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ΟΜΙΛΗΤΗΣ:	Χρήστος Λιάσκος Επίκουρος Καθηγητής Τμήμα Μηχ. Η/Υ & Πληροφορικής Πανεπιστήμιο Ιωαννίνων
ΗΜΕΡΟΜΗΝΙΑ:	Παρασκευή, 29 Μαρτίου 2024
ΩΡΑ:	11:00
ΑΙΘΟΥΣΑ:	Αίθουσα Σεμιναρίων

Θέμα

Past, Present and Future Applications of Programmable Wireless Environments

Περίληψη

Programmable Wireless Environments (PWEs) constitute a recent direction in wireless communications, which is expected to be massively deployed in multiple environments within 6G. PWEs transform the previously chaotic wireless propagation phenomenon into a software-defined resource. PWEs are created by coating all major surfaces in a space, such as walls and ceilings in a floorplan, with programmable metasurfaces, a research direction from physics, which support tunable interaction with impinging waves (e.g., completely custom steering, splitting and absorption).

This talk will present models for bridging metasurfaces with computer networks, eventually allowing for their integration to modern communication systems. Major research challenges and initial solutions will be outlined. Moreover, exotic, forthcoming applications of PWEs to virtual reality and the Internet of Metamaterials will be briefly surveyed.