

IEEE Dedicates Milestone to the Rijndael AES Cipher

On 18 November 2025, IEEE 2024 President Tom Coughlin officially dedicated the Rijndael Advanced Encryption Standard (AES) Milestone bronze plaque in a ceremony at the Arenberg Castle, Leuven, Belgium in the presence of over 150 participants.

The unveiling was preceded by a symposium highlighting AES's profound impact. Prof. Güneş Acar revealed major privacy breaches in Android communications, underscoring the critical need for robust encryption like AES. Prof. Stefan Mangard explored the ongoing battle against side-channel attacks, discussing the practical considerations to protect AES implementations.

The event's highlight was a presentation by Rijndael's inventors, Prof. Joan Daemen and Prof. Vincent Rijmen. They reflected on the 25-year journey of their design, from winning the NIST competition to becoming the world's most ubiquitous cipher. They explained how its elegant design principles have ensured its resilience against all cryptanalysis, making it more robust than ever.

Selected by NIST in 2000, AES is the bedrock of modern digital security, protecting everything from government secrets and global finance to everyday web browsing. Nowadays, billions of people in the entire world, on a daily basis, use AES in various background applications without being aware of it. Its royalty-free, efficient, and secure design has provided an estimated \$250 billion in economic benefit, truly cementing its status as a pivotal IEEE Milestone.



Left to right: IEEE President Tom Coughlin, prof. Vincent Rijmen, prof. Joan Daemen