

## **Status as Reported for the December 2006 IAB Meeting**

### **Massively Deployed Sensors (T-31)**

#### ***Work progress since the report for the May 2006 IAB meeting***

This project began in August, 2006. At this early stage of the project, the following has been accomplished:

- A graduate researcher has been recruited at ASU, namely Jonathan Stahlhut
- A graduate researcher has been recruited at Wichita State, namely Piyasak Poonpun
- Two graduate researchers have been recruited at the Colorado School of Mines, namely Keith Malmedal and Oke Ikeako.
- A web site for the project has been started by Dr. Jewell, and this is located at:  
<http://www.engr.wichita.edu/ces/sensors/>
- Preliminary work has begun on Task 1 of the project, and results have been reported at the North American Power Symposium, Carbondale IL, in September 2006. The correct citation for the paper is: Jonathan W. Stahlhut, Gerald T. Heydt, Elias Kyriakides, "Innovative sensory concepts for power systems," Proc. North American Power Symposium, September 2006, Carbondale, IL, pp. 479 – 486. The paper is available on the project website.
- Work has begun at Wichita State on Task 2, identification of potential new sensory technologies, with the preparation of a list of available sensors and how they might be used on the electric power system.
- A paper has been drafted in the form of an IEEE 'Letter' which studies the needs for high bandwidth communications channels for systems with wide area measurements.

#### ***Description of work activities and anticipated project outcomes/deliverables by each project team member during next reporting period.***

The following are anticipated in the project:

- It is expected that a planning conference call will be held in November.
- A poster is being prepared for the Golden CO IAB meeting
- New elements of alarm processing are under discussion and some results are expected before December. This is an innovative concept in preprocessing sensory data.
- It is expected that contact with the industry sponsors shall be made in the last quarter of 2006.
- The cited IEEE 'Letter' shall be finalized and submitted.

#### ***Description of and reasons for any revisions to the work plan that was reported for the May 2006 IAB Meeting***

No changes needed in the current work plan.

#### ***Describe all interactions with industry advisors since your last report***

None

*Students working on the project during the next reporting period*

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