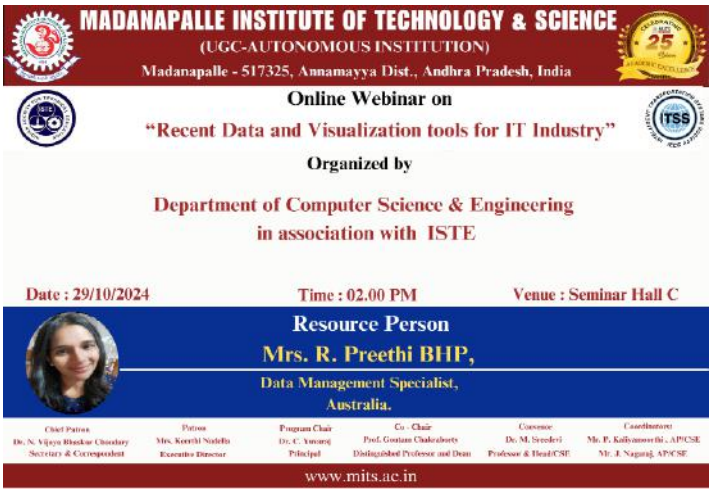
# A Report on Webinar
# "Recent Data and Visualization tools for IT Industry"
## Organized by Department of Computer Science & Engineering
## in association with ISTE-MITS
## on 29.10.2024




**Report Submitted by: Mr. P. Kaliyamoorthi, Assistant Professor, Department of Computer Science & Engineering.**
**Resource Person Details: Mrs. R. Preethi, BHP - Data Management Specialist, Australia**
**Venue: Seminar Hall C; Time: 2:00 to 4:00 PM**
**Report Received on 05.11.2024**
**Mode of Conduct: Online**

### Event Overview:

The Department of Computer Science & Engineering, in association with ISTE, organized a webinar on "Recent Data and Visualization tools for IT Industry" The event aimed to provide students with insights into the importance of Data visualization in today's IT industry, provide recognition, and open up new career opportunities.

### Opening Remarks and Welcome Note:

The event began with a welcome address by Mr. P. Kaliyamoorthi, Assistant Professor from the Department of CSE, who provided a brief overview of the event proceedings. He welcomed the resource person who graced the event and introduced her to the participants. The Head of the Department, Computer Science and Engineering Dr. M. Sreedevi addressed the gathering by explaining the importance of Data visualization to fetch more job opportunities.


### Key Note/ Resource Person Address:

The Resource Person of the event Mrs. R. Preethi, BHP - Data Management Specialist, Australia, delivered the keynote address. Mrs. R. Preethi completed her B.E in Shri Angalamman College of Engineering & Technology Tamil Nadu. Presently she is working as Data Management Specialist BHP, Australia. She has expertise in handling Data visualization tools Power BI. She shared his experience in the Power BI. Mrs. R. Preethi emphasized the value of certifications in Data visualization tools. She also encouraged students to leverage Power BI environment for hands-on learning.

**The Seminar highlighted with the following topics:**

1. **Tableau**

- **Overview**: One of the most popular and powerful tools for creating interactive and shareable dashboards. It allows users to connect to various data sources and create complex visualizations with ease.

**Key Features**:

- Drag-and-drop interface.
- Real-time data analytics.
- Interactive dashboards.
- Integrates with multiple data sources (SQL, Excel, Google Analytics, etc.).
- **Use Case**: Business intelligence and data analysis.

2. **Power BI**

- **Overview**: A Microsoft product that helps create interactive visualizations and business intelligence capabilities with an easy-to-use interface.

**Key Features**:

- Integrates well with Microsoft Office tools (Excel, SharePoint, etc.).
- Interactive dashboards and reports.
- Data modelling and transformation features.
- Supports a wide range of data sources (SQL Server, web data, etc.).
- **Use Case**: Business reporting and decision-making.

3. **Google Data Studio**

- **Overview**: A free tool by Google that helps create customizable reports and dashboards by connecting to various Google services and third-party data sources.

**Key Features**:

- Easy integration with Google Analytics, Google Ads, and other Google services.
- Collaboration features.
- Real-time data updates.

**Use Case**: Marketing analytics and reporting.

4. **Qlik Sense**

- **Overview**: A self-service data visualization and business intelligence tool that enables users to explore and analyze data through intuitive, interactive dashboards.

**Key Features**:

- Associative data model for analysing data from multiple sources.
- Customizable dashboards and visualizations.
- Advanced analytics features like machine learning integration.
- **Use Case**: Enterprise-level data exploration and reporting.

5. **D3.js**

- **Overview**: A JavaScript library for producing dynamic, interactive data visualizations on the web. It allows fine-grained control over the appearance and behaviour of visualizations.

**Key Features**:

- Highly customizable and flexible.
- Can create complex visualizations such as tree diagrams, hierarchical charts, and networks.
- Requires coding knowledge (JavaScript, HTML, CSS).
- **Use Case**: Custom, web-based visualizations and advanced visual storytelling.

**The session provides key outcomes for the students as follows:**

1. **Improved Data Interpretation:**

- **Outcome**: Easier comprehension of complex data
- **Explanation**: Data visualizations, such as charts, graphs, and maps, simplify complex datasets, allowing users to quickly understand patterns, trends, and correlations that might not be evident in raw numbers or text.

2. **Faster Decision-Making**

- **Outcome**: Quick, data-driven decisions
- **Explanation**: Interactive dashboards and real-time visualizations enable decision-makers to access critical insights instantly, leading to faster and more informed decisions.

3. **Enhanced Communication**

- **Outcome**: Clear and effective communication of data
- **Explanation**: Data visualizations can convey messages more effectively than raw data, making it easier for stakeholders (even non-technical ones) to understand key insights. This is especially important for reports, presentations, or sharing findings.

4. **Better Identification of Trends and Patterns**

- **Outcome**: Recognition of trends, patterns, and anomalies
- **Explanation**: Visualizations highlight trends, seasonal fluctuations, correlations, and outliers, making them easier to identify at a glance. This helps in predictive analytics and forecasting.

6. **Improved Data Accessibility**

- **Outcome**: Easy access to important data insights
- **Explanation**: With the help of interactive visualizations, stakeholders can drill down into the data and explore different perspectives, making complex data accessible and usable for a variety of roles within an organization.
- The session was concluded by Ms. Sree Bhavana, who delivered the vote of thanks. She thanked the resource person for delivering the ‘Webinar’ and the Head of the Department Dr. M. Sreedevi, and the management for giving the opportunity to initiate the event.