

Department of Systems Engineering and Engineering Management

Seminar Series

Adaptive Planning Using Sensor Data

Prof. Jos van Hillegersberg

Head

Department of Industrial Engineering and Business Information Systems

University of Twente, Netherlands

Date	18 April 2018 (Wednesday)
Time	10:30am - 11:30am
Venue	P7510, 7/F, Yeung Kin Man Academic Building

Abstract

In many complex real world settings, reality never evolves as planned. There are many reasons for this. The forecast used to create the plan can be unprecise, but a bigger concern is usually human behaviour. Both at the operational level (no show, unpredictable behaviour) as well as at the strategic level (political, strategic and opportunistic behaviour), humans can easily spoil the carefully prepared plan. In addition, environmental (weather, traffic,..) and technical (breakdowns, defects,..) reasons can further cause deviations. Till recently, little feedback data was available to compare execution to plan. With the rise of IoT and sensor data, such data is rapidly becoming available. However, the organizational transformation to make successful use of this real world sensor data is not trivial. Sensor data need to feed back into the planning process. Static and periodically designed plans can become adaptive and dynamic. The planning algorithms can be optimized and even learn from feedback from sensor data. These concepts will be illustrated with some of our research projects in Logistics and Health care. A roadmap and agenda are presented for further research.

About the Speaker

Prof. Jos van Hillegersberg is the Head of Department of Industrial Engineering and Business Information Systems at University of Twente. Before joining the University of Twente in 2005, Prof. Van Hillegersberg was on the faculty of the Rotterdam School of Management, where he worked on component based software systems, IT management, global outsourcing and agent systems for supply chains. He also worked for several years in business. At AEGON he was component manager for the setup of an Internet Bank. He worked at IBM on artificial intelligence and expert systems.

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All are Welcome!

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