

New Data Suggests AI Could Help Relieve Pressure on Electrical Design Engineers Amid Growing Workforce Shortages and Project Complexity

08 July 2026

WSCAD, developer of the world's first AI-powered electrical design platform, has released new data revealing widespread concerns about engineering scalability, knowledge retention and productivity among electrical engineering professionals worldwide.

The industry report, [*The State of Electrical Engineering 2026: Why AI Is Changing Engineering Forever*](#), surveyed 1,267 electrical CAD users across 40 countries. The findings show that engineering organizations are grappling with workforce shortages, increasing project complexity and growing documentation demands while operating at or near capacity. Many respondents reported struggling to meet tighter delivery schedules and rising customization requirements, given the ongoing shortage of experienced engineering and design talent.

"Engineering teams are being asked to deliver increasingly complex projects faster than ever, often with fewer experienced resources available," said Dr. Axel Zein, CEO of WSCAD. "The survey uncovers that many teams have optimized traditional workflows as much as possible, yet it is not enough to meet new productivity demands. As a result, organizations are increasingly exploring AI-assisted approaches to unlock the next level of engineering efficiency and allow more time for innovation."

One of the biggest takeaways illustrates the massive amount of time design engineers spend on repetitive and administrative activities, pulling them away from solving necessary but complex engineering challenges. Approximately 54% of respondents reported spending the largest share of their time on schematics, while nearly 72% cited component searches and documentation maintenance as problematic, time-consuming tasks.

Other key findings include:

- Nearly 71% of respondents have more than five years of experience using electrical CAD systems, but only 42% had more than a decade of experience, underscoring concerns around succession planning and knowledge transfer.
- Respondents identified workforce shortages, increasing system complexity, growing compliance requirements, shorter project timelines and expanding interdisciplinary integration as the major challenges facing engineering organizations.
- Fewer than 46% of respondents felt they had sufficient time for innovation and less than 63% signaled they currently have standardized processes in place.
- Many organizations remain heavily dependent on the expertise of individual engineers, creating risks related to knowledge retention, onboarding and long-term scalability.

“Industry conversation is no longer about whether engineering organizations need to become more productive. It’s clear, we must,” Zein added. “Now, organizations are looking at how they can carefully introduce AI-enabled tools that free up engineering time from manual work and reallocate it to more technical workflows.”

When asked what matters most in an electrical CAD system, respondents consistently prioritized usability, reliability, rapid access to information,

comprehensive documentation capabilities and productivity enhancements. Nearly 90% identified usability as a top requirement.

Where AI Support the Business

According to the report, AI-assisted engineering tools are already decreasing manual efforts in areas such as documentation generation, error detection and engineering knowledge search. Looking ahead, respondents expect AI-native engineering environments to fundamentally change how engineering knowledge is created, applied and scaled.

The report concludes that AI is unlikely to replace engineers. Instead, its greatest value lies in reducing repetitive work so teams can focus on higher-value activities, including problem-solving, design decisions and innovation. Rather than adopting AI as a trend, organizations are seeking permanent, practical technologies that reduce engineering workload, improve efficiency and increase throughput.

The report includes a foreword by Joe Kann, former VP of Global Business Development at Rockwell Automation, and an executive perspective from Dr. Siegmund Haasis, former CIO of R&D at Mercedes-Benz.

Image captions:

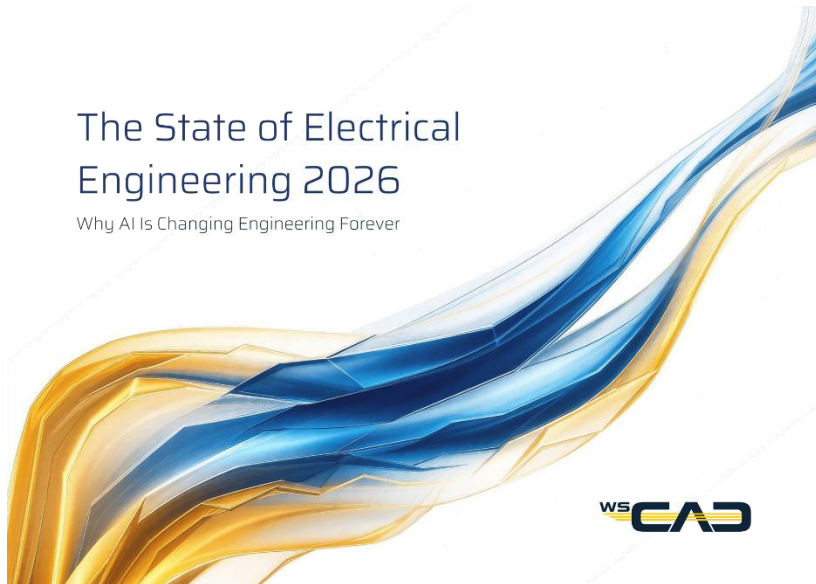


Image 1: The State of Electrical Engineering 2026.



Image 2: Dr. Axel Zein, CEO of WSCAD.

The image(s) distributed with this press release are for Editorial use only and are subject to copyright. The image(s) may only be used to accompany the press release mentioned here, no other use is permitted.

About WSCAD

WSCAD develops ELECTRIX, a family of AI-powered electrical CAD and AI-native engineering solutions used for electrical engineering, control cabinet design, building automation, electrical installation, piping and instrumentation and fluid engineering.

For more than three decades, WSCAD has helped engineering organizations increase productivity through integrated engineering workflows, automation and intelligent design technologies. Today, WSCAD is at the forefront of the industry's next transformation, combining engineering expertise, structured data and artificial intelligence to create a new generation of engineering systems.

The ELECTRIX platform brings multiple engineering disciplines together on a shared data foundation and integrates AI-assisted engineering capabilities directly into engineering workflows. It is complemented by wscaduniverse.com, one of the world's largest electrical CAD data libraries, providing access to more than 2.2 million parts data from leading manufacturers.

Building on this foundation, WSCAD is pioneering AI-native engineering environments designed to help organizations scale engineering knowledge, reduce repetitive work and manage increasing engineering complexity more effectively.

WSCAD solutions are used by more than 40,000 users in over 100 countries and are trusted by engineering organizations ranging from small specialist firms to global industrial enterprises.

Editorial contact:

BETTERTRUST GmbH: Max Krüger

Tel: +49 (0)157 77 44 38 68

Email: m.krueger@bettertrust.de

Reader contact:

WSCAD GmbH Bergkirchen

Tel: +49 (0)8131 / 36270

Email: sales@wscad.com