UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

aib — **DIPARTIMENTO DI INFORMATICA**

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

Guilherme Horta Travassos
Full Professor,
COPPE/UFRJ, Rio de Janeiro - Brazil

**Friday June 14, 2024
11:00**

📍 **Sala Consiglio – 7° floor
Dept. Computer Science**

Are software engineers aware of how to test context-aware software systems?

Society has been increasingly dependent on software and reliant on its quality. Contemporary software systems, with their "properties" of omniscience, omnipresence, and omnipotence, put us in front of challenges and pitfalls in engineering modern software. Context-aware software systems can identify changes in the logical or physical environment (i.e., context) and adapt their behavior to provide better service to the actor. Being a requirement, it must be tested. However, are we aware of how to test context-aware software systems? This talk is intended to motivate a (non-exhaustive, self-limited, and incomplete) discussion of what we have observed in a series of literature studies (e.g., quasi-systematic literature reviews, rapid reviews, and multivocal reviews) undertaken collaboratively since 2015 regarding the testing of contemporary software systems.

Short Bio

Guilherme Horta Travassos, an Electrical Engineer from the Federal University of Juiz de Fora (1985), holds Master's (1990) and Doctoral (1994) degrees in Systems Engineering and Computer Science from COPPE at the Federal University of Rio de Janeiro. He completed a postdoctoral internship at the University of Maryland-College Park and SEL/NASA (USA - 98/00), focusing on applied experimentation in Software Engineering and software product lines. As a full professor of Software Engineering at COPPE/UFRJ, CNPq C researcher, and FAPERJ Rio de Janeiro State Scientist, his research interests include Experimental Software Engineering and Contemporary Software Systems Engineering. His work spans software quality (VV&T), ubiquitous and context-awareness systems, the Internet of Things, simulation in engineering software, and tools to support software development and experimentation. Dr. Travassos leads the Experimental Software Engineering group at COPPE/UFRJ and actively participates in ISERN - International Software Engineering Research Network. He is a Brazilian Computer Society (SBC) member and a professional ACM member (Association for Computer Machinery). Additionally, he serves as an associate editor for Elsevier's Information & Software Technology (IST) journal and is part of the editorial boards of SBC's Journal of Software Engineering Research and Development (JSERD), World Scientific's International Journal of Software Engineering and Knowledge Engineering (IJSEKE), and e-Informatica Software Engineering Journal (eISEJ). His collaboration with the software industry includes research and development projects conducted by COPPE/UFRJ. For more information, visit www.cos.ufrj.br/~ght.