



University of Bristol
BAME STEM group welcomes

Ana Cavalcanti

Software Engineering for Robotics



Robots are increasingly changing how we work and play, but the way software is developed to control these machines is costly, because it involves so much trial and error. The RoboStar group, involving researchers in York, Sheffield, and several other institutions around the world, is designing a model-based approach for validation, verification, and automatic generation of code and tests. The mathematical underpinning of the techniques provides assurance of soundness of all artefacts. The goal is to enable development of control software for robotics of better quality at a lower cost. In this talk, we will give an overview of our motivation, approach, and current and future work.

Ana Cavalcanti is a Professor at the University of York, and a Royal Academy of Engineering Chair in Emerging Technologies. She is the leader of the RoboStar centre of excellence on Software Engineering for Robotics. The RoboStar approach to model-based Software Engineering complements current practice of design and verification of robotic systems, covering simulation, testing, and proof. The RoboStar approach is practical, supported by tools, and yet mathematically rigorous so that it can provide reliable evidence of expected behaviour.

17th January 12.00 - 13.00

Zoom Meeting ID: 993 7511 9538

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