

## SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING  
COLLEGE OF DESIGN AND ENGINEERING

Website: <https://cde.nus.edu.sg/ece>

**Area: ICES**

**Host: Prof. Mansoor Bin Abdul Jalil**

<b>TOPIC</b>	:	<b>Active Inference for Distributed Intelligence in the Computing Continuum</b>
<b>SPEAKER</b>	:	<b>Schahram Dustdar Full Professor TU Wien</b>
<b>DATE</b>	:	<b>Wednesday, 1 October 2025</b>
<b>TIME</b>	:	<b>11.00AM to 12:00PM</b>
<b>VENUE</b>	:	<b>E5-03-20, Seminar Room</b>

### ABSTRACT

Modern distributed systems deal with uncertain scenarios, where environments, infrastructures, and applications are widely diverse. In the scope of IoT-Edge-Fog-Cloud computing, leveraging neuroscience-inspired principles and mechanisms could aid in building more flexible solutions able to generalize over different environments. A captivating set of hypotheses from the field of neuroscience suggests that human and animal brain mechanisms result from a few powerful principles. If proved to be accurate, these assumptions could open a deep understanding of the way humans and animals manage to cope with the unpredictability of events and imagination. In this talk, we will explore how Active Inference mechanisms can be utilized for Distributed Intelligence in the Computing Continuum. This has considerable impact for all research related to IoT and AI in general.

### BIOGRAPHY

Schahram Dustdar is a Full Professor of Computer Science at the TU Wien, heading the Research Division of Distributed Systems, Austria and part-time ICREA research Professor at UPF Barcelona. He holds several honorary positions: University of California (USC) Los Angeles; Monash University in Melbourne, Shanghai University, Macquarie University in Sydney. From Dec 2016 until Jan 2017 he was a Visiting Professor at the University of Sevilla, Spain and from January until June 2017 he was a Visiting Professor at UC Berkeley, USA. From 1999 – 2007, he worked as the co-founder and chief scientist of Caramba Labs Software AG in Vienna (acquired by ProjectNetWorld AG), a venture capital co-funded software company focused on software for collaborative processes in teams. He is the co-founder and chief scientist of Coovally.ai, an AI software infrastructure company based in Barcelona. He serves as Editor-in-Chief of Computing (Springer). Dustdar is the recipient of multiple awards and elected member of the Academia Europaea - The European Academy of Science.

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