

**JOGINPALLY B.R. ENGINEERING COLLEGE**



**Strategic Plan (2017-22)**

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**Strategic Plan 2017-22**

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## Preface

Generally, the greatness of a nation or a civilization is intimately linked with the reputation of its system of education-particularly, higher education. The brand images of modern nations are largely dependent on higher education centers established in those countries. Today, India is emerging as a global power in the 21<sup>st</sup> century. Hyderabad is emerging as India's Innovation & Information Technology Center. It is transforming itself in line with its aspiration to become a Global City.

The modern education system is going through many reforms and challenges arising out of a growing population, increasing automation, and economic slowdown. So, the employability is reduced after UG and PG studies. [Sentence replaced]

Institutions like JOGINPALLY B.R. ENGINEERING COLLEGE (JBREC) have to devise strategies by aligning curriculum with industry's requirements.

It demands an entirely new focus on a strategy based on SWOC analysis taking care of new challenges and opportunities. This strategic plan deals with the issues which JBREC is likely to face during 2017-2022 and presents a pathway to deal with such issues.

I am sure that with the active support of all the stakeholders' Management, Faculty members, Students, Parents, Alumni, and Prevailing regulatory setup, we shall overcome all the challenges and capitalize upon all the opportunities to climb the summit of success that is beckoning at us.

Date:

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## SECTION - I

### CONTEXT

#### 1.1 ABOUT THE INSTITUTE:

#### JOGINPALLY B.R. ENGINEERING COLLEGE (JBREC)

##### i. Aim, Purpose and Establishment of JBREC

JOGINPALLY B.R. ENGINEERING COLLEGE (JBREC) was established in 2002 by JOGINPALLY B R Educational Society to fulfill the aspirations reflected by our vision "to be a global leader in educational and research institution in Engineering and Management" and the aim of the Education for everyone.

JBREC has located on Hyderabad - Vikarabad Highway. JBREC is located within 106 acres of the eco-friendly and sprawling campus of the JB Group of Educational Institutions. It was the dream of noted philanthropist Late Shri. J. Bhaskar Rao Garu, the Founder Chairman of JBREC to provide affordable quality education. This dream is further nourished by the current management team headed by Mrs. J. Vasumathi Devi Garu, Chairperson and Mr. J. Vamshidhar Rao, Secretary.

##### ii. The Institution's Vision and Mission and Core Values

###### VISION

- To be a global leader in educational and research institution in Engineering and Management.

###### MISSION

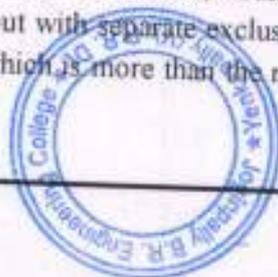
- To impart high quality technical and professional education to mould the learners into globally competitive professionals who are professionally deft, intellectually adept and socially responsible.
- To collaborate with industries and research organizations and excel in the emerging areas of research.

###### Core Values:

- To develop core competency amongst staff and students.
- To promote research with a multidisciplinary /integrate approach, relevant to industrial needs.
- To provide industrial / in-plant training to the students during vacation.
- To produce citizens having a holistic approach and to become globally competent technocrats.

##### iii. Infrastructure and Capacity

Four branches were established in 2002, with an annual intake of 240. It has grown now into an organization with five UG and three Engineering PG Courses, one PG in management. The Institute is having three separate blocks, housing 5 UG departments. All M.Tech courses are with their UG departments but with separate exclusive infrastructure. The total carpet area of JBREC is 30043 m<sup>2</sup> as of 2002 which is more than the norms required by UGC/AICTE. In addition to these



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Education blocks, separate blocks for Workshops, Life Skills Labs, ICT Labs, Canteen, Basketball Court, Play-grounds, Hostel, In-campus Bank, Post Office, and Canteen, Cricket/Football ground, and Vehicle Parking space are available.

It has demarcated boundaries. A free medical facility is provided to all JBREC employees and students by its sister concern Bhaskar Medical College and its 700 bedded Bhaskar General Hospital. It ensures a good connection of state transport buses from every part of the city. In addition to this, JBREC operates 28 buses of its own for its students and faculty members. The Institution has disabled-friendly, barrier free built environment with ramps/lifts for easy access to classrooms, disabled-friendly washrooms and provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

#### iv. Student - Centric Approach at JBREC

JBREC takes pride in its student-centric approach. Student-centric approach, also known as learner-centered approach, encompasses teaching methods that shift focus from teachers to students. Our Student-centric learning focuses on three core aspects of the learner:

- Each learner is unique, with individual strengths, challenges, aspirations and interests
- Each learner has unbound potential that unfolds in its own way and pace
- Each learner has an innate desire to learn and the system in place should help them channel their energy and focus

By incorporating interests and skills, this approach prepares individuals for life beyond the classroom. They acquire the skills needed to succeed after graduation and contribute to society. It is having an inbuilt mechanism of for academically slow learners and a strong mentoring system in which every student is assigned to a mentor for his/ her all-around welfare. Students benefit from various student chapters of professional bodies like ISTE, IETE, CSI, and IEEE. There is a dedicated Student Activity Centre (SAC) coordinating all students' co-curricular and extracurricular activities.

JBREC is having extensive resources for online learning outside its classroom, like NPTEL and the "Spoken Tutorial" programme of IIT Bombay. It is a nodal centre for the Spoken Tutorial programme.

JBREC has numerous professional bodies. It is important for a student to join a professional body relating to their field. Students can draw a lot of benefits in being active in the professional bodies such as Recognition, Continuous professional development, leadership development, and networking.

#### v. Teaching - Learning Process at JBREC

Facilitating effective learning is learner-centered education through methods such as participative learning, experiential learning, and collaborative learning. Teachers offer different learning experiences, such as individual and collaborative learning. Learning outcomes in an institution would be largely determined by whether teachers are prepared to use such newly available technology supports and to develop learning resources to enrich



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teaching-learning; by knowledge and experience with Learning Management Systems (LMSs), other electronic resources and how to utilize them in teaching-learning programs broadly defined.

Students of JBREC have been securing good JNTUH end exams results, and pass percentages for final year students of different branches are in the range of 70-80%. A growing number of students are now appearing in state/central government competitive exams and getting successful. JNTUH offers four years B.Tech degree program under Choice Based Credit System (CBCS) at its affiliated colleges. JBREC follows a Choice Based Credit System (CBCS) as implemented by JNTUH. In 2017, JBREC established the JB Skills Hub, A hub of Life Skills and Employability and Technical Skills Lab. It further implemented the Outcome-Based Education (OBE) system for both UG and PG courses.

BREC has well-established Academic Administration. It is headed by the Principal. A team of 7 HODs, and 5 Sectional Heads support the Principal. JBREC is having 151 faculty members, out of which 12 are having Ph.D. qualifications.

#### vi. **Research at JBREC**

The College's wants to promote research activities and to create an ecosystem for research by establishing Research and Development Cell. It encourages the faculty and students to research in newly frontier areas of Engineering, Technology, Science and Humanities including multidisciplinary fields.

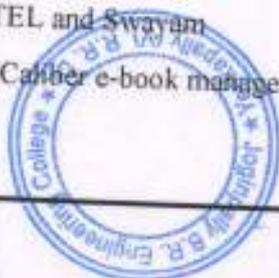
Tentative activities of proposed R & D cell are

- Publications in Research Journals.
- Research Proposals for different funding agencies.
- Participation and Organizing Conferences, Workshops and STTPs/FDPs.
- Participation in Collaborative Research work, e.g. Industrial Training.
- Encouragement for Higher Education.
- Signing MOU with Industries and Research Organization.

