

## Machine Learning in Big Data Analytics and Artificial Intelligence

R R RATH<sup>1</sup> and B K MOHAPATRA<sup>2</sup>

<sup>1</sup>Asst. Prof., Department of Electronics & Communication Engineering, NM Institute of Engineering and Technology, Bhubaneswar, India  
rrretc1@gmail.com

<sup>2</sup>Faculty of physics, NM Institute of Engineering and Technology, Bhubaneswar, India  
brmohapatra2@rediffmail.com

*Received 7.11.21, Accepted 17.12.21*

**Abstract :** The possibility of this research paper is to create attentiveness among upcoming scholars about recent advances in technology, specifically deep learning an area of machine learning which finds applications in big data analytics and artificial intelligence. Big Data Analytics and Deep Learning are two high-focus of data science. Big Data has become important as many organizations both public and private have been collecting massive amounts of domain-specific information, which can contain useful information about problems such as national intelligence, cyber security, fraud detection, marketing, and medical informatics. Companies such as Google and Microsoft are analyzing large volumes of data for business analysis and decisions, impacting existing and future technology. Deep Learning algorithms extract high-level, complex abstractions as data representations through a hierarchical learning process. A key benefit of Deep Learning is the analysis and learning of massive amounts of unsupervised data, making it a valuable tool for Big Data Analytics where raw data is largely unlabeled and un-categorized. In the present study, we explore how Deep Learning can be utilized for addressing some important problems in Big Data.

**Key Words:** Machine Learning, Deep Learning, Big Data, Artificial Intelligence.