

# **Indoor positioning algorithms and systems based on wireless networks**

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Summary: The lecture is focused on positioning systems developed for the indoor environment based on radio networks. Users would like to use similar location based services in both indoor and outdoor environments, however satellite based navigation systems are not feasible for use in indoor environment due to low signal levels and multipath propagation. The lecture will deal with indoor positioning systems based on different wireless technologies and deployment of positioning system based on Wi-Fi.

## **Biography**

Juraj MACHAJ was born in 1985, in Piestany, Slovakia. He received his M.S. and Ph.D. degrees from the University of Žilina, Faculty of Electrical Engineering, Slovakia in 2009 and 2012, respectively. During his Ph.D. study, he spent 3 months as researcher in Personal Positioning Algorithms research group at Tampere University of Technology. He is currently a researcher in the Department of Telecommunications and Multimedia at the University of Žilina. His research interests include positioning using wireless technologies, wireless sensor networks and location based services. He has published over 20 refereed papers in international journals and conferences. He also serves as reviewer for Journal of Electrical Engineering and Computer Science and Information Technology and conferences in area of positioning and wireless networks.