



**[Holoscopic Micro-Gesture Recognition Challenge 2018 \(HoMGR 2018\)](#)** will be held at **[IEEE Face & Gesture 2018 \(FG2018\)](#)** - Xi'an, China, 15-19th May 2018.

### **Challenge Description**

The rapid development of Augmented Reality (AR) and Virtual Reality (VR) technology has led to high demand on precise finger movement-based controllers for gaming and other applications. Immersive holoscopic 3D imaging technology has been explored a lot recently and some small size sensors are now available. It can produce a 2D image with 3D information in it from lens array inside. This challenge will provide the opportunity to the research community to design finger micro-gesture recognition system using their own 3D image processing, feature extraction and classification methods, on a new built holoscopic 3D micro-finger gesture dataset.

The dataset contains image sequences of different conventional finger micro-gestures (i.e. Button, Dial and Slider) from 50 participants. The two sub-challenges will be

- Holoscopic 3D image based micro-gesture recognition.
- Holoscopic 3D video based micro-gesture recognition.

We are calling for teams to participate in the challenge of fully automatically recognising micro-gestures from holoscopic 3D image and/or video data. Participants will be allowed to apply their own 3D image pre-processing, feature extraction and classification methods in one or both sub-challenges.

### **Organizers**

*Hongying Meng*, Brunel University London, UK.

*Mohammad R. Swash*, Brunel University London, UK.

*Huibin Li*, Xi'an Jiaotong University, China.

*Nadia Bianchi-Berthouze*, University College London, UK

### **Submission**

A participating team can submit their test results for evaluation up to [HoMGR2018@gmail.com](mailto:HoMGR2018@gmail.com). Paper should be submitted in PDF and should be no more than 8 pages in IEEE FG 2018 paper format. All submissions will be rigorously assessed by a double-blind peer review process. Accepted papers will be included in the Proceedings of IEEE FG 2018 and Workshops and will be sent for inclusion into the IEEE Xplore digital library.

### **Important Dates (Pacific Time)**

- The website is launched: 12th Nov. 2017
- Train and validation dataset available: 15th Nov. 2017
- Test dataset available: 10th Jan 2018
- Last date for uploading the results: 18th Jan 2018
- Paper submission deadline: 28th Jan. 2018
- Notification: 25th Feb. 2018
- Camera-ready papers: 4th Mar. 2018

### **Contact**

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