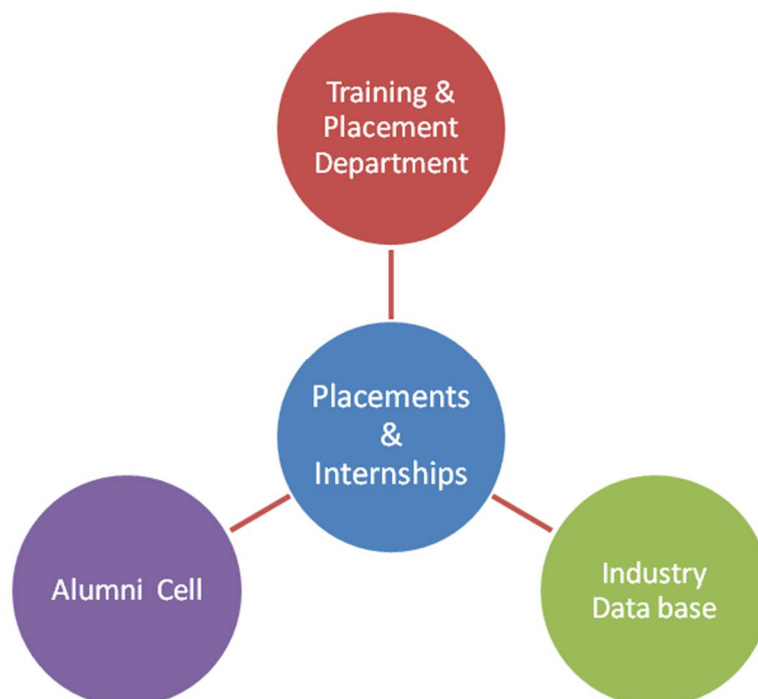
- Identifying difficult courses in every semester and allocating extra hours in the time table
- Identifying best and weak students
- Rewards and recognition for faculty handling extra classes



Preparation for various competitive examinations

- Awareness on various career options
- Students career ambition and database
- Identification and facilitation of various franchise coaching classes

6. Placements & internships



Training & Placement Department

- Good staff & infrastructure
- Industry- Institute interface
- Video recording of mock up interviews of students and feedback



Industry Data Base

- Identification and data base of various industries/companies
- MOU with potential job opportunity industries/companies
- Industry experts as resource persons & relationship management



Alumni

- Regular alumni association meetings
- Leverage alumni for placements/ internships

7. Attracting talented Faculty, Development & Retention



Merit based hiring policy

- Merit based hiring policy approval
- Merit based selections for all cadres



UGC /AICTE scales, Rewards & Recognitions

- UGC /AICTE scales implementation for all cadres /designations
- Rewards & recognitions policy formulation & implementation



Conducive working environment

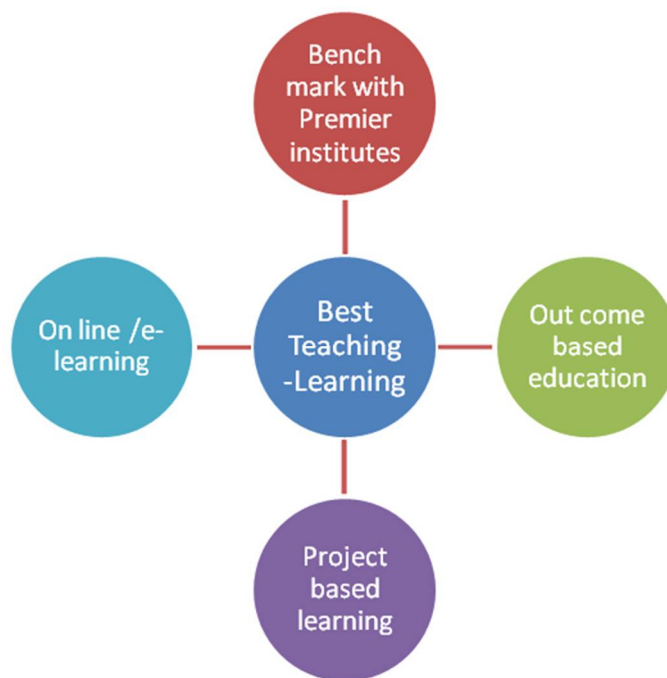
- Best work facilities and infrastructure
- Online access to Library- journals 24X7 hours
- Model Township establishment



Career growth & Development

- Sponsorship for higher education with full salary
- Sponsorship to participate in national /international conferences
- Deputation to premier national /international universities/industry

8. Best Teaching-Learning Practices



Bench mark with Premier institutes



- Constitute academic committee and visit premier institutions
- Implement best practices based on gaps



Outcome based education

- Define outcomes of each initiative
- Assessment /evaluation methods
- Implementation of 'Rubrics'



Project based learning

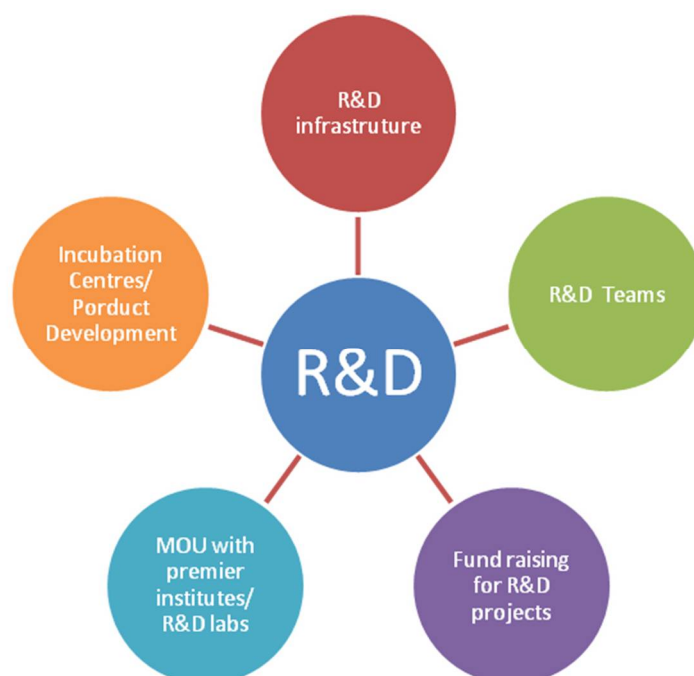
- Real time projects practice
- Industry internships/project study
- Rewards & Recognition for best projects



Online /e-learning

- Online /e-learning infrastructure facility
- Students assignments – evaluation

9. Best Research & Development Infrastructure



R&D Infrastructure

- Establishing R&D labs in all departments
- Functional equipment in all labs
- Central research facilities



R&D Teams

- Dedicated R&D researchers
- Regular Research scholars
- Increasing number of indexed quality publications



Fund raising for R&D projects

- Identification of potential funding agencies
- Quality Project proposals submission



MOU with premier institutes /R&D labs

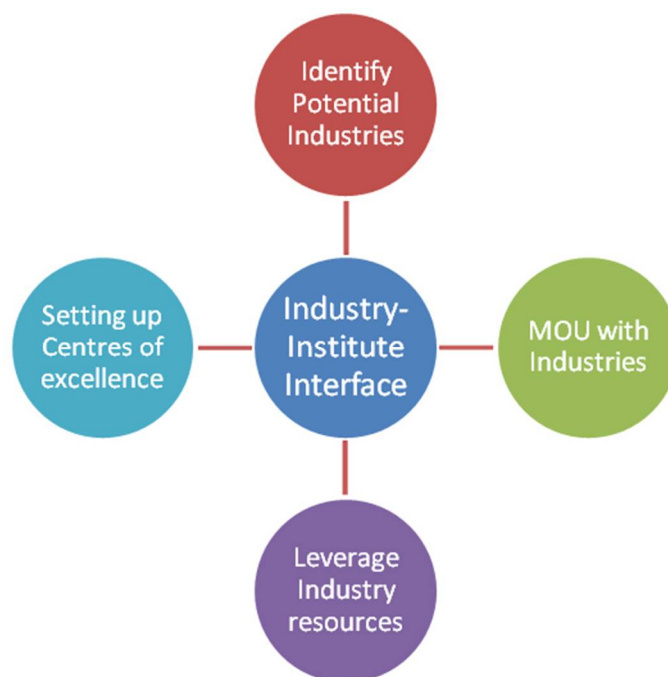
- MOS with IISC, TIFR, ISRO, BARC, NAL, HAL, BEL...etc
- International MOUs with higher learning institutions



Incubation Centre /Product Development

- Establish incubation centre in each department
- Focus on Product development
- Patent filing encouragement

10. Institute-Industry Collaboration



Identify Potential Industries

- Identify branch wise preferred industries/companies
- Potential areas of research identification



MOU with Industries

- Enter MOU with industry department wise for research /live projects
- Consultancy assignments



Leverage Industry Resources

- Invite Guest lecturers /talks/seminars
- Partner for syllabus reviews
- Industry advisory boards at department level



Setting up Centres of Excellence

- Identify potential industries who can establish centres of excellence department wise
- Establish and operationalise centres of excellence

11.Global Initiatives



New Campuses / Courses

- Explore opportunities in establishing new campuses in developing countries
- Explore the possibilities of having MoUs with the governments of developing countries



Twinning Programmes

- Twinning programmes and dual degree programs with leading universities of developed countries



