STRATEGIC PLAN

(Implementation of Goals and Objectives and Monitoring)

(2019-2025)

JAWAHARLAL TECHNOLOGICAL UNIVERSITY ANANTHAPUR COLLEGE OF ENGINEEIRNG ANANTHAPURAMU (A.P)

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Section-1

Preamble

Jawaharlal Nehru Technological University, Anantapur (JNTUAnantapur) is a state university in Anantapur, Andhra Pradesh, India. Founded in 1946, it has since 1973 been a constituent college of Jawaharlal Nehru Technological University,as set by *The Jawaharlal Nehru Technological University Act, 1972*.In 2008 it had received autonomous status by the *Jawaharlal Nehru Technological Universities Act, 2008*

At the time when there was only one Government Engineering College at Guindy Madras for the entire former composite Madras province, three new Government Engineering Colleges were sanctioned under post World War II reconstruction programme, one at Coimbatore (1945), one at Kakinada (1946) and one at Anantapur (1946). The College of Engineering Anantapur was temporarily located at Guindy in 1946 and later shifted to Anantapur in 1948. The first batch of 60 students was admitted into the college at Guindy, Madras on 10 June 1946. Major B.H. Marley was appointed as the first full-fledged Principal of the college after the college shifted to Anantapur. The college was located in the Military Meat & Dehydration factory in the present old campus.

The college was formally inaugurated at Anantapur by the then Honorable Chief Minister O.Ramaswamy Reddiar. Later, about 300 acres of land was acquired to establish a new campus. The College Main Building, three Laboratories, one Workshop Block and Power House were constructed in 1958 with a total cost of INR 18 Lakhs. The college was initially affiliated with Madras University from 1946-1955 and with Sri Venkateswara University, Tirupathi from 1955-1972.

In the year 1972, under a broad policy of framework of providing technological education required for the industrial growth of the country in general and more particularly for the state of Andhra Pradesh, Jawaharlal Nehru Technological University (JNTU) was established on 2 October 1972 by an act of State Legislature; rightly named after the ardent lover of Science and Technology, Pandit Jawaharlal Nehru, the first Prime Minister of India. Government Engineering College Anantapur, Government Engineering College Kakinada and Government Engineering College Nagarjunasagar (later it was shifted to Hyderabad) were made as its constituent units. JNT University started functioning from Hyderabad. Thus, the College of Engineering, Anantapur went into the fold of JNTU and the college was renamed as JNTU College of Engineering Anantapur. Subsequently, JNTU Act 1972 was amended by

JNTU Ordinance, 1992 to affiliate any other college or institution notified by State Government of Andhra Pradesh. Over time JNTU, Hyderabad has become a multi-campus university.

Later in the year 2008, JNTU, Hyderabad was divided into four independent universities. The Jawaharlal Nehru Technological University Anantapur (JNTUA) was established on 18 August 2008 by an Act of the Legislature of the State of Andhra Pradesh. JNTUA started functioning in the premises of JNTU College of Engineering, Anantapur (Formerly College of Engineering Anantapur). JNTU College of Engineering, Anantapur became a constituent college of JNTUA and was renamed as JNTUA College of Engineering, Anantapur. The JNTUA College of Engineering, Pulivendula, established in the year 2006 and Oil Technology Research Institute (OTRI), Anantapur, established in the year 1948 also became constituent units of JNTUA. A new constituent college – JNTUA College of Engineering, Kalikiri established in 2013 also came under the fold of JNTUA. The OTRI was later renamed as Oil Technology and Pharmaceutical Research Institute (OTPRI), in 2016. In addition to the above four constituent colleges, the JNTUA has 98 Engineering Colleges, 33 Pharmacy Colleges and 29 stand-alone MBA/MCA colleges affiliated to it.

SECTION-2

Vision, Mission, Quality policy and Core values

Vision:

- Committed to expanding the horizon and inspiring young minds towards academic excellence.
- Aims at scaling new heights through advanced research and innovative techniques to keep pace with the ever-changing needs of industry and society at large.

Mission:

- To identify and implement proven, prevention-oriented, forward-looking solutions to critical scientific and technological problems.
- To make technology a principal instrument of economic development of the country and to improve the quality of life of the people through technological education, innovation, research, training and consultancy.

