

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



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10:00



Aula Godel – 2nd floor
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Survey Research Methods in Software Engineering

Surveys are an important and often-used research method in software engineering. However, survey research has been less often discussed within this area on a methodological level than other types of research. Therefore, surveys conducted in software engineering commonly present methodological issues that may compromise the overall research validity. This seminar presents the fundamentals of survey research methodology and its best practices. Moreover, lessons learned from facing important and challenging issues - gathered from experiences with several large-scale international surveys - will be discussed. Particular emphasis will be given to survey design and the interplay between survey research and theory building. The topics covered also include best practices and lessons learned regarding sampling, data collection, statistical analysis, qualitative analysis, and considerations on assessing psychological constructs.

Short Bio

Marcos Kalinowski is a software engineering professor active in the graduate program of PUC-Rio's Department of Informatics. His research focuses on experimental software engineering, requirements engineering, software quality, and the intersection between software engineering and data science. He coordinates PUC-Rio's ExACTa R&D initiative for promoting the digital transformation of industrial partners. He is a member of the International Software Engineering Research Network (ISERN) and has been active in international research collaborations. Before becoming a professor, he spent more than ten years working in the software industry (as a developer, manager, consultant, and director). His research has an in-depth focus on the problems and needs of the software industry, received several international honors and awards, and is available in publications in some of the main scientific journals and conferences in the area of software engineering. He serves the community as editor of the In-Practice track and editorial board member of the Journal of Systems and Software, and as part of the organizing and program committees of several international conferences. He also serves as general co-chair of ICSE 2026, to be held in Rio de Janeiro.