Foreign Students

- Attracting foreign students from under developed countries

12. Institutional Social Responsibility & Extension activities



Village adoption

- Identify nearby villages for adoption
- Explore areas of support



Vocational training

- Identify the job oriented courses as per local needs
- Provide vocational training at our institute



Health and hygiene support

- Conducting health awareness camps
- Providing free health care to the needy
- Psychological and psychiatric support



Rural projects

- Identify societal problems and projects
- Project execution and support services

Department of Biotechnology Engineering

About the Department:- The department was started in the year 2002, with intake capacity of 60, the department offers B.Tech program in Biotechnology Engineering. This Program trains students in biological applications of engineering principles. Since inception, the department has achieved the credibility of having interdisciplinary research projects, MoU with industry and academia, research publications of student projects as well with faculty research fundings. A total funding of Rs. 2.87 Crores from various funding agencies has been the hallmark achievement of the department. The department facilitates unconditional support to the students for their overall development with experienced and dedicated faculty and state of the art facilities.. Analytical infrastructure includes HPLC, GC, AAS, PCR, ELISA reader, probe sonicator, lyophiliser, fermenters, Gel doc system, UV-visible spectrophotometer, Cold centrifuge, and Thermo-regulated incubator shakers. The up-to-date curriculum and the upgraded labs promote an atmosphere of practical and knowledge-based learning principles catering to the needs of the industry to compete with the expected standards of higher education. An established Bioenergy Research, Information and Demonstration Centre (BRIDC) funded by the Karnataka State Bioenergy Development Board (KSBDB), under Government of Karnataka facilitates demonstration, awareness and disseminates information about biofuels amidst scientific community, students, farmers and public.

VISION :- To accomplish excellence in Biotechnology research and creating manpower for the benefit of society and human kind with an emphasis on present and future global needs

MISSION :- To empower the students of Department of Biotechnology Engineering in to

- Competent professionals to undertake projects by providing academic training and technical achievements
- A successful professional in research, academia and industry
- An engineer for effective utilization of natural resources in biotechnology related industries.

Short-term Goals

1. Enhance academic excellence through project-based learning, and hands-on training on high-end laboratory equipment.

2. Increase research project submissions and secure external funding from state and national agencies.
3. Improve student employability and departmental visibility through industry-oriented training, internships, and outreach activities.

Medium-term Goals

1. Revise and modernize the curriculum through stakeholder inputs to align with emerging trends and industry requirements.
2. Establish a strong innovation ecosystem for promoting research publications, patents, and student-led research initiatives.
3. Strengthen industry, alumni, and academic collaborations to enhance student placements, mentorship opportunities, research partnerships, and scholarly exchange.

Long-term Goals

1. Establish an Integrated M.Tech. by research program to promote academic excellence and a research-oriented culture.
2. Obtain NABL accreditation for departmental laboratories and develop recognized testing and analytical consultancy services.
3. Develop a vibrant start up and entrepreneurial ecosystem that fosters innovation, technology commercialization, and biotech venture creation by students and faculty.

Department of Civil Engineering

About the Department:- The Department started in 1987 with a UG Programme with an intake of 60. Since the Academic year 2012-13, the intake has been increased to 120. The intake for the current Academic Year (2024-25) is 60. Two year Post Graduation programme M.Tech in Construction Technology was started in 2010 with an intake of 18 and M.Tech in Structural Engineering in the year 2017 with an intake of 24. The Department is also recognized as a Research Centre offering M.Sc. (Engg.) and Ph.D. programmes with 9 research scholars pursuing their Ph. D. In addition, the Department Students' Association (OCEAN) organizes seminars, workshops, educational tours and design competitions for Civil Engineering students. It also conducts Leadership Training, Personality Development Training and Entrepreneurship Development Programmes. The Department has taken up Karnataka State Council for Science & Technology (KSCST) funded projects and is also working on developing Masonry blocks and Paver blocks using Industrial waste materials under Karnataka New Age Incubation Centre, NMAMIT funded by the Department of IT, BT and S & T, government of Karnataka.

VISION:- To uphold the Department as a leader in community development through innovation and excellence in diverse areas of Civil Engineering to meet the global challenges and market demands

MISSION:-

To provide the students a strong theoretical knowledge and practical skills to understand the basic concept and fundamentals of various Civil Engineering subjects

- To be competent and skilled enough to take the challenges in Research, Consultancy and Entrepreneurship
- To encourage the students in developing professional ethics through discipline and principles

Short Term Goals (1 Year)

Strengthen academic quality, upgrade existing laboratory and computing facilities, and enhance student training and industry interaction.

Mid Term Goals (3 Years)

Promote interdisciplinary research, establish specialized laboratories, increase funded projects and publications, and strengthen industry–academia partnerships.

Long Term Goals (6 Years)

Position the department among leading civil engineering programs through academic excellence, impactful research, global collaborations, innovation, and sustainable development initiatives.

Department of Computer Science and Engineering

About the Department:- The Department of Computer Science & Engineering, established in 1986, offers UG, PG and research (leading to M.Sc. and Ph.D.) programs. The Department practices outcome-based education since 2014. With state-of-the-art laboratories and other supporting facilities to provide enhanced learning environment, the Department boasts of well qualified teaching faculty with rich research, teaching and industrial experience.

The Department has excellent placement track record in reputed industries with an average of 80 – 85% placement of eligible students over the years. The Department regularly conducts audit courses, and special courses on advanced topics, to bridge the gap between the curriculum and the need of the industry. The Department offers M.Tech programs in Computer Science & Engineering and Cyber Security. From the year 2022-23 M.Tech program is under Nitte University.

VISION: To be a center of excellence in Computer science & Engineering education and research, empower the lives of individuals to fulfill their academic excellence, professional passions, and partnership for community development.

MISSION:- To impart knowledge through the state-of-the-art concepts and technologies in Computer Science and Engineering.

- To inculcate values of professional ethics, leadership qualities and lifelong learning.
- To prepare professionals for employment in industry, research, higher education, community partnerships, and entrepreneurship to benefit the society.

Strategic Development Goals

Short-Term Plan (1 Year: 2026–2027)

To focus on the following:

- FDP on OBE implementation
- Encourage student projects on different domain
- Conduct Alumni talks
- Conduct talks by industry experts
- Involvement of industry experts in curriculum delivery
- Conduct workshops on emerging technologies
- Encourage student publications
- Encourage student participation in technical competitions

Mid-Term Plan (3 Years: 2026–2029)

Enhance curriculum relevance by introducing emerging technology specializations such as:

- Lab based electives on
 - o Cyber Security
 - o Quantum Computing
 - o Blockchain Technologies
 - o IoT
 - o Cloud Computing

☐ Strengthen research culture by:

- o Promoting patents
- o Increasing quality publications
- o Encouraging student and faculty research

☐ Improve student progression through:

- o Higher education guidance
- o Industry and academic partnerships (MoU)

Long-Term Plan (6 Years: 2026–2032)

- Build an ecosystem for:
 - o Industry-relevant projects
 - o Interdisciplinary research
 - o Professional certifications
 - o Product Development
- Encourage faculty to:
 - o Apply for project funding
 - o Establish a Centre of Excellence in collaboration with reputed industry

Department of Electrical & Electronics Engineering

About the Department:- The Department of Electrical and Electronics Engineering, established in 1987 offers the undergraduate programme BTech in Electrical and Electronics Engineering with an intake of 120 and MTech in Electric Vehicle Technology with an intake of 10. Researchers in this domain have the opportunity to work on cutting-edge technologies like converter design GaN, SiC devices and the upcoming mobility systems like EV. Emphasizing practical learning, the department encourages the development of working prototypes that will

be used in the campus. The department has well-qualified, dedicated faculty and has a well-connected alumni network. The state-of-the-art Laboratories in Power Electronics, Control Systems, Power Systems and High Voltage & Relay, cater to the requirements of all Electrical and Electronics Engineering students. Through collaborations with industries, seminars, conferences, workshops, STTPs, Summer Internships, and Faculty Development Programs are regularly organized to stay updated with current trends. The department also provides consultancy services to a few start-up companies in Power Electronics and motor drives.

VISION:- Pursuing excellence in Electrical & Electronics Engineering, creating a research environment to promote innovation and address global challenges

MISSION:- The Department of Electrical & Electronics Engineering is committed to

- Equip students to face global challenges by excelling in a professional career and higher education
- Offer high-quality graduate and post graduate programs in electrical & electronics engineering
- Promote excellence in research, collaborative activities and contribute to social development with ethical values

Short-Term goals

- **Advanced Practical Training:** Deliver targeted, hands-on hardware training to the students, utilizing the department's newly acquired high-end instrumentation.
- **Research Publications:** Increase the number of publications in the department to more than 50.
- **Industry Partnerships:** Solidify corporate collaboration by signing at least one Memorandum of Understanding (MoU)

Medium-Term goals

- **Industry-Aligned Curriculum:** Launch an integrated M.Tech. program co-designed, with industry to bridge the academia-industry gap.
- **Interdisciplinary Innovation:** Establish an interdisciplinary research center focused on high-impact research, aiming for patent filings and top-tier publications.
- **Consultancy Expansion:** Scale departmental consultancy services to increase annual revenue to ₹50 lakhs.

Long-Term goals

- **Premium Placements:** Enhance student career trajectories to achieve a median placement salary of ₹9 lakhs per annum.

- **Global Mobility:** Expand international placement opportunities, scaling global recruitment from **30% to 50%** of eligible candidates.
- **Faculty Excellence:** Achieve a **90% doctoral faculty profile** by ensuring all teaching staff hold a Ph.D.
- **Global Academic Alliances:** Partner with tier-1 international universities to institutionalize active, reciprocal student and faculty exchange programs.

