

L&T unveils digital strategy to achieve carbon neutrality by 2040

Speaking at the Mint Digital Innovation Summit 2024, L&T's Utkarsh Desai talked about integration of real-time data from over 14,000 machines, emphasizing that the company's technological prowess optimizes efficiency, productivity, and curbs wastage.



Construction giant Larsen & Toubro Ltd (L&T) laid down its ambitious digital strategy aimed at fortifying sustainability and energy efficiency at the Mint Digital Innovation Summit 2024 on Friday.

Utkarsh Desai, Corporate Center Head of L&T Construction, outlined L&T's vision to achieve carbon neutrality by 2040 through cutting-edge digitization and technological integration.

Focus on digitization

Desai emphasized, "Our journey from a Deere equipment supplier to a \$27 billion conglomerate underscores the transformative power of digitization in reshaping our operational landscape."

He underscored the pivotal role of digitization, stating, "Digitization rests on three core pillars: Man, Machine, and Material." Regarding manpower management, Desai highlighted, "Our bespoke platform streamlines HR processes, ensuring a dynamic workforce capable of meeting seasonal demands." Safety, he stressed, "is addressed through an end-to-end platform meticulously designed to enforce organizational safety standards."

Desai eloquently summarized L&T's overarching goal in digital transformation, stating, "The two things which humanity has not created till date, which is time and money, time and energy. So all our efforts in digital are to ensure how we can improve on these two aspects because we can neither create time nor energy."

Using data

Desai further informed about the integration of real-time data from over 14,000 machines, affirming, "Our technological prowess optimizes efficiency, productivity, and curbs wastage." In material management, Desai noted, "Our digital platforms meticulously track and manage over 1.5 million materials, optimizing utilization and minimizing waste."

Desai highlighted the critical role of geospatial technology in planning and executing cross-country projects. With access to detailed information about surface and subsurface conditions, L&T's teams can optimize project planning and execution, driving efficiency and minimizing risks.

Desai mentioned that achievements by the L&T such as the construction of a 3D-printed post office in Bangalore in a record-breaking 43 days, a feat that would have traditionally taken six to eight months.

Desai also shed light on L&T's transformation of its factories such factory of Hazira, Gujarat into smart facilities, equipped with complete 5G networks and advanced automation systems. Engineers can now operate multiple building stations simultaneously from a centralized control room, leveraging bots and vision computing systems to ensure real-time quality control and intervention when necessary.

Desai further delved into L&T's commitment to energy efficiency, stating, "On cubic meters of concrete, we set targets for energy savings and reduced diesel consumption. He emphasized, "This level of goal setting is ingrained within our organization, backed by digital data spanning five to ten years, enabling us to benchmark our progress and continuously strive for improvement."

Desai reiterated, "Our proactive approach to identifying and implementing digital solutions underscores our commitment to achieving carbon neutrality by 2040."

He also stressed upon initiatives, such as tracking the fuel value chain and optimizing energy consumption, underscore L&T's proactive stance in addressing environmental challenges.

Desai concluded, "Our digital transformation narrative underscores our position as a trailblazer in the construction industry, setting new benchmarks for sustainability, energy efficiency, and innovation."

Exploring gen AI tools

The L&T group has already been using pushing its transformation into a AI driven company and using machine learning in areas of supply chain, finance, human resources, customer relationship management, and project management.

L&T has also begun exploring the use of generative AI tools. For instance, team leaders have begun using Microsoft's AI-powered tool called Copilot for meetings and presentations.

The conglomerate also has more than 300 fully automated digital weighbridge systems and computer vision cameras to measure the net weight of the ₹1.2-billion worth of materials that it purchases annually, which includes concrete or cement, steel, diesel, aluminum and copper.

The group has also onboarded 2.5 million contractual workers into its so-called Worker Induction and Skill Assessment (WISA) system, which helps managers track the location of each worker, gauge their daily productivity, and even suggest training to upgrade their skills.