“Big Data” in Railroad Maintenance Planning 2021
University of Delaware
Newark, DE
December 15-16, 2021

Converting the “Mountain” of Data Collected by Railway Systems into Effective Maintenance Planning Information with a Focus on Railway Needs and Practical Applications

Organized by:
University of Delaware’s Railroad Engineering and Safety Program
University of Delaware’s Big Data Center

Modern Railways are making increasing use of new generation inspection and operating technology to obtain more and more data on the condition of the track, equipment, and operations. This extensive amount of data, which includes data of increasing complexity as well as volume, has led to a condition known as “Big Data”, where the volume of data is such that traditional analysis techniques are no longer viable to efficiently make use of all of this large volume of data. Thus, important information is often buried in this “mountain” of data. Since railways need to convert this data into useable information to help them plan their maintenance and capital programs as well as their ongoing operations, there is a need for the application of new and improved analysis techniques to make this conversion from data into information. One such area of improved data analysis is the use of “Big Data” or Data Analytics with its associated statistical analysis techniques which is the focus of this conference.

The 2021 conference is intended to expand on previous years’ conferences and introduce these new and emerging analysis techniques and to show how they can be applied to the large volume of inspection and operational data collected by railways to improve their planning of the critical capital and maintenance programs. This year’s conference focuses on new and emerging applications of “Big Data” analytics to include infrastructure and rolling stock maintenance planning and railroad operations. The program for 2021 will use a 1 ½ day format with a full day on Wednesday December 15, 2021 and a half day on December 16, 2021 with a reception the evening of December 15, 2021.
For additional information, please contact Dr. Allan M Zarembski; Professor and Director of the Railroad Engineering and Safety Program, University of Delaware at dramz@udel.edu.

We look forward to seeing you at the 2021 Big Data in Railroad Engineering Conference

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