

K J Somaiya School of Engineering

The Teaching Learning Center

➤ **Success Story of TLC (Brief history):**

TLC KJSCE The Teaching Learning Center of K J Somaiya School of Engineering (TLC-KJSCE) was formally formed in 2018 with the main aim to accelerate the transformation in engineering education at KJSCE. It provides experiences where teaching impacts learning and learning influences teaching. Under the guidance of Dr. Suresh Ukarande, Principal, KJSCE, TLC-KJSCE inspires, supports & strengthens new directions in pedagogy and Engineering Education Research at KJSCE. Since October 2024, TLC KJSCE is renamed as TLC KJSSC.

➤ **Team TLC-KJSSE:**

Convener: Dr. Suresh Ukarande, Principal, KJSSE
Coordinators: Dr. Rachana Desai & Avani Sakhapara
Mentors: Arati Phadke & Sangeeta Kulkarni

➤ **Objectives of TLC-KJSSE:** “Transform engineering education at KJSSE”

1. To Prepare teachers for 21st century challenges in teaching learning
2. To collaborate with other institutes to inculcate systematic approach of teaching
3. To enable faculty to learn different pedagogy techniques and get acquainted to use of ICT
4. To Promote research in engineering education

TLC-KJSSE has collaborated with professional bodies and educational institutes like IUCEE, IITB, and sister institutes of Somaiya Vidyavihar University. We have conducted various activities to inculcate systematic approach of teaching, learning, assessing & research in engineering education. TLC played major role in creating dynamic & vibrant active learning environment at KJSSE. The role of TLC was remarkable during the sudden transit from offline to online education system during COVID crises.

➤ **Awards & Achievements :**

The TLC KJSSE was awarded the “**Excellence in Performance: Teaching Learning Centre**” award in the Eighth International Conference on Transformations in Engineering Education (ICTIEE), Indo Universal Collaboration for Engineering Education (IUCEE) in January 2021.

In addition to the above, with the efforts of team TLC KJSSE, the following awards are received by team members & other faculty.

- TWO KJSSE faculty members (Dr. Rachana Desai & Kartik Patel) were Awarded the **Title "IGIP International Engineering Educator-Ing.Paed.IGIP" & IGIP Certificate** by IGIP (International Society for Engineering Pedagogy), Austria in January 2023.
- ONE Faculty member (Dr. Rachana Desai) received the IUCEE showcase Award for "**Leadership of Teaching and Learning**" & THREE faculty members (Arati Phadke, Sangeeta Kulkarni, Kartik Patel) received “**IUCEE showcase Awards in Teaching Learning Centers**” in January 2024.



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➤ **Role of the TLC-KJSSE:**

TLC-KJSSE has coordinated several international trainings to strengthen the potential of teachers. These training includes International training like IUCEE (International Engineering Educator Certification Program), Course on Engineering Education Research, Workshop on Project Based Learning, Workshop on Engineering Ethics, Course on Online Teaching, Are teacher’s redundant? A teacher’s View, How to write an effective research paper etc.

TLC-KJSSE have been covering different dimensions of Teaching-Learning-Evaluation (TLE) by offering training and workshops in every changing phase of the education system. During pandemic hands on sessions were conducted on topics like Nuts, bolts and tools for online Teaching, Tips and Tricks of Online Teaching, Dos and Don’t of online Teaching, Paper setting on LMS, Session on Impartus lecture capturing tool etc. TLC-KJSSE has opened the training sessions for all interested members of Somaiya Trust. Many faculty members were benefited with the training on How to teach online effortlessly, Use of Digital Pen, and Interactive Teaching Tools: Mentimeter and quizzis, MS Teams customized training etc.

