Strategic Plan

(2024-2029)

(Approved in the 18th Governing Body meeting held on 17-08-2024)

Lakireddy Bali Reddy College of Engineering

(An Autonomous Institution science 2010)

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INTRODUCTION

Lakireddy Bali Reddy College of Engineering (LBRCE) was founded through Lakireddy Bali Reddy Charitable Trust in 1998 by eminent philanthropist and NRI Entrepreneur Sri Lakireddy Bali Reddy, a Chemical Engineer by qualification. Since the inception, LBRCE aims at co-creating value-based technical excellence, which ultimately leads to the development of the rural area where the college is situated.

Lakireddy Bali Reddy College of Engineering (LBRCE), approved by AICTE and affiliated to JNTUK, Kakinada is an Autonomous Institution since 2010 and has been accredited by NAAC with 'A' Grade (3.20 / 4 in Cycle-2), NBA (ASE, CE, CSE, IT, ECE, EEE, & ME) under Tier-I and ISO 21001:2018, 14001:2015, 50001:2018 Certified. It has also been recognized as 'Scientific and Industrial Research Organization (SIRO)' by Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India, 'Host Institution' and 'Business Incubator' by IIC, awarded 2(f) and 12(B) status and Recognized as a 'Colleges with Potential for Excellence' (CPE) by UGC. It ranked to 201-300 band (in Enginerring Category), NIRF-2024, ranks in 101-150 Rank Band in NIRF India Innovation Rankings - 2023 and ranked 251-300 band (Under Engineering) in NIRF India Rankings - 2022, 201-250 band (Under Engineering) in NIRF India Rankings - 2020. At present, we offer 9 B.Tech programs in CSE, CSE (AI&ML), AI & DS, IT, ECE, EEE, CE, ASE, ME and 4 M.Tech programs in Data Science, Thermal Power Engg., Power Electronics & Electrical Drives, VLSI and Embedded Systems Design, apart from M.B.A.

Operating from a 65-acre green landscaped campus in Mylavaram, major facilities include 7 advanced labs, Internet with 1820 Mbps bandwidth, Digital library, 500KWp solar PV system, Indoor and Outdoor stadium, Gym, Yoga center, NSS unit, NCC Girls wing, Girls and Boys hostels. The teaching-learning process is handled by highly-qualified and experienced faculty. In R&D, we currently handle 12 projects sanctioned by DST, Govt. of India, UGC, and AICTE amounting to Rs 7 Crores, besides 100+ patents and 1500+ research publications. Also 5 depts. function as research centers of JNTUK, Kakinada.

Strategic plan has long-term aspirations to grow LBRCE to expand its horizon in quality technical education and research to achieve vision "To empower the students to become technologically vibrant, innovative and emotionally matured; and to train them to face the challenges of the quality-conscious globalized world economy."

VISION:

To empower the students to become technologically vibrant, innovative and emotionally matured; and to train them to face the challenges of the quality-conscious globalized world economy.

MISSION:

- To provide an environment most conducive to learning and to create a stimulating intellectual atmosphere on the campus.
- To achieve Academic Excellence.
- To ensure a holistic development of personality.
- To spread education to rural areas.
- To establish partnership between Institution & Industry.

IMPLEMENTATION OF NEW EDUCATION POLICY- 2020

The National Education policy 2020(NEP 2020) outlines the vision of India's new education system and the policy aims to transform India's education system. The institute shall chalk out of the modalities of its implementation with specific reference to engineering education through.

a) Broad based multi -disciplinary, holistic under graduate education with flexible curricula, creative combinations of courses, integration of vocational education.

b) Various Entry / Exit to be allowed with relevant certification. This will permit students to take a sabbatical and then join back their students after a period time, without losing any credits. Students will also be free to choose major and minor courses for their degree.

c) Provide importance to students' practical knowledge.

d) Curriculum content will be reduced in each course to its core essentials.

e) Experimental learning including multi-disciplinary – integrates and sports – integrated education as well as story - telling based pedagogy and others.

f) Creating digital content for online courses in cutting -edge domains, with the mode of delivery being in both English and regional language.

To constitute a committee comprising of senior professors to discuss regarding the National Educational Policy 2020 and chalk out the modalities of its implementation in the perspective of LBRCE.

Strategic Plan for next five years sets out specific targets in every sphere of activity of the institute academic programs, research, collaboration with industry, human resource development., entrepreneurship, student life, placement, community outreach and alumni relations. These targets have been set after extensive consultation to ensure that they are both ambitions and achievable.

