



# LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

**Internal Quality Assurance Cell (IQAC)**

## Best Practices During the A.Y:2019-20

### Best Practice-I

**Title: Academic and Administrative procedures for quality teaching in OBE implementation**

#### Goal:

Good teaching practice has a key influence on student learning - a desired outcome and primary goal of higher educational institutions. Teachers strive to meet the principles of good practices in an effort to provide the best learning experience for their students. Accordingly, our institute has taken the task of Teaching - Learning right from the inception and specific practices are implemented.

#### Objectives:

LBRCE focused on the following Academic and Administrative procedures to ensure quality teaching.

- Guide the faculty towards better planning, teaching, and research.
- Enhance effective knowledge transfer in the classroom.
- Enhance administrative efficiency and transparency.
- Address the problems of students and make teaching more students centric.

#### Context:

LBRCE has focused on academic audit every month as a standard procedure in which verification is done on preparation of course handouts, teaching material, PPTs, classroom exercises, schedule and activities of labs, Computation of attainment levels of COs, POs and PSOs, evaluation of students in mid-semester and Semester-end examinations.

#### Practice:

- Every month academic audit is performed for each department with two auditors from other departments. Audit form is made available at institutional website.
- After the audit, the corrective actions taken by the department are also recorded.
- Curriculum revision based on all stakeholders feedback and attainment levels of COs, POs & PSOs
- Revision of OBE computational procedures for better implementation.
- Conduct of External Academic and Administrative audit by two eminent academicians.
- Quality of Mid Semester and End Semester question papers is analysed.
- This academic audit resulted in the following advantages.
  - ✓ Uniform syllabus coverage in all courses
  - ✓ The facility has also helped in giving a quick update to the students.
  - ✓ Remedial and bridge classes are conducted for academically weak students.

- ✓ Guidance for competitive examinations is scheduled for advanced learners.
- ✓ Faculty development programs are conducted to incorporate latest technology and innovative methods in teaching techniques and learning processes.
- ✓ Faculty is also motivated to use ICT tools extensively.
- ✓ Implementation of LMS (lms.lbrce.ac.in)
- Centre for Innovation, Incubation and Entrepreneurship (CIIE) facilitates incubation of innovative ideas pertaining to socio-economic issues.
- In addition to these, industrial visits are planned regularly and Internship is introduced during pre-final year and final year semester break to improve the industry-institute interaction.
- To improve the problem solving and self learning skills of the students, Problem Assisted Learning (PAL) and Problem Based Learning (PBL), Mini Project and Technical Seminar are included in the curriculum.
- Foreign language certification programs are conducted.
- SMS facility has been introduced for intimating the shortage of attendance to the Parents.

With all these practices the OBE implementation has been strengthened very effectively.

#### **Evidence of Success:**

- 83.65 % of B.Tech students have successfully graduated and among them 43% of students have graduated without any backlogs
- 56.6 % of B.Tech students have graduated with First class with Distinction.
- Overall student satisfaction has been improved. The **Student Satisfaction Survey** on the Teaching-Learning is at a level of **3.41 on 4-point scale**.
- 02 Start-ups are registered and 13 prototypes have been developed.

#### **Some of the achievements are listed below:**

- **NIRF-2020 India Rankings - Rank Band: 201-250**
- **Dataquest T Schools Survey 2020 :**
  - ✓ **74 Rank (Among all Govt. and Private Colleges)**
  - ✓ **62 Rank (Among all Private Colleges)**
- **Dataquest Digital Index 2020 : 35<sup>th</sup> Rank**
- **AAA+ grade awarded by Careers 360 (2020)**
- **3 STAR Rating to CIIE by MHRD Institution's Innovation Cell**
- **LBRCE NPTEL Local Chapter graded as "A" (June 19 – Dec. 19)**

#### **Problems Encountered and Resources Required**

Acceptance for procedural changes is more than 95% by the faculty. However, adapting to the changes is observed to be slow. Changes have been welcomed by most of the faculty members.

