Tata Consulting Engineers and NVIDIA Launch Next-Gen Industrial AI Platform

By **Sahiba Sharma**

Tata Consulting Engineers (TCE) has launched a pioneering [Cognitive Digital Twin](#) and Industrial AI platform.

Announced in Mumbai on February 20, 2026, the platform is built on NVIDIA's accelerated computing stack and NVIDIA Omniverse libraries.

This collaboration aims to transform how manufacturing, energy, and infrastructure sectors design and manage [large-scale physical assets](#).

Tata Consulting Engineers Engineering-Grade AI: Beyond Static Models

Unlike traditional digital models, TCE's "Cognitive Twin" framework creates high-fidelity, living representations of complex industrial environments.

By integrating engineering data with real-time operational intelligence, these digital twins can mirror, simulate, and optimize physical systems autonomously.

The platform leverages [NVIDIA NIM microservices](#), along with NVIDIA Cosmos and Nemotron models, to provide the high-performance computing necessary for real-time AI-driven decision-making.

A key differentiator of this platform is TCE's "lifecycle-first" approach.

Amit Sharma, Managing Director and CEO of TCE, emphasized that Industrial AI must be "engineered into assets, not added later."

Companies embed these cognitive twins at the conceptual and [Front-End Engineering Design stages](#).

This allows them to address safety, maintainability, and energy efficiency before a single brick is laid.

Real-World Impact and Strategic Partnerships

The platform is already being deployed in high-stakes pilot programs across India's infrastructure and energy landscape. Current partners include:

- [National High Speed Rail Corporation Limited](#) (NHSRCL)
- Torrent Power
- Power Grid Corporation of India Limited (POWERGRID)

These implementations demonstrate a shift from isolated AI experiments to embedded intelligence in "AI factories" and power systems.

The platform focuses on high-impact use cases such as [predictive maintenance](#), quality inspection, and energy optimization.

A Vision for Physical AI

Vishal Dhupar, <u>Managing Director</u> of Asia South at NVIDIA, noted that the industrial landscape is undergoing a transformation as AI moves from the digital realm into the physical world.

By aligning with NVIDIA's vision for physical AI, TCE is positioning itself as a leader in industrial resilience.

This platform not only improves capital investment decisions but also ensures that critical infrastructure—ranging from <u>power grids to high-speed rail</u>—operates with unprecedented precision and sustainability.