K. S. INSTITUTE OF TECHNOLOGY
Kanakapura Road, NH-209, Bangalore-560109

Three Days Faculty Development Programme on "OUTCOME BASED EDUCATION" organized in association with IEEE KSIT SB, IEI, IETE and CSI from 17th to 19th March 2022 and the program begins with inauguration function on Thursday, 17th March 2022 at 9.00am in Conference Hall, KSIT .The Program inaugurated by Chief Guest Dr. S. Bhaskar Head-Office of PG Studies Kumaraguru College of Technology, Coimbatore and graced by Sri.R.Rajagopal Naidu, President, Kammavari Sangham, Sri. R. Leela Shankar Rao, Hon. Secretary, Kammavari Sangham, Sri.T. Neerajakshulu Naidu, Treasurer, Kammavari Sangham .The function was presided by Dr. K.V.A Balaji CEO, KSGI, Dr. Dilip Kumar K, Principal / Director ,KSIT, Dr. P. N. Sudha, Prof & HOD-ECE, Chief Coordinator .There were 90 Participants from KSIT as well as KSSEM .

After the prayer song Dr. Dilip Kumar K, Principal / Director , KSIT gave welcome speech and welcomed all the dignitaries and HOD's of various department.

Dr. P. N. Sudha, Prof & HOD-ECE, Chief Coordinator of the FDP briefed about 3 days FDP Programme.

Sri.R.Rajagopal Naidu, President, Kammavari Sangham spoke about the importance of FDP and appreciated the Chief Guest about his Gratitude towards his Guru . This was followed by a motivational talk by Sri. R. Leela Shankar Rao, Hon. Secretary, Kammavari Sangham and Sri.T. Neerajakshulu Naidu, Treasurer, Kammavari Sangham.

Dr.UmaShankar, Prof & Head of Mechanical Engineering, gave Vote of thanks and Inaugural function ended with group Photo session.

After the inaugural function the Day 1 session 1 started at 10.15 am about Basic Terminologies of OBE and Accreditation with emphasis on Outcomes Vs Objectives, types of outcomes, program, course, and principles of OBE and all the participants gained detailed knowledge on those topics.

In Session 2 of Day 1 ,Dr. S. Bhaskar made the participants to involve in understanding the Revised Bloom's Taxonomy (RBT) for Knowledge, Dave's Taxonomy for Skills, and Krathwohl and Bloom's Taxonomy for Attitude. It was very informative.

After post Lunch Session 3 started at 1.30 pm with PEOs in OBE perspective and understanding the Program Outcomes (POs) linking them with the taxonomies for KSA. Sir gave detailed explanation with examples was very useful and made the participants to understand easily.
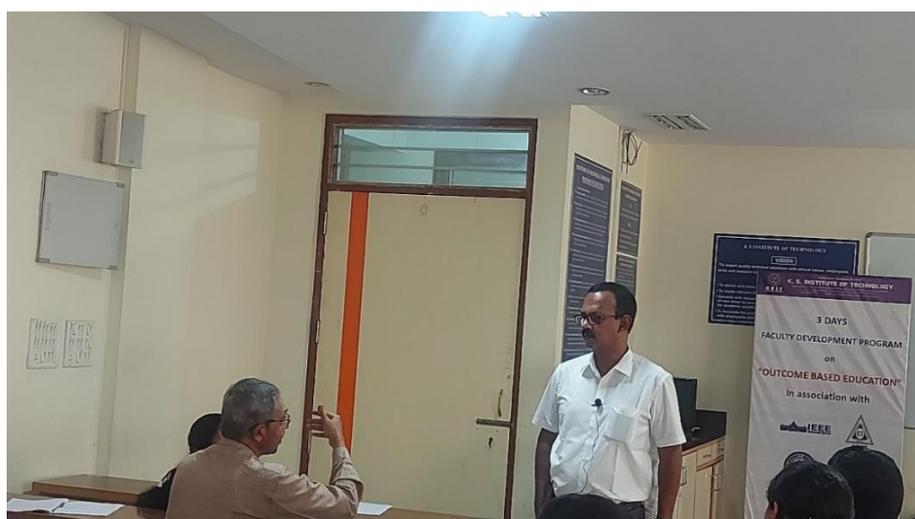