## **Best Practice-II**

### **Title of the Practice: Skill Set Improvement**

#### **Goal:**

Every Institution's performance is majorly influenced by the skill set of its students as well as Faculty. Any practice of skill set improvement will be specifically the best practice that can be adopted. Accordingly, LBRCE has chosen a goal of skill set improvement for its faculty as well as students.

#### **Objectives:**

The objective is to augment and improve skill set of faculty and students in view of improved performance in different dimensions.

#### **The Context:**

It is necessary that the student attains requisite knowledge in his/her branch of engineering as well as possess adequate soft skills and programming ability to become employable. To realize this level obviously the faculty is expected to possess a skill set that serves required purpose adequately. We focused on all these aspects to achieve this goal.

#### **The Practice:**

To impart the requisite technical knowledge, the following practices are adopted:

- The important technical aspects are emphasized by every teacher in the class room with more focus on conceptual clarity in all theoretical as well as practical aspects.
- Guest lectures and training programs are arranged for a good number of core subjects in every branch of engineering.
- Certification programs and trainings are arranged on emerging technologies through established skill development centres such as CM's Skill Excellence Centre-APSSDC, DASSAULT SYSTEMS-3DEXperience Centre (CATIA Software) and ANSYS skill development center, Applied Robot Control (ARC) Lab.
- Personality development programs and soft skill development classes are organized from time to time to improve soft skills of the students.

For providing adequate soft skills, the following methods are adopted:

- The Centre for Career Guidance and Training (CCGT) has designed specific practices spread through the last four semesters as part of the curriculum. Chosen training programs by external experts are arranged.
- For providing adequate programming ability a number of programming exercises are conducted by the internal faculty trained by E-BOX, WIPRO, CISCO, AWS and Blueprism in problem solving skills.
  - ✓ Ebox-28 Faculty from CSE, IT and MCA
  - ✓ WIPRO- 04 faculty from CSE & IT
  - ✓ CISCO - 04 Faculty from CSE, IT & ECE
  - ✓ AWS - 02 Faculty from CSE & IT
  - ✓ Blueprism - 01 Faculty from IT
- Certification programs by external agencies are also arranged through Skill Development Centres established in the institute.
- Special training on programming skills on Code-Vita by internally trained faculty.
- Conduct of programs on IPR and Patent filling
- Conduct awareness programs to publish a quality research work, books/chapters and motivating students to publish their Project work in reputed journals
- Encouraging faculty to participate in STTPs, FDPs, Workshops and Conferences

**Evidence of Success:**

Number of students placed in the A.Y 2019-20 is 524 with highest package of **10 LPA** whereas in the A.Y 2018-19 highest package was 7LPA.

- ✓ 20 students got placed in TCS Code Vita
- ✓ 66 students got placed in TCS NINJA
- ✓ 29 students got placed in WIPRO TALENT NEXT
- ✓ 18 students got placed in WIPRO NLH
- ✓ 08 students from ASE department got placed in Ziegler Aerospace Ltd. in 2020
- ✓ 02 Faculty members are trained on “Applied Robotic Control (ARC)” by European Center for Mechatronics (ECM), Germany
- ✓ 09 students got placed in Royal Enfield, KIA Motors, TVS Motors through training imparted by ARC trained faculty
- ✓ 13 patents were published by faculty
- ✓ 329 research articles were published in reputed journals
- ✓ 43 Project proposals have been submitted to various external funding agencies
- ✓ 07 projects worth of Rs.72 Lakhs were sanctioned
- ✓ 92 percent faculty members had attended STTPs, FDPs, Workshops and Conferences
- ✓ 15 books/chapters were published

**Problems Encountered and Resources Required:**

The expected level of focus by the students on the arranged training programs is not attained due to non-availability of time. With proper planning and scheduling this difficulty can be overcome in due course of time.



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