#### vii. **Library and Information Services**

The Library has a rich collection such as Books, journals e-journals and project reports, digital library. The Library was fully automated with Koha software with includes web OPAC (Online Public Access Catalogue)

- Total Titles: 5590
- Total Volumes 47167
- No of Journals: 91
- e-journals: IEEE, DELNET and NDL,
- e-resources: NPTEL and Swayam
- e-books: 13601 (Canber e-book management)



  
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- Newspapers: 11

### viii. Placement and Internship

**Training & Placement Procedure:** The Training & Placement Cell of Joginpally B. R. Engineering College (JBREC) plays major role in molding up the career goals of students.

- Imparts training on various verticals to the students from Third Year onwards and continues till they get placed in any organization. The training includes the following:
  - Soft Skills Training
  - Language and Communication
  - Problem Solving
  - Aptitude
  - Technical Training.
- T&P Cell coordinates the Industry and the students of JBREC for appropriate training and placement.

The Placement Procedure is as follows:

#### ✓ **Initiation:**

- Placement Officer sends invitation to the companies with the relevant information for inviting them to campus for placement drive.
- Organization reverts with the Job Description (JD) containing information about company/organization, recruitment procedure, package (CTC) offered, place of posting, allowances & other bonuses etc.
- Based on the mutual agreement slot will be given for recruitment.

#### ✓ **Selection:**

- The students are informed about the placement drive and criteria by TPO in the form of circular, along with any other information furnished by company.
- Interested and eligible (as per the criteria specified by the company) students show their willingness to appear for the recruitment process of a company by doing their online registration of each placement drive.
- Company visits the campus and carries out their recruitment process with the assistance of the student coordinators.

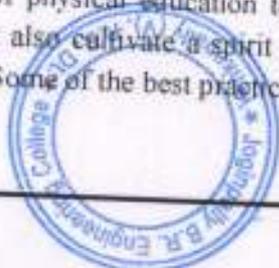
#### ✓ **Acceptance:**

- Company needs to provide the final list of selected students and if any other waitlisted students at the end of the recruitment process to TPO.
- The Placement Office also coordinates the signing of offer letters by students who have been selected to ensure that they reach the company as per their joining dates.

### ix. Co-curricular and Extracurricular Activities

Several Co-Curricular and Extracurricular events are held every year with extensive student participation. Co-Curricular activities are conducted under the SAC (Student Activity Center) and departmental professional societies. JBREC is having JNTUH sanctioned NSS (National Social Scheme) unit.

Department of physical education teaches sports consciousness, coaches the student players. Department also cultivate a spirit of sportsmanship promote the values of integrity among the students. Some of the best practices are



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- i. Conducting sports awareness programs on sports as a means for the promotion of health, fitness, national integration, and communal harmony.
- ii. Conducting selection trials to raise college teams in various disciplines of sports for Inter-collegiate tournaments.

**x. Social Outreach of JBREC**

We have adopted Yenkapally Village for creating awareness among the people of various causes like AIDS Awareness, Child Marriages, Health Awareness, Clean and Green, Plantation Programme.

JBREC is committed to helping its surroundings. The National Social Service activities inculcate the spirit of voluntary work among our students and enable them to combine knowledge and action for sustained community development. Students gain awareness about social, environmental, and health issues and become sensitive and they, in turn, amplify the awareness.

**1.2 REVIEW OF THE PREVIOUS STRATEGIC PLAN.**

An analysis of the immediate previous strategic plan and its implementation provides logical steps for the next one. The 2012-2017 Strategic Plan represents the collective effort of administrators, faculty, staff, students, and community stakeholders. The tenets of this Strategic Plan 2012-2017 were driven by the institute's core principles of developing human resources to serve the region, recognizing teaching as a unifying activity, nurturing integrity, creativity, and academic freedom, and retaining a willingness to experiment with new paradigms.

JBREC undertook a comprehensive planning exercise starting in the year 2011 that led to a strategic plan document. This exercise was mainly guided by the then norms and requirements of AICTE for starting a new engineering college. Most of the objectives as outlined have been accomplished well before the end of the decade. It is a continuous process involving planning, implementing, assessing outcomes, and using results and lessons learned for further planning, revising, and modifying of the strategies. Measurement and assessment are key to strategic planning.

Taking a cue from this experience, the institute launched an exercise for developing the Strategic Plan for the next five years. The Strategic Plan 2017-2022 has been developed in the context of the capacity expansion of the Institute as mandated by the AICTE norms. Given this setting, the broad objectives for the next spell are clear before us. These include the creation of the requisite infrastructure for the expansion, increasing the faculty strength, and increasing the number of research activities and the research output.

The goals have been formulated in a manner that builds on the strengths of the institute and the aspirations of the faculty, staff, and students. This Strategic Plan aims at providing the college a vision and direction for the next few years and strategizes collective efforts to realize the plan culminating into autonomy.



A handwritten signature in green ink, likely of the Principal, located above the official stamp.

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## SECTION -II

### ANALYSIS

#### 2.1 SWOC (Strength, Weakness, Opportunity and Challenge) Analysis

At JBREC, SWOC analysis for this perspective plan was carried out using internal resources and expertise. SWOC analysis took two months of introspection and study.

#### SPACE for SWOC:

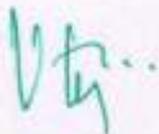
- i. In alignment with Vision, Mission, and long-term objectives.
- ii. In compliance with regulatory policies.
- iii. In compliance with the legal and educational framework of Govt. of India and AICTE.
- iv. In compliance with the legal and educational framework of Govt. of Telangana and TSCHE.
- v. In compliance with the overall framework of affiliating university JNTUH, Hyderabad.

#### Expected the Outcome of SWOC Analysis

Areas of activities identified by the institution are given below. These activities have emerged as Strategic plans of the institution under various goals set to be achieved in the next five years by the institution and have been included under nine Strategic Goals.

- Teaching – Learning:
  - Improvement in teaching, training and learning facilities
  - Updating and upgrading the of libraries (both Institute and Department)
  - Academic support to weak students and encouragement to bright ones.
- Administrative
  - Enhanced Institute-Industry Interface.
  - Institutional management capacity enhancement.
  - Implementation of Institutional Reforms.
  - Refurbishment (minor civil works).



  
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## STRATEGIC GOALS BASED ON SWOC ANALYSIS AND ENVIRONMENT SCAN

STRATEGIC GOALS	
<b>Goal 1</b>	Support Weak Students a) At Entry Level b) SC/ST/OBC c) Throughout 4 Years of study
<b>Goal 2</b>	Improve infrastructure and ambiance of the institute.
<b>Goal 3</b>	Improve Teaching and Learning Processes in quest for Excellence.
<b>Goal 4</b>	Create Research and Innovation Culture at UG and PG levels and enhance activities related to R&D, Consultancy and Academic products preparation.
<b>Goal 5</b>	Faculty and Staff Development for improved competence based on Training Need Analysis(TNA)
<b>Goal 6</b>	Enhance Industry Institute and Alumni Interaction
<b>Goal 7</b>	Introduce Academic and Non-Academic reforms
<b>Goal 8</b>	Establish Entrepreneurship Cell to help for budding Entrepreneurs.



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## 2.2 Situational Analysis

### The Global Scenario Impacting Engineering Education

Globalization has created awareness and the demand for the latest technology among the consumers in every field, consequently forcing the industry to provide the latest. There exists a need for skilled manpower to cater to the changing technological needs, notwithstanding the advent of multinationals in the country.

The new millennium has witnessed unprecedented challenges and opportunities for higher education, arising from the effect of globalization. The Globalization of the Indian economy has not only opened wider options for investment for the Indian industry but has brought in the realization that only the best can survive in the world market. Consequently, the realization has come that quality in products and manpower is the key to success.

### India and the Knowledge Economy

In the context of the global economy, knowledge is increasingly recognized as the main force behind economic growth and development, coupled with information, communication revolution and the emergence of the worldwide labour market. The Indian economy is helped greatly with the availability of a strong workforce in Information Technology. IT is the key in today's technical world; the present situation has created much larger avenues of education and training.