Annual Report 2023-24

AWARDS RECEIVED

Sr. No.	Name of The Award	Recipient(s)	Details
1.	IUCEE showcase Award for " Leadership of Teaching and Learning "	Dr. Rachana Desai	Awarded by IUCEE During ICTIEE 2024 in January 2024 at KLETech, Hubblli
2.	IUCEE showcase Award for " Teaching Learning Centers "	Arati Phadke, Sangeeta Kulkarni, Kartik Patel	Awarded by IUCEE During ICTIEE 2024 in January 2024 at KLETech, Hubblli

FLAGSHIP EVENT

KJSCE CONCLAVE 2024

Day and date: 11th July, 2024 (Thursday)

Session: Morning session (10 am - 1 pm),

Guest of Honour: Dr. Sybil Thomas, Professor, Department of Education, University of Mumbai

Venue: Oral Presentation B113. Poster presentation B112

Faculty Coordinators: Dr. Rachana Desai, Arati Phadke, Sangeeta Kulkarni, Avani Sakhapara, Dr. Archana Sharma

The Faculty Conclave at KJSSE was held to bring together faculty members to discuss best practices, current trends, research, and innovations in Engineering Education Research (EER). The event was initially announced in January 2024, followed by a call for abstracts in May 2024, which included detailed guidelines for writing abstracts, deadlines for submission, and an abstract template.

Faculty members were invited to submit extended abstracts on a wide range of topics, including innovative pedagogy and assessment, technology, curriculum design, examination reforms, learning beyond classrooms (such as mega projects and hackathons), education policy, and leadership. By June 15, 2024, a total of 14 abstracts were received. These abstracts were subjected to an internal review process involving 11 reviewers, each abstract being reviewed by two internal reviewers based on a pre-decided rubric for evaluation. Based on the reviewers' scores, six abstracts were selected for oral presentations and eight for poster presentations at the Conclave held on July 11, 2024. All abstracts were published in a book of abstracts, which was shared electronically with all faculty members.

The event was structured into two sessions. The first session was coordinated by Arati Phadke. It began with the Somaiya Prayer, followed by an introduction to the Conclave by the TLC Coordinator, Dr. Rachana Desai. Dr. Desai provided information about the Conclave's process, the abstracts received, and the mentorship offered by the TLC team to encourage research in education. Vice principal, Dr. Deepak Sharma gave the opening remarks, encouraging faculty members to experiment with pedagogy and translate their efforts into research. The Principal, Dr. Suresh Ukarande, in his motivational speech, encouraged faculty members for EER & inspired them to engage in interdisciplinary collaborations and create online MOOCs for platforms like Coursera and NPTEL.

Dr. Ukarande then welcomed the Guest of Honor, Dr. Sybil Thomas, whose introduction was given by Dr. Rachana Desai. In her keynote address, Dr. Thomas discussed the nature of research, the utility of academic research, and the responsibilities of academicians in publishing. She emphasized the importance of understanding student diversity, accommodating different learning styles, and engaging students who are not actively participating in the teaching-learning process. Dr. Thomas concluded her address with questions designed to stimulate better research and encouraged regular brainstorming sessions and collaboration among faculty.

During the first session, three abstracts were presented orally, covering topics such as examination reforms, the journey of students to design sustainable solutions, and fostering creativity in first-year students through project-based learning (PBL). This session was followed by a poster presentation, where eight abstracts on various topics, including assessment for learning, game-based learning, student-centric outcome-based education, group-based internal assessment, learner-led circuit simulation, challenges faced by engineering students, and beyond-classroom experiential learning, were displayed in B112.

The second session was coordinated by Sangeeta Kulkarni and included oral presentations on bridging theory and practice, teaching algorithm analysis, and activity-based learning for sustainability. At the end of this session, Dr. Sybil Thomas summarized the learnings and provided expert advice to authors on improving their abstracts and converting them into full-length papers.

The event concluded with a vote of thanks proposed by IQAC Coordinator Dr. Nandana Prabhu. Certificates of appreciation were awarded to all reviewers, authors, and organizers, marking the successful end of the Faculty Conclave.