Department of Electronics & Communication Engineering

About the Department: - The Department of Electronics and Communication Engineering started during the year 1986

- Undergraduate Program with an intake of 180 students.
- Postgraduate Program in VLSI Design & Embedded Systems with an intake of 18 students.

The Department has highly qualified and experienced faculty. The Curricula is designed with focus on the fundamentals enabling the students to undergo Experiential, Interactive, Collaborative, Computer based and Active learning to prepare them to be independent Life-long learners.

The Department is equipped with state-of-the art laboratory facilities in the areas of Communication, Embedded Systems, Power Electronics, Signal Processing, VLSI Design and Automotive Electronics to equip students to be industry ready. The Department showcases a Centre of Excellence funded by Texas Instruments, in association with STEPS Knowledge Services Pvt. Ltd., authorized Partner for Texas Instruments University Program in the thrust areas of Embedded Systems, IoT and Robotics. The Department is recognized as a Nodal centre for Virtual Laboratory by MHRD. The Department has collaborated with ISSS in the MEMS Community chip activity and our students have involved in IC fabrication. Student forums like IEEE, ISTE and IEI chapters, Robotics, Aero, IoT, Medical Electronics and Embedded Systems clubs provide opportunities for students to develop technical and soft skills. The Department also has active MoUs with Industries, Universities and Government Organizations. Graduates from the department are placed in major industries, civil services and multinational corporations.

VISION: - Empowering people, partnering in community development and achieving expertise in the field of Electronics and Communication.

MISSION: - To impart effective knowledge of state-of-the-art technology in the field of Electronics and Communication that contributes to the socio-economic development and to

generate technical manpower with high degree of credibility, integrity and ethical standards by providing vibrant learning environment.

Short-Term Goal:

To promote academic excellence through quality teaching–learning processes and strengthen industry collaborations.

Mid-Term Goal:

Develop industry partnerships, enhance financed research projects and patent, improve placement possibilities with core and global corporations and develop postgraduate and emerging technology programs.

Long-Term Goal:

Develop the department into a premier Centre of Excellence through corporate-sponsored Centre of Excellence, strong industry and global collaborations, outstanding placements, and impactful research in emerging areas of Electronics and Communication Engineering.

Department of Mechanical Engineering

About the Department:- The Department of Mechanical Engineering at NMAMIT was established in the year 1986, with an initial intake of 40 students. Since then, the department has experienced substantial growth, and currently, the annual graduating strength of undergraduate students is approximately 180. The department offers a master's degree program in Machine Design with an intake of 18 students. Accredited by the NBA under Tier-1 category, the department is also recognized as an established Research Centre under Nitte Deemed-to-be University. To date, 15 students have successfully completed their PhD, with several part-time and full-time doctoral students currently enrolled. Additionally, the department hosts several centers of excellence. Students benefit from comprehensive development opportunities, facilitated through professional societies, branch associations, and various professional club activities.

VISION:- To be a center of excellence in Artificial Intelligence and Machine Learning Engineering education and research, to produce comprehensively trained, technically skilled, ethically strong, innovative engineers to excel globally, take future challenges and contribute to social welfare.

MISSION:- To provide excellent academic environment to students for continuous improvement in Computer Science, Artificial Intelligence and Machine learning specialization by imparting education with innovation, skills, and positive attitude to make them competent engineers and leaders to solve the real-world problems to inculcate values of professional ethics, leadership qualities and lifelong learning.

To strengthen the industry partnership for collaborative work and prepare graduates in cutting edge Artificial Intelligence technologies in par with industrial standards by undertaking collaborative projects which offer opportunities for long term interaction between academia and industry.

To inculcate research, ethical values, professionalism, lifelong learning to make them globally competent and socially committed.

To provide resources that contribute to congenial learning environment and encourage students to pursue higher education and take competitive exams.

Short term goals

- Start a Bachelor's degree program B Tech in Mechanical Engineering (Manufacturing Engineering) from the AY 2027-28
- Conduct at least two international conferences in association with leading academic institutions / Universities / organizations.
- Conduct an FDP on Systems Engineering and work towards offering it as a program elective / open elective for the B Tech students from the next academic year.

Medium term goals

- Based on the positive feedback from the student community, parents and general public, efforts to convince the management / University to maintain the intake for B Tech program in Mechanical engineering at 120 with an increased tuition fee.
- Efforts to increase the placement of all the eligible students and reach the target of 100 %.
- Increase the number of publications from the target of this year (2026-27) 100 to 150.

Long term goals

- Upgradation and modernization of all the core laboratories of the department.
- Technical / non-technical compulsory training for all the non-teaching staff of the department in terms of skill / certification courses.

Department of Information Science Engineering

About the Department:- The Department of Information Science & Engineering (ISE), was established in the year 1999 . To accommodate the needs of the software industry, the Department was founded with an initial intake of 40 students. Further, the intake was increased to 60 in the year 2000 and subsequently to 120, 180 and 240 in the year 2016,2019 and 2024 respectively. This course is designed to provide a comprehensive understanding of the principles, theories, and practical applications that form the foundation of Information Science, a dynamic field at the intersection of computer science, mathematics, and engineering. This course helps the students to delve into the diverse and evolving landscape of information systems, data management, and computational intelligence. Information Science Engineering plays a pivotal role in our increasingly digitized and interconnected world, influencing the way we communicate, process information, and make decisions.

The Department provides state-of-the-art facilities, where innovation meets education. The facilities are designed to provide a conducive environment for learning, research, and hands-on exploration in the dynamic field of computer science. The Department maintains strong connections with industries and facilitates internship opportunities for students. Industry partnerships provide students with real-world exposure, bridging the gap between academic learning and industry demands. With cutting-edge facilities, the Department aims to cultivate a learning environment that nurtures curiosity, fosters innovation, and prepares students for successful careers in the ever-evolving field of computer science. Over the years, the Department has placed 80–85% of qualifying students in reputable industries, demonstrating a good track record of placement.

In 2019, the department of Information Science & Engineering (ISE) collaborated with ICT Academy to offer industry-based courses like Google (for Cloud and Android courses), and UiPath (for Robotic Process Automation course). Since 2020, ISE is part of Google's Career Readiness Program. Department has a high placement rate with attractive packages and has a high-end NVIDIA server to explore more into data analytics and also has qualified and supportive faculty to cater to the needs of the aspiring students and upgrade their skills.

VISION:- Excellence in information science and engineering through a strong research and teaching environment that addresses the emerging global challenges and market demands

MISSION:- The Department of Information Science & Engineering is committed to

- Provide outstanding education and research training to the students for their productive careers in industry, academia and government

- Provide a learning environment that promotes excellence and innovation, ethical practice and responsibility towards society
- Prepare the students to practice their professions competently to meet the ever-changing needs of society and to continue learning their discipline, allowing them to move into other related fields
- Promote active learning, critical thinking, and engineering judgment coupled with business and entrepreneurial skills

Short Term Goals

1. Strengthen programming, data structures, and problem-solving skills among students.
2. Enhance industry-oriented certifications in areas such as AI, cloud computing, and cybersecurity.
3. Improve placement readiness through aptitude, communication, and interview training.

Mid Term Goals

1. Strengthen industry collaborations for projects, internships, and sponsored research.
2. Increase publication of quality research papers and patent filings.
3. Improve placement packages and attract more product-based companies.
4. Start a PG program in the department.

Long Term Goals

1. Build a strong global network with universities and industries for academic exchange and collaborative research.
2. Establish the department as a preferred destination for high-quality education, research, and innovation in Information Science

Department of Artificial Intelligence & Machine Learning

About the Department: - The Department of Artificial Intelligence & Machine Learning (AI&ML) was established in the year 2020-21. Bachelor of Technology in Artificial Intelligence & Machine Learning equips students with the skills and knowledge required to analyse, design and control intelligent systems. The main objective of offering this program is developing professionals who are skilled in the area of AI & ML. This program enables students to gain in-depth understanding of fundamental subjects in Computer Science and deals with technologies like image processing, machine learning, natural language processing, neural networks, deep learning, reinforcement learning and big data analytics. This course is designed for both academic and skill based education to create a bright career for the students

Centre of Excellence in AI and ML is equipped with the latest computers and state of the art amenities facilitating research work and projects for the students and research scholars in addition to regular curricular activities.

Scope and Opportunities

Machine Learning is one of the fastest-growing fields in the technical sector. Enormous modern Industries require the expertise of skilled Artificial Intelligence professionals to expand the scope of Artificial Intelligence into many sectors, including healthcare, transport, security, gaming, voice recognition technologies, smart systems , finance, promotional network development, customer support, prediction and analytics, search engines, product recommendations, fraud detection and many more. Artificial Intelligence has found a very special place in people's homes as Smart Home Assistants. Computer Engineers and Scientists are striving relentlessly to impart intelligent behaviour in the machines making them think and respond to real-time situations.

Up-skilling is a default part of any career. In the IT industry, learning new skills has become mandatory to stay with the competition. In this aspect, Artificial Intelligence (AI) and Machine Learning (ML) are the best choices for an excellent career in a world which is relying on data. The data-driven operations adopted by almost every industry enhances career options of well-trained professionals.

