Human Motion Detection

1. **Outputs:** sit, run, jump, bending, forehand
2. **Raw inputs:** IMU sensor signals including 3 axis gyroscope [gyro\_x, gyro\_y, gyro\_z] and 3 axis accelerometers [acc\_x, acc\_y, acc\_z].
3. **Feature Extraction:** Some sample time domain features have been extracted for your model.
   1. Std\_acc\_10: standard deviation of acceleration signals of last 30 values
   2. Std\_gyro\_10: standard deviation of gyro signals of last 10 values
   3. mean\_acc\_20: average of acc signals of last 20 values.
   4. mean\_gyro\_20: average of gyro signals of last 20 values.
   5. max\_acc\_15: maximum value of acc signals of last 15 values
   6. min\_acc\_20: maximum value of acc signals of last 20 values