**Development of a Clinically Usable Assessment Tool for Standing and Walking Balance**

Individuals with deteriorated motor abilities such as the elderly and post-stroke patients often suffer from difficulties in walking. These problems can greatly affect the safe mobility of individuals, likely resulting in falling. Assessments of walking balance are critically important for providing adequate therapies and predicting risks of falls to avoid actual incidents. Gait analyses using motion capture systems and force plates are accurate, while they are not easily usable in clinical setting, i.e., they are time consuming and require a lot of setup to administer. Thus, the purpose of this study was to develop a clinically usable assessment tool for walking balance that can be easily used by clinicians. The tasks will involve computer programing to develop the software for balance assessment using inertial measurement units and Nintendo Wii Board.