

Strategic Plan: 2022-2027



Dr. N.G.P. Institute of Technology, Coimbatore - 48
(An Autonomous Institution)
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Recognized by UGC & Accredited by NAAC with A+ Grade and
NBA (BME, CSE, ECE, EEE and Mechanical)

About the Institution:

Dr. N.G.P. Institute of Technology established in the year **2007** is located in Coimbatore, Tamil Nadu. It is run by Kovai Medical Center Research and Educational Trust, Coimbatore. The Chairman Dr. Nalla G. Palaniswami and Secretary Dr. Thavamani D.Palaniswami are basically medical practitioners by profession, started this Institution with the vision of imparting quality technical education.

Dr. N.G.P. Institute of Technology is an Autonomous, Self-financing Engineering College, Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai. It is also recognized by **UGC** under Section 2(f) and 12(B), accredited by **NAAC with A+ (3.36 out of 4)** and eligible programmes are accredited by **NBA** (B.E.-BME, CSE, ECE, EEE and Mechanical).

The Institution offers **9 Under Graduate Programmes** in BE - BME, CSE, Civil, ECE, EEE and Mechanical and B.Tech. – AI&DS, CSBS and IT. It also offers **4 Post graduate Programmes** namely ME- Computer Science and Engineering, Embedded Systems Technologies, Power Electronics and Drives along with MBA. The Departments of CSE, ECE, EEE and Mechanical Engineering are **Recognized Research Centres of Anna University**, Chennai. The students are passionately mentored by 183 faculty members out of which 68 faculty members are holding their Ph.D. Degree and 69 are pursuing their Ph.D.

The Institute is located within a serene green campus and has well planned infrastructure. The institute also established center for e-learning, TLC and digital library to enrich teaching-learning process. Through AICTE funded IIPC, the Institute established industry powered centers like Center for Robotics e-Yantra, Texas Instruments Center, NI LabVIEW Academy, etc., to train the students on emerging technologies.

In order to bridge the gap between industry and academia MoUs have been signed with SIEMENS Ltd, Oracle Corporation, CISCO Systems Inc, Texas Instruments, IBM India Pvt. Ltd., National Instruments, CODISSIA, Siemens Healthcare Pvt. Ltd., KEF Infrastructure India Pvt. Ltd. etc.

Vision:

To empower the students for succeeding in a changing world to become productive engineers and responsible citizens.

Mission:

The stated vision of the institution will be achieved by:

- MI1: Producing graduates with sound technical knowledge and skills in diverse engineering disciplines.
- MI2: Adopting innovative teaching and experiential learning practices by competent faculty.
- MI3: Enhancing knowledge and skills in cutting edge technologies through alliances with industry and research organizations.
- MI4: Creating conducive learning environment with state-of-art infrastructure and laboratories.
- MI5: Inculcating ethical standards among students, both societal and personal through outreach programs.

Objectives of the Institution:

The objectives of the Institution are to

- Offer UG and PG Programmes in the emerging areas of Engineering and Technology
- Produce technically competent engineers.
- Develop conducive environment for students and faculty members for academic and research purposes.
- Promote research culture in the institution
- Develop centers of excellence in all engineering disciplines offered by the institution.
- Strengthen industry institute interaction
- Develop and implement a comprehensive Human Resources plan
- To frame the Quality Policy for the academics and research
- To identify the best practices in the institution and to subsequently add more best practices
- To formulate various committees for effective functioning
- To conduct Periodic audits for academics and administration

Quality Policy:

Dr. N.G.P. Institute of Technology ensures quality Teaching-learning process, Research, Outreach services and Education for technical self-sufficiency. It is dedicated to nurture a culture of continuous quality improvement and optimum utilization of resources to achieve academic excellence.

Core Values:

- Contribution to National Development
- Fostering Global Competencies
- Inculcating Value System in Students
- Promoting the Use of Technology
- Quest for Excellence

Strategic Plan:

The Strategic Plan is prepared to achieve the objectives and Vision of the Institution over a period of five years and to develop the institution as one of the best industry linked and research institution with national and international recognition.

The core areas of focus by the institution include – Artificial Intelligence, Cybersecurity, Cloud based systems, Electric Vehicles, Robotics and Automation, Industrial IoT, Digital Manufacturing, Drones, Wireless Communication and Wearable Devices.

The Strategic plan of the institution for Academics, Research & Innovation, Industry interaction, Alumni Engagement, Institutional and Social Responsibilities are presented below

1. Academics

Dr NGP ITECH being an Autonomous Institution aims to utilize the academic autonomy extended by the University Grants Commission, AICTE and Anna University. Choice Based Credit System (CBCS) is followed through introduction of innovative curriculum and regulations (R2017, R2021 and R2022) with focus on one credit courses, value added courses, open electives, semester-long internship, fast track option for completing the courses ahead, industry supported projects, courses in design thinking, disruptive technologies and Liberal arts. The syllabi of the programmes are as per the Outcome Based Education (OBE) of NBA. The courses offered in the programmes have specific

outcomes which are in turn linked with the Programme Outcomes, Programme Specific Outcomes, Programme Educational Objectives and finally Vision and Mission of the Institution.

