

**Best Practice: -2****1. Title of the practice:****Outcome Based Education (OBE) system in Engineering Studies****2. The context that required the initiation of the practice (100 – 120 words):**

Global demand for qualified and qualitative engineering human resource is increasing day by day and the learning process has become dynamic in the current century. A technically strong Knowledge based society is very much needed for a fast developing nation like India. To meet the challenges and demand for the present and future it is the need of the hour to groom the engineering students to meet the demand and expectation of the country and world. Keeping this in mind and following the norms of the NBA our institution is practicing the best teaching and learning methods in the campus such that the outgoing student from the institute is a global asset and proven professional to contribute his/her best for the National building by availing all the facilities and infrastructure for his/her capacity building.

**3. Objectives of the practice (50 – 60 words):**

- Imparting best and qualitative engineering education to the rural students who are under privileged to have all the learning facilities of their urban peers.
- To prepare the engineering graduates to meet the global demands in technology implementation and innovation through research.
- Imparting skill set to the engineering graduates to enhance their employment skills.
- Improve the communication skills to have a strong role in the Knowledge society.

**4. The Practice (250 – 300 words):**

The institute is having well qualified faculty and state of the art workshops and engineering laboratories to impart best teaching. The faculty are trained to carry out Outcome based education (OBE) based teaching methodology where a conducive teaching learning practices are implemented. The lectures are designed to provide more interactive session of learning with 50% black board teaching, 25% PPTs, 15% student interactive and 10% assignments.

All the faculty members are encouraged to appear for online certification courses in their respective teaching subjects conducted by NPTEL and Pedagogy principles in OBE based education system. Institute is one among the best NPTEL local chapter in the state (Ranked as 5th best centre in A.P. with AA grade and 44<sup>th</sup> all India rank). Apart from subject teaching students are encouraged to do certification courses through NPTEL on various topics which provide knowledge and information beyond the content of the syllabus. A separate R&D cell is provided in the college to encourage students and faculty to carryout research work and publish papers in various journals. The institute is having strong link with the industry in and around the institute and in neighboring states to send students for necessary industry interaction internship. Our institute is approaching various Foreign universities to have student exchange program a separate career guidance cell (CEG) is established in the college to motivate the students in this direction. CEG cell also provides GATE/GRE/GMAT etc., coaching information to the students. As the institute is established to provide higher education facilities to rural students a separate training cell is established in the college to provide communication skills in English and soft skills to the students. All the 21st century modern teaching methods and ICT innovative teach learning practices are followed to make a rural student to grow as a responsible technical human resource for the nation with holistic growth.

**5. Obstacles faced if any and strategies adopted to overcome them (150 – 200 words):**

As the students are admitted with the rural back ground and completed their +2 education in local medium of instruction there is a large resistance is expressed by the students to speak in English and understand the English medium of instruction. Separate LSRW training classes are organized to remove the fear from the students to speak, understand and communicate in English.

As the institute is in the rural area subject matter specialists, eminent teachers from various institutions and industrialists especially from software industry have not shown much interest to visit the institute to participate in seminars and guest lectures. We have provided exclusive transport facility and other facilities for their visits to our college to share their knowledge and expertise with the students.

Digital communication like internet facilities were not available in the early stages hence management has taken a separate 65MB leased internet connectivity exclusively for the campus to have world connectivity through internet which will be available to all the members of the institutions.

**Gap in the Technical updates:**

To have seamless technical connectivity in the area of technology and management our institution has become a institutional member for various professional bodies like IE, ISTE, CII, IEWB, ISLE, IETE and student chapters are also established to have industry-institute visits to our campus by the experts to share their experience and their addressing on real time world problems in the area of technology.

**6. Impact of the practice (100 – 120 words):**

By implementing the above mentioned teaching-learning practices and strictly adhering to the Vision and Mission of the institution and identifying the gaps in implementation level and minimizing the gaps the institution has grown to the level of obtaining the Grade of “A” by NAAC with a period of 8 years from the date of establishment. Due to this grading the confidence in the stake holders has improved enormously and the student confidence level has also grown and the same is reflected in the university examinations as the increase in the pass percentage. The number of placements has also increased as more and more employers are visiting the campus to recruit our students.

**7. Resources required:**

- Funds for purchasing Modern Laboratory equipment to carryout advanced research in various branches of engineering.
- Funds to upgrade the digital systems to have well equipped digital class rooms.
- Increase in the allocation of funds for the faculty and students to conduct and participate in various International/National academic events.

**8. About the Institution:**

PACE Institute of Technology and Sciences, Ongole has been established with a vision and a mission to develop it as an incubator of innovation and knowledge creation in the

field of science and technology. PACE was established under Srinivasa Education Society in 2007 at Valluru village, Ongole, in the academic year 2008-09. PACE is a premiere Technology Campus that has over 8 years of glorious history in motivating the students to develop questing minds and creative envisioning and chase their aspirations, with a sense of purpose in life. Part of multi-million dollar PACE group, our college addresses a broad range of interests and industries. We attract a diverse group of exceptionally talented young students from across the nation and around the world to educate them from scholarship to leadership. Considered as an Ivy league Institute in Andhra Pradesh, India, we focus on Education, Exploration, Entrepreneurship and Employment. These 4Es form the foundation pillars of all our activities. PACE students excel not only in education but also in many research exploration activities. We have created an environment that ignites curiosity and provide students with tools for research. PACE is famous for providing means for every aspiration.