India Vision 2020 document envisaged the growth of IT-enabled service businesses in India also indicates that the potential of IT technology and knowledge-based industries extends far beyond the development of software and hardware. Thus IT services and management of all types of information will be a powerful engine of growth and job opportunities.

As per the World Development Report 1998/99, "today's most technologically advanced economies are truly knowledge-based, creating millions of knowledge-related jobs in an array of disciplines that have emerged overnight". Knowledge is viewed as an opportunity for resolving social problems such as food security, health, water supply, energy, and environment and is seen as a possibility of leapfrogging selected areas of economic growth.

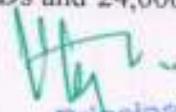
### The Changing Role of Engineering Education in 21st Century

Technical education constitutes the foundation for development of science and technology. Though India is proud of high quality engineering graduates produced by IITs, the handful of these world class professionals is grossly inadequate.

### Engineering Education System: Challenges

- **Faculty Shortage/ Up-gradation:** The massive expansion of institutions has resulted in an estimated faculty shortage exceeding 30,000 Ph. Ds and 24,000 Master's Degree level



  
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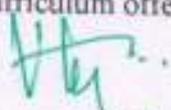
faculty in 2388 institutions with an enrollment capacity of about 8, 41,018 as of 31st August 2015. Ph.D. qualified faculty is becoming scarce.

- **Due to Archaic Recruitment and Promotion Procedures:** The institutions are not able to attract and retain good quality faculty. The absence of incentives for quality performance, and non-existent faculty development policies in most institutions is aggravating the situation.
- **Lack of Industry-Academia Collaboration:** Due to distrust between the two partners, both entities not being able to identify elements of win-win partnerships in terms of technical knowledge; and lack of incentives to institutions and faculty for collaboration.
- **Absence of Modern Teaching Aids & Infrastructure:** Obsolete learning infrastructure in terms of equipment, laboratories, and learning resources at the institutions are preventing the development of hands-on skills in industry-relevant technologies.
- **Grooming Students to Become Teachers:** The attraction of students for a faculty position depends on salary package, perks/ facilities and professional career. Industrial sector salaries have increased significantly in the last few years but the increase in faculty salary with comparable experience has been marginal.
- **No Equilibrium:** While the number of Bachelors degree graduates in engineering (B.E/B.Tech) every year has increased exponentially from about 270 in 1947 to 2,37,000 in 2006 which is 12% as per Compound Annual Growth Rate (CAGR) stated in the study report submitted by Energy Systems Engineering, IIT Bombay in the year 2007, the Masters' output has only increased from about 14,000 in 2001 to 20,000 in 2006, which is 7.5%, and the Doctoral output has increased by a mere 2.9% from 1985 to 2005 as per CAGR. The underproduction of Master Degree and Doctoral Degree holders is now seen to be seriously undermining the quality of education (due to a high proportion of under qualified faculty).

India Vision 2020 (A P J Abdul Kalam and Y. S. Rajan. 1998), talks about Kalam's ideas for India's future and for developing India. It recognized that a large number of the country's engineering colleges need to be upgraded to quality standards close to those of the IITs, and given similar autonomy. Private sector initiatives and investment, Indian Corporate or NRIs or reputed foreign universities, need to be fully encouraged. Close links need to be fostered between technical institutions and industry.

Though these realizations have now sunk in the NPE, as far back as 1986 (revised in 1992) had visualized the future of the education system in the country and came up with some revolutionary recommendations such as granting complete autonomy to the technical institutions to be able to bring in revisions and modifications quickly to the ever-changing need of the industry and to offer flexible/modular approaches to curriculum offerings.



  
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## Initiatives of GOI

The Government of India has adopted the National Policy on Education (NPE-1986 as revised in 1992). The NPE has suggested some major steps to promote Efficiency and Effectiveness of engineering education such as giving high priority to modernization and removal of obsolescence to enhance functional efficiency, more effective procedures will be adopted in the recruitment of staff. Career opportunities, Service conditions, Consultancy norms and other perquisites will be improved. The teachers will be performing multiple roles apart from teaching. They will be involved in the development of learning resource material, extension and managing the institution, mandatory in-service training for faculty members and Staff Development Programme will be integrated at the State, and coordinated at Regional and National levels All the institutions would be encouraged to generate resources using their capacities to provide services to the community and industry, facilities for sports, creative work and cultural activities to be expanded and Government of India will assist the State Governments for the development of Programmes of national importance.

During the 1980s, an issue of revamping the Technician Education System in the country was felt by the Government of India and the State Governments. A need to make it demand-driven with relevant courses in new and emerging technologies, with adequate infrastructure resources, competent faculty and effective teaching-learning processes, was felt. The Government of India supported the State Governments through three Technician Education Projects, financed by the World Bank during 1991-2007, helped to strengthen and upgrade the system and benefited 552 polytechnics in 25 States and Union Territories of Andaman & Nicobar and Pondicherry.

## Present Employment Scenario & Future Trends

The World Bank prospects report estimates that India is well on the path of becoming the fourth-largest economy in the world by 2020. Countries like India are game for the ever-changing technology and emerging global scenario, which, as envisaged, will result in opening up greater opportunities and challenges for all developing countries. A study reveals that one of the most important factors is that India has the advantage of having the largest growth of population in the age group of 15-64 at 747 million (2010) which is estimated to increase to 882 million by 2020 i.e. an increase from 60 to 66 percent of the total population, it also faces the challenge of enriching their knowledge and skills through education and creating employment opportunities. The total workforce in India has been about 375 million in 2002 and is estimated to continue to expand over the next two decades by about 2.0 percent per annum. This means that India will need to generate about 9 to 10 million jobs a year i.e. 200 million additional employment opportunities by 2020.

The point to note is that even though India faces huge unemployment, it is also true that in the emerging global scenario, there will be greater opportunities for countries like India with



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surplus well educated, highly skilled labour that can provide an attractive commercial environment for the outsourcing of manufacturing and service business

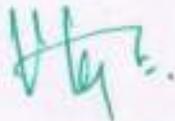
### 2.3 Environmental Scan:

Environmental scanning refers to possession and utilization of information about occasions, patterns, trends, and relationships within an organization's internal and external environment.

Environmental forces affecting almost all the Institutions in Telangana are as follows:

- The global recession and its impact on the Indian economy
- India becoming a signatory to WTO
- Growth in the IT-savvy population and IT industry in the State of Telangana and the current downturn in the IT profession
- The various GOI schemes and initiatives for improving the accessibility of school education in the past decade created pressures on the higher education system. Consequently, private enterprises were allowed to enter into the arena of higher education resulting in enormous growth in several private higher education institutions and increased competition and the challenges thereto.
- Liberalized state government policies resulting in fee concessions for different strata of the society and delayed release of scholarship grants.
- Inordinately delayed admission process in respect of all the seats under convener quota (70%).
- The dynamic geopolitical environment creates political, economic, and social forces that influence the regional economy and outreach initiatives, out of state students, and recruitment/retention of qualified faculty
- The rapid pace of technological development and its impact on college to stay updated in curricular offerings; resulting in industry entering into the education domain to provide short industry-driven certificate courses to make the engineering pass outs employable. If such a scenario continues, degree-awarding institutions, as well as their degrees, will lose their relevance.
- Growing need for continuing education programmes to meet the needs of working professionals due to rapidly changing technology; requiring engineering institutions to gear up to offering relevant quality-oriented programmes on part-time basis as well as through distance mode, through virtual classrooms
- Mushroom growth of engineering institutions



  
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- Increased competition among neighboring institutions for recruitment of best students and faculty

#### 2.4 Executive analysis

Analysis is based on environmental scan with reference to the vision of the nation, state and affiliating university and also benchmarking the performance of the institution with the nearby and reputed institutions and then organizing brain-storming sessions, through series of dialogues, discussions with management, faculty, staff, students, alumni and industry. To achieve the fore mentioned strategic goals, specific strategic objectives and strategic actions have been evolved by the exercise of strategic planning. Key Performance Indicators are also set and listed in respected goals. Based on it, year-wise resource planning is developed for five years of the project period i.e. from 2017 to 2022.

