

Editorial



Engineers play an important role in shaping the future of our society, driving innovation and solving complex problems that impact our daily lives. Today, engineers face a variety of challenges while navigating a rapidly evolving technological landscape. Engineers are tasked with developing innovative solutions, while the increasing complexity of projects requires them to tackle multidisciplinary problems and collaborate with professionals from diverse backgrounds. This requires effective communication, teamwork, and adaptability to work seamlessly across different domains. The digital revolution brings a number of challenges, including cybersecurity threats and the need

to leverage various new technologies. Engineers need to keep abreast of the latest developments and have the skills to leverage these technologies while addressing related ethical and privacy concerns. In essence, today's engineers must be equipped with a broad set of skills, a strong ethical compass, and a willingness to take on these complex challenges.

Climate change is a pressing global issue, and engineers play a critical role in fighting its effects. They can focus on developing renewable energy technologies such as solar, wind, and hydroelectric power that reduce dependence on fossil fuels and cut greenhouse gas emissions. They can also work to improve the energy efficiency of buildings, transportation systems, and industrial processes to help reduce carbon footprints. In addition, engineers can design sustainable infrastructure, including green buildings, smart cities, and efficient transportation networks that minimize environmental impacts. They can also help adapt to climate change by developing a resilient infrastructure that can withstand extreme weather events. In addition, engineers can contribute to environmental monitoring and modeling, providing data-driven insights that help policymakers make informed decisions about climate change mitigation and adaptation strategies. Overall, engineers have the expertise and creativity to develop

innovative solutions that can mitigate the impacts of climate change and promote a more sustainable future.

Academies of Engineering are prestigious organizations that bring together leading experts from academia, industry, and government. These academies are typically composed of distinguished engineers and scientists who have made significant contributions to their respective fields and serve as influential bodies that provide guidance, expertise, and recommendations on critical engineering-related issues.

The Croatian Academy of Engineering (HATZ) is a prestigious institution that plays a vital role in advancing engineering education and research in Croatia. Founded in 1993, the academy is dedicated to promoting excellence in engineering and enhancing the country's technological development. HATZ comprises esteemed engineers, scientists, and experts from various engineering disciplines, who bring their extensive knowledge and experience to the forefront. As an independent organization, HATZ serves as a think tank and advisory body, providing valuable insights and recommendations on engineering-related issues to government agencies, industry leaders, and the public. The academy actively engages in fostering collaboration between academia, industry, and the government, ensuring that engineering solutions address the societal and economic challenges of the country. HATZ also focuses on promoting lifelong learning and professional development. Through its continuous efforts, the Croatian Academy of Engineering plays a pivotal role in driving innovation, facilitating knowledge exchange, and shaping the engineering landscape in Croatia.

This Annual is dedicated to its 30 years of existence.

Editor-in-Chief
Prof. *Vedran Mornar*, Ph.D.