PLANNED FOCUS AREAS FOR NEXT FIVE YEARS (sustainability and initiatives):

	Strategy	Monitor by
Strategy 01:	Improve Accreditations, Rankings and Effective Implementation of NEP-2020	IQAC & Dean (Academics)
Strategy 02:	Outstanding Education and Student Experience	IQAC & Dean (Academics)
Strategy 03:	Capacity Building of Staff	Vice Principal
Strategy 04:	Strengthen Research	Dean (R&D) & R&D Coordinator
Strategy 05:	Strengthen National and International Collaborations and Visibility	Dean (Industrial Relations) & I-Cell Coordinator
Strategy 06:	Strengthen Industry-Institute Interaction	Dean (Industrial Relations) & IIIC Coordinator
Strategy 07:	Transformative Innovation and Entrepreneurship	Dean (Industrial Relations) & CIIE Coordinator
Strategy 08:	Broaden Funding Base	Dean (R&D) & Finance Manager
Strategy 09:	Fortify the Alumni Association	Dean (Academics) & Alumni Coordinator

Objectives Initiatives and KPI Measures for Identified Strategies.

Strategy 01 : **Improve Accreditations, Rankings and Effective Implementation of NEP-2020**

Objectives:

1. Assessment of Institute performance
2. Integration of Indian knowledge system
3. Distance Education online education.

1.Assessment of Institute performance.

Initiatives:

- Apply for accreditation for all eligible programs
- Participation of national rankings for improvement.
- Monitor progress and evaluate actions at the end of each year.
- Revise the action plan based on the results and feedback obtained.

KPI Measures:

- National Assessment and Accreditation Council (NAAC)
- National Board of Accreditation (NBA)
- Rank form National International Ranking Framework (NIRF)

2. Integration of Indian knowledge system

Initiatives:

- Design Programme plan for promotion of Indian Language, Tradition and Culture.
- Develop Indigenous Knowledge generation and dissemination workshops, campaigns and journals.
- Provide provision for needy students to use of indigenous language in examinations.

KPI Measures:

- Number of events

3. Open and Distance Learning programs

Initiatives:

- Testing upgrading multi-media facilities for online Blended ODL. Learning.
- Strengthen E- governance.
- Building capabilities of faculty and students.
- Course wise planning regarding Blended Online ODL models.

KPI Measures:

- Number of ODL courses.

Strategy 02 : Outstanding education and student experience

Objectives:

1. Recruiting outstanding and diverse faculty
2. Strengthen comprehensive advisory system
3. Strengthen student learning system for holistic development of personality

1. Recurring outstanding and diverse faculty

Initiatives:

- Recruitment of new faculty with contemporary research exposure.
- Recruitment of faculty with industry exposure.
- Recruitment of adjunct faculty.

KPI Measures:

- Number of faculty recruited with research industry exposure.
- Number of Adjunct faculty.

2. Strengthen comprehensive advisory system

Initiatives:

- Addressing stakeholders of expectations and local national, global needs in curriculum development.
- Outcome based assessment of academic and administrative functions.
- Enhance Innovative teaching -learning model like experiential learning.
- Involve international Industry experts in curriculum development and strategy formulations.

KPI Measures:

- Number of academic and administrative assessments
- Number of International/National industry experts' participation in curriculum development and strategy formulation

3. Strengthen student learning system for holistic development of personality

Initiatives:

- Incentives for participation in extra & co-curricular activities.
- Conduct of hackathons, Idiathon, and hardware design competitions
- Organizing soft-skill and personality development programs
- Extra technical and financial support for start-ups.
- Inculcation of ethical practices.
- Implementation of exceed project-based learning and research-based learning.
- Conduction of life skills training programs.

KPI Measures:

- Number of skill upgradation programs
- Number of training programs on life skills
- Students' certifications (Co-Curricular, Extra-Curricular and Extension activities)
- Successful graduation
- Student Satisfaction Survey

Strategy 03: Capacity Building of Staff

Objectives:

1. Encouraging staff to improve capabilities
2. Retention of well-qualified and experienced faculty
3. Encouraging faculty to develop the products/technology

1. Encourage faculty to improve capabilities

Initiatives:

- Encouraging existing faculty to pursue Ph.D from NIT and IIT.
- Certifications – NPTEL.