Quality Policy:

- Encourage faculty member to acquire higher qualification
- Provide best teaching practices (Utilizing LCD, NPTEL video lecturers).
- Quality online IEEE lecturers are provided.
- Recruit well qualified faculty members at various levels.
- Continuous additions to infrastructure facilities.
- Improving Library and Computing facilities.
- Conducting students' counselling.
- Student Feedback on Faculty.
- Alumni Feedback on Institution.
- Results analysis of College examination.
- Maintaining departmental library.
- Faculty Performance Appraised by HOD.
- Maintain Staff – Student Ratio 1:20
- Organize Educational Tours / Industrial Visits / Guest Lectures.

CoreValues:

- Academic Integrity and accountability
- Equal opportunities to all
- No gender biasness
- Healthy and pleasant ambience for effective teaching learning process
- Respect individual differences and dignity of labor

- Promote, creativity, Innovation, team spirit and healthy competition in all activities
- Sharing of experience, knowledge and skills
- Appreciation of Intellectual excellence and creativity
- Willingness to explore new ideas

Section-3

SWOC Analysis

Strengths

1.A very good image and has excellent brand value in the society for high quality teaching,
laboratory based practical skills and knowledge development.

2. Emphasis on co-curricular and value-added programs on Emerging Technologies.

3. Beyond the syllabus Industry oriented curriculum to prepare the students ready for the fast-changing global scenario.

4. Continuous mentoring, monitoring, and a good feedback system of students

5. Employability skills by imparting technical training, soft skill, Group Discussion and Aptitude classes on need basis.

6. Constant encouragement of faculty and students for attending training programs / workshops / conferences for updating their knowledge.

7. Academic achievements of student in university examination and other platforms.

8. Achievements in placement by students in various reputed organizations and reputed companies

9. A very good faculty retention and more than 50% of faculty with Ph.D

10. Research and Entrepreneurship Hub to promote Research and Innovations amongst the Faculty and Students leading to Publications, Products, Innovations and Start-Ups.

11.Availability of several technical, social, cultural and sports activity clubs for all round development of students.

12. The students have an option to acquire Honors degree or Minor Engineering degree in addition to the regular degree.

14. NPTEL Local Chapter to offer students MOOCs program

15. A very good Alumni base across the world to support the institution in terms of scholarships, information sharing those resultsin better careeropportunities.

Weaknesses

1. Very limited quarters for the faculty and staff.
2. Research activities confined to few individuals.
3. Limited Industrial consultancy.
4. Placement of PG students is to be improved.

5. Patent and IPR registration need to be improved.

6. Limited Sponsored Projects from Government, Non-Government & External agencies

Opportunities

1.Scope to establish CoE (Centre of Excellence) in emerging fields with the collaboration ofR&D Organization and industry.

2. To organize number of training programs/workshops and international conferences

3. Scope for Interdisciplinary Sponsored, Consultancy projects and Innovative programs

4. Student-Faculty exchange program with reputed International Academic Institutions

5. To offer training to students on Soft Skill, Aptitude, Group Discussion, GATE,MAT etcExaminations on periodical basis.

5. To encourage and facilitate the students in Internship programs at renowned corporate

Challenges

1. To attract the top-ranking students in view of recently established institutes like
   IITH,IIITH,BITS and foreign universities.
2. To compete with renowned institutions such as IISC,IIT's and NIT's in academic excellence,Research and Innovation.

3. To attract faculty who have excellent credentials in Research and Innovation.

4. To motivate faculty for New Product Development/Research/R&D/Innovation etc.

5. Herculean task to bring core companies to campus for bulk hiring.

Section-4
Strategic Plan-Goals

Strategic planning is a continuous process with a specific focus on accomplishing short-, mid- and long-term goals in this highly competitive world. It analyses current environment, expected future scenarios and envisages the direction towards which the institution should move to achieve goals and objectives. This document reflects a record of JNTUACEA strategies for the coming five years (**2020-2025**), to accomplish the Vision and Mission, which it dreams of, through high level goals with long range planning

As a first step, Vision and Mission are formulated and a good quality policy along with core values we evolved. These are achieved through many deliberations with all the stake holders (HODs, Faculty, Staff, Industry, Students, Alumni and Parents). Scientific scanning of internal and external environment is done through SWOC analysis. After scanning the environment, institutional goals were set up and strategies to achieve them are arrived at for the institution.