No. of participants: 60+ (Faculty members)

Photo Gallery



OUTREACH

Faculty Members as Associate Editors and Reviewers for Journals

Role	Journal Description	Faculty Name
Associate Editor	Journal of Engineering Education Transformation	Prof. Arati Phadke, Prof. Sangeeta Kulkarni, Prof. Avani Sakhapara, Prof. Deepti Patole
Reviewer	Journal of Engineering Education Transformation	Dr. Rachana Desai, Dr. Suren Patwardhan, Prof. Dipti Pawade, Dr. Sonali Patil, Prof. Nandini Rai, Dr. Vandana Satam, Dr. Nilkamal More, Prof. Suchitra Patil ,Prof. Snigdha Bangale, Prof. Sandeep Chopde, Prof. Sunayna Jadhav, Prof. Kartik Patel, Dr. Jeetendra Satam, Prof. Ashwini Dalvi, Prof. Shewta Chachra, Prof. Yogita Borse, Prof. Purnima Ahirao
	Journal of Effective Learning and Teaching Practices	Dr. Rachana Desai
	International Journal of Educational Research (Elsevier Journal)	Dr. Rachana Desai

Faculty Members as Reviewers for Conferences

Role	Conference Description	Faculty Name
Reviewer	Peer Reviewed Conference	Dr. Rachana Desai, Dr. Suren Patwardhan, Dr. Archana Sharma, Prof. Dipti Pawade, Prof. Sonali Patil, Prof. Nandini Rai, Dr. Vandana Satam, Dr. Nilkamal More, Prof. Suchitra Patil ,Prof. Snigdha Bangale, Prof. Sandeep Chopde, Prof. Sunayna Jadhav, Prof. Kartik Patel, Dr. Jeetendra Satam, Prof. Ashwini Dalvi, Prof. Shewta Chachra, Prof. Yogita Borse

Other Outreach & Community Services

- 1. Advisory and Planning Committee** International Conference on Transformations in Engineering Education 2024 : Dr. Rachana Desai
- 2. Session Chair :** The Eleventh International Conference on Transformations in Engineering Education, 2024 : Dr. Rachana Desai
- 3. Workshop facilitator :** 'Evaluation of Curriculum Revision-Model KJSCE', 10th edition of research in Engineering Education Symposium (REES)-2024 & Eleventh International Conference on Transformations in Engineering Education, January 2024 Dr. Rachan Desai & Dr. Suren Patwardhan

4. **Organizing committee member** : Technical committee, Eleventh International Conference on Transformations in Engineering Education 2024, January 2024. Dr. Rachana Desai
5. **Assistant Teacher** : IIEECP, Kartik Patel

ACTIVITIES COORDINATED

Sr. No.	Month/Year	Activity Description	Number of Faculty Members
1.	Aug 2024	IUCEE Design Thinking Collaboration	02
2.	Jul 2024	IUCEE Leadership Conclave	01
3.	Jul – Dec 2024	Engineering Educator Certification (IIEECP) Course-Fall Offering	01
4.	May 2024	NEP Mini Course on Artificial Intelligence for All	01 Faculty and 10 students
5.	May 2024	NEP Mini Course on Design Thinking	01 Faculty and 10 students
6.	May 2024	NEP Mini Course on Entrepreneurial Thinking	01 Faculty and 10 students
7.	May 2024 – Apr 2025	Felder Brent Lecture Series	10
8.	Jul – Dec 2024	Engineering Education Research EER Course	02
9.	Jan –June 2024	Engineering Educator Certification (IIEECP) Course- Spring Offering	01
10.	April 2024	Visit to Pune IUCEE regional workshop	04
11.	January 2024	Participation in ICTIEE 2024	05
12.	November 2023	Attending T4E	04

FUTURE GOALS

1. Organising STTP on “Future of Education-Innovative Pedagogy, OBE & AI” from 9.12.2024 to 13.12.2024
2. Participation in IUCEE offered courses
3. Participation in conferences by encouraging Engineering Education Research
4. Outreach & community services to transform Engineering Education
5. Faculty Conclave
6. Training for newly recruited faculty members
7. Implementation of relative grading & training related to it