

## **AI and digital tech will reduce construction costs by 2-3%: R Ganesan – Head, Corporate Centre, L&T Construction**

*Updated - September 30, 2024 at 08:41 AM.*

AI and digital tech help in minimising waste across key commodities such as steel, cement, and diesel, all of which are vital in large-scale projects, Ganesan says

**By Sanjana B | Aishwarya Kumar**



**R Ganesan – Head, Corporate Centre, L&T Construction**

Engineering and construction major Larsen & Toubro Construction is leveraging AI and digital technologies in construction management to enhance efficiency and reduce project costs. According to R Ganesan, Head of the Corporate Centre at L&T Construction, AI and digital technologies can lower construction costs by 2-3 percent.

“Over the last five years, we have been focusing on connecting the digitization drive, then digitalization, and creating an integrated data lake and warehouse. We worked on conventional data science, and then AI. Today, we talk about GenAI, which is composite AI. We understood this a little early, so we put our efforts and resources into getting it in an organised way. Now, we can talk about the impact of AI in core business like construction,” Ganesan explained.

AI and digital tech help in minimising waste across key commodities such as steel, cement, and diesel, all of which are vital in large-scale projects, he told *businessline*. AI-driven predictive analysis aids efficient planning to optimise steel cutting to minimise wastage and reduce unusable scrap.

The digitisation of diesel monitoring also prevents losses due to spillage or misuse. Additionally, AI accelerates decision-making by synthesising large volumes of data—such as contract summaries and project risk assessments—providing sharper, quicker insights, Ganesan explained.

These innovations can also help prevent work stoppages caused by incidents of unsafe activities by implementing advanced warning systems, ultimately ensuring a safer and smoother construction process.

“On a construction site, workmen may come in without safety shoes or helmets. Previously, there would be supervisors, but these workmen would remove their safety gears after some time. Today, we can create deep learning models using computer vision to determine red alerts like not wearing gloves or other necessary equipment,” he said, adding that deep learning, which is a part of AI and creating models of computer vision, will help with the safety of people on sites. “That’s a direct tangible benefit.”

“L&T has observed incremental benefits from implementing this technology, which includes cost savings, improvements in environmental impact, safety, resource management, and project timelines,” Ganesan stated. However, he noted that leveraging the technology entirely will help companies achieve more significant results as it will take more time to quantify the larger impact.

### **Accessibility is the roadmap**

L&T Construction said it has completed more than 50 projects with drones and geospatial tech and completed the IOTisation of 15,000 plants and machinery. “15,000 of our assets are IOT connected. Over 300 sites are mobility enabled - mobility for project management, safety, quality, workmen and material monitoring and tracking. Almost all sites use mobility as a common solution.”

Earlier this year, L&T's railway strategic business group bagged a mega contract valued between ₹10,000 crore to ₹15,000 crore for the Mumbai-Ahmedabad high-speed rail project. For this, the entire survey was done using the geospatial drone technology by collecting information, processing it and designing, he said.

“35-40 per cent of projects are linear - building roads, bridges, railway tracks, power transmission, and railway networks, all running hundreds of kilometres. Every linear project uses this drone technology today,” he noted, adding that over 200 of L&T's projects are designed and executed through the building information management system, one of the most advanced digital engineering platforms.

**Online story link** - <https://www.thehindubusinessline.com/companies/ai-and-digital-tech-will-reduce-construction-costs-by-2-3-lt-construction-head-ganesan/article68697502.ece>