LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)
Accredited by NAAC with 'A' Grade and NBA (ECE,EEE,ME,CSE & IT)
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
(Academic Year 2021-22)

Best Practice – I

1. **Title of the Practice:**

   Effective Implementation of Outcome Based Education (OBE) in Teaching-Learning Process

2. **Objectives of the Practice:**

   ➢ To address the learning levels of students and make teaching more student-centric.

   ➢ To guide the faculty towards better planning in teaching-learning methodologies.

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   ➢ To augment effective knowledge transfer through core, elective courses in addition to integrated learning practices.

   ➢ To enhance critical thinking, problem solving skills among students.

   ➢ To enrich technical skills through modern tools usage.

   ➢ To improve self-learning capabilities through MOOCs.

   ➢ To enrich the curriculum that suits to current industrial needs.

3. **The Context:**

   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 institution has been implementing OBE in Teaching - Learning.

4. **The Practice:**

I). The process of teaching-learning for effective content delivery is realized by involving Course Coordinator Committee (CCC), Module Coordinator Committee (MCC), Program Assessment Committee (PAC) and Department Academic committee (DAC).

- Preparation of course hand-outs and identifying Course Outcome (CO) targets as per the recommendations of Module Coordinator committee are worked out in addition to exploring the attainment gaps.
- Module coordinators play vital role in developing course contents, setting of CO targets, monitoring of attainment gaps, preparation of quality questions and suggesting best delivery methods suitable for specific courses.
- Every year DAC and PAC are reviewing POs and PSOs attainments of graduating batch. After analysis, for effective OBE implementation the following actions are taken to strengthen the teaching-learning process.
  - ✓ Delivery methods are adjusted according to COs attainment of respective courses.
  - ✓ Curriculum revisions are done based on POs and PSOs attainments to meet the stakeholder expectations.
  - ✓ Every department is preparing a calendar of events to strengthen the attributes of students based on learning outcomes.

II). In order to ensure the effective implementation of OBE, IQAC conducts academic audit thrice in every semester. The academic audit team verifies the following parameters and submit the compliance to IQAC Coordinator.

- Course Objectives and Course Outcomes (COs).
- Course articulation matrix (Mapping of COs, POs and PSOs).
- Lesson Plan Schedules.
- Details of learning material as well as e-content developed by the faculty.
- Posting of attendance in attendance registers.
- HODs weekly review in lesson plan and in attendance register.
- Syllabus coverage as per the schedule or not.
- I-Mid, II-Mid and End Semester Question Papers and Scheme of valuation.
- Action Taken Reports (ATRs) on I-Mid and II-Mid marks.
- Posting of Internal Marks in attendance registers.
- Semester End Examination result analysis and ATRs.
- COs attainment computations.

> Gap analysis between COs attainments and Target levels & ATRs.

> Implementation of LMS (lms.lbrce.ac.in)

III). IQAC evaluates Faculty Performance and provides necessary recommendations towards implementation of OBE.

> The effective implementation of teaching-learning process is reviewed by IQAC through a Faculty Performance Index (FPI) for every teacher as per specified procedure of the institute.

> IQAC informs all the HODs to select a set of teachers with FPI below 8 and conducts training programs for improving their teaching learning skills. It also includes newly recruited faculty those are having less than two years of teaching experience. After the training, the faculty members are evaluated for teaching-learning skills by conducting demo lectures including OBE implementation.

> Faculty members are encouraged to register for Online Certification Courses such as SWAYAM, COURSERA and MIT OER and to attend Faculty Development Programs/STTPS organized by premier institutions for further improving teaching learning skills.

IV). Certification and training programs on emerging technologies and soft skills are arranged for students through the following centres to strengthen the usage of Modern Tools.

> CM's Skill Excellence Centre-APSSDC

> DASSAULT SYSTEMS-3D Experience Centre (CATIA Software)

> ANSYS Skill development center

> Applied Robot Control (ARC) Lab.

