SA25043

The Fourth Industrial Revolution (Industry 4.0) integrates digital, biological, and physical systems, leveraging technologies such as the Internet of Things (IoT), artificial intelligence, and robotics. While these advancements enhance efficiency, they also present challenges for maintenance employees tasked with adapting to rapidly evolving tools and processes. This study explores the adaptation processes of maintenance employees, focusing on their strengths and limitations in navigating the technological landscape of Industry 4.0. In the analysis of the literature data, three themes emerged that serve to showcase the challenges regarding maintenance employees adapting to new technology. Through a comprehensive review of existing literature, the research identifies effective strategies and methods that facilitate successful adaptation, offering insights into underexplored issues faced by this critical workforce subgroup. The most effective strategies were on-the-job training and the step-by-step implementation of the new technology. By addressing gaps in current knowledge and providing actionable recommendations, this paper supports organizations in fostering employee adaptability and maintaining competitiveness in the era of Industry 4.0.