



Bridging the Gap: AI Integration in Pedagogy through STEAM

Preeti Nara, Research Scholar, Department of Education, Chaudhary Devi Lal University, Sirsa

Email ID: preetisheoran1987@gmail.com

Dr. Raj Kumar, Professor, Department of Education, Chaudhary Devi Lal University, Sirsa

Abstract

In recent years, the integration of Artificial Intelligence (AI) in pedagogy has demonstrated transformative potential, particularly through the lens of STEAM (Science, Technology, Engineering, Arts, and Mathematics) education. AI's ability to personalize learning experiences, provide real-time feedback, and enhance student engagement positions it as a key enabler in modernizing teaching strategies. This paper explores the role of AI in STEAM education, discussing how its incorporation can bridge the gap between traditional methods and innovative learning paradigms. AI tools offer unique opportunities for immersive learning environments, adaptive assessments, and collaborative projects, empowering both educators and students. Moreover, AI fosters interdisciplinary approaches within the STEAM framework, encouraging critical thinking and creativity while equipping students with the digital literacy essential for the future workforce. By examining case studies and current applications, this paper underscores the importance of AI's role in advancing education and proposes a framework for successful integration in the classroom. The implications of AI integration in STEAM education are vast, ranging from personalized learning to the democratization of knowledge, offering solutions for diverse educational challenges.