> National MEMS Design Centre (NMDC).

> CISCO Network Academy.

> NI LABVIEW Centre of Excellence.

> Centre for Career Guidance and Training (CCGT).

> Training & Placement Cell conducts hands-on sessions for programming ability improvement by the internal faculty who got trained by E-BOX, WIPRO, CISCO, AWS and Blueprism.

5. **Evidence of Success:**

> 88.24 % of UG B.Tech students have successfully graduated and among them 45% of students have graduated without any backlogs

> 56.20 % of UG 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 **3.38 on 4-point scale**.
- 02 Start-ups are registered, and 13 prototypes have been developed.

Some of the achievements are listed below:

- **NIRF-2022: 251-300 Rank Band under UG Engineering**
- **ARIIA 2021 Rankings:** "BAND EXCELLENT" (Private/Self Financed)
- **Internshala Rankings 2021:**
  - ✓ All India Ranking: 340
  - ✓ Zonal Rank: 134
- **The WEEK Best Colleges-2022: 8 Rank (Among all Pvt. Colleges in AP)**
  - ✓ 101-250 Rank Band
- **Dataquest T Schools Survey 2022:**
  - ✓ 64 Rank (Among all Private Colleges)
- **Dataquest Employability Index 2022** : 52nd Rank
- **AAA+ grade awarded by Careers 360 (2022)**
- **3.5 STAR Rating to** CIIE by MHRD Institution's Innovation Cell
- Improved placement offers through skill centres (A.Y.2020-21: 823 to A.Y.2021-22: 1169) and improvement in annual CTC.
- Publications have been improved from 184 (A.Y:2020-21) to 242(A.Y:2021-22) in quality journals

6. **Problems Encountered and Resources Required**

Acceptance for OBE procedural changes is more than 95% by the faculty. However, adapting to the changes is observed to be slow.

Best Practice – II

1. **Title of the Practice:**

   Ensuring holistic development of students

2. **Objectives of the Practice:**

   - To nurture the technical skills through department specific professional bodies and technical clubs.
   - To explore inherent skills of students through National Level Technical and Cultural Symposia
   - To enhance student's physical and psychological competence by games, sports and yoga.
   - To understand the importance community services and enhance social empathy by NSS activities.
   - To make student a responsible citizen with ideal qualities like character, courage, comradeship, discipline, leadership, secular outlook, spirit of adventure.

3. **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 or an entrepreneur. Attending all the schedules of co-curricular, extracurricular and extension activities would undoubtedly make students well fit for any kind of responsibility.

4. **The Practice:**

   I).Empowering of students to acquire technical and life skills through following student-centric platforms as part of Co-curricular activities.

   - **IEEE Student Chapter**: The chapter has been very functional in exploring the knowledge levels of students by means of several technical competitions like quizzes, project expo, fast circuit, waste to health etc. In addition to these, guest lectures, workshops and training programs are conducted.
   - **ISHRAE Student Chapter**: It facilitates conduction of numerous technological training programs offered to Mechanical engineering students.

- ➢ **CSI Student Chapter:** It focuses on enriching the technical knowledge of students in the latest programming languages including leadership qualities through different activities continuously.

- ➢ **ISTE Chapter:** It enables students to undergo training that suits to industrial emerging needs through specific skilled development programs. Identifying thrust areas and accordingly workshops / hands-on sessions are conducted that helps the students to get acquainting with latest technological developments.

- ➢ **IETE Student Chapter:** It facilitates in providing guidance and training to students to develop better learning skills and personality.

- ➢ **IE (I):** The objective to promote the pursuit of excellence in the field of engineering.

- ➢ **Department Technical Clubs:** The main aim of these clubs is to share the latest technological developments pertaining to their core subjects, performing competitions, and producing department technical magazines covering technical and non-technical aspects helps in getting contemporary issues. These clubs are found to be so crucial, and students have been involving actively in all activities. Each and every department has its own technical club.

