

TechWorld 2025: Big Data, Computer Science and Information Technologies

Conference Proceedings

August 26, 2025 - Virtual

Driving Digital Transformation through Intelligent ERP: A Perspective on SAP S/4HANA, AI, and Supply Chain Innovation

Pavan Kumar Devarashetty

Staff Sap Architect, San Diego, California, USA

Digital transformation has become imperative for businesses aiming to remain competitive in a rapidly evolving technological landscape. Intelligent Enterprise Resource Planning (ERP) systems, particularly SAP S/4HANA integrated with artificial intelligence (AI), have emerged as pivotal tools enabling transformative efficiencies and innovation within supply chain operations. This paper explores SAP S/4HANA & #39s capabilities as an intelligent ERP, emphasizing its AI-driven functionalities such as predictive analytics, robotic process automation, and real-time decision-making. Through detailed analysis and real-world case studies, the research highlights the significant impact of integrating intelligent ERP on supply chain management, demonstrating measurable improvements in efficiency, responsiveness, and strategic decision-making. Finally, this study discusses implementation challenges and presents best practices to ensure successful adoption, concluding with insights into future trends shaping the intelligent ERP landscape.