The institution has well-developed infrastructural facilities, such as land, power, and drinking water and adequate built-up area to meet the academic, administrative needs, commensurate with the fast-expanding academic frontiers. The institute is well equipped with laboratories, a library and information center with digitalization and automation, DELNET & online transaction facilities, and health-care, medical, transport, canteen, yoga, games, and sports and besides the internet facilities. Seminar halls and Banking facilities are available on the campus.

The Institute is having qualified, experienced, competent and adequate faculty and staff whose promising and laudable participation and involvement is oriented towards the cause of the corporate life of this institution as well as of the student-centric and learner-friendly activities.

The college has well-developed Training and Placement Cell, Research and Development Cell, and a host of different committees for carrying out various student centric administrative and development activities. The concerted and coordinated efforts and services of the Heads of the Departments, various committees and the administration, and other supporting staff in strengthening and streamlining general and academic administration do deserve to be highlighted.

The Institute has analyzed the current and latest status of the institution, its internal strengths and weaknesses and external opportunities and challenges, presented to it by its environment. The institute has now resolved to embark on an ambitious and achievable Strategic Plan that aims at an all-round institutional development and to maintain and sustain the excellence of this institution, to have expansion in new directions and vistas and thereby confidently take hold of the opportunities, it perceives favorable.

#### 2.5 Details of SWOC Analysis Conducted at JBREC:

The exercise of conducting SWOC was done to ensure unbiased and free discussions for reliable results.



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### **i. Procedure Adopted while Conducting the SWOC:**

Breaking institutional stakeholders in the following teams:

- i. Principal
- ii. HODs
- iii. All Senior/mid-level & Junior faculty members
- iv. Senior faculty from other reputed institutions and Industry
- v. Non-teaching and Office staff
- vi. Cleaners & Scavengers
- vii. 100 Students (undergraduate) in two batches
- viii. 30 PG students, MBA and M. Tech
- ix. Alumni
- x. Parents

### **ii. Group Process Technique for Brainstorming**

Teams were set up with each of the eleven groups listed above and separate brainstorming sessions were carried out with each group. If the group size was too large, they were divided into batches.

### **iii. Methodology Adopted**

#### **a. Creating a Congenial Atmosphere for Free and Open Discussion**

SWOC Analysis was conducted by IQAC team. The participants were informed of the purpose of this exercise. They were educated on the significance of their participation in this exercise and how important it is for them to be candid, open, and participatory.

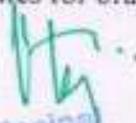
Each group was informed that the initiative was taken by the management as it recognizes the contribution of each member of the institution and gives weightage to their opinions and suggestions. It was stressed upon that their collective wisdom, contribution, and involvement can only help the institution grow and become a quality-yielding institution.

#### **b. Mode of Data Collection and Analysis:**

Employees of JBREC were made to assemble in a large room with round tables and were further subdivided into small groups of 5-6 persons.

Each group was explained the following basic rules for brainstorming:



  
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- a) Respect each person's views and do not evaluate the idea and refrain from being judgmental.
- b) Since more and more views are welcome therefore limiting themselves is not required - Quantity is the goal.
- c) The wider, the better.
- d) Groups should record each idea verbatim.
- e) Combining ideas is okay

The groups were asked to generate as many responses to the following questions within a limited time frame (10-20 minutes per question). All responses were recorded verbatim and ideas were not judged until evaluation time.

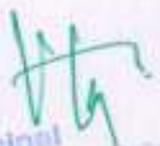
First Strengths and Weakness were taken up by the Director IQAC (facilitator) asking the following questions

- What are the strengths of JBREC?
- What are the weaknesses of JBREC?

#### Thematic groupings for Strengths and Weaknesses

Strengths	Weaknesses
Advantages of value proposition by the College	Weak Processes and Systems Process and inadequate facilities
Capabilities, Competitive advantages	Disadvantages in proposition, Gaps in capabilities
Unique Selling Points, Resources Assets, People	Lack of Competitive Strength Reputation, Presence and reach
Experience, knowledge, Data, Financial reserves, Likely returns from fees and other sources	Common Vulnerabilities and Exposures Financial situation, Cash flow, Cash drain of the institution



  
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### Thematic groupings for Opportunities and Challenges

Opportunities	Challenges
Good opportunities facing us	Political, Social Managerial obstacles
Competitors' vulnerabilities	Competitors intentions
Industry Trends that we are aware of	Environmental effects
Technology Development and Innovation	Changes in required specifications for services of the institution
Global influences	The declining supply of qualified faculty
Growing sufficient demand	Loss of key staff
The increased attraction for qualified faculty	Declining quality of students

All ideas as generated by the groups were recorded verbatim. After the time limit was up, all were listed and were categorized into thematic groupings.

The facilitator began brainstorming by asking the following questions:

- What opportunities exist in our External Environment?
- What threats to the institution exist in our external environment?

Group reports were made and the result of SWOC was listed and analyzed. The list of strengths and weaknesses was reduced to four distinctive competencies and debilitating weaknesses since prioritization is the key factor in obtaining useful SWOC data, as the outputs from brainstorming were significant. Strengths prioritized were those that were distinctive competencies existing in the institution i.e. those few things that the institution does best and those stakeholders care about and that set the JBREC apart from other Institutions. Core competencies attracted widespread agreement. The list of strengths prepared were those distinctive competencies, based on frequency tally of responses, on which the institution will focus on capitalizing for its further growth.

The challenges listed were those areas in which stakeholders expected and demanded performance or competency which the institution was lacking. Those weaknesses that attracted widespread agreements were listed based on the frequency of responses. An organization will focus on correcting its debilitating weaknesses.

The next step was to reduce threats and opportunities to the five most critically important ones again based on the frequency of responses of each.

Questions considered while evaluating SWOC were:

- What will JBREC gain if it does nothing? What will it lose?
- What will the institution gain if the institution starts a successful initiative? What will it lose if it does not?



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## 2.6 Results of SWOC Analysis

### STRENGTHS

The main identified current strengths of the institute, on which it can rely to pursue its further objectives include the following:

- i. Good reputation; ranks amongst the 20 top institutions of the State.
- ii. Good management that encourages institutional development for both the academic and nonacademic systems.
- iii. Supportive Management for Faculty Training & Development Programmes
- iv. Good transport facility.
- v. Large Campus with good civil infrastructure
- vi. Digital Library and E-Learning Facilities in each classroom
- vii. Healthy academic environment
- viii. Experienced and Qualified faculty
- ix. Well equipped Labs & Equipment
- x. Cordial student-teacher relationship
- xi. Integrated Campus with multiple institutes offering multiple inter institutional activities.
- xii. Educational and Medical community services offered to the local population
- xiii. Campus Wi-Fi enabled
- xiv. Canteen and hostel facilities
- xv. Good contact with the Alumni.
- xvi. Good "on" and "off" the campus student discipline

### WEAKNESSES

The areas that need improvement, as currently seen by the management, faculty, staff and students include the following:

- i. Modernization of infrastructure and ambiance of the institution
- ii. Up gradation of ICT facilities
- iii. The weak academic level of entry- level students.
- iv. Low faculty retention
- v. Poor Industry-Institute Interaction.