Amidst all the commotion that AI may replace redundant job roles with automation and smart devices, we are yet to reach the stage where machines would take over our everyday life. So, if you are an AI& ML aspirant looking for a job in the industry, opportunities are aplenty.

- The students have opportunities to be recruited by reputed industries like Microsoft, Amazon, Google, Nutanix, Oracle, Cisco, Dell Technologies, Accenture, Informatica, Sony India, Juniper, Commvault, Allegion, Avysh, Cohesity, Clover Bay Technologies, Tismo Technologies, Hashedin, VmWare and many more.
- Graduates from the AI& ML program can pursue higher education and research at premier national or international universities with a great scope even in the research field.
- With a huge reliance on data driven applications, a career in the field of AI & ML can be very promising as Big Data Engineer, Data Scientist, Machine Learning Engineer, Research Scientist, AI Data Analyst, Data warehouse Engineer, Business Intelligence Developer, AI Engineer, Full stack developer, software Architect, Product Manager, Front end Developer, Robotics Scientist, etc.

VISION: To be a center of excellence in Artificial Intelligence and Machine Learning Engineering education and research, to produce comprehensively trained, technically skilled, ethically strong, innovative engineers to excel globally, take future challenges and contribute to social welfare.

MISSION:

- To provide excellent academic environment to students for continuous improvement in Computer Science, Artificial Intelligence and Machine learning specialization by imparting education with innovation, skills, and positive attitude to make them competent engineers and leaders to solve the real-world problems to inculcate values of professional ethics, leadership qualities and lifelong learning.
- To strengthen the industry partnership for collaborative work and prepare graduates in cutting edge Artificial Intelligence technologies in par with industrial standards by undertaking collaborative projects which offer opportunities for long term interaction between academia and industry.
- To inculcate research, ethical values, professionalism, lifelong learning to make them globally competent and socially committed.
- To provide resources that contribute to congenial learning environment and encourage students to pursue higher education and take competitive exams.

Strategic Goals - Timeline	Particulars	Quantifiable Target
Short-Term Goals (Within 1 Year)	Curriculum revision and enhancement	Revision of all courses ; introduce 2–3 new emerging technology courses/certifications
	Industrial training programs	Conduct 2–4 industrial training programs ; ensure 80% student participation
	Outreach initiatives	Organize 3–4 outreach/community engagement activities annually
	Entrepreneurship and startup awareness	Conduct 2–3 startup awareness programs/workshops ; reach 200+ students
	Research Interest Groups (RIGs)	Establish 3–5 research groups with regular monthly meetings.
	Faculty participation in FDPs	At least 50% of faculty to attend FDPs conducted by institutions such as IIT, NIT, IITs, AICTE, NBA, or reputed industries

		At least 5 days/40 hours of professional development per faculty annually
Mid-Term Goals (Within 3 Years)	Funded projects and publications	Submit 10+ project proposals ; secure 2–5 funded projects ; publish 20+ Scopus/WoS indexed journal papers
	Student startups	Develop minimum 2 startup teams with business plans; register 1 startup/incubation project
	AI-based societal solutions	Develop and deploy 3–5 AI-based solutions/projects addressing societal challenges
	Industry collaboration and MoUs	Sign 2–3 new MoUs ; provide internships/projects for 70% of eligible students
	Faculty doctoral qualifications	Minimum 5 faculty members to earn Ph.D. degrees
Long-Term Goals (Within 6 Years)	Center of Excellence (CoE) in AI & Emerging Technologies	Establish 1 CoE with 2 funded projects, 1 dedicated lab , in association with industry/ recognized universities, institutions
	Strategic partnerships and MoUs	Sign 6–10 active MoUs with industries/research organizations; achieve 90% internship coverage and 80% placement rate
	PG Program in Intelligent Computing	Obtain approval and launch 1 PG program with an intake of 20–30 students

Department of Computer and Communication Engineering

About the Department:- Bachelor of Technology in Computer and Communication Engineering (C&CE), is an engineering program started in the academic year 2020-21. Bachelor of Technology in Computer & Communication Engineering is designed to provide expertise to those students who seek specialization in Computer Communication Technologies and Telecommunications. The main focus of the programme is on Computer Networks (Wired and Wireless) and Telecommunications technologies. The program offers courses in Computer Science, Cloud Computing, Multimedia Communications and Big Data Analytics. Emphasis is placed throughout the course on developing the practical skills and in-depth knowledge

required by the present industrial scenario. This program equips students to engage in research focusing on the fusion of multi-disciplinary skills employed in designing modern computing devices with communication channels, communication systems with advanced computer algorithms and systems.

The program provides experiential learning on basic and advanced courses in computer science, communication networks, security and associated subjects. It is a professional degree that integrates communication techniques, problem-solving strategies, simulation skills and mathematical foundations with the hands-on training required to solve real-world problems.

VISION:- To be a center of excellence in Computer Networks and Network Security education and research, to produce comprehensively trained, technically skilled, ethically strong, innovative engineers to excel globally, take future challenges and contribute for social welfare.

MISSION:- To provide excellent academic environment to students for continuous improvement in Computer Science and Computer Network specialization and by imparting education with innovation, skills, and positive attitude to make them competent engineers and leaders to solve the real-world problems to inculcate values of professional ethics, leadership qualities and lifelong learning.

- To provide excellent academic environment to students for continuous improvement in Computer Science and Computer Network specialization and by imparting education with innovation, skills, and positive attitude to make them competent engineers and leaders to solve the real-world problems to inculcate values of professional ethics, leadership qualities and lifelong learning.
- To strengthen the industry partnership for collaborative work and prepare graduates in cutting edge Computer Network technologies in par with industrial standards by undertaking collaborative projects which offer opportunities for long term interaction between academia and industry.
- To inculcate research, ethical values, professionalism, lifelong learning to make them globally competent and socially committed.
- To provide resources that contributes to congenial learning environment and encourages students to pursue higher education and take competitive exams.

- **Short-Term Plan (1 Year: 2026–2027)**

Strengthen the teaching-learning process through outcome-based education and introduce value-added courses in Computer Networks, Cyber Security, Cloud Computing, and AI. Upgrade laboratory facilities and promote industry certifications, internships, and technical workshops. Encourage faculty and student participation in research publications and innovation activities. Organize programs on professional ethics, leadership, communication skills to enhance overall student development.

- **Mid-Term Plan (3 Years: 2026–2029)**

Enhance curriculum relevance by introducing emerging technology specializations such as 5G/6G Networks, Network Security, Quantum Networks, Blockchain Technologies, IoT, and Cloud Computing. Establish strong industry collaborations through internships, and projects. Strengthen research culture by promoting patents and increasing quality publications. Improve placement opportunities, entrepreneurship initiatives, and higher education prospects through sustained industry and academic partnerships.

- **Long-Term Plan (6 Years: 2026–2032)**

Establish the department as a premier centre for education, research, and innovation in Computer Networks, Network Security, and emerging communication technologies. Develop advanced research facilities, promote interdisciplinary and industry-driven research. Foster global collaborations, entrepreneurship, and technology-driven solutions to address real-world and societal challenges. Produce highly skilled, ethically responsible, and globally competent graduates capable of leadership, lifelong learning, and impactful contributions to industry, academia, and society.

Department of Robotics and Artificial Intelligence

About the Department:- The Department of Robotics and Artificial Intelligence (R&AI) was established in the year 2021-22. The major focus of B.Tech. program “Robotics and Artificial Intelligence” is to generate skilled personnel required for the implementation of Industry 4.0 technologies in the industry. The program presents equal percentage of Robotics and Artificial Intelligence related courses. Robotics related courses include the courses on design and manufacturing of the robot, sensing, control, programming and applications of robots. Courses related to Artificial Intelligence include basics of Programming, Machine Learning, Big Data Analytics, Deep Learning, IT and Communication Systems. Furthermore, an equal percentage of weightage is given to laboratory components in Robotics and Artificial Intelligence.

VISION:- To produce Robotics and Artificial Intelligence (AI) engineers of the highest quality who are professionally competent and highly qualified to suit the needs of industries and organizations by promoting excellence in teaching, learning and research.

MISSION:- The Dept. of Robotics & Artificial Intelligence Engineering is committed to

- Provide high quality education to the students, to fulfill the requirements of a ‘Global Engineer’
- Constantly strive to improve the teaching-learning methods, in order to deliver good academic programs
- Respond to the fast evolving scientific and technological challenges in a highly competitive world
- Inculcate, ethics, integrity, honesty, credibility, social and environmental consciousness

I. Short Term Plan:

- i. Upgradation of Kinematics and Dynamics Lab, Physical AI Lab, Micro Aerial Vehicle Lab, Control Engineering Lab, Wheeled Mobile Robot Lab and ROS Labs
- ii. To sign the MOU with two Robotics and AI related companies for collaborative research work and student internships and placements

II. Mid Term Plan:

- i. Starting M.Tech Program on “Intelligent Robotic Systems”
- ii. To increase in intake of the UG program from 60 to 120.
- iii. To improve the PhD research scholar registration in the department to 10

III. Long Term Plan:

- i. To Develop the research centre named “Centre for Assistive Robotics Engineering”
- ii. To Collaborate with one of the foreign university for the research collaboration in the area of Robotics and AI.

Department of Artificial Intelligence & Data Science

About the Department:- Bachelor of Technology in Artificial Intelligence and Data Science (AI & DS), is an engineering program started in the academic year 2022–23 under Nitte Deemed to be University, aiming to create experts in the domain of data science. It enables the students to acquire technical skills to perform data processing, analysis and visualization in real-time applications from various domains. The courses studied in this program relate with methodologies, processes, techniques and tools drawn from various domains of computing and information science to extract knowledge from structured and unstructured data.

