

Project 7: Perception-influenced engineering to effectively address noise issues of drones

REASON FOR FUNDING:

To communicate to non-academic audiences the findings of our research on Perception-Influenced Engineering to design and operate drones, so the noise generated by them does not compromise communities' health and well-being. The specific goals were:

- The dissemination of research is seeking to nurture and build upon relationships with the drone community both in the UK and overseas.
- Communicate Salford's Acoustics Research Centre (ARC) capabilities for noise testing, modelling, analysis and assessment. The objective was to position the ARC as a potential academic partner dealing with the noise issues in the design and/or operation of drones.

USE OF FUNDING:

A communication agency was hired to assist and support the dissemination to non-academic audiences in a very cost-efficient manner. The communication agency is able to produce a featured article, video abstract and social media campaign to the highest standard. This dissemination activity is very timely, considering that this is a hot topic in acoustics at the moment, and vehicle manufacturers need specialists to deal with the noise problems associated with their designs.

Anticipated outcomes and/or outputs were: Space in website, featured article, video abstract and at least 45,000 impressions across diverse social media platforms. These assets will then be used to engage with existing outlets (e.g. BBC Inside Science), newspapers (e.g. Guardian) or other press (e.g. New Scientist).

OUTCOMES AND FUTURE IMPACT:

To date a feature article has been produced, and it has been disseminated in social media (<https://researchoutreach.org/articles/how-make-noisy-drones-little-less-irritating/>).

Other outcomes are:

- Invitation to be a member of the advisory board of DronePrep: a company working on the safe and sustainable operation of drones in the UK.
- In conversations with Airbus to establish a research collaboration on perception-influence engineering applied to aircraft noise.
- In conversations with an industry consortium to put together a research bid for the Future Flight Challenge (<https://www.ukri.org/our-work/our-main-funds/industrial-strategy-challenge-fund/future-of-mobility/future-flight-challenge/>).
- An article, Psychoacoustic analysis of contra-rotating propeller noise for unmanned aerial vehicles, has been chosen as the latest Technical Area Pick for Noise in the Journal of the Acoustical Society of America.