



Multi Unmanned Vehicle Systems 2014

Location

The workshop will be held at the Innovation Center of the University of Technology of Compiègne. Compiègne is situated 60 km north-east of Paris, with which it has regular railway connections from Paris Gare du Nord station.

At the confluence of the Aisne and the Oise, at the edge of majestic forests, Compiègne is at the heart of « Pays compiègnois ». Royal and Imperial town, theater of the major events in the history of France, Compiègne is always careful to maintain the memories of a rich past while trying to offer a great quality of life.

The castle of Compiègne was the autumn residence of Emperor Napoleon III. The forest of Compiègne is one of the most famous and the second largest forest in France, and it is also the place where the armistices for both World Wars were signed.

Organization

Control and coordination

Isabelle Fantoni, Heudiasyc Lab, France
Angela Schoellig, University of Toronto, Canada

Communication and networking

Enrico Natalizio, Heudiasyc Lab, France
Evsen Yanmaz, Lakeside Labs, Austria

Perception and vision

Vincent Fremont, Heudiasyc Lab, France

Workshop Logistics

Maité Roussel, UTC, France

Demos and technical support

Guillaume Sanahuja, UTC, France



MUVS 2014 is the international workshop on Multi Unmanned Vehicles Systems organised at the Université de Technologie de Compiègne by the Heudiasyc Lab.

Compiègne, June 30th – July 3rd, 2014
Innovation Center - UTC



Programme

Monday, June 30th - Innovation Center UTC

8:30-9:00 Registration

9:00-9:15 Welcome: [Bruno Ramond](#), UTC

9:15-10:30 "Vision for Robotics: Geometry and Understanding", [Javier Civera](#), University of Zaragoza, Spain

10:30-10:45 Coffee break

10:45-12:00 "Aerial Robot Swarms", [Vijay Kumar](#), University of Pennsylvania, USA

12:00-13:30 Lunch

13:30-14:15 "Towards Agile Flight of Vision-controlled Micro Flying Robots: from Frame-based to Event-based Vision", [Davide Scaramuzza](#), University of Zurich, Switzerland

14:15-15:00 "Challenges for robotic outdoor air and ground applications", [Angela Schoellig](#), University of Toronto, Canada

15:00-15:45 "Optimization models for multi-target tracking in cooperative multi-robot systems", [Gianni di Caro](#), IDSIA Lugano, Switzerland

15:45-16:00 Coffee break

16:30-17:30 Visit to the Imperial Palace of Compiègne

Tuesday, July 1st – Innovation Center UTC

9:00-10:15 "Robot and sensor networks", [Ivan Stojmenovic](#), University of Ottawa, Canada

10:15-10:30 Coffee break

10:30-12:00 Companies presentation and Demo 1

12:00-13:30 Lunch

13:30-14:15 "Structuring Communication for Better Coordination in Mobile Cyber-Physical Systems", [Luis Almeida](#), University of Porto, Portugal

14:15-15:00 "Multi-robot systems: from software needs to human monitoring", [Olivier Simonin](#), INSA Lyon, France

15:00-15:45 "Here I am! Leveraging Mutual Mobility-awareness in MAV Networks", [Karin Hummel](#), ETH Zurich, Switzerland

15:45-16:00 Coffee break

16:00-16:15 Workgroup preparation

16:15-18:00 Free time

18:00 Welcome reception in the Compiègne townhall

Wednesday, July 2nd - Innovation Center UTC

9:15-10:30 Workgroup 1: "Real world applications/scenarios for MUVS"

10:30-10:45 Coffee break

10:45-12:00 Results presentation

12:00-13:30 Lunch

13:30-14:15 "SkyScanner: deploying fleet of enduring drones to probe atmospheric phenomena", [Simon Lacroix](#), LAAS/CNRS, France

14:15-15:00 "Time-Critical Cooperative Motion Planning and Control of Multiple UAVs" [Enric Xargay](#), University of Illinois at Urbana-Champaign

15:00-15:45 "Real-time estimation of air data in fixed-wing UAVs: an hybrid systems approach" [Christian Claudel](#), King Abdullah University of Science and Technology, Saudi Arabia

15:45-16:00 Coffee break

16:30-18:00 Demo 2

18:30 Social dinner at the "Golf Club" of Compiègne

Thursday, July 3rd - Innovation Center UTC

9:15-10:30 Workgroup 2: "Challenges and solutions for a system design including sensing, communication and control strategies"

10:30-10:45 Coffee break

10:45-12:00 Results presentation

12:00-13:30 Lunch

13:30-17:30 Collaborative time: "Projects and research works for MUVS"