The concepts studied in AI & DS cover the applications of mathematical concepts for data handling, study of various methods followed for data handling and analysis, applications of data analysis in the domain of artificial intelligence.

The knowledge acquired could be applied in designing the software systems facilitating intelligent decisions in business applications. It is a specialized branch that deals with the development of data-driven solutions, data visualization tools and techniques to analyze big data. It also incorporates the concepts of machine learning and deep learning model building for solving various computational and real-world problems.

VISION:- Achieving excellence in engineering education by creating a dynamic learning environment, fostering collaboration and interdisciplinary research in Artificial Intelligence and Data science, and empowering our graduates to become leaders in the global AI landscape.

MISSION:- Creating an ecosystem of academic excellence by incorporating the best possible teaching-learning methodology, collaborative research and usage of modern IT infrastructure and tools.

- Grooming professionals with ethical values and inculcate the ability to solve real-life problems that involves data analytics.
- Contributing to the innovation of computing, AI system and Data Science to raise satisfaction level of all stakeholders.
- Preparing professionals for employment in industry, research, higher education, community partnerships, and entrepreneurship to benefit the society

Short-Term Goals (1–2 Years)

1. Strengthen the curriculum by incorporating emerging topics such as Generative AI, Explainable AI, and MLOps.
2. Establish industry collaborations for internships, guest lectures, and mini-projects.

3. Improve student participation in coding competitions, hackathons, and technical events.
4. Encourage faculty and students to publish research papers in reputed journals and conferences.
5. Organize workshops, certification programs, and value-added courses in AI, ML, and Data Analytics.

Mid-Term Goals (3–5 Years)

1. Develop specialized research groups in areas such as Machine Learning, Computer Vision, NLP, and Data Engineering.
2. Establish a Centre of Excellence in Artificial Intelligence and Data Science in collaboration with industry partners.
3. Achieve higher placement rates with leading AI and technology companies.
4. Promote interdisciplinary projects addressing societal and industrial challenges.
5. Expand industry advisory board and formalize curriculum feedback loop.

Long-Term Goals (5–10 Years)

1. Establish advanced research laboratories and incubation facilities to support innovation and startups.
2. Contribute significantly to society through AI-driven solutions in healthcare, agriculture, education, and sustainability.
3. Achieve accreditation and rankings that position the department among the leading AI and Data Science departments in India.

Department of Computer Science and Engineering (Cyber Security)

About the Department:- The Bachelor of Technology in Computer Science and Engineering (Cyber Security) programme, introduced in the academic year 2023–24 under Nitte Deemed to be University, is designed to nurture proficient professionals in the rapidly evolving field of Cyber Security. With the digital landscape expanding at an unprecedented pace, cybersecurity has emerged as a Mission-critical discipline for organisations across sectors. According to the Data Security Council of India (DSCI), the nation currently faces a demand-supply gap of nearly one million cybersecurity professionals, highlighting the urgent need for skilled experts in this domain.

This B.Tech program at NMAM Institute of Technology integrates core and advanced concepts of Computer Science and Engineering with specialised courses in Cyber Security, ensuring a well-rounded technical foundation. The curriculum equips students with the competencies required to excel both as software engineers and as cybersecurity specialists, enabling them to

pursue rewarding global career opportunities. Through the Cyber Security and Analysis certification, students gain an additional professional edge, preparing them to work with leading organisations worldwide.

The department emphasises research and innovation, providing avenues for students to engage in cutting-edge projects, collaborate with the Centre of Excellence, and receive hands-on training from industry experts. These experiences foster both technical proficiency and professional confidence.

VISION:- To be a premier Department of Computer Science and Engineering in the field of Cyber Security, committed to providing high-quality education, impactful research, and strong employability skills, thereby developing ethical, competent, and socially responsible professionals and entrepreneurs who contribute to community development.

MISSION:- To develop technically proficient cybersecurity professionals with strong foundational knowledge, capable of adapting to emerging technologies and building world-class solutions.

- To inculcate values of professional ethics, leadership, and lifelong learning.
- To prepare students for careers in industry, research, higher education, and entrepreneurship, enabling them to contribute meaningfully to society.

Department Institutional Development Goals (2026–2032)

"Securing the Digital Future through Excellence in Cyber Security, Artificial Intelligence, Research, Innovation, and Global Collaboration."

1. Short-Term Goals (1 Year)

A. Curriculum Development

Objectives - Align curriculum with current industry requirements and emerging cybersecurity domains. Strengthen practical and experiential learning.

Introduce specialized courses in:

- AI for Cyber Security
- Generative AI Security
- Cloud Security
- Blockchain Security
- Digital Forensics
- Cyber Threat Intelligence
- Ethical Hacking and Penetration Testing

Skill-Based Certifications

Integrate:

- Google Cybersecurity Certificate
- EC-Council Programs
- AWS Cloud Security

Laboratory Enhancement

Establish:

- Ethical Hacking Lab
- Cyber Range Environment
- Malware Analysis Lab
- Digital Forensics Lab
- Cloud Security Lab

B. Faculty Development Programs (FDP)

Objectives - Develop expertise in emerging cybersecurity areas.

Conduct FDPs on:

- Cyber Threat Intelligence
- Digital Forensics
- Blockchain Security
- Secure Software Engineering

C. Research and Innovation

Objectives - Create a strong research culture.

Establish:

- Cyber Security Research Cell
- Student Innovation Club

Research Themes:

- AI-Powered Threat Detection

- Explainable AI in Security
- Secure IoT Systems
- Ransomware Analysis
- Privacy-Preserving Machine Learning
- Digital Forensics

D. Industry Collaboration

Objectives - Bridge academia and industry.

Sign MoUs with few Cyber Security industries.

Activities:

- Guest lectures
- Internship programs
- Joint projects
- Cybersecurity boot camps

E. NIRF Preparation

Improve:

- Faculty-student ratio
- Research publications
- Patents
- Placement percentage
- Industry-funded projects

2. Mid-Term Goals (3–4 Years)

A. Academic Excellence

Offer:

1. Cyber Security and AI
2. Digital Forensics
3. Cloud and Network Security
4. Cyber Physical Systems Security
5. Cyber Law and Governance

New Programs

Launch:

- PG Diploma in Cyber Security
- Executive Programs for Industry

B. Centres of Excellence

Establish:

Centre for AI and Cyber Security

Research Areas:

- Adversarial AI
- Secure AI Models
- AI Governance

Centre for Digital Forensics

Focus:

- Mobile Forensics
- Cloud Forensics
- Incident Response

C. Research and Innovation Ecosystem

Targets

- 100+ Scopus publications.
- 20 patents filed.
- 5 patents granted.

Student Innovation

Conduct:

- Hackathons
- Capture the Flag (CTF)
- Cyber Challenges

D. Internationalization

Collaborations with:

- MITRE Corporation
- OWASP Foundation
- SANS Institute

Activities:

- Joint workshops
- Faculty exchange
- Student exchange

E. Placement Excellence

Targets

Create:

- Cyber Career Development Cell

Focus Roles:

- SOC Analyst
- Security Consultant
- Penetration Tester
- Threat Hunter
- Incident Responder
- Cloud Security Engineer

3. Long-Term Goals (5–10 Years)

A. National Centre of Excellence

Establish the department as a recognized center for:

- Cyber Security
- AI Security
- Critical Infrastructure Protection

- Digital Forensics

Outcome - Recognition from:

- Ministry of Electronics and Information Technology
- National Cyber Security Coordinator

B. Research Leadership

Targets

- 200+ Scopus publications.
- 30 patents.

C. Entrepreneurship and Innovation

Targets

- 02 cybersecurity startups.
- Technology commercialization.
- National cybersecurity product development.

Department of Electronics and Communication (Advanced Communication Technology)

About the Department:- B.Tech in Electronics and Communication (Advanced Communication Technology) {B.Tech in E&C (ACT)} started during the academic year 2023-24. This programme is a specialization in Electronics and Communication Engineering with an emphasis on Data Communication and Telecommunication technologies. This is to provide expertise to those students who seek specialization in Device-to-Device Communication and Next-Gen Telecommunication standards.

The main focus of the E&C (ACT) programme is on Communication Networks, Embedded Systems, Digital Signal Processing, 5G, WiFi 6, IoT, Network Security, Information Technology and Advanced Communication Technologies. The course also covers foundation subjects in Computer Science, Programming and Application development. A strong emphasis is placed throughout the course on developing the practical skills and on the in-depth knowledge that are required by today's industries.

VISION:- To empower individuals, contribute to community development, and cultivate expertise in state-of-the-art electronics and communication technologies while fostering innovation in advanced communication technology.

MISSION:- To deliver specialized education in electronics and communication that supports socio-economic development of the region, while developing technically competent professionals with credibility, integrity, and ethical standards through a dynamic learning environment.

