

## The Seminars on “Information Technology Outlook” – PhD Programme in Computer Science and Mathematics



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16:00



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### Engineering Responsible Software Systems

Realising modern software systems, especially AI-powered ones, poses new challenges to the software engineers. Equipping these systems with appealing and bug-free functionalities is not enough if emerging non-functional properties, such as fairness, safety, and sustainability, are not considered. In this talk, I will discuss the importance of such properties and how they can be automatically optimised to enable engineers to deliver better, fairer, and greener software.

#### Short Bio

Federica Sarro is a Professor of Software Engineering at University College London, where she is the Head of the Software System Engineering group, and where she has established and lead the SOLAR group within the CREST centre. Professor Sarro has extensive academic and industrial expertise in Search-Based Software Engineering, Empirical Software Engineering and Software Analytics, with a focus on automated software management, optimisation, testing and repair. On these topics she has published over 100 peer-reviewed scholarly articles, and she has given several invited talks at academic and industrial international events. Professor Sarro has obtained numerous awards and generous funding for her research and has also worked in collaboration with several companies including Bloomberg, Google, Meta, and Microsoft. In 2021, she was awarded the Rising Star Award by the IEEE Technical Community on Software Engineering in recognition of her “excellence in Software Engineering research with scholarly and real-world impact”.