Engineering Education, Challenges & Solutions

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Abstract

Market demand for engineering graduates is constantly evolving, and educational institutions must prepare students to enter this changing world by providing the necessary knowledge and skills. Achieving this goal requires overcoming challenges and responding to the changing needs of society and industry. Curriculum, teaching methods, educational facilities and infrastructure, interdisciplinary interactions, educational inequalities, industry relations, and international relations are among the challenging areas of engineering education. Various solutions have been proposed and implemented to overcome these challenges. Modern engineering education keeps pace with emerging technologies and, by integrating topics such as artificial intelligence (AI), virtual and augmented reality into the curriculum, helps train tomorrow's professionals. By accepting these developments and adapting to the changing needs of society and technology, engineering education can train more capable, adaptable, and socially aware engineers.

Keywords: Engineering education challenges, new technologies, engineering job market, technical knowledge, soft skills.