- ➢ **Centre for Innovation, Incubation and Entrepreneurship (CIIE)** facilitates incubation of innovative ideas pertaining to socio-economic issues.

- ➢ **Institutional Student Clubs:** In order to improve the personality of students, different clubs are functioning in the institution:

    - ✓ **Saheli-The Girls Club** is a student club dedicated to the cause of bettering the lives of women and girl students. It organizes a variety of social and economic activities involving women.

    - ✓ **Prakruthi - The Environmental Club** aims to increase and promote awareness of environmental issues such as protection, conservation, preservation, restoration and help students and staff to adopt and adapt the idea and philosophy of sustainable development into their daily lives at college and out of it with an emphasis on educating and empowering them.

    - ✓ **Spoorthi - The Literary Club** to organize plethora of literary & co-curricular activities to improve competencies among students and to get 'SPANDANA-the heart's beat' - the students' Magazine published every quarterly.

    - ✓ **Kruthi – The Fine Arts club** provides a great platform to the students, to bring out their hidden talents by establishing fine arts club.

II). Enrichment of student's physical and mental competencies through extra-curricular activities.

- **Sports and Games:** It aims to develop students' physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. The necessary sports facilities suitable for providing training are made available.
- **Gymnasium:** The objective is to get healthy in body and mind to live a longer and more fulfilled life.
- **Yoga:** It aims at developing concentration, memory power, will power and self-confidence. Good Health can be achieved by the regular practice of Yoga & Meditation.

III).Development of student's attitude towards social service by Extension Activities.

- **NSS Unit:** The institute promotes regular engagement of students, faculty and supporting staff with the neighbourhood community for holistic and sustained community development through NSS Unit. It enables students to understand practical problems of the common people in society and enhance social empathy. Further, it helps to realize the value of civic sense, public morality, efficient utilization of resources, good traffic sense, public safety and ethical living.
- **NCC Girls Wing:** It aims developing qualities of character, courage, comradeship, discipline, leadership, secular outlook, spirit of adventure and sportsmanship and the ideals of selfless service among the youth to make them useful citizen.

5. **Evidence of Success:**

- NSS Unit conferred with "National Service Scheme award" by Ministry of Youth Affairs and Sports, Govt. of India for the year 2019-20
- Recognized as "Beat Covid Campaign College" by Mahatma Gandhi National Council of Rural Education (MGNCRE)
- Program Officer Dr.P.Ashok Reddy received "National Service Scheme Award 2019-20" from Hon'ble President of India on 24-09-2021.
- Sivaraj Uha Jahnavi got First Prize in Extempore Competition held at National Integration Camp , Raipur, Chhatissgarh, during 21-27 May 2022.
- Siva Raju Uha Jahnavi Delivering a Talk On Democracy and Corporatocracy on 16-09-2022 at 12th Bharatiya Chatra Sansad - Indian Student Parliament, MIT WPU, PUNE.
- Kum. K.Poojitha Gayathri, EEE Student got State Level Best NSS Volunteer Award for A.Y 2021-22 from NSS Cell, Government of Andhra Pradesh on 24th September 2022

- Lt. V. Likhita, ANO received Gold Medal in PRCN COURSE SW- 108 held at OTA Gwalior, Madhya Pradesh from 26-07-2021 to 23-10-2021
- Secured "Runners" position JNTUK, Kakinada Football (Men) Intercollegiate Tournament-2021.
- Mr.J.D.V. Prasad, Yoga Trainer, bagged "Gold Medal" in the 34th A.P. State Yogasana Championship – 2021.
- V.Akshara (II ECE) Participated in Second world Kuchipudi Dance Festival in Solo and Group dance held during 22nd to 24th October 2021 Organized by Kuchipudi Art Academy, Chennai.

6. Problems Encountered and Resources Required

Strict adherence to the regular academic schedule of teaching-learning, time constraints have affected the participation of students in Co-Curricular, Extra-Curricular and Extension activities.

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