

ABSTRACT



Foot and Ground Measurements Using Portable Sensors

Presented at ICORR05, 28 June-1 July, Chicago, Illinois USA

A portable gait measurement system for foot dynamic analysis is proposed. Portable cheap sensors are suitable in active control rehabilitation equipments such as prostheses and orthoses. A system of one gyroscope and two accelerometers was used to measure the foot movement in the sagittal plane. Both ground inclination during stance and foot angle relative to ground during swing are estimated. This enables fast detection of changing environments