  
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- vi. Low R & D activities and consultancy
- vii. Low focus on improving PG programmes
- viii. No incentive for research and innovations
- ix. Poor communication skills in some faculty
- x. Low entrepreneurial motivation for students.
- xi. Student placement poor because of the recent recession

### OPPORTUNITIES

The main identified opportunities resulting from the above assessments include the following:

- i. Develop a strong alumni base for better student placement.
- ii. Increased guest lectures by industry and other academic experts
- iii. Introduce Information and Communication Technology for better T-L process
- iv. Increased Industrial Projects for enhanced revenue generation
- v. Participation /organizing Techno Fests/events
- vi. Conduct workshops/conferences for better training & learning
- vii. Introduce latest technologies & innovations
- viii. Attract qualified & better faculty
- ix. Providing training for qualified faculty to enhance their skills
- x. Enhance Greater Institute-Industry tie-up
- xi. Networking on library resource
- xii. Develop Industry related R & D and training related facilities
- xiii. Develop entrepreneurial potential and establish Entrepreneurial Cell.
- xiv. Render community service for the upliftment of the local people
- xv. The inherent geographical location of the Institute can bridge the Urban-Rural divide using technological edge. (Engineering consultancy to local industry)
- xvi. Integrated Campus with multiple Institutes can provide for inter- disciplinary research and other academic activities.
- xvii. Undertake consultancy & sponsored research projects
- xviii. Obtain autonomous and Deemed to be University status



  
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## CHALLENGES

The challenges that need to be faced as currently seen by the management, faculty, staff and students include the following:

- i. The decline in Training & Learning standards
- ii. Delayed fee reimbursement by the Govt.
- iii. Shortage and non-availability of experienced and qualified faculty
- iv. Multiple Govt. regulating agencies.
- v. Growing indiscipline among students
- vi. Obsolescence of lab equipment & machinery due to changes in the syllabus
- vii. Low employability of pass out students due to recession
- viii. Likely entry of private universities and foreign universities
- ix. Unequal competition with other new colleges
- x. A high attrition rate of the faculty
- xi. Economic recession

## SECTION - III

### WHERE WE WANT TO BE?

#### 3.1 Alignment of the Institutional Vision with the Vision of the Country, State and Affiliating University

##### India Vision 2020

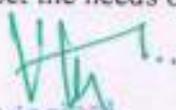
The GOI's vision for Technical Education is "to develop and nurture a technical education system in the country which would produce skilled manpower of the highest quality, comparable to the very best in the World and adequate numbers to meet the complex technological needs of the economy; and would provide the nation a comparative advantage in the creation and propagation of innovative technological solutions and the development of a technological capacity of the highest order, both for its application in the economic development of the country and for becoming a major supplier of technology and technological services in the World."

The Vision Statement has the following six main components:

The Vision Statement has the following six main components:

- i. To produce skilled manpower in sufficient numbers to meet the needs of the



  
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economy

- ii. To ensure the highest quality of output from the technical education system comparable to the very best in the world
- iii. To develop a comparative advantage in the creation and propagation of innovative technological solutions,
- iv. To develop the national technological capacity of the highest order,
- v. To use innovative technological solutions and technological capacity for economic development, and
- vi. To become a major supplier of technology and technological services in the world

*(Source: Dr. S. P. Gupta (December 2002). Report of the Committee on India Vision 2020 (PDF). Planning Commission, Government of India. Retrieved 2012-07-10.)*

### **MHRD's Mission on Higher Education**

"To provide access to relevant and good quality higher education in an equitable manner through rapid expansion aiming inclusiveness, removal of regional, social and gender disparities in education".

### **Objectives**

- The country's Gross Enrolment Ratio or GER in higher education has registered an increase from 24.5% in 2015-16 to **25.2%** in 2016-17, according to the latest edition of the All India Higher Education Survey (AIHES). To increase GER in higher education.
- To ensure that nobody is denied professional education because he or she is poor
- To ensure reservations for OBCs in admission to Central Educational Institutions without adversely affecting the number of general category seats
- To ensure that minorities are not left out
- To increase women's participation in Education.

(Source: Eleventh Five Year Plan 2007-12 and 12th Five Year Plan of the Government of India 2012-17)

### **State Vision 2020 (Department of Higher Education)**

The vision of the Government of Andhra Pradesh which was unchanged by the Government of Telangana is to usher in a "Knowledge Society" by the year 2020. The State Higher Education System would emphasize on providing courses which lead to the development of



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specialized and technical skills in the students, through professional courses in emerging areas such as Information & Communication Technology, Engineering, Biotechnology, Environmental Management, etc.”

### **Vision of the Affiliating University**

- To ensure an enabling environment conducive to rapid growth, particularly by encouraging private investment.

The core areas are:

- i) Increase in private investment in Technical Education
- ii) Introduction of flexibility in choosing subjects of study
- iii) Designing courses in tune with industry requirements
- iv) Creating Centers of Excellence
- v) Education for poor
- vi) Regulating Quality of Education imparted
- vii) Transparency in Procedures of Admissions

### **3.2 Mandates Impacting the College**

- AICTE
- UGC
- National Assessment and Accreditation Council (NAAC)
- Accreditation requirements of the National Board of Accreditation (NBA)
- Jawaharlal Nehru Technological University Hyderabad, Hyderabad
- Telangana State Directorate of Technical Education, Hyderabad
- Telangana State Council for Higher Education, Hyderabad.

### **3.3 Strategic Plans Specifics to Achieve Goals**

The environmental scan, and SWOC analysis have provided some major challenges and issues that our college faces that need to be tackled systematically; hence creating this Strategic Plan document. The Strategic Plan 2017- 2022 will address the following issues:

- How can we further expand our task to outreach the rural population?
- How can our institution develop and acquire national-level status as an excellent quality education provider?
- How can our institution inculcate ethical values and environmental consciousness among students?
- How do we adapt to rapidly changing technology and the needs of industry?



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- How to motivate our faculty and staff to upgrade their qualifications, knowledge, and skills?
- How can we attract and retain research-intensive and qualified faculty?
- How can we successfully transform faculty from teaching (primary engagement at present) into actively engaging in research and scholarly pursuit and become an R&D hub for the relevant industry?
- How can we inspire PG students to pursue Ph. D. and adopt teaching as a career?
- What new academic programmes, both at UG and PG levels, should we offer and how the programmes should be delivered to best serve the current and future needs of stakeholders?
- How can we assist weak students at entry-level to become strong in science, mathematics and communication skills (oral/written skills)?
- How can we attract high-quality students?
- How can we take full advantage of our close location with Hyderabad and industrial hub?
- How can we become a revenue-generating institution that does not survive on student fees and funds from society only?

### 3.4 Importance of the Strategic Plan

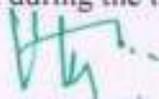
Strategic Planning determines Where the Institution is going over the next year or more, How It's going to get there, How will we know if it gets there or not and How will be the gap filled?

In the fast-changing technology, the needs of the industry have made it imperative for the educational institutions to function in a well-planned manner to effectively utilize their optimum resources to prepare skilled manpower to cater to the industry requirements.

We recognize the fact that no plan is perfect and can accurately forecast the future, but we also recognize that if we fail to plan, then we plan to fail. The Strategic Plan is a process to establish priorities on what we will accomplish in the future and forces us to make choices on what we will do and what we will not do. It pulls the entire institution together around a single game plan for execution. The process of preparation of a Strategic Plan brings out the issues, strategic objectives and action plan to better anticipate, prepare and respond to future challenges and opportunities.

Considering the rapidly changing technology and consequently, the changing needs of the students and the industry, the Strategic Plan has to be flexible and dynamic to be able to adjust and adapt to the needs as they arise. Therefore, the Strategic Plan has been prepared for five year period i.e. 2017-2022. Based on the experience and lessons learned during the implementation of



  
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the Strategic Plan, the college will develop Strategic Plan for a further five years period, 2023-2028.

The 09 Strategic Goals were developed to address the strategic goals which motivate every stakeholder at the institution to look at the growth of the institution with a new perspective where everyone feels they have contributed to building and creating a better future for our students, faculty, staff, and industry in a systematic planned approach.

