





INVITATION for the PRESS

The International Micro Air Vehicle Conference and Competition, IMAV 2017

International researchers and teams will be meeting in Toulouse from 18 to 21 September



We are delighted to be inviting journalists to IMAV 2017 (the International Micro Air Vehicles Conference and Competition), which is dedicated to technologies for developing drones weighing less than 2 kg (also known as micro drones). This international event combines two days of scientific conferences followed by two days of drone competitions aimed at showcasing the industry's new technological breakthroughs. The 10.00 am to 12.00 pm slot on Thursday 21 September is shaping up to be the most exciting.

After Aachen (Germany) in 2015 and Beijing (China) in 2016, IMAV 2017, the 9th edition, will be taking place in Toulouse (France) from the 18th to the 21st of September 2017. Teaming up to organise this international event – which is poised to welcome more than 250 participants from over 20 different countries – are ISAE-SUPAERO, ENAC and ONERA, under the auspices of the **Micro Drones GIS** (see below).

Scientific conference: 18th & 19th of September 2017 at ISAE-SUPAERO

To start this four-day event, the scientific conferences will give researchers hailing from Australia, the United States, Singapore, Germany, Great Britain and Italy the chance to share the results of their most recent achievements. A wide range of themes will be delved into, including the use of drones for the benefit of archaeology or meteorology, the use of drones as connected devices of the city of the future, and biomimetics in drone design. The Toulouse-based experts will also present their latest findings on such varied subjects as: the acoustic discretion of drones (ISAE-SUPAERO), extracting energy from turbulence using a drone (ENAC and ISAE-SUPAERO), designing a drone for Mars exploration (ONERA and ISAE-SUPAERO), flying drones on patrol (ENAC) and handling objects with the use of drones (LAAS-CNRS).







IMAV competition: 20th of September at Francazal Airport (outdoors) and 21st of September at ISAE-SUPAERO (indoors)

Lining up to contend in the drone competitions are 30 university teams of researchers and students – once again coming from all over the world (including Australia, Brazil, China, Germany, Great Britain, India, Mexico and Singapore). Through two indoor challenges and three outdoor challenges, the idea is to put new technological solutions to the test – one example being the use of non-conventional sensors (such as thermal imaging cameras). The purpose of these "full-scale" tests is to pave the way for new applications for civilian drones. The organisers have devised complex obstacle courses for the indoor competition, a target recognition scenario outdoors as well as a host of original challenges such as: getting several coordinated drones to transport loads, a formation flight test similar to the French Air Force aerobatic demonstration team (Patrouille de France), a treasure hunt and even a weightlifting event! See attached programme

ISAE-SUPAERO, ENAC, ONERA: research and resources

The long-running work on drones that these three partners have been invested in spans the robotics and aeronautics fields, civilian and military sectors alike. The researchers forge close working partnerships between laboratories and are sharing ever more significant test facilities, which are also available to Toulouse-based businesses and academic or industrial partners both in France and worldwide. The most noteworthy facilities are: the Micro Drones SABRE wind tunnel (ISAE-SUPAERO), which has been designed to study the aerodynamic performances of drones; the test platform for instrumented RESSAC drone flights, along with a test site (ONERA); and the ENAC Toulouse Occitania indoor drone testing facility (or "Volière" as it is called in French) – one of the largest such facilities for testing micro drones in Europe. All of these resources cement the Rangueil campus' position as a world leader when it comes to research on micro drones.

The Micro Drones GIS: a Region-wide movement committed to technological innovation

The Micro Drones Scientific Interest Group (GIS) is a Toulouse-based joint venture founded by ISAE-SUPAERO, ENAC, ONERA, the CNRS, INPT, Université de Toulouse 3 Paul Sabatier, Université Toulouse 2 Jean Jaurès, INRAP and METEO France. Replacing the "Micro Air Vehicle Research Center" consortium which had been operating since 2011, this Group federates and coordinates the ongoing multidisciplinary research and innovation efforts in this sphere. Chaired by Professor Jean-Marc Moschetta of ISAE-SUPAERO, the GIS currently brings together 20 research laboratories nationwide and carries out research into new systems or sub-systems of micro drones for scientific purposes, with a view to exploring the world and the universe beyond: planetary exploration, understanding the living world, meteorology or archaeological research. The overarching aim is to enable micro drones to be used safely and securely to carry out measurements, collect information, adjust models and analyse meteorological or atmospheric data for example.

In connection with IMAV 2017, on Thursday 21st of September Aerospace Valley will be organising a special day on the Drones theme on the ISAE-SUPAERO campus. This will be for the attention of the Region's key stakeholders in the sector and will give established businesses and start-ups alike the opportunity to present their expertise.







IMAV 2017 is one of the EuroScience Open Forum (ESOF) certified events. This kind of event has helped Toulouse become the European City of Science in 2017-2018.

More informations



http://www.imav2017.org/

IMAV 2017 is supported by the following partners and sponsors: The Occitania Region, Toulouse Métropole, Parrot, MathWorks, ISAE-SUPAERO Foundation, UIMM Occitania, La Haute-Garonne Prefecture, Cugnaux Town Council and Airborne Concept.

About ENAC

Founded in 1949, ENAC is internationally recognized as the leading Aeronautical and Aviation University in Europe, providing a broad range training, studies and research activities, with a complete range of 30 higher education programs from Bachelor up to Ph.D. degrees. ENAC has been approved as ICAO Regional Training Centre of Excellence.

ENAC 22 000 Alumni work in aeronautical companies, in fields such as manufacturing, airports, airlines, civil aviation authorities as well as air navigation providers across the globe.

More information : www.enac.fr

About ISAE-SUPAERO

A world leader in higher education and research in aerospace engineering, ISAE-SUPAERO offers a complete, unique range of advanced higher education programs including the ingénieur ISAE-SUPAERO program and CNAM-ISAE apprenticeship program, 1 master « Aerospace Engineering » delivered in English, 5 research masters, 15 advanced masters , and 6 Doctoral schools.

ISAE-SUPAERO has developed a research policy resolutely focused on answering the future needs of the aerospace industry and other high technology sectors. Close collaboration with industry is reflected in the Institution's ongoing commitment to developing teaching and research chairs in strategic fields, as well as in the many lecturers from industry who contribute to the School's programs, keeping students attuned to the latest technological innovations and the best industrial practices.

On the international level, ISAE-SUPAERO cooperates with premier European universities (TU Munich, TU Delft, ETSIA Madrid, Politecnico Torino et Milano, KTH Stockholm, Imperial College, Cranfield), North American institutions (Caltech, Stanford, Georgia Tech, UC Berkeley, EP Montreal...), ...) and Latin American and Asian universities.

The ISAE-SUPAERO learning community includes 100 professors and researchers, 1800 lecturers from industry, and nearly 1700 undergraduate and post-graduate students, Every year, over 30% of the Institute's graduates are international students, and the alumni network includes over 21 500 former graduates.

About ONERA

ONERA, a key player in aeronautics and space research, employs approximately 2000 people. Under the supervision of the Ministry of Defense, it has a budget of EUR 230 million, of which more than half comes from commercial contracts. As a State Expert, ONERA prepares future defense, meets the aerospace challenges of the future, and contributes to the competitiveness of the aerospace industry. It masters all disciplines and technologies in the field.

All major civil and military aerospace programs in France and Europe share part of ONERA's DNA: Ariane, Airbus, Falcon, Rafale, missiles, helicopters, engines, radars, etc.

Internationally renowned and having often received awards, its researchers train many doctoral students. www.onera.fr

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