KPI Measures:

- Funding to pursue Ph.D
- Number of certifications of faculty

2. Retention of well qualified and Experienced faculty.

Initiatives:

- Providing an incentive for a qualification up-gradation research.
- Implementation of career advancement scheme.
- Sponsoring the faculty to participate in FDPs, STTPs.
- Encourage the faculty to participate in theme-based conferences.

KPI Measures:

- Sanctioning academic leave for higher education
- Faculty participation in FDPs / STTPs/ Conferences
- Financial assistance for attending FDPs / STTPs/Conferences

3. Encouraging faculty to develop the products/technology

Initiatives:

- Organizing guest lectures and expert talks in emerging areas.
- Enhance industrial visits for students and staff.

KPI Measures:

- Expert lectures by industry personnel.
- Corporate training

Strategy 04: Strengthen Research

Objectives:

1. Enhance cross-disciplinary and cross-campus research programs
2. Awareness on funding opportunities
3. Strengthen research laboratories and centers of excellence

1. Enhance cross-disciplinary and cross-campus research programs

Initiatives:

- Enhance faculty soft reporting capabilities in multiple departments for collaborative projects (Publications and grants).

KPI Measures:
- Number of quality research articles
- Number of books / book chapters
- Number of IPRs published
- Number of IPRs granted
- Number of MoUs with premier institutions / Industries

2. Awareness on funding opportunities

Initiatives:
- Identify funding opportunities and distribute information to faculty on a regular schedule.

KPI Measures:
- Number of awareness programs to enhance quality research proposals
- Submission of research proposals to funding agencies.

3. Strengthen research laboratories and centers of excellence

Initiatives:
- Strengthening existing research laboratories across departments.
- Establish collaborative CoE centers with grants from govt and non- govt agencies.
- Identify thrust areas of expertise and setup labs / centers to disseminate the expertise.
- Global data repository for benchmarking the results and testing facilities.

KPI Measures:

- Number of the research laboratories.
- Number of centers of excellence

Strategy 05: Strengthen National and International Collaborations and Visibility

Objectives:

1. Collaborate with the National and International Institutions/organizations Promote global knowledge exposure.
2. Representation of institute on the regional and global map of higher education

1. Collaborate with the National and International Institutions/organizations Promote global knowledge exposure.

Initiatives:

- Collaborations and MoUs with international universities / organizations.
- Enhance the faculty participation in attending international conferences/symposiums/workshops.
- Organize events in collaboration with international universities for conducting expert talks, training programs etc.,
- Motivate students to participate in International Internships
- Conduction of various national and international collaborative activities.
- Enable faculty members to visit foreign institute to broaden their international exposure.

KPI Measures:

- MoUs with international universities for students and faculty exchange.
- Faculty participation in international events.
- International Internship - Number of Students
- Submission of collaborative research proposals
- Number of collaborative activities

2. Representation of institute on the regional and global map of Higher Education.

Initiatives:

- Ensure further success of our students in competitive examinations like GRE, TOFEL, GATE, CAT, IES, UPSC etc.,
- Motivate and facilitate our students to learn a foreign language (French, German, Chinese, Japanese etc.,).

- Use our students, alumni, faculty and staff as our Brand ambassadors and encourage them to participate in national and international events competitions both India and Abroad.

KPI Measures:

- Number of students qualified in GRE/GATE/CAT/IELTS /TOEFL/ UPSC, etc.
- Students' participation in national and International events/competitions, both in India and abroad

Strategy 06: Strengthen Industry-Institute Interaction

Objectives:

1. Conduct of Industry -Academic meet (IAM)
2. Inclusion of Industry specific courses in the curriculum
3. Submission of joint project proposals
4. Enhance quality Internships

1. Conduct of Industry -Academic meet (IAM)

Initiatives:

- Approach industry and government officials for IAM.
- Develop strong linkages with more companies and government organizations for more internship and job opportunities for students.

KPI Measures:

- Number of IAMs.
- Number of linkages

2. Inclusion of Industry specific courses in the curriculum.

Initiatives:

- Incorporation of industry related courses in curriculum.
- Industry based project initiation.

KPI Measures:

- Number of Industry related courses in curriculum.
- Number of industry based projects.

3. Submission of joint project proposals

Initiatives:

- Identify and approach industry officials for projects and schemes.

KPI Measures:

- Number of project proposals

4. Enhance quality Internships

Initiatives:

- Identify and approach industries for internships.

KPI Measures:

- Percentage of students participated in Internships
- Number of paid Internships
- Highest placement package

Strategy 07 : Transformative Innovation and Entrepreneurship

Objectives:

1. Encourage and foster entrepreneurship
2. Product development and Start-Ups

1. Encourage and foster entrepreneurship

Initiatives:

- Carrying student projects up to the level of product development.

