

Universidad Carlos III de Madrid (www.uc3m.es) invites to fill the following **PhD position**:

Ref. JAMAICAM-PhD: Jet-noise Diagnostics with Massive Acoustic Camera.

Description and objectives:

The reduction of noise emissions represents one of the main challenges to reduce the environmental impact of the aviation sector. Jet noise emissions from modern turbofan engines still represent one of the main sources of noise. The goal of this PhD is to identify active flow control strategies to reduce this noise emission with a limited impact on engine propulsive performances. The activity will require the development and testing of a massive acoustic camera for the diagnostics of noise sources in turbulent jets, with the aim of remotely sensing the effects of active flow control on jet noise, as well as the definition of compact and efficient actuation strategies on the jet.

The successful candidate will work within the Aerospace Engineering Department (<http://aero.uc3m.es>) and the Signal Theory and Communications Department (www.tsc.uc3m.es) of UC3M under the supervision of Dr. Marco Raiola and Dr. Luis Antonio Azpicueta Ruiz.

Requirements and desirable profile:

- Young MSc holder (or MSc student with 60 ECTS passed at contract's signature) in the following disciplines: Aerospace Engineering, Telecommunication Engineering, Mechanical Engineering, Acoustic Engineering. Excellent candidates in other disciplines are also invited to apply.
- A strong background in Fluid Dynamics, Acoustics and Signal Theory will be positively evaluated.
- Outstanding academic record; critical and creative thinking.
- International experience; team-working and communications skills.
- Good proficiency in English (oral and written).
- Ability to deal independently and proactively with scientific and engineering challenges.

What we offer:

- Annual gross salary in the 18000-20000€ range.
- Become part of a young, dynamic, highly qualified, collaborative team.
- Flexible working environment and schedule.
- Opportunity to travel to international conferences to present research activities.
- Opportunity to carry out research internships abroad.
- Health coverage under the National Health System.

How to apply:

Interested candidates must send their applications to mraiola@ing.uc3m.es indicating in the e-mail subject **UC3M-JAMAICAM-PhD**, including in a single pdf file:

- CV (max. 4 pages), including relevant professional experience and knowledge.
- Copy of diploma and grades from previous university studies.
- A motivation letter of experience, interests, and research goals (max. 1 page).
- The contact information for two references (will be contacted during the hiring process).

The research group aims to increase the share of women in academic positions, therefore applications from women are particularly encouraged.

Submission of applications is due by **November 4th, 2022** (though early applications are strongly encouraged, and later applications will be considered until the vacancy is filled). The contract will begin in December 2022, though earlier/later start date can be agreed.