UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

Seminar Announcement

DIPARTIMENTO DI INFORMATICA

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

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Full Professor,

COPPE/UFRJ, Rio de Janeiro - Brazil

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10:00 – 11:00

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The Human Factor in Software Productivity: Evidence and Implications

In today's software industry, organizations seek to enhance competitiveness and growth by measuring software delivery and monetizing continuous improvements to meet customer needs and quality standards. Digital transformation is pushing the projects up. Therefore, the software industry enhances output by modifying processes, products, or services to maximize productivity with minimal resources. These changes should be measurable and aligned with stakeholder expectations. Effective performance management helps organizations consistently deliver results, minimize waste (e.g., idle time and rework), and adapt to evolving environments.

However, most of the effort in software development is creative and human-dependent. Therefore, software development relies heavily on human creativity, making psychological safety essential — especially in agile, collaborative teams—for driving success, effectiveness, and high productivity in software projects.

This talk aims to share and compare some of our findings in technical literature on (human) factors that can influence software productivity (DOI 10.1007/s10664-020-09844-5) and the psychological safety (Literature study, Feitosa et al., 2025) of software development teams. Based on these findings, it is possible to conjecture a strengthen of an existent and intrinsic relationship between psychological safety and software development productivity.

Short Bio

Prof. Guilherme Horta Travassos is a leading researcher in Software Engineering at COPPE/UFRJ, with a PhD in Systems Engineering and postdoctoral work at the University of Maryland and NASA/SEL. He specializes in Experimental Software Engineering, software quality, IoT, AI-driven development, and context-aware systems. He heads the Experimental Software Engineering group at COPPE, contributes to ISERN, and serves on editorial boards of top journals, including IST and JSERD. Prof. Travassos actively bridges academic and industry through impactful research and development collaborations. He is a CNPq researcher and FAPERJ CNE. See further information at www.cos.ufrj.br/~ght.