Date: 18th March 2022

Resource Person: Dr. S. Bhaskar, Head- Dept. of PG Studies, Kumaraguru College of Technology, Coimbatore, TamilNadu

Day 2 sessions began at 9.00 am. The second day session was very informative

Session 1:

This session dealt with Professional way of evolving Course Outcomes of Theory Courses.
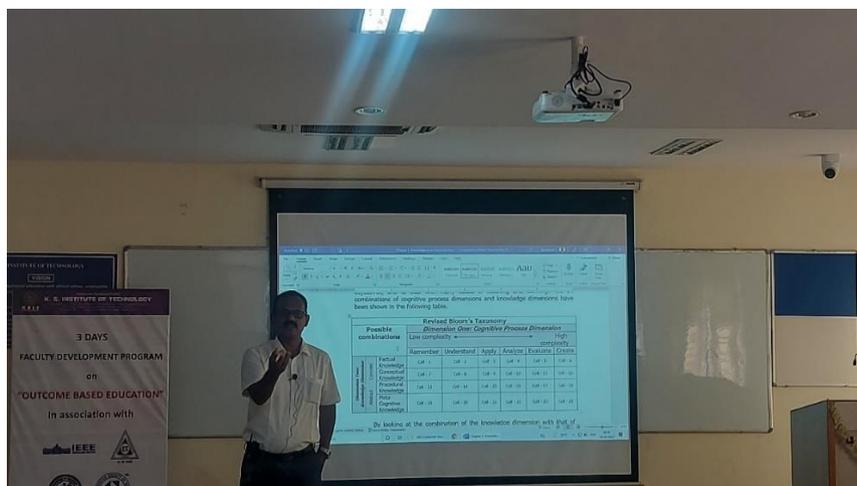
Course Outcomes can be evolved based on 5 criteria. Criteria 1 is on number of course outcomes to be written for a course (preferably 6). Criteria 2 is on common part of course outcome and with what words it must start. Criteria 3 is on the 2 aspects that a course outcome should cover. Criteria 4 is on what level of knowledge a course outcome should be written. Criteria 5 is on planning of the course outcomes and importance was given on writing the CO in such a way that each CO covers almost 70% - 80% of the syllabus.

Session 2:

This session dealt with Strategies to attain pre dominantly domain independent POs to ensure uniform mapping of COs and POs and also Procedure for CO-PO Mapping

The main challenge with CO PO mapping is how to address domain independent POs. Sir clearly explained on how to map these POs using assignments like written, presentation, quiz and mini projects and even on the ideal number of COs in a course. Sir stressed upon the point that each course must include atleast six Course Outcomes. The format and Rubrics for all these types of Assignments was also discussed. It was even mentioned that all the assignments must be given at the knowledge level K3 or above and the assignment topics must be from the course itself.

Session 3:

This session dealt with CO PO Mapping for Theory Courses

Here the key elements required in each PO was stressed upon to carry out CO-PO Mapping. A matrix of Number of key elements of a PO satisfied by the CO must be made from which CO-PO Mapping must be obtained. It was mentioned that the number of key elements for each PO can vary from 2 to 4 but PSOs must have maximum number of key elements. From this Course Articulation Matrix CO-PO contribution matrix can be obtained which is the ratio of the number of key elements of a PO satisfied by that CO to total number of key elements in that PO in percentage.

Based on these percentages a level can be assigned in the CO PO Mapping table. A general method was discussed according to which grade is assigned as 3 if CO contribution is greater than or equal to 75%, 2 if CO contribution is inbetween 75% and 50%, 1 if CO contribution is inbetween 50% and 25% and no correlation if CO contribution is less than 25%.

Sir even explained about the Procedure to Design the Course Syllabus which included Writing the Course Outcomes, Mentioning the topics to be covered to achieve CO and grouping the topics, giving it a title and including subtitles.

Day 2 of the FDP on Outcome Based Education was highly enlightening and informative.

Date: 19th March 2022

Resource Person: Dr. S. Bhaskar, Head- Dept. of PG Studies, Kumaraguru College of Technology, Coimbatore, TamilNadu

Session-1:

Third day training started at 9.00am sharp. Speaker enlighten our mind upon how to prepare question paper which meets OBE requirements and test answer book front page design to capture data on Cos attainment in tests and other assessments. Six knowledge based levels and its key action words had been summarized. He mentioned that there are two different types of questions. They are: Objective and Descriptive type questions.