In the whole exercise, we have tried to analyze where we are, what we want to be, how we will bridge the gaps and how we will monitor our progress and take corrective actions along with sharing responsibilities, guiding decision making at all levels with accountability. During the process of preparing our Strategic Plan, we evaluated our institution against its neighbors and the state on various parameters. This Strategic Plan is having 8 broad Goals.

### 3.5 STRATEGIC GOAL-1

#### SUPPORT WEAK STUDENTS

- a) At the entry-level –I and II year of UG and I year of PG
- b) SC/ST/OBC
- c) Throughout 4 years of study.

At present, the intake of students is 480 and there are five disciplines. Among five, two are running with two sections. Here it is important to mention that students will be admitted through EAMCET conducted by the State Government. Based on past results of the students in this institution the overall pass percentage has been 50-55%. The faculty helps the weak students by taking special classes/remedial classes/makeup classes/special tutorial classes on holidays and extra hours during the working days.

#### Strategic Objectives

- i. Develop and conduct standard tests in Science, Mathematics and English to assess the level of competency at entry- level
- ii. Identify institution faculty, academically sound senior and PG students and/or external support to help weak students,
- iii. Arrange extra coaching classes in morning/evening, or on holidays based on the mid exams for weak students who are staying in our hostel.
- iv. Provide support to SC/ST/OBC students through the above mechanism without charging extra to them.
- v. Create Mechanism to support weak students throughout their study.



  
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### Strategic Actions

Strategic Objectives	Strategic Actions
1.1.1	Development of standards test in (i) Physics, (ii) Chemistry, (iii) Mathematics and (iv) English
1.1.2	Conduct the standard tests on the entry level students in the first week of their joining the institution.
1.1.3	Assess competency levels and decide the course of action for remaining strategic objectives for all four years of study i.e. taking care of weak students after first year in core areas
1.2.1	Identify teachers willing to support weak students during extra hours of the institution.
1.2.2	Identify academically sound good scoring senior students from seventh to eighth semester/PG students willing to accept teaching fellowships to support weak students during extra hours of the institution. Hostellers may be encouraged to take up such assignments.
1.2.3	If Internal sources are not sufficient, engage individual teachers from outside the institution on part time basis or invite a group having expertise in supporting weak students.
1.2.4	Through training provide input to identified faculty/senior students/ PG students on how to help students and motivate them to improve their performance.
1.2.5	Device a scheme to reward the teachers (Extra Remuneration) senior students (Teaching Fellowships) for external support- individual or agency appropriate remuneration to be fixed
1.3.1	Prepare a timetable for extra coaching classes in the morning/evening and holidays.
1.3.2	Identify classrooms where extra classes will be held
1.3.3	Assign teaching loads to the faculty and senior students identified
1.3.4	Announce the weak students support schedule to all the students (Don't label weak students) Program should be announced for all interested students.
1.3.5	Maintain Attendance record, internal examination schedule and monitor performance of the students.
1.3.6	Counsel the weak students where necessary.
1.4.1	Develop formative evaluation test (to assess knowledge enhancement on continuous basis) for each subject separately.

### Key Performance Indicators

- i. Improved performance of slow learning students in the knowledge of science, mathematics and language skills through internal tests - average percentage should increased to 75% at the end of the first year
- ii. The share of the first year students that complete the full first year and transitions



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- successfully to second year (disaggregated by social group)
- iii. Increased performance of weak students in the first semester of University examinations - average percentages in different subjects to improve to reach 65%.
  - iv. Strengthening of weak students' performance in the second semester end examination - average percentages improved to 75% in various subjects
  - v. Students in the second year who are struggling academically - average improvement in different subjects to reach 75% or more
  - vi. Student performance improved in third year with an improvement of at least 75% in the average percentage in each subject
  - vii. Improved number of students completing degree in first attempt
  - viii. Average percentage of students completing degree in first attempt with overall grades to reach 75% or above.

### 3.6 STRATEGIC GOAL – 2

#### **Improve infrastructure and ambiance of the Institute.**

A campus master plan is a physical manifestation of an institute's strategic plan. It is a road map for the future of the campus and becomes a crucial tool in confirming that short-term projects are working in conjunction with long-term plans and goals. And a good campus plan builds in flexibility so that it can accommodate shifting academic priorities and economic conditions.

Three components coincide and work together to support the core mission and values of the college – **Landscape, Buildings & Connection**. Together, they ensure the largest of campuses feel humane and comfortable, have a positive purpose, and elucidate character. A leading campus has to employ such principles to ensure a wonderful “**Learning**”, rather than a “**Teaching**” environment.

#### **MASTER PLANNING PRINCIPLES:**

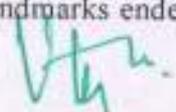
##### **Creating a Legible and Contextual Campus:**

A legible campus provides an institution a distinction, purpose, and clarity of vision. Such developments do not succeed in isolation. Its edges and paths are derived from a larger geographical context, the needs of the neighborhood, and the successful physical and ecological linkages formed.

##### **Creating Memorable Landmarks:**

In a continuation of the legibility principle, creating memorable landmarks endears users to the



  
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project, provides a sense of location and pride, while simultaneously endowing tremendous value to the landmark property and its vicinity.

#### **Environmental Services:**

- i. Solid waste management.
- ii. Waste Water Treatment and Reuse of Treated Water.
- iii. Organic Waste Treatment.
- iv. Rain Water Harvesting, Improving Water conservation facilities, Bore-well/open well recharge.
- v. Green campus initiatives
  - Restriction of automobiles
  - Use of battery-powered vehicles
  - Ban on use of plastic
  - Landscaping with trees and plants.
- vi. E-waste management.

#### **Key Features:**

- i. Sustainable Growth.
- ii. Environment Centric.
- iii. Clean and Green Campus.
- iv. Reduction of Carbon Foot Print by Using Solar Energy.
- v. Inclusivity by Adding Support to Differently Abled.

#### **Key Infrastructure Additions planned during this Strategic Plan (2017-22):**

- i. Extension of Boys Hostel.
- ii. Extension of Library.
- iii. Lifts in all academic and administration blocks.
- iv. Renovation and extension of Canteen Infrastructure.
- v. ICT enabled Classrooms.
- vi. A new Computer Centre with a capacity of 100.
- vii. Exclusive placement seminar hall and interview rooms.
- viii. Additional Boys and Girls washrooms in the First-Year block.



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- ix. Landscaping
- x. Connecting all building areas to Sewage Treatment Plant.
- xi. Creation of Rainwater harvesting pits.
- xii. Creation of Incubation and Innovation Centre.
- xiii. Improving seminar halls in each department
- xiv. An open auditorium with a capacity of 1000.

### 3.7 STRATEGIC GOAL- 3

#### Improve Teaching, Training - Learning processes and Facilities that Best Reflect the Current and Future Requirements of Engineering Profession at UG and PG levels

Presently our institution is offering five UG programmes (Electrical & Electronics Engineering, Mechanical Engineering, Electronics & Communication Engineering, Computer Science Engineering, Information Technology, Mechanical Engineering, and 5 PG programmes Power electronics and Electrical drives, Embedded systems, VLSI, Computer Science Engineering and Software Engineering ) and a PG course in management MBA with a total approved intake of  $(480+90+60) = 630$ .

In the first year, students undergo training in Basic Sciences, Mathematics, English, Engineering Graphics and Programming Languages. The core engineering subjects are taught from the second year onwards. The evaluation is done as per the university guidelines by conducting objective and subjective examinations. The students who are not performing well are identified and special tutorial classes are arranged on weekends.

From the information collected from the articles published in newspapers and journals, it was noted that only 10% of the students who passed out are employable and the remaining 90% need some industry-specific training hence it is decided to introduce some value-added courses in each discipline to meet this objective.

