

UK-Japan Sports Engineering Symposium Programme

Wednesday 23rd February – Enterprise Program



10am Welcome to Loughborough University (LU), Sports Technology Institute

10.30 - 11:30 am Tour of the Sports Technology Institute (STI) (www.sports-technology.com).

11:30 - 12:15 Presentation on LU collaboration with the Asia-Pacific region through the proposed Institute for Sports Research (ISR)

12:30 - 13:15 pm Lunch at Burleigh Court

13:15 - 14:45 Tour of LU Campus, including time to watch the Loughborough Rugby 1st XV team versus Durham from the athlete's lounge including refreshments.

Afternoon sessions in the Sir Dennis Rooke conference centre

15.00 - 15:30 Knowledge Transfer session, introductions (Asics, Mizuno, Shimano)

15:30 - 16:00 Knowledge Transfer session, introductions (10-15 invited guests)

16:00 - 17:00 Knowledge Transfer session, break out networking session

17:00 - 17:30 Refreshments

17:30 - 19:00 Asics and Mizuno Public Lecture T0.03 Wolfson School of Mechanical and Manufacturing Engineering

19:30 Social Event meeting at Burleigh Court bar, leave at 19:45 for Traditional English Country Pub for evening dinner.

Thursday 24th February - Academic Program

8.30 am Coffee and Registration at Sir Dennis Rooke conference centre

9 am Welcome by Shirley Pearce, Vice Chancellor of Loughborough University

9.10 am Welcome by Professor Kozo Hiramatsu, Director of JSPS London

Keynotes (chaired by Prof. Mike Caine)

9.20 am Keynote 1: An overview of Sports Technology research within the UK and Loughborough University (Prof Mike Caine, Director of the Sports Technology Institute, Loughborough University)

10.05 am Keynote 2: *History of Sports Engineering in Japan* (Prof Sadayuki Ujihashi, Tokyo Institute of Technology)

10.50 am Break and Networking

11.00 am Shimano presentation









Session 2 (Chaired by Dr Andy Harland)

- **11.30 am** Talk 1: *Trackside Technology for Developing Athletics Coaching and Performance.* (Prof David Kerwin, University of Wales Institute, Cardiff
- **12.00 am** Talk 2: *Aerodynamic Analysis of Flight Trajectory of Sports Balls* (Prof T Mizota, Fukuoka Institute of Technology, Japan)
- **12.30 pm** Talk 3: *Motion capture in the field: 3D analysis with minimum fuss.* (Professor Steve Haake, Sheffield Hallam University, UK)
- **1.00 pm** Talk 4: Computer Aided Prediction and Estimation System for Tennis Racket Performance Considering Player's Individuality (Prof Y Kawazoe, Saitama Institute of Technology, Japan)
- 1.30 pm Lunch

Session 3 (Chaired by Dr Stephanie Forrester)

- **2.30 pm** Talk 5: Technology in cricket the arm, the bat, & the ball / Biomechanics Research in Rowing Performance & Injury Impact (Professor Anthony Bull, Imperial College London, UK)
- **3.00 pm** Talk 6: *Quantification of the functional role of joint torques in sports motion based on multi-body dynamics* (Prof S Koike, University of Tsukuba, Japan)
- 3.30 pm Break, Networking and Poster Session

Session 4 (Chaired by Dr Jon Roberts)

- **3.50 pm** Talk 7: Possibilities and current limitations of Additive Manufacturing for sports equipment. (Dr Ruth Goodridge, Loughborough University, UK)
- **4.20 pm** Talk 8: Finite element modelling and simulations for golf impact (Mr K Tanaka, Tokyo Institute of Technology, Japan)
- **4.50 pm** Talk 9: Analysing golf performance biomechanics and technology. (Prof Eric Wallace, University of Ulster, UK)
- 5.20 pm Closing Remarks
- **6.30 pm** Social Event at Burleigh Court

Friday 25th February – Support Program

- **9.30 am 12 pm** Forum for collaborative research at the Sports Technology Institute Talks by UK-Japan Funding Bodies.
- 12pm Lunch
- **1pm** Depart Loughborough for Visit to London 2012 Olympic Site



