UAV-aided sensor networks for monitoring applications: network design and data edge computing

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Objectives

1. control and coordination of a UAV swarm
   a. distributed Coverage Path Planning
2. UAV-sensor communication
   a. BLE, WiFi, Zigbee and wake-up tech
3. distribution of the calculation through edge computing techniques.

Multidisciplinary collaborations

- Cultural heritage applications in complex contexts
  - War zones, natural disaster areas
- Large Structure Quality Assessment
  - The swarm can measure the quality of an entire structure without "sampling"
  - Can be applied both to large architectural as well as mechanical structures