Speaker also mentioned about 5 types of objective type questions. They are: multiple choice items, multiple selection item with multiple choice code, sequencing type item, matching type item with multiple choice code and assertion/ reason type item with multiple choice code. He informed purpose of descriptive questions. He informed about all six types of knowledge level question patterns. He also informed about key understandings when setting question papers like RBT level inclusion in IA papers and how to give question choices.

Session-2:

After Tea Break, session resumed at 11.30am sharp. Speaker illustrated about Test Answer-Book front page design to capture data on Cos attainment in tests and other assessments. He also informed that, equal weightage had to be given to all course outcomes. Speaker informed about key aspects such as course outcomes, knowledge level and length of the answer to be integrated in a question paper. Speaker also informed about professional way of evolving course outcomes for laboratory courses. He informed about RUBRICS for laboratory courses.

Speaker also informed that rubrics is essential because it acts as a measurement or evaluation criteria for awarding a marks for students. He informed that in rubrics there should be 6 components because 6 course outcomes are there. The important key elements which can be included in laboratory rubrics are correction of aim & procedure for experiment/exercise, skill level in performing the experiment, inferences drawn from experiment, presentation of results, concepts through verbal & written communication and attitude reflected in doing experiment. CO-PO mapping table for lab courses had been discussed in the session. He also informed that PSO1 and PSO2 should be decided by the concern of module coordinator along with their team. After this we went for Lunch.

Session-3:

After lunch break, session started at sharp 1.30pm. speaker discussed about professional way of evolving course outcomes for Project Courses. He informed about 6 course outcomes to be written for project course. Six important course outcome elements and its marks division had been discussed by speaker. CO1 can be defined as keeping clarity in defining the problem which can be assessed for 15marks. CO2 can be defined as identification of parameters of concern which can be assessed for 15marks. CO3 can be defined as literature survey and interference drawn to identify the methods to solve problem which can be assessed for 15marks. CO4 can be defined as correctness of solution selected which can be assessed for 15marks. CO5 can be defined as quality of work done which can be assessed for 15marks. CO6 can be defined by taking key elements such as results and conclusion which can be assessed for 25marks. For total 100 marks draft copy was discussed. CO-PO mapping table for project courses had been discussed. After this topic session was closed by speaker.

Validictory function was started around 2.40pm sharp. Dr. Dilip Kumar K, Principal, KSIT : Dr. KVA Balaji, CEO of KSGI: Dr. P. N. Sudha, NBA Co-ordinator, Professor and Head, Department of ECE were shared stage with the eminent speaker for the 3-Day FDP Dr. S. Bhaskar, Head- Dept. of PG Studies, Kumaraguru College of Technology, Coimbatore, TamilNadu. Many faculties of KSSEM and KSIT were also present in the function. Dr. Nagaprasad from department of Mechanical engineering department took the oppurtunity to anchor the valedictory function. Dr. Chanda V. Reddy, Professor from department of ECE illustrated the highlights of all sessions for 3 days.

Dr. Rekha B Venkatapur, Professor and Head, Department of CSE proposed vote of thanks. Many faculties from KSSEM and KSIT were involved in giving a valuable feedback about three days FDP program. Faculties felt that overall conduction of the FDP was good and the best person was selected as resourse person. Finally Dr. P. N. Sudha, NBA Co-ordinator, Professor and Head, Dept. of

ECE ended the session by thanking all the participants and wished everyone all the very best for incorporating best NBA Outcome based education practice.

FDP Outcome:

Faculties got opportunity to understand the meaning of Outcome Based Education and methods to be followed to achieve OBE

FDP Topic	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Outcome Based Education	-	-	-	-	-	2	-	2	2	3	-	3

Outcomes of the Event:

- Basic knowledge of RBT levels and the relationship between Vision and Mission of Department and their corresponding PEOs which indirectly assist the students to achieve in their life was clearly understood by the faculty.
- The CO-PO mapping of Theory courses and ways of addressing domain independent POs was understood by faculty along with effective Communication such as writing effective reports, working in teams and preparing a template with necessary information.
- The CO-PO mapping of Laboratory courses and Project, Ethical practices to be followed and contribution of an engineer to the society were understood by faculty.

Signature of Co-ordinator   **Signature of Principal**