

MSCS3019 : Data Visualization

This course introduces data visualization, which provides various means to communicate information and tell stories of quantitative data through graphic patterns. It exemplifies the concept that data visualization makes big data more approachable and valuable and greatly impacts the decision-making process in fields such as science, technology, engineering, and management. This course introduces students to the core concepts and various techniques and tools for data visualization. The course reviews various analytical tools of statistics followed by the basic elements of visual business, engineering, and scientific intelligence. The techniques of good design consideration and data preparation for the best visuals are systematically discussed. The course also presents the elements of cognitive science theory and the principles of graphic/interaction design and then applies them to the visualization of information. The course includes myriad case studies in the science, technology, engineering, and management disciplines and industries.

Credits 3