

Business Dynamics

Seminar held by Prof. Mauricio Uriona Maldonado

Why do many of our strategies fail? Why do some businesses thrive while others stagnate? Why do often well-intentioned policies lead to undesirable results? This seminar introduces systems thinking and modeling concepts to study the patterns of behavior we observe in real-world businesses, markets, economies, ecosystems, and human interactions and how these patterns relate to the structure of the underlying systems. By using simulation models, causal diagrams and management flight simulators, the system dynamics tradition conceptualizes firms as systems, composed by a set of structures and policies that create dynamics and govern performance.

This seminar offers a brief introduction to the system dynamics methodology, created in the 1950s and used to understand the complex relationships in topics such as climate change, traffic congestion, diffusion of innovations and supply chains.

Syllabus: Systems thinking and modeling. Complex systems in management and engineering. The core ingredients of complex systems: feedback loops, delays, nonlinearity, stocks and flows. The modeling process in system dynamics. Stock and Flow Diagrams (SFD). Causal Loop Diagrams (CLD). Policy testing and experimentation. Modeling applications: climate change, traffic congestion, diffusion of innovations, supply chains and others

Prof. Mauricio Uriona Maldonado holds a B.Sc. in Industrial Engineering and a Masters and PhD degrees in Management Engineering. During his career, Prof. Uriona has conducted several research and consulting projects in the fields of Technology & Innovation Policy/Management and in the use of computer simulation for Technology Foresight.

Organisational Hints

Date: Monday, October 09, 2017

Room: BIBA Auditorium

Time: 2:00 pm - 4:30 pm

The targeted audience are doctoral candidates, research assistants and post docs. Master students are welcome as well. Please, register for the seminar by sending an email to courses@IGS.LogDynamics.de

Ongoing Courses of the IGS

'Academic Writing', course with classes twice a month. Training in small groups tailored to the individual needs of the participants.

'Tools for the Craft of Research', workshop series on how to start and be successful with research projects. Target groups are Erasmus Mundus students and new doctoral candidates of the IGS

'Voice Development', course with monthly training in very small groups on improving the pronunciation.



Organiser

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