**The Unobtrusive Group Interaction Corpus**

Studying group dynamics requires fine-grained spatial and temporal understanding of human behavior. Social psychologists studying human interaction patterns in face-to-face group meetings often find themselves struggling with huge volumes of data that require many hours of tedious manual coding. There are only a few publicly available multi-modal datasets of face-to-face group meetings that enable the development of automated methods to study verbal and non-verbal human behavior. In this paper, we present a new, publicly available multi-modal dataset for group dynamics study that differs from previous datasets in its use of ceiling-mounted, unobtrusive depth sensors. These can be used for fine-grained analysis of head and body pose and gestures, without any concerns about participants' privacy or inhibited behavior. The dataset is complemented by synchronized per-participant audio from lapel microphones, raw transcripts from a speech-to-text algorithm, and manually edited transcripts to correct errors. The dataset comprises 22 group meetings in which participants perform a standard collaborative group task designed to measure leadership and productivity. Participants' post-task questionnaires, including demographic information, are also provided as part of the dataset. In the second half of the paper, we illustrate the results of several multi-modal algorithms we designed to automatically understand audio-visual interactions in the dataset, and present preliminary analyses of perceived leadership, contribution and performance.

**The Dataset**

The multimodal dataset contains 22 groups performing the Lunar Survival Task Experiment. The Lunar Survival Task is a group collaboration task where the participants discuss a hypothetical survival scenario on the moon and individually rank 15 items in order of importance. After individually ranking the items, the participants must discuss as a group and come to a consensus about the item rankings.

The main features of the dataset are:

1. 22 groups, 86 participants, age groups 18-30 years, different ethnicities, discussions in English.
2. Group size: 3 – 5 participants.
3. 51 participants self-identified as men, 35 self-identified as women.
4. Sensing infrastructure: Two ceiling mounted Microsoft Kinects, individual lapel microphones.

**How to access**

1. The dataset is available for download at <https://drive.google.com/drive/folders/1PAIXtGZQlj5-h1aBVjs4aQoBwL0HNoN1?usp=sharing>
2. The folder contains the following subfolders:
   1. **The Lunar Survival Task and post-task answers**
      1. The Lunar Survival Task details
      2. The post-task questionnaire
      3. The post-task answers and demographics details
   2. **Overhead depth videos**
      1. 44 depth videos corresponding to 22 meetings, each video from 1 overhead Kinect.
   3. **Meeting transcripts**
      1. 22 time-stamped, synchronized and anonymized meeting transcripts.