**CSE&IT:** Providing a workshop/training on the following technologies

- i. Microsoft's Technologies
- ii. Linux/Unix
- iii. Networking Protocols
- iv. Cloud Computing
- v. Data Warehousing
- vi. Machine Learning & Data Science



  
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**ECE & EEE:** Providing training in the following areas

- i. Wireless Communication & Networking
- ii. Embedded Systems
- iii. Advanced Simulation Software
- iv. Internet of Things

**MECH:** Providing training in the following areas

- i. Training related to CAD/CAM Software
- ii. Structure Health Monitoring

### 3.8 STRATEGIC GOAL – 4

**Create Research and Innovation Culture at both UG / PG levels, Enhance Activities Related to R&D, Consultancy and Academic Product Preparation and participation**

In the techno world of today research is the keyword. Teaching & research are the two sides of the same coin. For effective teaching to be accomplished there must be active research activity.

JBREC also understands that the growth of the Institute is based on its R & D input. Since the campus is an integrated one, it offers ample opportunities for multi-disciplinary research. The Institute plans to utilize all the opportunities to initiate collaborative research projects involving rural communities and link them up with urban areas.

#### **Objective:**

The JBREC Research and Development cell is devoted to providing graduates with the tools to deal with any problem they may encounter on their way to becoming professionals. With this in mind, the Research and Development Cell constantly takes advantage of the opportunities provided by the visits of teaching faculty and students to address challenges and needs of people and the environment.

#### **Interdepartmental/Multidisciplinary:**

Our goals for enhancing research excellence through interdisciplinary, collaboration, and partnership are as follows:

- i. A better environment for interdisciplinary inquiry and research innovation.
- ii. Stronger research links and collaborations with other universities within the state, across the country and around the world.
- iii. Stronger links and interaction between research and education.



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Prof. V. H. ...  
R.R. (DIA), HYDERABAD-500 075

- iv. Sustainable and productive partnerships with governments, funding agencies and industry.
- v. Increased levels of external research funding.
- vi. Increase in the transfer of product-oriented research into commercialization opportunities.
- vii. Activities that increase opportunities for the college research to have a meaningful impact on the community and social development.

**JBREC interacts with the Industry mainly through:**

- Technology Assessment / Management, Project Assessment
- Product / Process Design / Development
- Simulation / Modeling / Optimization
- Software Development

**Strategic Objectives**

- i. Create fully equipped research centers/laboratories with the latest software and hardware to facilitate research in emerging technologies and encourage interdisciplinary research.
- ii. Start generating revenue for self-sustenance.
- iii. Appoint prominent researchers as Mentors (retired professors from IITs, NITs, IISc, other reputed agencies at national and state levels) to guide faculty in preparing winning proposals and to gain sponsored research, consultancies, and projects from Government and private agencies, thereby enhancing sponsored research, publications, live consultancies/projects from industry and developing patents
- iv. Hire faculty in selected research curricular requirements areas to develop selective areas of excellence
- v. Orient undergraduate students to the research process.
- vi. Initiate incentive and reward system for publication, organization, and participation in seminars, conferences and substantial rewards for developing patents
- vii. Initiate system of revenue generation and sharing revenue with faculty, staff, and students.

**Strategic Actions**

- The College has established with an R & D cell, MSME-TBI (Business Incubator), MHRD IIC Cell, Baskar Research Innovation Incubation startup center to promote research and consultancy activity in the campus.



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- Guest lectures will be arranged by eminent researchers, academicians, and industrialists to create awareness and interest among the students and faculty on research.
- Also to provide information about various funding agencies, method of applying for projects, etc with the support of DST, AICTE funding projects.
- Providing infrastructure facilities, space for department research centers, Procurement of equipment and software for all branches in the college.
- The students are guided and encouraged in applying research projects for CSI, IETE, and other agencies.
- The faculty and students are encouraged to visit research-oriented labs, industries such as DRDO, BHEL, ISIE, MSME, BDL and many more institutions to interact with industrial experts regularly.

#### Key Performance Indicators

- Total research intensive faculty recruited
- Total research papers published per year by faculty
- Total number of multidisciplinary research projects taken up
- Number of sponsored research obtained and amount
- Number of consultancies taken and amount
- Number of live projects and amount
- Number of paper presentations
- Number of patents
- Total amount of funds generated

#### 3.9 STRATEGIC GOAL – 5

##### Faculty and Staff Development For Improved Competence Based On Training Need Analysis (TNA).

JBREC has placed considerable importance on imparting effective and regular trainings for all the teaching and non teaching staff of the institution. The underlying idea was always to develop a right kind of attitude and a sense of integrity and commitment.

As a result of staff training, the institution will thrive with a growing staff. Management is keen to improve the competencies of all the staff members, especially the teaching fraternity. It could be a long term or short term training, in small batches so that teaching schedule is not affected. Though in the past years some trainings were provided but now it is been realized that a conscious policy for the training of human resource would



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enable the Institute to meet the challenges.

Since the technological knowledge is not only fast growing but rapidly changing, the knowledge becomes obsolete if it is not up graded regularly. Though in the past years some efforts were made in this area, they are not enough. A conscious policy for the training of human resources should become a permanent feature so that challenges faced by technocrats are met.

### Strategic Objectives

The purpose of a training plan is to identify the work to be carried out to achieve the objectives.

- i. Pedagogy Training for Faculty
- ii. Training of Technical Staff in their relevant fields
- iii. Upgrade qualifications of existing faculty and staff
- iv. Participation of faculty in workshops, symposiums, seminars, and conferences at the national and international levels enhances faculty research competence and subject knowledge.
- v. Establish training norms for facilitating teaching and non-teaching staff to undertake various trainings.

### Strategic Actions

The need for Pedagogical Training using the latest teaching methodologies is the need of the hour. It has been realized that teaching fraternity is not keen to undergo any such skill enhancement training. As a result, efforts should be made from the Principal to motivate them and facilitate their attendance at trainings. Regular feedbacks from the students could highlight the areas where training is essential like, enhancement of communication skills, use of modern teaching aids, designing the course files etc.

- To organize regular Training on Teaching Skills i.e, Pedagogy Training for all the faculty, basic and advance for lecturers, HODs, Deans etc.

### 3.10 STRATEGIC GOAL – 6

#### Enhance Industry Institute and Alumni Interaction

As our Educational Society is running Medical, Pharmacy, and engineering courses, we are capable of involving in multi-disciplinary research areas where Mechanical, Instrumentation, Pharmacy, and Medical/Biomedical fields are involved.

In order to promote research activities at the College, the management offers incentives to researchers in various forms to encourage them. Various methods of merit recognition, fiscal and career incentives are planned and will be implemented. PG students



  
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and staff will be working under the guidelines of senior faculty.

At the College, there is an Alumni Association mechanism that handles activities like collecting alumni data and organizing alumni events. We have planned to identify some Alumni members for Alumni interaction with students, which will provide a better understanding of the job market, working environment, career opportunities, and moral support for aspiring engineers studying in their third & fourth year. Currently, enrolled students will benefit from alumni guidance and will be encouraged to do so.

Expert Staff members with Industrial background Old Alumni members, who are not in contact for many days has to be contacted.

Since the College is established in Hyderabad, which is an Industrial hub and IT Hub of South India, we have plenty of opportunities to contact and establish relationships with Industries, thereby actively involving them in industrial-related activities.

### Enhance Alumni Interaction

To enhance the Alumni interaction, an alumni association is to be formed with former students. Associations foster loyalty among members and promote the welfare of the organization as a whole. This association aims to act as a bridge between the past and present of JBREC Hyderabad.