Based on Institutional Vision and Mission, the goals are drawn by holding brainstorming sessions with Directors, HODs and Professors. Institutional strategic goals and strategies are formed with action plans. The process of implementation is worked out and circulated to all the departments. Departments play a pivotal for the institution; hence each department worked out on their vision, mission 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. HODs form the core team for implementing departmental goals under the guidance of Principal.

The final draft document was discussed with Board of Governors and after its detailed review, the suggestions were incorporated towards is effective implementation. Committees were also formed to take care of effective implementation of Institutional Strategic Plan. This comprehensive plan forms the guiding source for the years **2020-2025.**

A Total of eight Goals are set, in consideration with various developments that we taking place nationally and globally, while maintaining educational policies and guidelines of MHRD as the periphery of the paradigm within which the Institute operates.

The Seven Goals are:

5.1.Enrichment of Curriculum and teaching Learning process

5.2.Human resources planning and development plan

5.3. Research and development activities

5.4.Infrastructure and Facilities

5.5. Placements

5.6. Community engagement plan

5.7 Industry Interaction plan

Section – 4.1

Enrichment of Curriculum and Teaching Learning Process

Goal1: *Achieve academic excellence by curriculum orientation and fostering experience learning through ICT*

JNTUACEA, being an autonomous Institution, aims to use the academic and administrative autonomy extended to such Institution by UGC and AICTE. Academic flexibility is enhanced by introducing innovative curriculum and Regulations (R15, R17, R19, R20) with more focus on project-based learning, open electives, one credit/two-credit courses, semester-long internship with fast-track opening and industry/research organisation -linked projects. All these are showing good results, placements, entrepreneurial activities. To bridge the Gap between academic and industry, appropriate measures are being taken to incorporative the latest development in Engineering and Technology.

Objectives:

- Develop more smart class rooms with state- of- art facilities
- Use of more LCD and laptops in teaching and learning
- Implementation of CBCS in course curriculum
- Extensive use of online Teaching and Learning resources
- More MoU's for Student Exchange Programmes
- Personal and Professional Development
- Community outreach programs
- Co and Extra Curriculum activities

Implementation:

- Implemented blended learning with the utilization of Smart classrooms
- SWAYAM platform as online learning resource
- Extensive use of ICT tools
- Monitoring the performance of e-learning resources through certification

Monitoring: Principal&HOD

Section-4.2

Human Resource planning and Development Plan

Goal 2:*Create an Environment on par with best academic Institution in India to attract the finest talent for the growth of the institution*

We aim to bring in a transformation approach that enables our institute to operate more flexible and resiliently in the long term that can help our Institution emerge on stronger footing from today's challenges.

Objectives:

- Organize more faculty development programmes
- Motivate faculty members for research work
- Motivate and depute teachers to Orientation Courses and Refresher Courses
- Promote Faculty exchange Programmes
- Continuous training for technical and nonteaching staff
- Staff training for Quality improvement

Implementation:

- Participation of more no. of faculty in more development programs
- Participation of Technical and non-teaching staff under TEQIP-III
- 360-degree appraisal system for the good academic quality.
- Faculty are encouraged training for Quality improvement

Monitoring: Principal

Section-4.3

Research andDevelopment activities

Goal 3: *Enhancement of Research and Development activities in terns of quality publications and execution of nationally important sponsored and consultancy projects*

The importance of research and development in a higher educational institute cannot be over-emphasised. The institute already has rudimentary research and development facilities in the areas of Computer sciences, Communication Engineering, electronics and Mechanical engineering, Electrical and Electronics, Chemical Engineering, Civil Engineering. It would build upon them to create an R&D environment, and enhance R&D activity. Faculty members would be encouraged to carry out research in-house to promote this activity.

This will be a slow but steady process. Research facilities will be built around the actual interest of qualified and enthusiastic faculty so as to maximise the benefits of investing in research. Encouragement will be given to applied research which can lead to patents, consultancy in addition to technical publications.

Well qualified, /meritorious and motivated faculty is essential for research environment. The quality of teaching and pursuing higher knowledge leads to good research. Thus, possibilities to improve the research environment are strong.