Plan of Action:

- To offer more courses of interdisciplinary nature to attract heterogeneous students in various programmes offered by the Institution
- To enhance experiential learning, participative learning and project-based learning through laboratory, internship and project-oriented courses in addition to the regular classroom learning.
- To encourage the student to take up online courses through NPTEL
- To offer industry driven courses for skill development (upskilling)

Target to be achieved:

- All the students will be offered open elective courses from other programmes to learn the interdisciplinary concepts
- Mini projects, Projects and Internships are mandatory
- To have more than 30% students' participation in Hackathons and other events in large scale.

2. Research & Innovation

Dr NGP ITECH has research policy in place for the Research & Development and Innovation. Also, Institution's Innovation Council (IIC) is established in the Institution to systematically foster the culture of Innovation. The Institution has 4 Department recognized as Research Centre by Anna University Chennai. Also, the Institution is recognized as SIRO by DSIR. Support is provided in the institution for Visiting industries, Presenting Papers in International conferences and symposiums, seed money for research, higher studies of faculty and nonteaching staff members, organizing workshops/seminars/conferences, and training of faculty members for research proposal writing and consultancy services. Remote access to IEEE login and Science Direct is available to all faculty and students of the Institution enabling the opportunity for continuous and any time access of the reference materials. A congenial environment

is established in the Institution with state-of-the-art infrastructure facilities in all niche areas of research.

Plan of Action:

- Faculty members to publish papers in journals listed in SCI/SCIE/Web of Science Scopus and UGC CARE Journals.
- Utilize the seed money to strengthen the research and innovation activities.
- Research Committee to disseminate the details of call for proposals from various funding agencies for the faculty members to submit proposals for funding.
- To attract good research scholars
- Every department to conduct one international conference per year in association with Professional Societies of the respective discipline.

Target to be achieved:

- At least 40% of faculty to be with Ph.D.
- To have 4 publications per faculty per year in the Journals (SCI /Scopus/WoS)
- To increase the number of Books, book chapters, monographs etc to be published by the faculty members by 20%
- Faculty members and Students to participate in Hackathons through IIC and IIPC

3. Industry interaction

Representatives from Industries and other research institutions are engaged in various bodies of the Institution namely Academic Council, Board of Studies, Industry Advisory Board, IQAC, Project Monitoring Committee in developing the Vision and Mission of the Departments, Curriculum and Syllabi, Guest lectures, one credit courses, workshops, student projects, internships, placement and faculty research/consultancy.

Plan of Action:

- To introduce more industry driven courses in the curriculum and to conduct at least two industry-need based programmes per department per year.
- To offer value added courses. Certificate courses to the students through industry associations and other approved agencies.
- To sign MoUs with industries

Target to be achieved:

- At least 10-20% of courses in all programmes to be industry driven

- To offer industry-based projects (20-30%) in all Programmes
- To increase the number of consultancies and revenue through consultancy by 20%.
- To increase the number of faculty members involved in industry sponsored research and consultancy assignments (20 to 30% of faculty members).

4. Alumni Engagement

NGP ITECH has registered Alumni Association with more than 6000 Alumni members. The Alumni members are engaged with the Institution in different modes as members in various bodies, during conduction of meetings and other such forums across the departments. Initiatives are taken to increase the presence of alumni in the campus. Alumni are encouraged to support the activities of NGP ITECH through interactions with faculty and students, by providing financial assistance to needy students etc.

Plan of Action:

- To have a forum in website for alumni to login and discuss with peers through the forum.
- To conduct annual Alumni conclave in the Institution.
- To conduct regular meetings of all the Alumni chapters
- To facilitate curriculum development and research activities through alumni engagement

Target to be achieved:

- To inaugurate alumni chapters abroad
- To introduce scholarship for needy students in all Programmes
- To create a digital forum to facilitate interaction with the Alumni, to post the opportunities for the Alumni and also opportunities for the students by the alumni.
- To promote and support startups through alumni connect

5. Institutional and Social Responsibilities

The Institutional Social Responsibility lies in promoting Clean India Mission, Digital India, Smart City and other initiatives of the Government through technology transfer and producing skilled engineers.

Plan of Action:

- To produce skilled graduates.
- To mould the students into individuals who care for the society and fellow human beings.
- To increase the number of outreach activities through NSS, YOGA and other clubs
- To support Women empowerment through WDC and other forums like IEEE Women in Engineering
- To have Technology development and transfer to the society along with digital literacy to the public

Target to be achieved:

- To implement community development initiatives through Unnat Bharat Abhiyan (UBA)
- To conduct digital literacy other awareness programmes like road safety, fire safety, awareness on health and hygiene, etc.
- To conduct programmes for school children in promoting the science and technology
- To promote and support startups by aligning the future generation towards Make in India and Digital India initiatives.

Review Mechanisms:

Plan of action is made in the beginning of every academic year by all the departments and the Institution for inclusive growth. Periodical reviews and audits are conducted to monitor the activities conducted to achieve the goals. The Governing Council, Academic Council and IQAC periodically review the plan of action and target achieved, give suggestions for the continuous improvement and communicate the information to relevant stakeholders for implementation.