

Digital Twin for Smart Supply Chains: Challenges and Research Directions

Cemalettin Ozturk, PhD.

Lecturer- Logistics & Supply Chain

Munster Technological University, Cork, Ireland

cemalettin.ozturk@mtu.ie

A digital twin is a special type of simulation model that represents a business process integrated with current data from the subject matter. Analysis on digital twin enhances business insight and performance in manufacturing, transport, supply chain, healthcare, and more. In this talk, we will first discuss position of digital twin technology in supply chain management. Ontology of a supply chain digital twin and its ecosystem will be the second part of the talk. Complementary data and decision analytics methods to enhance fidelity of digital twins will be discussed later. Finally, current trends and future research topics in digital twin literature will be discussed.

Keywords: supply chain; digital twin; simulation, data analytics