Objectives

- Educational linkages in terms of more MoU with premier institutions and take up collaborative research projects
- Promote participation of staff members in FDPs like refreshers and orientation programmes
- Promote inter-disciplinary research
- Set up separate research labs
- Promotion of publication in indexed research journals
- Promote faculty members to have at least one major/ minor project
- Conduct more International Level Conferences and Workshops
- Motivate faculty to apply for Patents
- Promote participation in international conferences/ seminars/workshops/symposium

Implementation

- It was instructed that all Professors, Associate Professors and Assistant Professors to have publications in Scopus indexed journals.
- Monthly reports are collected from all departments
- Various proposals are submitted for separate research labs

Monitoring: Principal & HOD

Section-4.4

Infrastructure and facilities

Goal 4: *Development of sustainable infrastructure and transform the campus to Green*

The institute has established excellent infrastructure such as laboratories, spacious library with digital collection books and journals, sports, Hostel and other infrastructure for Extra and Co-curricular activities.

Objective:

1.Upgradation of the library

2. Residential township

3.Sports, Extra- Curricular facilities, Hostel and canteen

4.Books and e-learning

5. Green campus

Implementation:

1.Upgradation of Library

2.Facility for the living area for the Staff Quarter

3. Upgradation and modernization of sports, hostel and canteen facilities

4. latest e-learning latest learning material

5. More number of plants planted

Monitoring: Principal, HOD

Section-4.5

Placements

Goal5: Enhancement of Placements and Internships through Industry focused training programs.

JNTUA CEA, Training and Placement Cell (T & P Cell) was established in the academic year 1995-96 with the foremost objective of providing employment opportunity for the students in various esteemed Multi-National Companies in various engineering fields. The T & P Cell is headed by Training & Placement Officer (TPO) under the supervision of Principal of the college. The T & P Cell have 2 Group Discission rooms, 6 Interview rooms, TPO room and one hall can accommodate 60 students. All rooms are equipped with Air Conditioned. College provides required number of computer labs during Training Programs and Campus Recruitment Process. During the inception onwards more than 5000 students are placed in various MNCs with the highest package of 14-16 lakh per annum. Most renowned companies which usually comes for the campus recruitment drives are TCS, CTS, Infosys, Wipro, Accenture etc. in software sector and Medha Servo Drives, Cerium Systems, Amara Raja Groups, Hyundai Motors India, KIA, Devis Laboratories, Hetero Drugs, Blue Star, DAIKIN etc. in core sector.

Strategic method for better placements

Objectives	Plan of action	Implementation	Monitoring
To obtain more industry specific placements for students	Providing Training to the students to develop Competitive Coding Skills.	Principal, Vice Principal, Head of the Departments and TPO will conduct meeting to discuss and conduct Training Programs on latest technologies.	Principal, vice Principal, and TPO will monitor the Training Programs with regular intervals.
	Provide Training on Artificial Intelligence, Data Science, Python etc.	Finally, principal will give permission to TPO to conduct training programs to the students after the meeting with HODs.	One faculty coordinator from every department will also monitor during the programs regularly.

Section-4.6

Community Engagement Plan

Goal6: Building up of Community engagement

The Institute is concern with the development of community engagement plans by its academic and administrative units to strengthen their ability to assess.

Objectives:

- Introduce community service into curriculum of UG programme with credits
- More tie-ups with NGOs
- Adoption of more Villages
- Assist government and local bodies in Community projects

Implementation:

- Adaptation of Villages through National Service Scheme program
- Spreading awareness on health and hygiene
- Awareness programs are conducted on community services

Monitoring: Principal, HODs, NSS Coordinator

Section-4.7

Industry Interaction Plan

Goal 7 : *Industry Interaction Plan*

Areas of possible cooperation to explore interactive avenues between academics and industry has led to mutually beneficial results. The academics without industries and its support is incomplete. Therefore, the faculty members continuously interact with industries and dig out areas of cooperation so that the institute derives mileage in terms of projects, expert lectures and training programs for its students. The industry from this interaction is also benefited for getting support and expertise for testing, training and R&D related activities

Objective:

- Invite Industry experts for motivating students and provide practical knowledge
- Strengthen Campus placement and training facility by making more industry linkages
- Promote student to work on real projects for industries

Implementation

- Guest lectures are conducted to improve the skills and knowledge
- Training to the students in various skills
- Exposure to get practical skills by Industrial visits and Internships

Monitoring: Principal