

PhD Program in Computer Science and Mathematics



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15:30



Sala Consiglio – 7° floor
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Monitoring Systems: Architecture, Technologies, and Practical Examples

Abstract: This seminar presents the architecture of modern monitoring systems and introduces the main technologies used for their development. It covers front-end solutions such as React.js and mobile applications, as well as back-end technologies including Linux servers, C#, Node.js, and Python. The seminar also explains common communication methods between system components, including REST, Server-Sent Events, WebSockets, MQTT, HTTP, and LoRaWAN cloud services. In addition to the theoretical overview, the session includes practical examples and demonstrations showing how these technologies can be applied in real monitoring applications.

Short bio: Jaromir Konecny was born in Frydek-Mistek, Czech Republic in 1986. He obtained a bachelor's degree in Control and Information Systems in 2008, a master's degree in Measurement and Control Engineering in 2010, and a PhD in Technical Cybernetics in 2014. He has worked at the Department of Cybernetics and Biomedical Engineering, VSB - Technical University of Ostrava, Czech Republic since 2012 and is currently an associate professor. He has authored more than 90 articles and conference papers and has four registered inventions. His research areas include embedded systems, electronics, environmental monitoring systems, and localization systems in robotics. He is an IEEE senior member active in the Systems, Man and Cybernetics Society, the Computational Intelligence Society and Internet of Things Community. See more details at: <https://jaromirkonecny.cz/>