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Coordination meetings and field visits to discuss the Indoor Hybrid Flying Networks

The Deanship of Scientific Research and the Artificial Intelligence Research Center at Al Ain University organized a series of coordination meetings for partners from the UAE and the United States over a period of 5 days. To launch and present a research project on the "Indoor Hybrid Flying Networks for Safety Applications and Services (FlyServ)", which was funded by ASPIRE FUND.

The first day's activities included an introductory lecture about the (FlyServ Project) presented by Prof. Haytham Bani Salama, Dean of Scientific Research and Graduate Studies at Al Ain University, Prof. Musa Ayyash from the University of Chicago, and Dr. Hani Al-Ghala from Albany University in New York.

The second day included several meetings to discuss the practical part and technical issues for implementing the project. While the third and fourth days, included working meetings and a visit

to Drones Lab at Khalifa University with co-researcher Dr. Riyadh Al-Khazali.

About the project, Prof. Haytham said that in this proposal, drones are proposed to have an impact on societal safety and well-being in largely crowded indoor spaces. The project adopts an AI framework on which the joint design of wireless communications and localization for indoor flying networks deployment can be optimized. Besides radio frequency (RF) technologies, the potential for performance increases is enormous with directional optical communications, namely, visible light communications (VLC) or LiFi, where ubiquitous lighting infrastructure supports high accuracy indoor localization and high-speed communications by mitigation congestion and interference that occurs when Omni-directional RF media are co-located. Our approach entails exploiting collocated WiFi and LiFi with differing characteristics that are applicable in different operating scenarios and developing the means of data-driven (ML) adaptation to the best available configuration.

[Press Release Link](#)