BSN Platform Tutorial

10 June 2005
Imperial College London, UK

Session 1: Introduction to Body Sensor Networks
Introduce the current state-of-the-art in wireless sensor networks and its significance and future applications to sensing and monitoring devices for healthcare.

Session 2: Introduction to Tiny OS
Introduce the major concepts required to program Tiny OS applications. These include a description of components, interfaces, commands, events, and Tiny OS programming model.

Session 3: BSN hardware architecture and sensor board design
Introduce the basic architecture and extensibility of BSN Node for different sensing environments both for healthcare applications and general wireless sensor networks.

Session 4: BSN programming I
Hands on session on TinyOS programming. This session will illustrate how to build, debug, and run Tiny OS applications on the BSN node.

Session 5: BSN programming II
Hands on session on programming BSN node to send/receive data wirelessly..

Session 6: BSN Sensor and wireless programming
Hands on session on sensor data acquisition with the BSN node. This session will illustrate how to program the BSN node to acquire sensor data.

Session 7: Wireless data path and sensor message hopping
Introduce the concept and theory of packet broadcasting, how to form wireless sensor network, and issues related to message hopping. It will also illustrate a simple multi-hop data propagation method that allows data to be collected by a central location.

Session 8: Q & A and Conclusion

Tutorial Registration:

For registration form and payment details please see
http://vip.doc.ic.ac.uk/bsn/tutorial

Each fully registered attendee will receive a BSN development kit which consists of a programming board, a sensor board, and a pair of BSN nodes.

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