

Department of Electrical and Computer Engineering

Title: « *Mobility Management in WSNs: A Performance Control Approach* »

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Abstract: The growth of wireless sensor networks utilization has generated research attention in systems that need to provide certain performance assurances. Nowadays, there is also an increased interest from industrial operations to use sensor networks, due to the low deployment and maintenance cost that they can provide. A number of sensor network applications are envisioned to be applied to industry settings where the existence of mobile nodes (MN) is required. In critical applications, the real-time monitoring of a MN must always be available, something that requires the existence of a suitable mobility protocol to control the handoff procedure. In this talk, we present mobility management techniques that can be applied in critical applications and can efficiently maintain the connectivity of the mobile node by controlling the handoff procedure (triggering and decision phases). The applicability of the proposed techniques were established in both an oil refinery industry setting where performance is critical and the COOJA simulator, which was modified to match the refinery testbed behavior.

Biography: **Zinon Zinonos** is a Research Fellow at KIOS Research Centre for Intelligent Systems and Networks. He holds a Diploma (2005) in Computer Engineering and Informatics from the University of Patras, Greece, an MSc (2007) and a PhD (2013) from the Department of Computer Science at the University of Cyprus. His was involved in several EU projects in the topics of sensor networks and mobile/wireless communications. His research interests include Sensor Networks, 6LoWPAN, Mobile Networks (MIPv4, MIPv6, Ad Hoc), Wireless Communications (3G/4G cellular wireless networks) and Quality of Service (QoS in IPv6 networks).