Microphone testing and sound level receiving

It is necessary to get sound level value to test microphone before streaming. The standard class `android.media.MediaRecorder` can be used to do that. In this case, audio data should be recorded to a file. Android 10 and lower allows recording to the pseudodevice `/dev/null`, but in Android 11 and newer this is impossible, and a real file stored in application data must be used:

code

```
mRecorder = new MediaRecorder();
mRecorder.setAudioSource(MediaRecorder.AudioSource.MIC);
mRecorder.setOutputFormat(MediaRecorder.OutputFormat.THREE_GPP);
mRecorder.setAudioEncoder(MediaRecorder.AudioEncoder.AMR_NB);
String fileName = context.getFilesDir().getAbsolutePath() + "/test.3gp";
//Path /dev/null throw exception on Android 11
mRecorder.setOutputFile(fileName);

try {
    mRecorder.prepare();
} catch (IllegalStateException e) {
    // TODO Auto-generated catch block
    e.printStackTrace();
} catch (IOException e) {
    // TODO Auto-generated catch block
    e.printStackTrace();
}

mRecorder.start();
```

An instantaneous value of sound amplitude may be received from `MediaRecorder` object

code

```
public double getAmplitude() {
    if (mRecorder != null)
        return (mRecorder.getMaxAmplitude() / 2700.0);
    else
        return 0;

}
```

Then average this value to display it

code

```
static final private double EMA_FILTER = 0.6;
private double mEMA = 0.0;
```

```
...
public double getAmplitudeEMA() {
    double amp = getAmplitude();
    mEMA = EMA_FILTER * amp + (1.0 - EMA_FILTER) * mEMA;
    return mEMA;
}
```