Short-Term Goals (Upto 1 Year)

- **Curriculum Enhancement and Interdisciplinary Learning:**
Strengthen the curriculum by integrating cutting-edge domains such as Software Defined Networking (SDN), Cognitive Radio, AI-driven Communications, Internet of Things (IoT), Machine Learning for Wireless Networks, and Cloud-Edge Computing.
- **Laboratory Infrastructure Development and Modernization:**
Establish and upgrade specialized laboratories in Software Defined Radio (SDR), Wireless Communications, SDN, and advanced communication technologies to provide hands-on training, support student projects, and facilitate research in next-generation communication systems.
- **Faculty Upskilling and Professional Development:**
Enhance faculty expertise through training programs, industry certifications, workshops, and collaborative research in emerging areas such as SDR, IoT, Network Security, AI-driven Communications, and 6G technologies to strengthen teaching, research, and industry engagement.
- **Industry Collaboration and Professional Certification:**
Forge strategic partnerships with leading technology enterprises to deliver Value Added Courses (VACs), industry immersion programs, and professional certification pathways.
- **Student Engagement, Innovation, and Career Readiness:** Encourage participation in training programs, hackathons, design competitions, internships, innovation projects, and entrepreneurship activities to enhance practical exposure, problem-solving abilities, leadership qualities, and placement outcomes.

Mid-Term Goals (1-3 Years)

- **Centre of Excellence and Advanced Research Infrastructure:** Establish a Centre of Excellence (CoE) in Advanced Communication Technologies and Secure Communication Systems to promote cutting-edge research, innovation, industry collaboration, technology transfer, and funded projects.
- **MoUs and Industry Collaboration:** Develop strategic partnerships with industries and research organizations to facilitate internships, expert interactions, collaborative research, consultancy, and industry-sponsored projects.
- **Research Excellence, Publications, and Grant Acquisition:** Enhance high-quality research publications, patents, interdisciplinary innovations, and externally funded projects through faculty–student collaboration.
- **Accreditation and Academic Expansion:** Achieve accreditations through continuous quality improvement and outcome-based education while expanding programs in emerging communication technologies.

- **Alumni Engagement and Professional Networking:** Build a strong alumni network to support mentoring, internships, placements, industry engagement and collaborative research.

Long-Term Goals (3-6 Years)

- **Research Hub and Advanced Graduate Programs:** Develop the department into a recognized research hub in Advanced Communication Technologies through cutting-edge research, interdisciplinary collaboration, advanced graduate programs, funded projects, and high-impact publications, patents, and innovations.
- **Future Communication Systems and Living Testbeds:** Establish advanced testbeds and living laboratories for emerging technologies such as 6G and satellite communications to support research, validation, and real-world deployment of next-generation communication systems.
- **Innovation and Entrepreneurship Ecosystem:** Promote innovation and entrepreneurship through student projects, startup incubation, intellectual property generation, and industry-driven technology development, transforming ideas into impactful solutions and ventures.

Department of Electronics Engineering (VLSI Design and Technology)

About the Department:- B.Tech in Electronics Engineering (VLSI Design and Technology) started during the academic year 2023-24. Bachelor of Technology in Electronics Engineering (VLSI Design and Technology) is the specialization of B.Tech in Electronics and Communication Engineering. VLSI is the process of design and manufacturing of Integrated Circuits (IC) or silicon chips. This programme aims to cater to the exponential rise in demand for semiconductor talent pool in India and across the globe. It prepares market-ready engineers in the field of semiconductor technology and electronics industries.

As India focuses on becoming a chip-making nation, the All India Council for Technical Education (AICTE) has also designed a curriculum for B.Tech in Electronics (VLSI Design and Technology). Our course is structured in line with the AICTE model curriculum and covers a range of topics from semiconductor device fundamentals, analog and digital circuits to VLSI circuits and design, IC design and technology, semiconductor equipment operation, manufacturing, assembly, testing and packaging, microcontrollers, embedded systems. It also includes study and usage of Electronic Design Automation (EDA) tools and the programming, scripting languages for semiconductor design, synthesis, simulation, fabrication and testing.

Career prospects:

On successful completion of the course, graduates are recruited in Fabless design companies, Display Fabs, Semiconductor Fabs, Fabs for Compound Semiconductors, Silicon Photonics,

Sensors, Discrete Semiconductors and Semiconductor Assembly, Testing, Marking, and Packaging (ATMP) / OSAT facilities. The starting salary in a VLSI company varies from Rs 3 lakhs to Rs 20 lakhs per annum, with an average annual salary of Rs 14 Lakhs. In core multinational companies the average annual salary for beginners varies from Rs 30 lakh to Rs 80 lakh.

The various schemes and policies are framed by Govt. of India to encourage start-ups, MSMEs, industries and large business houses. Also, Chips to Startup (C2S) programme of Ministry of Electronics and Information Technology, Govt. of India is aiming to train 85,000 Engineers (Bachelors, Masters and PhDs) in ESDM over the period of 5 years.

VISION:- Empowering people, Partnering in community development and achieving expertise in the field of Electronics and Communication.

MISSION:- To impart effective knowledge of state of the art technology in the field of Electronics and Communication that contributes to the socio-economic development and to generate technical manpower with high degree of credibility, integrity and ethical standards by providing vibrant learning environment.

Strategic goals:

1. Short term goals

- Execute Institutional MoUs: Sign formal agreements (MoUs) with semiconductor industries to establish state of the art labs which enhance teaching learning process.
- Conduct regular workshops, hackathons, coding contests, mini-project exhibitions, industrial visits, and internship training programs to enhance students' technical skills and employability.
- Build Strong Alumni Network: Build a robust VLSI alumni network to institutionalize sustainable channels for student mentorship, training, and campus placements.

2. Midterm goals

- Develop a Centre of Excellence in VLSI and Semiconductor Technology focusing on low-power IC design, AI hardware accelerators, IoT chips, MEMS, and biomedical electronics.
- Industrial Collaboration & Internships: Partner with electronic design firms for PCB/circuit design modules and secure structured student internships.

- Increase Innovation and Intellectual Property Creation to promote product-oriented student projects addressing real-world challenges, increase collaborative research projects and funding.

3. Long term goals

- Offer specialized training programs for students, faculty, and industry professionals.
- Secure NBA accreditation, strengthen NIRF performance and establish the department among the leading VLSI programs in the region through sustained academic excellence.
- Develop advanced postgraduate and doctoral research programs hence to achieve national recognition through high-impact research publications and funded projects.

Department of Master of Computer Applications

About the Department:- The Master of Computer Applications (MCA) program, started in the year 1993 at NMAMIT, with an intake of 30 currently has an intake of 180. MCA is a two year (four semesters) full- time postgraduate program that focuses on advanced theoretical and practical knowledge about computer application development and programming languages. The MCA degree equips students with skills to develop tools that enhance the working of applications. The course structure and contents provide in-depth knowledge and trains the students in various aspects of computer programs, application software, computer architecture, operating systems database management and many more. The MCA program equips students with the knowledge of four important topics – the mathematics underlying computer science, core computers, systems science, and software development or design. Students acquire proficiency in subjects like Artificial Intelligence, Soft Computing, Machine Learning, Cyber Security, Blockchain Technology, Internet of Things, Cloud Computing, Healthcare Analytics, Bioinformatics, Image Processing, Natural Language Processing and Mobile Computing to name a few. Students of the MCA program at NMAMIT Nitte, are encouraged to participate in research projects, multidisciplinary projects and community service projects that fosters a quality of research mindset in them. At the outset of the MCA program, the subject of research methodology is introduced. This course is designed to meet the demand for qualified professionals in the IT field as it emphasizes on latest programming languages and tools to develop better and faster computer applications. MCA students of NMAM.I.T., are successfully placed in companies like HP, IBM, Infosys,Wipro, RedHat, Robert Bosch, SonicWall, Accenture, Mindtree, Pinaka Informatics,Pinnacle Media, Informatica, Warpdrive, Robosoft

Technologies, Global Delight, Thought,Grains, Code Craft, Laurus Infosystems, Kambala Solutions, Invenger, Growthbits, Span Infotech, Trivium, Techjini, Sun Plus, Next Novity, Telecom Thinking Hats, Indyago, TechVerve Solutions, Dell India to name a few. MCA students are also placed in overseas companies like Nidec Read CoE, Japan, Kobayashi Create CoE Japan. Miraic Inc Japan, Mamiya IT Solutions Japan and Temairazu Inc Japan.

VISION:- Equipping students with computing & programming domain expertise with the state of the art technology solutions to enable them to meet global professional challenges.

MISSION:- The department strives to create a conducive environment equipping students to work in teams and have

- Professional Ethics
- Sound Technical Knowledge
- Skills to Handle Technological Challenges

Short Term Goals:

Academic Excellence

- Improve student performance and academic results through outcome-based teaching and continuous assessment.
- Revise and update the curriculum to align with current industry requirements and emerging technologies.
- Provide specializations in Cloud Computing Data Science, and Full Stack Development.
- Create an Industry Advisory Board to guide curriculum, projects, and skill development.

Industry Interaction and Employability

- Strengthen industry-academia collaboration through MoUs, guest lectures, internships, workshops and industry projects.
- Enhance placement opportunities by conducting regular aptitude training, coding practice sessions, and mock interviews.
- Facilitate professional certifications from organizations such as Oracle Corporation, Microsoft Corporation, Amazon Web Services, and Salesforce, Inc..
- Ensure all students to do industry internship

Research and Innovation

- Increase the number of quality research publications in indexed journals and conferences by faculty and students.
- Encourage faculty and students to undertake interdisciplinary research projects.
- Promote innovation through hackathons, coding competitions, and project exhibitions.

Skill Development

- Conduct regular workshops on programming, software development, emerging technologies, and soft skills.
- Establish coding clubs and technical forums to foster peer learning and innovation.
- Improve students' problem-solving abilities through platforms such as competitive programming and coding challenges.

