## • First scenario parameters are:

| Number of training epochs            | 80  |
|--------------------------------------|---|
| Learning rate for training the whole | $10^{-4}$                                       |
| network step                         |   |
| Learning rate for MI model           | $10^{-3}$ (better to make the leaning rate same |
|                                      | for both training steps)                        |
| MI model status                      | Off - meaning we didn't use MI as initial       |
|                                      | step in training process                        |
| SNR in dB for the training process   | Random number between 5 and 10                  |
| Channel type                         | Rayleigh (results in report refer to use        |
|                                      | AWGN channel for training process)              |
| Number of layers for encoder and     | 4   |
| decoder of DeepSC                    |   |
| Size of training and validation data | 90% for training and 10% for validation         |

## • Second scenario parameters are:

| Number of training epochs                    | 8                            |
|--|------------------------------|
| Learning rate for training the whole network | $10^{-3}$                    |
| step   |                              |
| MI model status                              | Off                          |
| SNR in dB for the training process           | 12 dB                        |
| Channel type                                 | Rayleigh                     |
| Number of layers for encoder and decoder     | 4                            |
| of DeepSC                                    |                              |
| Size of training and validation data         | 90% for training and 10% for |
|  | validation                   |

### • Third scenario parameters are:

| Number of training epochs                    | 8                            |
|--|------------------------------|
| Learning rate for training the whole network | $10^{-3}$                    |
| step   |                              |
| MI model status                              | On                           |
| SNR in dB for the training process           | 12 dB                        |
| Channel type                                 | Rayleigh                     |
| Number of layers for encoder and decoder     | 4                            |
| of DeepSC                                    |                              |
| Size of training and validation data         | 90% for training and 10% for |
|  | validation                   |

## • Fourth scenario parameters are:

| Number of training epochs                    | 8                            |
|--|------------------------------|
| Learning rate for training the whole network | $10^{-3}$                    |
| step   |                              |
| MI model status                              | On                           |
| SNR in dB for the training process           | 12 dB                        |
| Channel type                                 | AWGN                         |
| Number of layers for encoder and decoder     | 4                            |
| of DeepSC                                    |                              |
| Size of training and validation data         | 90% for training and 10% for |
|  | validation                   |

### • Fifth scenario parameters are:

| Number of training epochs                    | 8                            |
|--|------------------------------|
| Learning rate for training the whole network | $2 \times 10^{-3}$           |
| step   |                              |
| MI model status                              | On                           |
| SNR in dB for the training process           | 12 dB                        |
| Channel type                                 | AWGN                         |
| Number of layers for encoder and decoder     | 4                            |
| of DeepSC                                    |                              |
| Size of training and validation data         | 90% for training and 10% for |
|  | validation                   |

# • Sixth scenario (number of layers=3 as in article) parameters are:

| Number of training epochs                    | 8                            |
|--|------------------------------|
| Learning rate for training the whole network | $10^{-3}$                    |
| step   |                              |
| MI model status                              | On                           |
| SNR in dB for the training process           | 12 dB                        |
| Channel type                                 | AWGN                         |
| Number of layers for encoder and decoder     | 3                            |
| of DeepSC                                    |                              |
| Size of training and validation data         | 90% for training and 10% for |
|  | validation                   |