Application of Data Analytics to Assist Human Decision-Making

DATA ANALYTICS

THEMATIC AREA: System of Systems

TITLE: Application of Data Analytics to Assist Human Decision-Making

DATE: Wednesday 21 July 2021	TIME: 4 PM	DURATION: 1h

VENUE: Zoom Online

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➢ LECTURE HIGHLIGHTS

Data analytics is the science of analyzing raw data in order to make conclusions about the information derived from it. In fact, many data analytics methods have been designed to autonomously transform raw data into information for human consumption. This information can then be used to optimize processes and increase the overall efficiency of a business or system. The data analytics process includes the following steps: 1. Determine data requirements; 2. Define the process for collecting data; 3. Organize that data so it can be analyzed; 4. Clean the data before analysis; 5. Perform analysis and generate results to assist with human decision-making.

Data analytics is broken down into four basic types: Descriptive analytics describes what has happened over a given time period; Diagnostic analytics focuses on why something happened; Predictive analytics describes what is likely going to happen in the near term; Prescriptive analytics suggests a course of action.

In summary, the audience will emerge from this presentation with a focused understanding of data analytics principles and, through the examples from 6 use cases, how these principles can be applied to assist humans in making decisions for complex SoS.

➢ THE SPEAKER

Paul Hershey works for Raytheon Technologies Company, where he is a Principal Engineering Fellow focusing on data analytics, autonomous systems, modelling and simulation, and cyber security. He has been a member of IEEE since 1980 and was elevated to IEEE Fellow in 2021. He received his Ph.D. and M.S. degrees in electrical engineering from the University of Maryland, College Park, MD, USA, and the A.B. degree in mathematics from the College of William and Mary, Williamsburg, VA, USA.

Dr. Hershey has published 39 patents (granted) and over 60 peer-reviewed technical articles. Previously, he was an adjunct professor at George Washington University where he also served on the Curriculum Advisory Board. He presently serves on technical program committees for the IEEE International Systems Conference and the IEEE International System of Systems Engineering Conference. Dr. Hershey is a Distinguished Lecturer on data analytics for the IEEE Systems Council.

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➢ WHO SHOULD ATTEND

The event will inform you about the principles and the application of data analytics.

You'll hear from Paul Hershey, a Principal Engineering Fellow at Raytheon Technologies and IEEE Systems Council DL speaker.

This is a public lecture to launch the Data Analytics Special Interest Group (DASIG). All IEEE members and those who are interested in learning about Data Analytics and applications are welcome to attend this event.

➢ REGISTRATION

This is an open lecture. Please click the link below to join the webinar:

https://us02web.zoom.us/j/86137316410

Webinar ID: 861 3731 6410

➢ ACCREDITATION

This lecture is accredited by IEEE UK and Ireland Section.