UNIVERSITY OF LIMERICK RESEARCH ETHICS COMMITTEE

Risk Assessment Form – Procedures Involving Human Subjects

Procedure No	**SS 016**

Title of Procedure	Analysis of Motion using Accelerometry		
Name of Assessor(s)	Ross Anderson	Assessment Date	**October 2000**

Does this procedure already have ethical approval? (Delete as appropriate)	**YES**
If **YES**, enter ethical number and expiry date	**Approval No: SS 016**

1 Please provide a brief description of the procedure

Accelerometers will be attached to several body sites on the individual (for example the knee joint), and the subsequent data recorded by a PC based system or an ambulatory data logger.

The accelerometers will be supplied by Analog Devices (Part # - ADXL05 or ADXL202).

Where direct application of accelerometers to the skin surface is required all research will be undertaken using isolated circuitry. The data acquisition module/procedure used during these sections will either be optically isolated to <5000V in combination with an ELC (earth leakage circuit breaker) and a surge protector (if a mains powered PC is used) or carried out using battery operated equipment (battery powered laptop PC). These procedures offer the best protection from electric shock currently available. The accelerometers will be encapsulated to further enhance the safety of the system.

This procedure will usually be done in conjunction with 3D analysis of motion (Procedure Nos. SS 010/SS 011)

2 Location in which the procedure may take place

X	PESS Building
X	Appropriate locations within and outside of UL

3	Eligibility of subject(s) to be used

X	PESS student (U.G. or P.G.)
X	University staff or campus personnel
X	Members of the general public engaged in research projects granted ethical approval.

4	Potential risks. To be explained before obtaining consent

X	None, or minimal discomfort only

Subjects may be required to wear tight lycra clothing, which may cause some embarrassment.

5	Action to be taken in the event of a foreseeable emergency

If the subject shows any signs of distress, the procedure will be terminated immediately.

In the case of dizziness or fainting, subjects will be placed in the supine position with legs raised. Windows will be opened for fresh air and any restrictive clothing slackened.

If the subject feels nauseous, a suitable receptacle should be provided. The subject should be kept as comfortable as possible, until fully recovered.

If a minor physical injury occurs (e.g. minor cut, sprain, or strain), the subject will be kept comfortable and recommended to seek medical treatment as soon as possible.

In the case of more serious situations (e.g. fractures, dislocations), or should the subject fail to respond, help would be summoned immediately:

1. During normal working hours 9am-5pm, use nearest internal telephone to contact the Student Health Centre on extension **2534** (or **061 202534** if an external phone/mobile phone is used)
2. Outside of normal working hours, or if the Student Health Centre number is engaged/busy, use the nearest telephone to dial **3333** (or **061 213333** if an external phone/mobile phone is used) for UL security personnel who will then contact the ambulance service.

   When contacting the above clearly state the location of the incident, and briefly what happened.
3. If necessary, personnel should attempt CPR.

6	Level of supervision required for procedure

X	Trained PESS lecturing/research staff
X	Trained PESS postgraduate student
X	Trained PESS undergraduate student

7	Other documentation required for this assessment

X	Pre-test questionnaire for vigorous activity

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8 **Committee approval for experiment**

X	Granted

Others, please specify

Comments/conditions

Signed_____ Date _____

(Head of Department)