Simulations for logistics in the service sector
Speaker Lecturer: Matthias Klumpp, Beatriz Beyer (University of Goettingen - Germany)

April 14 – July 7, 2021 – online course

Learning Objectives
At the end of the course you will be able to:
• Understand and explain the concept of simulations and the differences between discrete-event simulations, system dynamics and agent based simulations.
• Apply three different simulation methods to specific cases for the logistics of the service sector.
• Understand and use simulation software tools.
• Understand and discuss the results of simulation models as a decision support tool.

Organization
• Groups of 2-3 students work together on three short report assignments and three short presentations (15 minutes each team) regarding discrete-event simulations, system dynamics and agent based simulations.
• Teams will be randomly allocated for each team task. Events are fully digital. The aim is the independent, research-oriented and reflected scientific treatment of topics of simulation as decision support in logistics and supply chain management.
• In each lecture one simulation method is introduced as input for the group assignments. The group assignments start after each lecture and are due until the next scheduled lecture.

Schedule and Deadlines
Wed April 14th 2021, 1-5 pm: Opening session, lecture on discrete-event simulation. Start of the first group assignment.
Wed May 19th 2021 1-5 pm: 1st group presentations on discrete-event simulations and lecture on introduction to system dynamics. Start of the 2nd group assignment.
Wed June 16th 2021, 1-5 pm: Group presentation of the 2nd assignment on system dynamics & lecture on introduction to agent based simulations. Start of the 3rd group assignment.
Wed July 7th 2021, 1-5 pm: Group presentations of the 3rd assignment on agent based simulations. Final conclusions.

Deadlines for the reports:
• 1st Report (Discrete-Event): May 19th 10 am
• 2nd Report (SD): June 16th 10 am
• 3rd Report (ABM): July 7th 10 am

Info
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