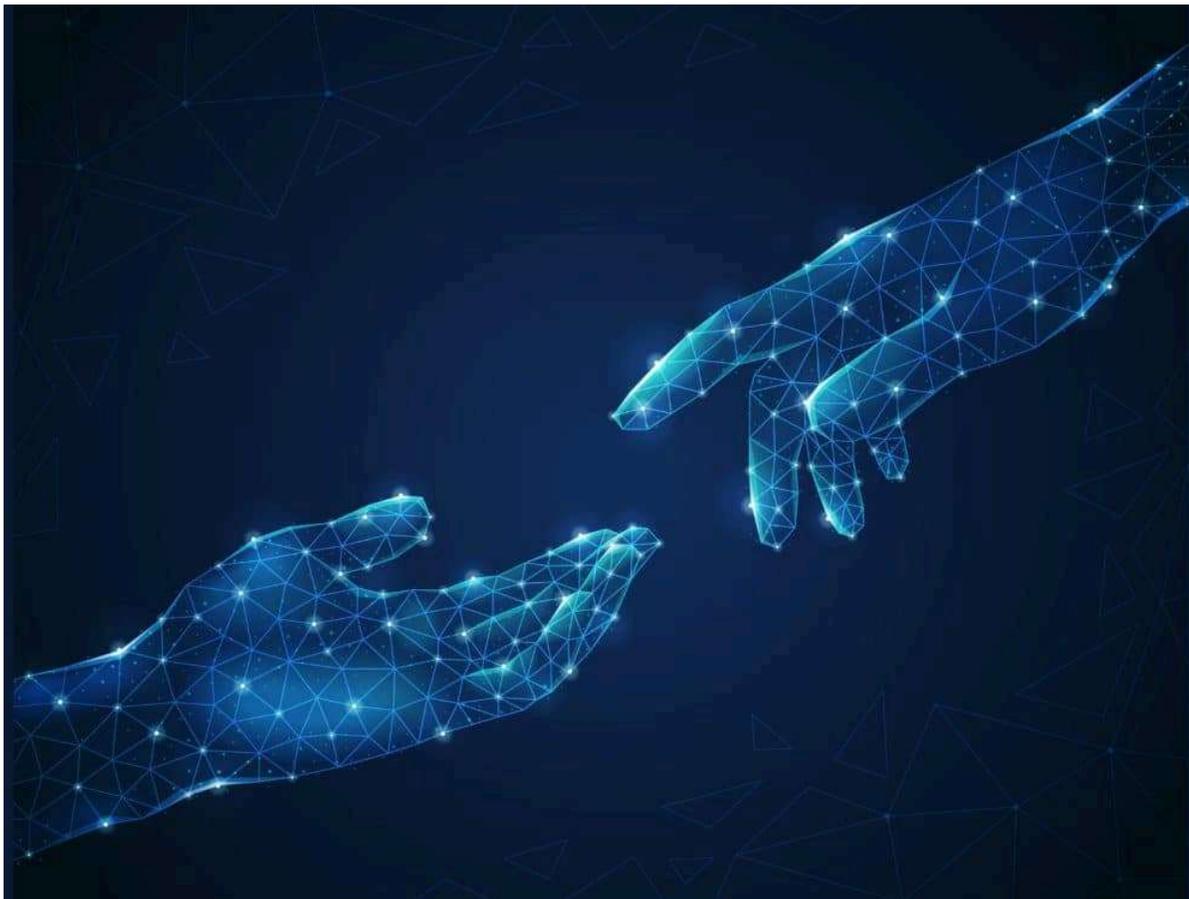# Digital twin, Industrial AI get smarter with TCE's new platform

Tata Consulting Engineers (TCE) is already moving beyond theory, with pilot implementations underway alongside major organisations.

by **Staff Writer**   February 21, 2026

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[Tata Consulting Engineers (TCE)](#) has introduced a new Cognitive Digital Twin and Industrial AI platform built on [NVIDIA](#) technology. As industries rapidly adopt AI, can digital twins that think, learn and simulate in real time transform how factories, power systems and infrastructure are designed and operated? The platform aims to bring AI directly into critical industrial environments.

A smarter approach to digital twins and AI

NVIDIA Accelerated Computing and the NVIDIA Omniverse libraries power TCE's newly launched platform. It is designed to embed Industrial AI and engineering-grade Cognitive Digital Twins

across manufacturing, energy, and infrastructure sectors. The objective is simple yet ambitious: enable better, data-driven decisions throughout the full lifecycle of industrial assets.

At the heart of the platform lies TCE's Cognitive Twin framework. Built using NVIDIA libraries and open models, it allows the creation of high-fidelity, real-time, AI-driven digital twins. These digital twins act as dynamic, living representations of physical systems, capable of mirroring, simulating, and optimising complex industrial operations. By combining detailed engineering data with operational insights, the system helps improve precision, reliability, and performance.

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Early adoption and industry applications

TCE is already moving beyond theory, with pilot implementations underway alongside major organisations. These include the National High Speed Rail Corporation Limited, Torrent Power, and Power Grid Corporation of India Limited. The pilots demonstrate a shift from traditional static digital models to cognitive digital twins that actively support operational decision-making.

A key advantage of the platform is its lifecycle-first design philosophy. By integrating Cognitive Digital Twins at the concept and FEED stages, factors such as safety, reliability, maintainability, and energy efficiency can be considered early. This approach helps organisations make more informed investment decisions while improving long-term operational outcomes.

Industry impact and leadership perspective

The platform is built to address practical Industrial AI use cases, including safety monitoring, quality inspection, predictive maintenance, and energy optimisation. Rather than treating AI as an add-on, TCE embeds intelligence into assets from the start.

Commenting on the launch, Amit Sharma, Managing Director and Chief Executive Officer, of TCE said, "Industrial AI must be engineered into assets, not added later. As an engineering organisation, we have the unique ability to embed Cognitive Digital Twins at the design stage and carry them through construction, commissioning and operations. Built on NVIDIA technology, this platform brings Industrial AI into the heart of factories, power systems and infrastructure, delivering outcomes that matter in the real world."

Vishal Dhupar, Managing Director, Asia South, NVIDIA, added, "The industrial landscape is undergoing a fundamental transformation as AI moves decisively from the digital realm into the physical world. Leveraging NVIDIA accelerated AI infrastructure, NVIDIA Omniverse libraries, and open NVIDIA Cosmos and NVIDIA Nemotron models, TCE is a leader in advancing the safety, efficiency, and sustainability of critical industrial infrastructure."