Strategic Objectives	Strategic Actions
6.1.1	<p>Training &amp; Placement office will be the core staff, should include a coordinator, not less than an Associate Professor/Sr. Professor from the Institution who will be assisted by a Project Assistant and an office Assistant. The cell should meet minimum twice per semester and on the need basis.</p> <p>The proposed composition of the cell is as following:</p> <ol style="list-style-type: none"> <li>i. Principal-Chairman</li> <li>ii. HOD &amp; One faculty from each department-Member</li> <li>iii. Members from the Industry/ Entrepreneur- Member</li> <li>iv. TPO- Member</li> <li>v. Coordinator of the cell- Convener</li> </ol>
6.1.2	<p>The cell will design the road map for interaction with industry based on the strengths of the institution to include following activities annually.</p> <ol style="list-style-type: none"> <li>i. To identify and facilitate Guest lectures, Organize Interactive workshops, Conferences, Seminars, Brain Storming Sessions, Technical Discussions with participation of Industry, outside experts and eminent Personalities.</li> <li>i. Organize one Industrial Exhibition at the institution premises who highlight research facilities and expertise available with the Institution</li> <li>ii. Invite at least ten professionals from the industry as visiting faculty in</li> </ol>



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	<ul style="list-style-type: none"> <li>the Institution.</li> <li>iii. Organize short/long term Industrial Trainings to benefit at least faculty members or work on projects in Industry.</li> <li>iv. Organize Campus placement fairs to ensure increase 10% placement of students every year.</li> <li>v. Conduct tracer study on pass out students to know progress.</li> <li>vi. Organize Alumni meet once a year.</li> <li>vii. Invite at least Alumni for interaction with students and create role models.</li> <li>viii. Seek Assistance from Alumni for Student Placements.</li> <li>ix. Invite at least two self-employed Alumni for Lectures and Guidance.</li> <li>x. There are possibilities of losing contact with old Alumni members who shift from one place to another. In order to maintain contact with such people, maintenance of social communities like LinkedIn, Face book are best suited solutions.</li> </ul>
6.2	Industry professionals will be invited for expert lectures
6.3	Promote revenue generating activities such as Testing, Calibration, Consultation and R &D.

### 3.11 STRATEGIC GOAL -7

#### Introduce Academic & Non-Academic Reforms

The Institute is highly focused on the development of Human Resources, converting them into Intellectual capital by motivating them to start and participate in revenue-generating technological activities.

At present, the curriculum is considered to be more or less a conventional method of teaching and learning is merely a supply type of activity. Industries are looking for industry-ready professionals with modern think tanks, innovators, problem solvers, and out-of-box thinkers; hence we need to adopt industry-oriented teaching with best practices to bridge the gap between industry and institution.

Our future engineering graduates will enter into a world marked by rapid and global changes. Distance, time, and geography are developing new meanings as a result of advances in information and computer technologies and the establishment of global partnerships and alliances that provide mechanisms for collaborations that cross disciplines, institutions, states, and countries. Engineering graduates need to be significantly better prepared to deal with information retrieval, integrating knowledge, and synthesis. They must be able to take a holistic approach to problems involving complex and ambiguous systems and scenarios and employ creative and critical thinking skills. In an increasingly global marketplace, our graduates are and will be expected to work with multinational teams, have a global perspective, and be culturally



  
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and linguistically literate. They must possess communication skills to interact effectively in the community and within the professional and political arenas.

Today's ethical issues will assume global proportions and our graduates must have the strong ethical foundation they will need to deal with issues involving equitable distribution of resources, byproducts of design, proprietary information, sustainable development, environmental conservation, genetic engineering, and human cloning. They need to be familiar with legal and business aspects of engineering solutions and their social impact and have a foundation in best business practices and fundamentals of entrepreneurship.

### Strategic Objectives

- i. Curricular reforms by facilitating more elective courses.
- ii. Generation, Retention and Utilization of Revenue generated through various activities
- iii. Improved students' continuous performance evaluation
- iv. Performance appraisal of faculty by students
- v. Faculty incentive for Continuing Education, Consultancy and R&D
- vi. Improved Sports, Games & Cultural Activities.

### Key Performance Indicators:

- i. Number of faculty and staff positions filled
- ii. Availability of system of appraisal of faculty performance by students and faculty counseling
- iii. Number of Continuing Education, Consultancy and R&D and amount.
- iv. Amount of incentives provided to faculty for Continuous Education, Consultancy and R&D.

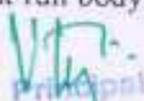
### 3.12 STRATEGIC GOAL 8

#### Establish Entrepreneurship and Incubation Centre Cell Which Will Harbor for Budding Entrepreneurs

The JNTUH makes it mandatory for all its affiliated colleges to have an Entrepreneur Development Cell which will guide the functioning of the cell. There are several benefits in establishing this cell in the institute. It makes the budding engineers think on positive lines, generate new ideas, and have analytical thinking, and become decision-makers. It creates Self Employment opportunities for young Engineers.

E-cell, the Entrepreneurship Cell at JBREC pursues the endeavor of sensitizing and fostering entrepreneurship amongst the students at JBREC. The student-run body facilitates the



  
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process of knowledge expansion with a practical edge by exposing the students to hands-on experience of entrepreneurship through events, competitions, knowledge transfer sessions, alumni interactions and interactive sessions with existing Entrepreneurs and Venture Capitalists. The cell is a facilitator for the students on the campus to follow their dreams.

JBREC Incubation Center to be started to adopt the spirit of Entrepreneurial Thinking, promote & sustain student innovations from ideation to a startup developing an entrepreneurial ecosystem in the young minds, and shaping next-generation entrepreneurs.

**Strategic Objectives:**

- i. Establish Entrepreneur Development Cell.
- ii. Establish Business Information Process Cell.
- iii. Establish Incubation Cell.



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**Strategic Activities:**

Strategic Objectives	Strategic Actions
8.1.1	The cell will identify budding entrepreneurs out of the students in third and fourth year of Under Graduation and provide them basic facilities to start their business activities
8.2.1	<ul style="list-style-type: none"> <li>i. The college will create Business Information Process Cell which will be headed by senior faculty.</li> <li>ii. The responsibility of the cell will be to work in active collaboration with the industry for the benefit of the institution, Create Industry Patrons, Industry-sponsored gifts, and serve as a guide for budding entrepreneurs.</li> <li>iii. The functions of the cell will strive:               <ul style="list-style-type: none"> <li>a) To provide Information &amp; Services to budding technology entrepreneurs.</li> <li>b) To create Entrepreneurial culture in the institution</li> <li>c) To promote the Development of Technology-based enterprises and promote self-employment opportunities.</li> <li>d) To respond to the emerging challenges and opportunities both at the National &amp; International level to small and medium enterprises.</li> <li>e) To promote R&amp;D, Consultancy, Project facilities, and incentives provided by the college to attract industry and faculty.</li> <li>f) To support / financial assistance from financial Institutions/Banks</li> <li>g) To get support of National Institute of Micro, Small &amp; Medium Enterprises (Ni-MSME) for promotion of Small Scale Industries by Government Policies, Subsidies/Licensing schemes for promoting Small Scale Industries.</li> <li>h) Offer suggestions to become an entrepreneur from technocrats turned to industrialists.</li> <li>i) To extend necessary guidance to the prospective entrepreneurs in obtaining approval and execution of their projects.</li> <li>j) To provide information on incentives/tax benefits of the state government to young entrepreneurs &amp; developers of new technologies.</li> </ul> </li> </ul>

**Key performance Indicators**

- i. Number of programmes conducted with beneficiaries
- ii. Number of Students taking up entrepreneurship
- iii. Number of Students interested in Incubation Center
- iv. Number of activities organized under BIPC
- v. Number of Industries Benefited
- vi. Number of Industry Patrons Created



  
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## SECTION IV

### 4.1 Monitoring, Feedback, Evaluation and Corrective Action Plan

While the Principal is the overall responsible for implementation of the Strategic Plan, he/she will be assisted by the Planning & Evaluation Committee. This committee will assess progress in achievements of Key Performance Indicators and if there were short falls, assess the reasons thereof and seek answers. Based on the assessment, corrective action / modify targets set in the Key Performance Indicators and if required modify some of the planned activities provided in the Strategic Plan, or take decision on changing implementation strategy, in terms of physical, human and financial resources.

The Report along with the corrective actions will be presented by the Principal to the BOG.



  
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