

Editorial



Since the past three decades of my experience in engineering education as a faculty, head and leader, I have witnessed huge transformation in the way we develop our student engineers—not just as technical experts, but as responsible, reflective contributing individuals, team members and leaders to society. Yet, as we stand on the brink of another industrial revolution which is defined by artificial intelligence, sustainability practices, and global interconnectedness, a truth is becoming unequivocally clear that the future of engineering is inseparable from the principles of diversity and inclusion.

Diversity in engineering education is not just a matter of optics, but of excellence. Multiple studies have confirmed what educators have been sensing in their classrooms—that heterogeneous teams outperform the homogeneous ones in almost all aspects like innovation, problem-solving, and real-world relevance. Inclusion, however, is the mechanism that allows diversity to thrive. Also, it is not enough to simply bring underrepresented students in engineering field, but we should rather create environments where they are being heard, supported, and empowered to lead.

We as educators have seen how transformative it can be for a first-generation student, or a woman in a male-dominated specialization, or a learner from a marginalized background to get their story acknowledged within the curriculum, or their perspective validated in the laboratory. Taking efforts to recognize such diversities plant the seeds for confidence, resilience, and a sense of belonging, which ultimately nourish the innovation we seek.

Despite significant gains, there exist huge disparities in who enters engineering, who persists, and who rises to leadership. These disparities reflect broader systemic barriers and highlight the urgent need for curricular reform, faculty training, and institutional accountability. Diversity cannot be catered by a chapter on "ethics" or an elective on "engineering and society." It must be embedded across the curriculum—as a lens through which design problems are understood, technologies are critiqued, and solutions are envisioned.

We must also challenge ourselves to evolve pedagogically. Active learning strategies, inclusive assessment practices, and community-engaged projects are not just educational best practices—they are tools of equity. They validate varied ways of knowing, doing, and being, and they allow all students to see themselves as legitimate members of the engineering community.

As educators, our legacy will not be defined merely by the number of graduates we produce, but by the kind of professionals they become—and the values they carry forward into a rapidly changing world. A truly inclusive engineering education does not only prepare students to solve complex problems. It teaches them to ask, Whose problems are we solving? Who is at the table? Who is left behind?

The future workforce demands engineers who are technically sound and socially conscious—who understand that the best solutions are those designed by and for diverse communities. As stewards of this future, we must reimagine our classrooms, our curricula, and our commitments. The opportunity—and the responsibility—is ours.

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