**The Role of Artificial Intelligence in Modern Education**

### **Abstract:**

This study explores the integration of Artificial Intelligence (AI) tools in education and their impact on teaching efficiency and student engagement. AI applications such as intelligent tutoring systems, automated grading, and personalized learning pathways are reshaping how education is delivered and accessed.

### **Introduction:**

Artificial Intelligence has made significant advancements across industries, including education. From virtual assistants to data-driven analytics, AI offers tools that can support both educators and students. This research aims to understand the current applications of AI in classrooms and how it affects learning outcomes.

### **Methodology:**

A mixed-methods approach was used, including a literature review and interviews with 10 teachers who have implemented AI tools such as chatbots, plagiarism checkers, and learning analytics in their classrooms. Their feedback was analyzed to identify common benefits and challenges.

### **Findings:**

* Teachers reported that AI helped reduce time spent on repetitive tasks like grading.
* Students responded positively to personalized quizzes and study recommendations.
* Some concerns were raised about data privacy and over-reliance on technology.

### **Conclusion:**

AI in education shows promise in enhancing productivity and personalizing learning. However, its implementation must be guided by ethical practices and continuous evaluation. With proper training and oversight, AI can be a valuable partner in the education system.