## **ABSTRACT**

Digital twin is a technology that enables companies to create digital representations of existing physical systems, processes or products. By using a digital twin, companies can monitor and analyze systems in real-time, and identify and address problems before they occur. In the context of implementing real time system quality (RTSQ) at XYZ company, digital twin can be used to monitor and optimize quality control by analyzing data generated by the RTSQ system. A multi-level approach can be used to integrate the digital twin with the RTSQ system at multiple levels, including the individual level, process level and system level. Thus, XYZ companies can improve operational efficiency and improve customer satisfaction by implementing RTSQ and digital twin with a multi-level approach.

Kata kunci — Implementation, Real-time System Quality (RTSQ), Optimization, Quality Control, Multi-Level Approach.