

## Big Data Analytics

---

### Course Outcome:

#### 1. Remembering:

- Recall examples of big data applications in various fields such as natural sciences, engineering, social sciences, and industry.
- Identify the importance of analyzing big data for decision-making and problem-solving.
- Recognize the limitations of traditional computational platforms in handling big data.

#### 2. Understanding:

- Explain the concepts of horizontal and vertical scaling in big data analytics platforms.
- Describe the basics of distributed computing and its significance for processing big data.
- Compare different communication systems for parallel computing in peer-to-peer networks.
- Discuss the communication systems for vertical scaling using MPI, CUDA, and HDL.

#### 3. Applying:

- Utilize Hadoop, Spark, BDAS, and other big data platforms for scalable and efficient data analysis.
- Implement peer-to-peer networks and distributed computing techniques for handling large volumes of data.
- Evaluate the communication mechanisms of various big data platforms based on scalability and performance metrics.

#### 4. Analyzing:

- Analyze network structures and properties in the context of big data analytics.
- Evaluate fault tolerance, real-time processing, and data size support in different big data platforms.
- Compare and contrast communication mechanisms of various big data platforms for iterative tasks.

#### 5. Evaluating:

- Critically assess the suitability of different big data platforms for specific analytical tasks.
- Analyze the performance of communication systems in handling big data across various platforms.
- Evaluate the advantages and disadvantages of different platforms based on their scalability and data processing capabilities.

#### 6. Creating:

- Develop illustrative pseudocodes for the K-means algorithm in MapReduce, MPI, and GPU-based platforms.
- Design communication systems for optimal performance and scalability in big data analytics.
- Create strategies for improving data I/O performance, fault tolerance, and real-time processing in big data platforms.

Select Language ▼

Powered by  Google Translate