Quality Assurance and Accreditation

- Strengthen documentation and quality processes in line with accreditation requirements.
- Collect and utilize stakeholder feedback for continuous improvement of the program.

Student Development

- Improve student participation in technical events, conferences, and national-level competitions.
- Enhance communication, leadership, teamwork, and entrepreneurial skills among students.
- Provide mentoring and career guidance to support higher education and employment aspirations.

Faculty Development

- Identify expert academicians and industry experts
- Conduct at least one Faculty Development program in the latest technology
- Conduct training on the most recent trends and advancements in research, technology, and teaching approaches.
- Depute at least two faculty to the industry immersion programs

Mid term goals

Conduct at least one online course by faculty in platforms like Swayam and NPTEL

- Identify experts in conducting online courses
- Provide training to the faculty to conduct online course

Research and Innovation

- Increase the number of high-quality research publications in reputed journals and conferences.
- Secure externally funded research projects from government and industry organizations for students and faculty
- Encourage student participation in research, innovation challenges, and product development.
- Get patents granted

Industry Collaboration and Employability

- Develop long-term MoUs with leading IT companies and startups for internships, live projects, and recruitment.
- Achieve a consistently high placement rate with increased average salary packages.

Faculty Development

- Encourage faculty members to obtain doctoral degrees, certifications, and advanced professional training.
- Promote collaborative research and consultancy activities.

Long Term goals

Strengthen MCA admissions

- Establish the MCA Department as a preferred destination for quality computer applications education in the region.
- Continuously maintain a curriculum aligned with emerging technologies and industry needs.
- Achieve consistently high student success rates and graduate outcomes.

Strengthen MCA placements

- Achieve and sustain a placement rate of 90% or higher.
- Increase the average salary package through enhanced industry engagement and advanced skill training.
- Build a strong alumni network that actively supports mentoring, internships, and placements.
- Prepare students for global career opportunities and higher studies.

Improve Research and Innovation Ecosystem

- Establish a recognized research center in emerging areas such as Artificial Intelligence, Data Science, Cybersecurity, and Cloud Computing.

- Increase the number and quality of publications in reputed indexed journals and conferences.
- Secure research grants from government agencies and industry partners.
- Encourage the development software products, and innovative solutions addressing societal challenges
- Get patents granted.
- To form and promote expert teams in emerging disciplines.
- Establish research collaborations with international institutions.
- Industry mentors for applied PhDs.

Start PG diploma courses

- Introduce Diploma courses

Increase online knowledge transmission using proper technologies.

- Expand digital and online offerings: Develop comprehensive portfolio of online programs(Short term certificates) to reach millions of learners especially working professionals across India and abroad.
- Provide training to conduct online courses through digital platforms like Swayam, NPTEL, etc.,)

Department of Humanities

About the Department:- The department was started in the year 2013 The Department of Humanities at Nitte Mahalinga Adyanthaya Memorial Institute of Technology, Nitte is committed to active engagement in teaching and outreach activities. The Department offers courses across the board ranging from basic to advanced courses in English Communication and Foreign languages catering to diverse needs of students including, Gender and Culture studies, Linguistics, IPR, Essence of Indian Culture, Constitution of India, Yoga, Physical Education, Philosophy and Yakshagana. These learnings provide excellent preparation for career and professional studies. The department also conducts activities to develop the intuitive and cognitive skills of the learners to enhance themselves within the social context.

The Department houses a state of art Language Laboratory 'Subhashini'. The lab supplements the development of LSRW skills requisite in the language learning process. It emphasizes on the construction and practice of the sounds of language and familiarizes students with the nuances of English language effectively encompassing a wider variety of activities.

The Department of Humanities relentlessly thrives to impart quality education and life skills that helps students to succeed in the personal, academic, and professional avenues.

VISION:- Centre of learning imparting concurrent language skills in humanities to develop globally competent engineers.

MISSION:- Empowering the students with personal and professional skills in humanities to excel in life endeavours by focusing on core values.

Short-Term Goals (1–2 Years)

- Strengthen communication and professional skills training through innovative pedagogy and effective utilization of the Language Laboratory.
- Enhance student engagement through workshops, and outreach activities.
- Improve faculty competencies through FDPs, research initiatives, and curriculum enrichment.

Medium-Term Goals (3–4 Years)

- Introduce interdisciplinary and industry-relevant courses in communication, foreign languages, ethics, and emerging technologies.
- Increase quality research output, funded projects, consultancy, and publications in humanities and allied disciplines.
- Build strong collaborations with industries, academic institutions, and alumni to enhance learning and employability.

Long-Term Goals (5–6 Years)

- Establish the department as a nationally recognized Centre of Excellence in Humanities and Communication Studies.
- Foster international collaborations and multidisciplinary research addressing contemporary societal and professional challenges.
- Develop globally competent, ethically responsible, and industry-ready engineering graduates with strong communication and leadership skills.

Department of Mathematics

About the Department:- The Department of Mathematics came into existence in 1986 along with the inception of the institution. Dedicated, experienced and energetic faculty of the Department impart invaluable information that may be used both in academic as well as professional life. At present, the Department has one Professor, three Associate Professor and twenty Assistant Professors. Of these, fourteen faculty have completed their doctoral studies, 6 are pursuing their Ph.D. Compulsory courses in different streams of Mathematics are offered by the Department as required by the respective branches of Engineering up to fourth semester. All branches are offered three open electives by the Department in the IV or VIII semester. Visvesvaraya Technological University (VTU) has recognized the Department as a

Research centre. From the year 2022-23 Ph.D degree is awarded by Nitte University. The department has more than 40 research publications in reputed national/international journals. Lattice theory, Ring theory, Fluid Mechanics, Numerical Methods and Graph theory are the thrust areas of research. Teaching faculty employ various innovative techniques to improve the comprehension and problem solving skills of students-providing consistent academic results.

VISION:- Centre of excellence in mathematics committed to develop quality engineers by developing passion towards mathematics and its application

MISSION:- Develop students with reasoning ability, analytical skill, awareness of logic and instigate research culture in them.

Department Strategic Goals:

Short Term : To upgrade teaching – learning techniques

Mid Term : To achieve excellence in teaching, research and students' performance.

Long Term : To develop collaboration with academic, industrial and research organizations.

Department of Physics

About the Department:- The Department of Physics, established along with the Institute in the year 1986 offers Engineering Physics Theory and Laboratory courses to first-year Engineering students and open elective papers in the eighth semester. It has well-equipped laboratories to facilitate the academic requirements of the students. The department has well qualified, experienced, and dedicated faculty, and the support staff. From the year 2022-23 Ph.D degree is awarded by Nitte Deemed to be University. The Department has received research funds from VTU & VGST and has published more than 70 research papers in journals of national and international repute.

VISION:- To facilitate the students understand and apply basic knowledge in Physics to solve common problems through practical solutions, thus improving the quality of life.

MISSION:- Providing quality education in the area of Physics to assist Engineering students to understand basic technology and apply them effectively

- To interact with faculty and students of all disciplines of Engineering stream to promote innovation, creativity, and professionalism with the larger ambition of taking the Institution to greater heights.

1. Short-Term Goals (1 Year Timeline)

The Physics Department will focus on

- **Lab Upgrades:** Focus on minor equipment purchases for foundational teaching laboratories.
- **FDP/Workshop:** To conduct one FDP / workshop (Min. of 3 days) on emerging areas in physics like Quantum Technology or Nanotechnology with industry – institute collaborations and support.
- **Core Research Output:** To increase the number of Scopus-indexed publications in the department, i.e. minimum 4 Q1/Q2 papers per faculty in a calendar year.
- Focus on getting external project funding from govt. agencies (department faculty will submit at least one good project in an academic year and to concentrate on getting funding).

2. Medium-Term Goals (3 Year Timeline)

The Physics Department will focus on

- **Interdisciplinary Centers:** Launch collaborative centers at the intersection of physics and emerging fields like **Quantum Technology, Biophysics, Nanotechnology** and **Renewable Energy**.
- **Seed Funding:** Apply for early-stage grants tied to industry-relevant sectors (e.g., semiconductor devices, quantum technology, nanotechnology, renewable energy).
- **National Quantum Mission (NQM) Integration:** Align research thrusts with the national agenda to build quantum logic platforms and secure communication networks.
- **To start the Minor Degree course on Quantum Technology** (as already approved by the Nitte DU) for the fourth semester B.Tech. students, by updating the current syllabus.
- **To start the B.Sc. honors (4 years) course under Nitte DU** (by introducing standard university B.Sc. syllabus and with Physics and Computer Science as major subjects) and to introduce the research / industry relevant curriculum and to focus on their placements.
- **FDP/Workshop:** To conduct one FDP / workshop (Min. of 3 days) per year on emerging areas in physics like Quantum Technology / Nanotechnology / Photonics / renewable energy, with industry – institute collaborations and support.
- **Doctoral Studies Expansion:** To significantly increase the number of Ph.D. scholars and secure sustained, extramural funding from government agencies.
- **Core Research Output:** To increase the number of Scopus-indexed publications in the department, i.e. at least 5 Q1/Q2 papers per faculty in a calendar year.
- **Focus on getting external project funding from govt. agencies** (department faculty will submit at least one good project proposal in an academic year and to

concentrate on getting funding) and to establish a Centre of excellence in emerging areas in physics like Quantum Technology / Nanotechnology / Photonics / renewable energy etc..

