



THE INSTITUTE OF
ELECTRICAL AND ELECTRONICS ENGINEERS



UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION ENGINEERING IN MEDICINE AND BIOLOGY CHAPTER

<http://ewh.ieee.org/r8/ukri/embs/>

Chapter Report

29th September 2004

Officers of the Chapter

Chairman

Dr. Christopher J. James (*European Representative, IEEE EMBS ADCOM*)
ISVR
University of Southampton, Southampton SO17 1BJ
(email) c.j.james@ieee.org (tel) 02380 593043 (fax) 0 2380 593190

Secretary

Roland J. Saam
(email) r.j.saam@ieee.org (tel) 020 7373 5498

Past Chair

Dr. G.Z. Yang, Imperial College

Other Officers

Dr. Anita Boardman, University of Leicester

Special Events and Activities

- The sponsored/co-sponsored events for 2004 included:
 - **4 February 2004: *Appropriate Medical Technology for Developing Countries, IEE Savoy Place, London.*** The third in this series, this seminar addressed key needs and problems and took up the challenge of identifying future strategies and solutions. This event provided an excellent opportunity for sharing experiences and knowledge and enabled networking face to face with key people.

- **10 February 2004: *Signal Processing Applications in Clinical Neurophysiology, National Railway Museum, York***; co-sponsored by the IPEM Physiological Measurement Special Interest Group.
- **6-7 April 2004: *International Workshop on Wearable and Implantable Body Sensor Networks, Imperial College London, UK***. (Technically co-sponsored). The last decade has witnessed a rapid surge of interest in new sensing and monitoring devices for healthcare and the use of wearable/wireless devices for clinical applications. One key development in this area is implantable in vivo monitoring and intervention devices. This event provided an exciting insight into the state-of-the art of the field. The chapter sponsored a prize for best student paper through financial support of the section.
- **23 June 2004: *ISO/IEEE 11073 standards for point-of-care medical device communication: What are they? What can they do for me? British Institute of Radiology, London, UK***. Organised along with the IEEE 1073 group and the related British Standards Panel (IST35/4), this seminar was given by Melvin Reynolds of AMS Consulting to a number of interested members. Special thanks go to the British Institute of Radiology for kindly allowing us to use their lecture theatre and for the teas/coffees.
- **9-11 August 2004: *IEEE EMBS UK & RI Postgraduate Conference on Biomedical Engineering and Medical Physics - PGBIOMED'04, University of Southampton, Southampton UK***. (Co-organised with the IEEE UKRI EMB Student Society.) Following the last few year's very successful conferences, we are proud to announce a two day conference that took place at the University of Southampton. This conference gives an opportunity for students to present and talk about their work within the field of biomedical engineering and medical physics. There were also competitions for the best paper presentation. Fees were kept deliberately as low as possible in order to make the conference affordable to postgraduate students.
- **5-8 September, 2004: *2nd International Conference on Medical Signal and Information Processing, MEDSIP2004, Malta G.C.***; (Co-organised by the EMBS Chapter). Signal and information processing technology is at the core of many medical systems today, and as such, it plays a crucial role in modern healthcare. The primary aim of the conference is to promote improved healthcare by the further development of advanced signal and information processing methods for biomedicine and their integration with other emerging technologies. The chapter sponsored the event through financial support of the section.
- The sponsored/co-sponsored events for 2004/2005 so-far include:
 - **End of November 2004: *Blind Source Separation in Biomedicine, London***. (co-sponsored with the IEE) This one day seminar is intended to introduce the state-of-the-art on blind source separation techniques when applied to problems in biomedicine.
 - **22 February 2005: *Signal Processing Applications in Clinical Neurophysiology, National Railway Museum, York***; co-sponsored by the IPEM Physiological Measurement Special Interest Group.
 - **29-1 July, 2005: *Second International Conference on Computational Intelligence in Medicine and Healthcare - CIMED2005, Costa da Caparica, Lisbon, Portugal***; (technically co-sponsored). The second such conference the chapter has technically co-sponsored.
- The chapter has negotiated special (reduced) member rates for all events we host/co-sponsor and sets up a stand (free of charge) promoting IEEE / EMB Society membership in all events.
- A number of administrative and conference committee meetings took part throughout 2004.

Student Activities

As in previous years, our flagship event was the IEEE EMBS UKRI Postgraduate Conference on Biomedical Engineering and Medical Physics - PGBIOMED'04, held at the University of Southampton between 9-11 August. This event is co-organised with the UKRI EMB Student Society and provides an opportunity for students to present and talk about their work within the field of biomedical engineering and medical physics. Students from the UKRI region presented their work and all papers took part in the paper competitions.

This year we are proud to have introduced the newly-created William James Memorial Biomedical Engineering Student Award, instated by Dr Christopher J. James in honour of his father the late William James, who constantly promoted the ideal of achieving one's potential and provided encouragement. The award provides an annual prize to the best presentation and/or paper by a postgraduate student in biomedical engineering and is presented to encourage and support research that shows the most potential to contribute toward the development and improvement of the biomedical engineering field, whilst also encouraging high quality papers and presentations. This year the award went to Mr Alessandro Beda from the University of Southampton. Further information about the award and next year's competition can be found on the website here: <http://www.soton.ac.uk/~jamescj/wj-memorial-award.html>. The award consists of a certificate, a plaque and a monetary prize, currently valued at £75.

The chapter is pleased to congratulate the EMB Student Society for placing 3rd in the brand new Outstanding Performance Awards for Student Clubs instated by the EMB Society. This is timely recognition of the outstanding efforts of the Student Society - the award was presented during the awards ceremony at the recent Society Annual conference in San Francisco this August.

Other Chapter Business & Future Events

- The chapter website is continuing to be updated. EMBS members are also kept up to date with UKRI, Region 8 and world-wide EMBS events - as we receive more and more requests to circulate information about European and world-wide EMB activities. The chapter is also promoting senior membership and offering help to anyone of its members interested. We have also started and continue regular email updates to chapter members.
- A further number of sponsored and co-sponsored events are in the planning stage for 2004/2005.
- We continue to pursue the desire to concentrate on a series of regional half day talks and seminars, which involve members working in the clinical and industrial, as well as the academic field. To this end we continue to appeal to the members to suggest topics of interest that we can concentrate on throughout this year and beyond - it is from such an appeal that the presentation on medical standards arose.
- The chapter is still a part of the discussions we have initiated between the IEEE, the IEE and IPEM on ways to further increase the collaboration across Institutes in the UKRI for the benefit of Biomedical Engineers and Medical Physicists alike. We are hoping that a joint event will be forthcoming - members will be kept informed as soon as an event is formulated.



Dr Christopher J. James
Chapter Chairman

29th September 2004