

## Strathclyde Shines in the Rainbow Nation



Taking place in Cape Town beneath glorious African sunshine and before the striking backdrop of Table Mountain, the XXII Congress of the International Society of Biomechanics played host to a sizeable contingent from the Bioengineering Unit this July. During the course of the five day congress around a dozen presentations were made by Strathclyde staff, students and affiliates, a feat rarely achieved by a single department at any conference. A full list of the papers presented has been included at the end of the article.

All presentations were well received with talks by Bruce Carse and Scott Wearing particularly deserving of praise. What was truly remarkable though was the wide range, and indeed the consistently high quality, of all the contributions from the group. From wheelchairs to surgical implants, ergonomics of aging adults to novel force sensors, the event provided something of a showcase for the creativity and scope of the work currently being carried out in the Bioengineering Unit under the banner of biomechanics.

The Strathclyde group was also lucky enough to be joined by former head of department and undisputed legend of biomechanics; Professor John Paul. Prof Paul (as he is affectionately known to his colleagues and students) had recently been awarded honorary membership to the International Society of Biomechanics in recognition of his extensive work in the field, and particularly for services to the society.

### **Papers** (presenter in *italics*)-

#### **3D WRIST KINETICS DURING JAR AND BOTTLE OPENING IN OLDER ADULTS**

*Bruce Carse*, Avril Thomson and Ben Stansfield

#### **A LOW-COST TRI-AXIAL LOAD SENSOR SYSTEM: DESIGN, CHARACTERISTICS AND ITS POTENTIALS**

*Hin Chung Lau*, Benedict Stansfield, Scott Wearing, Stephan Solomonidis, and William Spence

#### **A NOVEL DEVICE FOR MEASURING FORCES AND MOMENTS DURING DYNAMIC JAR AND BOTTLE OPENING**

Bruce Carse, Avril Thomson and *Ben Stansfield*

#### **AN INVESTIGATION OF THE POTENTIAL FOR ACTIGRAPHY TO BE USED AS A MEASURE OF SITTING DISCOMFORT: PRELIMINARY RESULTS**

*Scott Telfer*, Stephan Solomonidis, Stephen Kirker, William Spence

#### **AN OBJECTIVE FUNCTIONAL ASSESSMENT OF KNEE USING FLEXIBLE ELECTROGONIOMETRY AND THE STRATHCLYDE UNIVERSITY DATA LOGGING SYSTEM (SUDALS) FOR USE IN TOTAL KNEE ARTHROPLASTY (TKA)**

*Vivek Padmanaabhan Indra Mohan*, Gopal Valsan and Philip J. Rowe

#### **CONCURRENT VALIDITY AND TEST-RETEST RELIABILITY OF THE POLHEMUS LIBERTY FOR THE MEASUREMENT OF SPINAL RANGE OF MOTION**

*Konstantinos T. Kaliarntas, U. Chris Ugbohue, Philip E. Riches, Philip J. Rowe*

**FOOT-LEG MOTION AND DISCRETE PLANTAR LOADING IN BIPEDAL AND UNIPEDAL STANCE**

*Stephen Urry and Scott Wearing*

**INTERNAL WORK OF FLEXION FOR A NOVEL SUTURE REPAIR USED IN FLEXOR TENDON SURGERY**

*Elisabeth Zetlitz, Andrew M Hart, Scott Wearing, Stuart Watson and Alexander Nicol*

**LOADING ON THE SCAPHO-TRAPEZIUM-TRAPEZOID JOINT DURING GRIPPING**

*Magnus K. Gislason, B. Stansfield and D.H. Nash*

**PLANTAR ENTHESOPATHY: ENTHESIS MORPHOLOGY IS CORRELATED WITH THE ENERGY DISSIPATION RATIO OF THE HEEL PAD DURING GAIT**

*Scott Wearing, James Smeathers, Stephen Urry, Bede Yates, Patrick Sullivan and Philip Dubois*

**THE DEVELOPMENT OF A DEVICE TO OBJECTIVELY MEASURE KNEE JOINT STIFFNESS**

*U. Chris Ugbohue, Konstantinos Kaliarntas, Scott C. Wearing, and Philip J. Rowe*

**THE DEVELOPMENT OF A NOVEL ADAPTIVE SEATING SYSTEM FOR CHILDREN WITH NEUROMUSCULAR DISORDERS**

*Scott Telfer, Stephan Solomonidis and William Spence*