3. Long-Term Goals (6 Year Timeline)

The Physics Department will focus on

- **To start the M. Sc. course under Nitte DU** by introducing standard university M.Sc. syllabus, with condensed matter physics or photonics or radiation physics or nanotechnology or quantum mechanics or quantum technology as optional subjects in their second year by introducing the research / industry relevant curriculum and to focus on their placements.
- **Advanced Facilities:** Establish high-end centralized facilities (e.g., low-temperature systems, advanced spectroscopy, quantum computing) to attract international postdocs.
- **Commercialization:** Successfully translate basic physics research (such as novel semiconductor devices) into viable industrial applications and to create a self-funded model through commercialized patents, technology transfers, and extensive corporate-sponsored R&D labs.
- Position the department as a primary driver for regional technological innovation, providing solutions for Sustainable Development Goals (SDGs), particularly in affordable clean energy.
- **FDP/Workshop:** Planning to conduct one FDP / workshop (Min. of 3 days) per year on emerging areas in physics like Quantum Technology / Nanotechnology / Photonics / renewable energy, with industry – institute collaborations and support.
- **Doctoral Studies Expansion:** To significantly increase the number of Ph.D. scholars (including post-doc) and secure sustained, extramural funding from government agencies.
- **Core Research Output:** To increase the number of peer-reviewed Scopus-indexed publications in the department, i.e., at least 6 Q1/Q2 papers per faculty in a calendar year.
- **Focus on getting external project funding from govt. agencies** (department faculty will submit at least two good project proposal in an academic year and to concentrate on getting funding) and to establish a Centre of excellence in emerging areas in physics like Quantum Technology / Nanotechnology / Photonics / renewable energy etc..
- **Global Ranking:** To achieve premier global rankings and international recognition as a hub for fundamental scientific discoveries.

Department of Chemistry

About the Department:- The Department Chemistry, since its establishment in 1986, has been playing a profound role in providing a strong basic foundation for first year BE students. The Department offers branch-specific chemistry courses for core and IT-related branches to align chemical science concepts with the specific needs for respective engineering disciplines. Each course is integrated with a laboratory component that enables students to understand the fundamental principles governing materials and engineering devices. The Department practices Outcome Based Education since 2014. The Department is recognized as a Research Centre under Nitte (Deemed to be University) since 2022 and presently twenty-three research scholars are pursuing their PhD in the Research Centre. The Department has been awarded extramural research funds and has more than 200 research papers published in national and international journals to its credit. All the faculties in the Department are PhD qualified and actively involve themselves in academic and research activities to achieve the Vision and Mission of the Department.

VISION:- Partnering with core disciplines of engineering to develop competent engineers with inquisitiveness towards science research and its applications

MISSION:- The Department is committed to nurture students to achieve their academic potential, independent thoughts, high ethical standards and to establish inter-disciplinary research programmes.

Short-term goal: (i) Deliver high-quality, outcome-based chemistry education aligned with engineering applications. (ii) Promote interdisciplinary research with engineering departments. (iii) Strengthen national and international collaborations with academic and research institutions.

Mid-term goal: (i) Introduce interdisciplinary elective courses and value-added certification programmes. (ii) Mentor undergraduate students for interdisciplinary projects (iii) Secure externally funded research projects.

Long-term goal: (i) Become a centre of excellence in engineering chemistry education. (ii) Develop interdisciplinary academic programmes in materials science and sustainable technologies. (iii) Translate research outcomes into industrial applications and patent grants.

Department of Student Welfare, Placement & Training

About the Department:- The department was started in the year 1990 currently with 07 staff. Abhyuday-The Department of Counselling, Welfare, Training & Placement consists of a Department Head, a full-time Counsellor, an Office Superintendent, Placement Executive, Faculty coordinators, committed Staff and student volunteers who work towards student well-being. Campus recruitment first began in 1994 with Kirloskar Snydergeneral as the first company to visit campus to recruit two students. Now the numbers have skyrocketed to 200+ companies visiting the campus and making 1200 +job offers to our students.

The Department conducts programs that help the students enhance their knowledge and equip themselves with industry-relevant skills and technology. Soft skills training is arranged to help the students ace the selection process and give them a superior edge in the competitive job markets. Non-placed students are assisted with placements for a year after their graduation through 'Off-Campus' initiatives and referrals.

Abhyuday helps those in need directly or by utilizing tangible and intangible resources available with peers, senior students, alumni, industry mentors, enthusiastic faculty, friends of NMAMIT, the library & the internet. Students with personal problems are assisted to resolve or minimize their problems through consistent supportive - therapeutic help. They are assisted even after they leave the campus. Abhyuday envisages a harmonious and collaborative world for all its associates.

VISION: Abhyuday has a VISION of seeing an NMAMITian as a happy, healthy, articulate, enthusiastic person who is socially and ecologically conscious, ethically upright, a team player, technically competent, eminently employable and a universal citizen.

MISSION: Partnering to develop students towards

- Domain expertise and employable skills
- Special attention towards personality development
- Ethical, moral and value systems

Department of Physical Education

About the Department:- The department was started in the year 1987 and currently with 07 staff.

Indoor Facilities: International Standard Basketball Court with wooden flooring, Conditioning Hall equipped with a multi-gymnasium and individual exercise stations, Recreational Games such as Table Tennis, Carrom, and Chess.

Outdoor Facilities: 400 mts. Standard Athletic Track with complete facilities for throws, jumps, and a pavilion with a fitness centre, Artificial Turf Football Field, Cricket Field with 3 centre pitches and 3 practice pitches, Hockey Field, Multiple Courts: Volleyball, Handball, Basketball, and Throwball.

VISION: Moulding youngsters with Discipline, team work, leadership, sportsman's spirit through games and sports

MISSION: Committed to provide state of the art facilities and coaching towards

- Realising students full potential in sports & games
- Developing Morale, leadership and Camaraderie
- Building physical and mental stamina

Strategy Implementation Evaluation

Strategy when implemented, the progress is measured from time to time. SMART (Specific, Measurable, Attainable, Realistic and Time bound) concept is made use of while arriving at implementation. Principal is the custodian for implementation. IQAC in each of its meeting at least thrice in a year evaluates the progress made in the implementation.

Implementation Plan @ Institution Level

Good Governance & Administration	- Chancellor, VC, Registrar, Principal
Finance Management	- Chancellor, Finance Director, Principal
Institution Statutory Compliance	- Principal & Vice Principal
Talent Management	- Vice Chancellor and Principal
Infrastructure (physical)	-Chancellor, Director (CM&D)
Infrastructure-Academics	- Principal, Vice Principal, HODs, Deans
Teaching- Learning	-Principal, Vice Principal, Deputy (Dean-academic), HODs, Faculty and Staff
Research	- Deputy Director (research)
Student affairs	- Dean Student affairs
Student admissions	- Deputy Registrar, Principal
Accreditation Process	- Principal, Vice Principal, IQAC coordinator
Faculty Development programmes	- HODs
Departmental activities	- HODs and Faculty
Placement & Training	- HoD-Placement & Training and HODs

Measurables

during Implementation

1. Good Governance

Board member selection, appointment, functioning, good governance initiatives, University commitment, VISION-MISSION reviews, Number of meetings conducted, decisions made, Committees appointment, performance , Policies implementation, grievance procedures, Educational ERP implementation....etc.

2. Talent Management

Recruitment, Selection of faculty, staff, salary, attrition rate, benefits as per UGC/AICTE, Faculty performance

3. Students intake Quality

NUCAT ranking, Students profile, PUC marks scored

4. Students academic performance

Pass percentage, number of distinctions & first classes

5. Placement

Number of students got placement, Median and highest salaries offered, Companies visiting the campus, Number got seats in higher education (GRE/GATE/CAT/GMAT...etc), Government jobs, Entrepreneurships, international placements

6. Curriculum

Curriculum review, Industry partnering, Faculty training on new syllabi, Introduction of new subjects, new optional offered

7. Research & Consultancy

Publications in national/international journals, Patents filed, conferences conducted, New MOUs signed, Centres of excellence established

8. Alumni

Alumni data base, number of interactions, internships, placements, projects, consultancy and donations

9. Physical infrastructure

Number of buildings, class rooms added, equipment added, new budget allocated & spent

10. Social responsibility

Number of villages adopted, vocational trainings provided, social projects undertaken

11. Sports & Extracurricular activities

Participants, number of tournaments won, fests conducted, recognitions, competitions participated

The committee, auditors will be formed for review from time to time. The following leadership team will monitor from time to time the implementation scheme against the measurables and do prepare detailed MIS for review at University.

- **Chancellor, VC**
- **Principal, Deans/HODs**
- **Professors, Faculty & Staff**
- **Student representatives**
- **Industry representatives**
- **Parent nominees**

Conclusion

NMAMIT has started with humble beginnings in 1986 and is completing 40 years of its existence. The institute has progressively grown and achieved many milestones. The institute is a constituent college of NDU and is revising syllabus as per industry requirements.

The IDP is an outcome of detailed deliberations with all the stake holders. This collective wisdom ensures owning up of the plan from specially Leadership and Management team. The high-level goals have strategies, Strategies have sub strategies with detailed implementation plan to ensure success and sustainability. The execution and operational implementation is monitored by evaluation and speaks the quality of the strategy itself. The word of caution is that Strategy itself can do nothing but its implementation in true spirit can. The strategy is not static but dynamic due to changing environment and it is an ongoing process.....

Institutional Strategic Goals