

CamG Audio-Modem Standardisation

Meeting 2

11 May 2020, 10 am BST

Chair: Jossy Sayir
Delegates: Kiseki Hirakawa
Shangyi Lin
Kiran Jolly
Jason Huang
Harriet Crisp (standing in for Adam Goldney)
Emilios Christou (standing for Tom Crossley)
Observers: Kai Junge
Lawrence Tray
Yassir Fatullah

Minutes

1. Jossy presented slides about channel estimation
2. The aim of all groups by the end of the week should be to have a working channel estimation experiment and have measured a few typical audio channels
3. The recommended methods are:
 - a. Hand clap experiment (fun experiment but operationally useful)
 - b. Transmit white noise and measure the power spectral density of the received signal (not useful in itself because phase information is lost, but a good way to double-check another channel estimation method)
 - c. Frame of known transmitted OFDM symbols flanked by two chirp signals (frequency sweeps): the chirps are used for synchronisation and first pass channel estimation, while the OFDM symbols are used for exact channel estimation. The distance between the chirps can also be used to estimate any mismatch in the sampling frequency between transmitter and receiver
4. Two papers are recommended for consulting and inspiration though not necessarily for direct guidance. The papers will be uploaded onto Moodle.

The meeting ended at 10:45 am BST.