

Master's Thesis

Reliable Wireless access technology selection and Load balancing in Heterogeneous LiFi-RF networks

LiFi is becoming an increasingly important technology as the unlicensed ISM band gets overcrowded. LiFi, with its high data rates, emerges as a promising solution to provide connectivity in an aircraft using overhead LED lights thereby reducing the interference with other wireless technologies and reducing the overall aircraft radio emissions. The integration of LiFi into existing communication systems is best envisioned in the form of wireless Heterogeneous Networks or HetNets where the short-range, additional capacity providing LiFi cells complement the broader coverage providing WiFi cells. Any user device in such a HetNet is equipped with multiple wireless interfaces i.e. LiFi and WiFi.

In this work, the student is expected to design and evaluate a reliable wireless access technology selection algorithm that performs load balancing between LiFi and WiFi.

Advisors

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