

We won't get lost in translation



Electrical engineering has reached a level of complexity and required knowledge that now, more than ever, good storytellers are needed to amplify the achievements of the community.

Electrical engineering is the story of modern human progress. On the list of achievements with the strongest societal effect, electrical engineering figures prominently. From computers, the Internet and fibre optics to telephones, radio and television, the discipline has evolved from electrification and simple circuits to striking technological complexity and interdisciplinarity. Modern electrical engineering now spans across areas of electronics and photonics, telecommunications and signal processing, and robotics and power engineering.

As exciting disruptive technologies – such as artificial intelligence (AI), autonomous cars, metaverse and advanced chips at the limit of atomic scale – come to the fore, society finds itself battling uncertainty in view of geopolitical tensions, accelerated climate change and global health crises. At this juncture, we hope to craft the story of electrical engineering to resonate with and inspire engineers and scientists, entrepreneurs and policy makers, students and any curious mind interested in the field. In this inaugural issue, *Nature Reviews Electrical Engineering* sets out on its mission to inform and educate readers on a plethora of subjects in the tradition established by the Nature portfolio of journals, with high editorial standards and an unwavering commitment to promoting diversity and inclusion in science communication and publishing.

In our pages, we will discuss how electrical engineering can make a difference in tackling global challenges with its cutting-edge technologies. For example, to ensure access to affordable and reliable energy, integrating renewable energy sources into the existing grids and ensuring grid resilience to extreme weather is being explored. To combat climate change and improve air quality in cities, advanced battery and power electronics technologies are being developed to enable the successful transition towards electric-powered road transport. In healthcare, robotic surgery, implantable electronics, lab-on-chip technologies and AI-powered medical imaging hold vast potential for improving health care, from diagnostics to remote monitoring.

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Apart from covering a broad range of important technologically relevant topics, the content of *Nature Reviews Electrical Engineering* will extend beyond publishing applied academic research concerned with the subject of electrical engineering. Rather, to encourage broader collaboration between scientists, engineers and industry, we aim to provide a highly inclusive platform for the exchange of scientific ideas and engineering solutions by putting a spotlight on engineering research conducted by commercial research and development entities whose primary focus is on developing new products and technologies. Arguably, industrial research produces the most tangible and immediate real-life effects but its achievements and the researchers behind them are rarely celebrated in the world of scientific publishing, an omission that we hope to correct. The main issue lies in the contradiction between two principles: voluntary disclosure of research findings dictated by scientific publishing and protection of intellectual property required by the private sector. In this context, publishing primary industrial research may prove challenging. However, we can help our authors from industry craft their review articles to provide just the right amount of scientific detail and strike a middle ground between unfettered transparency and superficial reporting.

But above all, we are here to facilitate the communication in our community of highly specialized professionals working in more than 400 different subfields. And we want to do it the Nature Reviews way, by conveying sophisticated technical concepts and the underlying science through accessible scientific language that can be easily understood by experts and non-specialists alike. By that, we mean handling every article from the perspective of experts coming from different scientific backgrounds. This approach is not about oversimplification and stripping an article of every scientific detail. Instead, we aim to discuss what is really important, the ideas at the heart of a research topic, and the compromise between in-depth scientific detail and easy-to-grasp concepts. We herein invite the whole of the electrical engineering community to join our Nature Reviews family where fundamental, applied and engineering research converge to transform scientific knowledge into practical applications using the art of communicating information in a way such that nothing is lost in translation.

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