

Using Data Analytics: The Role And Application of Artificial Intelligence

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Abstract: This study explores the role and application of Artificial Intelligence (AI) in data analytics, highlighting how intelligent algorithms enhance data processing, pattern recognition, prediction, and decision-making. AI-driven data analytics enables organizations to analyze large and complex datasets efficiently, automate analytical tasks, and generate accurate, real-time insights. By integrating machine learning, deep learning, and intelligent automation, AI transforms traditional analytics into predictive and prescriptive systems that support strategic planning, operational optimization, and improved business outcomes. The study emphasizes the growing importance of AI-powered analytics in driving innovation, competitiveness, and data-driven decision-making across various sectors.

Keywords: Artificial Intelligence, Data Analytics, Machine Learning, Big Data, Predictive Analytics, Automation, Decision Support Systems