

AI-Powered Academic Assistant: A Python-Based Chatbot for Educational Support

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Abstract: *Artificial Intelligence (AI) is increasingly transforming education through tools that can provide personalized support at scale. This paper presents the design and development of an AI-powered academic assistant implemented in Python. The chatbot integrates Natural Language Processing (NLP), machine learning, and transformer-based models to respond to student queries, facilitate access to educational materials, and reduce faculty workload. Empirical evaluation demonstrates improvements in accuracy, user satisfaction, and engagement. The paper also reviews related literature, identifies research gaps, and outlines future directions for effective chatbot integration in education.*

Keywords: Artificial Intelligence (AI), Educational Chatbot, Academic Assistant, Natural Language Processing (NLP), Machine Learning