KPI Measures:

- Number of career guidance programs
- Number of awareness programs on Innovation and entrepreneurship
- Financial aid to incubate innovations

2. Product development and Start-Ups

Initiatives:

- Augment incubation centers to promote startup culture.
- Enhance the activities of entrepreneurship development cell (EDC)

KPI Measures:

- Number of products developed (TRL>6)
- Number of Start-Ups

Strategy 08: Broaden funding base.

Objectives:

1. External research grants from Govt and Non Govt Agencies.
2. Fund generation through consultancy
3. Fund generation through incubation facility, start-ups and alumni
4. Commercialization of IPRs

1. External research grants from Govt and Non Govt Agencies.

Initiatives:

- Apply Research Grants GST, AICTE, MSME.
- Initiation to apply foreign funding agencies and grant donar organizations.

KPI Measures:

- Research Grant

2. Fund generation through consultancy

Initiatives:

- Setting up labs with the necessary infrastructure to perform consulting services

KPI Measures:

- Consultancy Amount

3. Fund generation through incubation facility, start-ups and alumni

Initiatives:

- Provide incubation facility
- Motivate alumni for raising the fund.

KPI Measures:

- Incubation facility and Start-Ups
- Alumni Fund

4. Commercialization of IPRs

Initiatives:

- Promote commercialization of innovative projects /products /IPRs

KPI Measures:

- Commercialization of IPRs

Strategy 09 : Fortify the Alumni Association.

Objectives:

1. Enhance alumni interactions.
2. Enrichment of curriculum and fostering Industry relations
3. Enrich networking and recognition of prominent alumni

1. Enhance alumni interactions

Initiatives:

- Involvement of Alumni for improving institute perception.
- Invited lectures and motivational talks by notable alumni.
- Conduction of Awareness program for aspiring students.
- Students exchange programs to be facilitated by alumni.
- Initiation internship programs by alumni.

KPI Measures:

- Number of interactions
- No.of Alumni Meets

2. Enrichment of curriculum and fostering industry relationships.

Initiatives:

- Involvement of alumni as BoS, Academic Council and GB members.
- Industry visits through alumni.

KPI Measures:

- Number of Alumni participating in various Board of Studies.
- Number of Internships
- Industrial visits

3. Enrich networking amongst alumni for professional development.

Initiatives:

- Establishing alumni chapters nationally and globally.
- Development of official alumni website.
- Felicitating and publicizing alumni for their outstanding performance in their profession.
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KPI Measures:

- Number of alumni registered in the alumni portal
- Felicitation of alumni

Target values for Key Parameter Indicators (KPI)

Objective	KPI	Target				
		2024 - 25	2025 - 26	2026 - 27	2027 - 28	2028-29
Strategy 01: **Improve Accreditations, Rankings and Effective Implementation of NEP-2020**						
Assessment of Institute performance	NAAC	A	A	A	A++	A++
	NBA	7	8	9	10	10
	National Institutional Ranking Framework (NIRF)	201-300	201-300	151-200	151-200	101-150
Integration of Indian knowledge system	Number of events	2	2	3	4	5
Open and Distance Learning programs	Number of programs	--	1	2	3	4
Strategy 02: **Outstanding Education and Student Experience**						
Recruiting outstanding and diverse faculty	Number of faculty recruited with research/industry exposure (Professor of Practice)	5	9	10	10	10
	Number of Adjunct Faculty	7	10	10	10	10
Strengthen comprehensive advisory system	Number of academic and administrative assessments	6	8	8	8	8
	Number of International/National industry experts' participation in curriculum development and strategy formulation	10	10	12	12	15
Strengthen student learning system for holistic development of personality	Number of skill upgradation programs	10	15	20	25	30
	Number of training programs on life skills	4	8	10	12	14
	Students' certifications (Co-Curricular, Extra-Curricular and Extension activities)	75%	80%	85%	90%	95%
	Successful graduation	90%	90%	92%	95%	95%
	Student Satisfaction Survey (on 4 Scale)	3.42	3.5	3.6	3.65	3.7

