

'Flagship Projects Open day'



Location and Timing KTN in conjunction with:
City University, London
IESSG, Nottingham University
Imperial College, London
Leeds University
Newcastle University
University College London

Wednesday, 10th October 2007
at NPL, Teddington

Flagship Projects Open Day

Three major research projects are reaching their conclusion. This Open Day will provide a valuable insight into the outcomes of the research and provide a forum for discussions about future work and research direction. Speakers from the project team will present their findings, provide demonstrations, and outline future plans to continue the work. There will be plenty of time throughout the day to discuss how the wider community can get involved.

• **SPACE - Seamless Positioning in All Conditions and Environments**

GNSS signals have various weaknesses inherent in them that reduce overall quality in terms of accuracy, integrity and reliability. SPACE has worked to reduce or model these effects to bring new levels of performance. The results of the algorithmic development and the field trials of multiple positioning technologies will be demonstrated to deliver 'Centimetres Everywhere' ; with the appropriate levels of integrity for different applications. Presentations from UCL; University of Nottingham; Imperial College; and CAA Institute of Satellite Navigation University of Leeds.

• **LOCUS** - The LOCUS project has been researching and developing approaches to mobile computing that enhance the experience of mobile users. One component of research has been ensuring that retrieved information is relevant given a user's spatial behaviour, and calculating realistic routing advice based upon personal transport constraints. A second component has been developing interfaces that present information from an egocentric perspective, by adopting visualisation techniques from virtual and augmented reality.

• **AutoBAHN**

The long-term goal is for GNSS systems is to provide real-time positioning anywhere anytime to millimetre accuracy based on low-cost receivers with internet access for the supply of correction data. This type of system is not realisable without the production of 'near real time', highly precise orbits and clocks for the GNSS satellites.

The AutoBAHN research has achieved its goal of developing such products. The results of the research with comparisons to International GNSS Service Final Product post processed results will be given, along with ideas how this can be commercialised in the future.



Attending the seminar

This seminar will take place on 10 October 2007 at the National Physical Laboratory, Teddington, with coffee served from 0930.

Anticipated finishing time 1700 hrs.

The event is free of charge to members of L & T KTN but you must complete and return a registration form prior to attending the event.

To register click **here**. You will receive confirmation of your booking by e-mail.

If you have any queries please do not hesitate to contact Gill Roe
gill.roe@npl.co.uk

We look forward to seeing you on the 10th October 2007

Preliminary Agenda Highlights

Morning Session -

9:30 Registration and Coffee

10:00 Welcome and Introduction

Presentation of SPACE Flagship Project

10:10 Introduction to the SPACE Project and Key Outcomes -

10:30 Algorithms for the Mitigation of Phase Multipath Errors in Difficult GNSS

10:50 Development of a Multi-Sensor Navigation Filter for High Accuracy Positioning in all Environments

11.10 Coffee Break

11.25 Sensor Level Data Quality and Integrity Monitoring –

11:45 Improvements in the Sensitivity and Accuracy of the GNSS Ranging Sensor

12:05 Towards an Operational Test-bed : Exploitation and Future Research

12.25 – 12.45 Discussion Session

12.45 pm Lunch

Presentation of LOCUS Flagship Project

2:00 Demonstration of the Locus Project

2:20 Description of the underlying research.

Virtual, Augmented and mixed Reality

Data mining for location

3:00 Discussion Session

3:15 Coffee Break

Presentation of Auto-BAHN Flagship Project

3.45 Project Overview

The LT KTN reserve the right to modify the agenda and timings