

Communication of Research via Video Submission

Objective

Submission of an accompanying video is now commonplace in STEM fields for journal publications and more so for conference proceedings. These have become a vital tool in extending the reach and impact of research compared to traditional written publications alone.

So-called video abstracts may offer benefits to citations and other measures of impact [1, 2], however, videos offer an alternative medium in which to communicate complex information and concepts beyond written materials.

Some examples are listed below:

<https://youtu.be/Z1jgaEO9aRs?si=kvQ6Hg3Mu2LZnG0l>
https://youtu.be/TeqoYtXO5_U?si=TLorlg6FL4hj6aj2
<https://youtu.be/FpsVB8EO54M?si=xCH4CNsk9jV5cQAm>
<https://youtu.be/Qvacov9kujQ?si=WjZl5OUAPzK7wf-r>

The purpose of this piece of coursework is to provide you with an opportunity to communicate your research via this medium. Furthermore, many companies utilise platforms such as YouTube to engage in promotion and dissemination of key concepts and principles (see NVIDIA as an exemplar <https://youtu.be/OBM0clufxDA?si=A-QvtPXbyvppFBwH>). This allows you to develop material which will act as evidence of continual professional development (CPD) which all professional engineers are required to undertake.

Experimental Campaign

This is covered in the document Coursework 2 – Laboratory Session. The experimental methodology is for the team to design and execute.

Assessment

This coursework is worth 25% of the total unit marks and it is therefore expected that it will take students up to 37.5 hours to complete.

You are required to generate a video which would accompany an article submission to a leading academic conference.

- Describe the metrics characterised and their impact on sensor performance
- Any hypotheses are outlined
- Explain any fundamental principles necessary for the “story” or general understanding of the video contents
- Describe the experimental methodology

Present analysis of collected data

Visualise of any data to support your conclusions

Present clear and well supported conclusions

The submission you develop must be in the following format:

- A video which would be used to support a written publication
- The maximum duration of the video should be 3 minutes (shorter videos are permitted)
- The video must include subtitles
- All images, videos and music must be appropriately licenced
- Material should be targeted at the level of academic researchers

Guidance on how to create videos can be found in the links below or on Blackboard:

<https://www.elearning.fse.manchester.ac.uk/fseta/recording-blended-content-video-assets/>

<https://www.elearning.fse.manchester.ac.uk/fseta/recording-screencasts-for-online-teaching/>

Furthermore, information has been specifically added to the Robotic Systems assessment and feedback folder called “Video Making Guide”.

There are several pieces of free video editing software that can be downloaded such as OpenShot or Windows Video Editor (which is available on some University PC clusters). All the asynchronous videos for this unit were made using the PowerPoint screen capture function (also available on some PC clusters) and OpenShot.

The use of ChatGPT, Bard, or other generative AI technologies, is permitted, however this means that the expected quality of the videos will also increase.

Submission There will be an assignment submission link in the ‘Assessment and Feedback’ section of the Robotic Systems Blackboard area. You will need to upload your video to the Video Portal using the instructions in the supplementary file. You can then **embed** the video in the assignment submission as outlined by the supplementary instructions.

The submission deadline is **Friday 29th November 2024 at 13:00**.

Mitigating Circumstances Any mitigating circumstance requests should be directed to the Teaching Office.

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References

- [1] Spicer, S., “Exploring Video Abstracts in Science Journals: An Overview and Case Study,” *Journal of Librarianship and Scholarly Communication*, **2(2)**, 2014.
- [2] Zong, Q., Xie, Y., Tuo, R. et al., “The impact of video abstract on citation counts: evidence from a retrospective cohort study of New Journal of Physics,” *Scientometrics*, **119**, 2019.