

INSTITUTIONAL DISTINCTIVENESS

CENTER FOR ENGINEERING EDUCATION DEVELOPMENT

KG Reddy College of Engineering and Technology has established the Center for Engineering Education Development (CEED) to encourage and foster innovations in teaching and learning. In alignment with the institution's vision of New Age Engineering, CEED works with the faculty in the institution through capacity building initiatives to help implement student-centric teaching methodologies in their classrooms. CEED regularly organizes faculty development program on different topics to improve the awareness and knowledge of evidence-based pedagogical approaches among the faculty. CEED at KGR CET is comprised to faculty from different departments who work together to design and facilitate faculty development programs.

Faculty Development Program at the start of the semester

CEED organizes a faculty development program at the start of every semester for new faculty joining the institution. The program also incorporates sessions on additional topics such as Mentoring Students, Ethical Practices in Classroom, Classroom Management etc. Below are lists of sessions that are included in the faculty development program.

1. Blooms Taxonomy: Levels of Learning, Identifying the levels for the topics, designing the course outcomes using blooms taxonomy.
2. Student Centered learning: Active learning methods, Learning Styles, Managing large classrooms, Collaborative learning.
3. Effective Assessment: Principles of assessment, Designing formative and summative assessments, creating rubrics
4. Technology-Enhanced Learning: Integrating technology in classroom, Flipped classroom, Creating course website, Online courses.
5. Creating Teaching Philosophy and Teaching portfolio.
6. Outcome-Based Education: Designing program-specific outcomes (PSOs), program outcomes (POs) and mapping them to the course outcomes (COs).

Faculty Development Programs conducted throughout the semester

The IQAC has initiated through CEED various semester long faculty development initiatives to help faculty improve their knowledge and skills about teaching and learning. This initiative was aimed to help improve students' performance in course by enabling to take active role in the classrooms. Workshops are conducted on the following topics throughout the semester (twice every month) and are open to all faculties for participation.

Session 1 –

Focus on Content: Introduction to Backward Design Process and Developing Curricular Priorities to Organize Course Content

Session 2 –

Focus on Learners: Understanding 21st Century Learners and Individual Differences among Students

Session 3 –

Focus on Assessment: Writing Learning Outcomes using Bloom's Taxonomy

Session 4 –

Focus on Assessment: Developing Summative and Formative Assessments

Session 5 –

Focus on Pedagogy: Strategies to Making Learning Whole

Session 6 –

Focus on Pedagogy: ICAP Framework, Pedagogies of Engagement

Session 7 –

Alignment of Content, Pedagogy, and Assessment

Conduction of Research in Scholarship of Teaching and Learning (SoTL)

Another objective of CEED is to help build expertise among faculty to document and publish papers focused on Scholarship of Teaching and Learning (SoTL). Faculty who are implementing innovative pedagogical practices are encouraged to measure the impact on students' learning and share their work by publishing papers in engineering education conferences and journals. To help faculty write good quality papers, CEED conducts paper review sessions every week to discuss about papers published in premier journals. Through the paper review sessions, CEED tries to help faculty analyze how papers are written in education focused journal papers as compared to traditional engineering journals. Members of CEED and interested faculty regularly review papers from the following journals.

1. International Journal for the Scholarship of Teaching and Learning (IJ-SoTL)
2. Journal of the Scholarship of Teaching and Learning
3. Journal on Excellence in College Teaching
4. Teaching and Learning Inquiry
5. International Journal of Engineering Pedagogy
6. International Journal of Service Learning in Engineering (IJSLE)
7. Journal of Engineering Education Transformations

Through the initiatives of CEED, faculty members at KGR CET are able to implement active and Collaborative (student-centric) teaching methodologies in their classroom. Few faculty members have transformed their courses to a blended format by developing course websites to enable students' learning outside of the classroom. CEED aims to continue helping faculty build knowledge and skills on how to better teach engineering courses and help students achieve the intended learning outcomes.