Objective	KPI	Target				
		2024 - 25	2025 - 26	2026 - 27	2027 - 28	2028-29
Strategy 03: **Capacity Building of Staff**						
Encouraging staff to improve capabilities	Funding to pursue Ph.D (Seed Money in Lakhs)	20	25	30	35	40
Retention of well-qualified and experienced faculty	Sanctioning academic leave for higher education (in Weeks)	8	8	8	8	8
	Faculty participation in FDPs / STTPs/ Conferences (Percentage)	50	50	60	60	70
	% of Faculty received financial assistance for attending FDPs / STTPs/ Conferences Financial (Minimum of Rs. 2000/- per year per faculty)	15	15	15	20	20
	Financial assistance for attending FDPs / STTPs/Conferences (Amount in Lakhs)	10	15	20	25	30
Encouraging faculty to develop the products/technology	Expert Lectures by industry personnel	4	5	6	7	8
	Corporate trainings (Number of faculty)	10	15	20	25	30
Strategy 04: **Strengthen Research**						
Enhance cross-disciplinary and cross-campus research programs	Number of quality research articles	270	280	290	300	325
	Number of books / book chapters	50	65	80	95	110
	Number of IPRs published	20	30	50	70	100
	Number of IPRs granted	5	7	9	15	25
Awareness on funding opportunities	Number of awareness programs to enhance quality research proposals	2	2	3	3	3
	Submission of research proposals to funding agencies	10	10	12	12	15
Strengthen research laboratories and centers of excellence	Number of the research laboratories	5	6	6	7	7
	Number of centers of excellence	1	2	3	4	5

Objective	KPI	Target				
		2024 - 25	2025 - 26	2026 - 27	2027 - 28	2028-29
Strategy 05: **Strengthen National and International Collaborations and Visibility**						
Collaborate with the National and International Institutions/organizations	MoUs with International universities for student and faculty exchange	2	3	3	4	4
	Faculty participation in International events	5	10	12	15	20
	International Internship - Number of Students	30	40	60	70	100
	Submission of collaborative research proposals	1	1	2	3	5
	Number of collaborative activities	3	4	6	8	10
Representation of institute on the regional and global map of higher education	Number of students qualified in GRE/GATE/CAT/IELTS/TOEFL/ UPSC, etc	120	150	180	200	220
	Students' participation in national and International events/competitions, both in India and abroad	250	300	400	450	500
Strategy 06: **Strengthen Industry-Institute Interaction**						
Conduct of Industry Academia Meet (IAM)	Number of IAMs	1	2	3	4	5
	Number of MoUs and Linkages	25	30	50	100	150
Inclusion of Industry specific courses in the curriculum	Number of courses	2	3	4	5	10
	Number of industry – based projects	10	15	20	25	30
Submission of joint project proposals	Number of project proposals	2	5	8	10	12
Enhance quality Internships	Percentage of students participated in Internships	75	75	75	75	75
	Number of paid Internships	50	75	100	125	150
	Highest package (Amount in Lakhs)	20	25	30	40	50
Strategy 07: **Transformative Innovation and Entrepreneurship**						
Encourage and foster entrepreneurship	Number of career guidance programs	10	12	14	16	18
	Number of awareness programs on Innovation and entrepreneurship	10	10	12	12	15
	Financial aid to incubate innovations (Lakhs)	5	10	15	20	30
Product development and Start-Ups	Number of products developed (TRL>6)	2	4	6	8	10

Objective	KPI	Target				
	Number of Start-Ups	3	5	7	9	11
		2024 - 25	2025 - 26	2026 - 27	2027 - 28	2028-29
Strategy 08: Broaden Funding Base						
External Research Grants from Govt and Non Govt Agencies	Research Grant (Amount in Lakhs)	40	50	60	75	100
Fund generation through consultancy	Consultancy Amount (Amount in Lakhs)	1	2	3	4	5
Fund generation through incubation facility, start-ups and alumni	Incubation facility and Start-Ups (Amount in Lakhs)	1	1	2	3	4
	Alumni Fund (Amount in Lakhs)	3	6	8	10	15
Commercialization of IPRs	Commercialization of IPRs (Amount in Lakhs)	0.5	1	1	2	2
Strategy 09: Fortify the Alumni Association						
Enhance alumni interactions	Number of interactions	10	15	20	25	35
	No.of Alumni Meet	1	1	2	2	3
Enrichment of curriculum and fostering Industry relations	BoS members	10	10	10	12	15
	Number of Internships	5	10	15	25	50
	Industrial visits	5	5	10	10	15
Enrich networking and recognition of prominent alumni	Number of alumni registered in the alumni portal	8000	8500	9000	10000	12000
	Felicitation of alumni	10	12	15	20	25