Report on
Guest Lecture on
"Big Data Analystics"
Organized by
Department of Computer Science & Engineering (Data Science)
30.06.2023

Submitted by: Ms. T.Swetha, Assistant Professor, Department of Computer Science & Engineering (Data Science), MITS, Madanapalle.
Convened by: Ms. T.Swetha, Assistant Professor, Department of Computer Science & Engineering (Data Science), MITS, Madanapalle.

Co-ordinated by: Mr. G.Rajkumar, Assistant Professor, & Mrs.A.Krishna Veni Department of Computer Science & Engineering (Data Science), MITS, Madanapalle.

Attendance: 130 participants (Internal)

About the Resource person:

As a passionate data enthusiast, I bring over 5 years of real-time experience in the dynamic field of big data analytics and cloud analytics. My expertise lies in leveraging data to uncover valuable insights and drive informed decision-making. Throughout my career, I have had the privilege of working with prominent retail companies and European banks, gaining hands-on experience in managing and analyzing vast volumes of data. My love for working in the data field fuels my continuous quest for knowledge and staying updated with the latest trends and technologies. With a deep understanding of the power of data, I am excited to share my expertise and insights with the audience, inspiring them to unlock the immense potential of big data analytics.

Objective of the Guest Lecture:

The objective of this presentation on big data analytics is to provide a comprehensive understanding of the key aspects and technologies related to big data. By the end of the session, attendees will have a solid understanding of data basics, big data concepts, distributed data storage and processing, the Hadoop framework, Apache Spark, real-world applications of big data analytics, and the availability of big data services in the GCP cloud environment.

The program started at 10:00 AM at Seminar Hall "A", the entire programme was organized by the Convenor: **T. Swetha**, Assistant Professor, Department of Computer Science & Engineering (Data Science) and **Dr. S.Kusuma, HOD/CSE(DS)**, delivered the welcome address to the gatherings.

The resource person started the session by extending his hearty thanks to the participants, organizing members, HoD, Principal and Management of MITS Madanapalle for giving his opportunity to share her knowledge and experience in Data Science Applications and Industrial Insights.

The following topics were discussed in the session.

Lecture Details:

Title: **Data Basics and Types of Data**

Duration: 15 minutes
Description: This segment will cover the fundamentals of data, including its types and the challenges associated with managing large volumes of data. Attendees will gain insights into the characteristics and importance of data in the context of big data analytics.

Title: **Big Data Basics**

Duration: 20 minutes
Description: In this section, we will introduce the concept of big data, including its characteristics such as volume, velocity, variety, and veracity. Attendees will understand why big data analytics is crucial for extracting valuable insights from vast data resources.

Title: **Distributed Data Storage and Distributed Data Processing**

Duration: 25 minutes

Description: This segment will delve into the significance of distributed data storage and processing techniques for managing and analyzing big data effectively. Attendees will learn about the advantages of distributed systems in handling large-scale data and explore different approaches to distributed data storage.

Title: **Hadoop Framework**

Duration: 30 minutes
Description: The focus of this section will be on the Hadoop framework, its components, and its role in enabling distributed storage and processing of big data. Attendees will gain a comprehensive understanding of Hadoop's architecture and its core components like HDFS

Title: **Spark Basics**

Duration: 25 minutes
Description: This part of the presentation will cover the basics of Apache Spark, an efficient and powerful big data processing engine. Attendees will learn about Spark's features, advantages, and how it enhances the speed and scalability of data processing.

Title: **How Big Data Companies Use Analytics**

Duration: 20 minutes
Description: This section will show case real-world applications of big data analytics in companies. Attendees will gain insights into how organizations leverage big data analytics to gain valuable insights, improve decision-making processes, and drive business growth.

Title: **GCP Cloud Big Data Services**

Duration: 15 minutes
Description: The final segment will introduce the big data services offered by Google Cloud Platform (GCP) and their relevance in handling large-scale data processing and analysis. Attendees will understand the key features and benefits of GCP's big data services and how they can be utilized effectively.

Outcomes of the Guest Lecture

1. Gained a comprehensive understanding of Big data and its internals.
2. Understood practical applications and real-world relevance of Big Data.
3. Exchanged ideas with an industry expert.
4. Acquired valuable insights and perspectives from current research and case studies.
5. Broadened their knowledge base in GCP.

The session was concluded at 12.00AM, followed by a vote of thanks, given by the Coordinator of the Seminar Mr. G. Rajkumar, Assistant Professor, Department of Computer Science & Engineering (Data Science), MITS, Madanapalle.