

Project Status Report

Period: 10/1/2010-3/17/2011 (GEC10)

## **I. Major accomplishments**

The project will study and report on the capabilities recommended for a programmable radio substrate in GENI to best support wireless networking innovations. It is expected that a key capability should be to provide programmability and measurement at all layers. This project will also recommend the capabilities that should be included in the cognitive radio systems that are being developed in the “Cognitive Radios for GENI Spiral II” project.

During this period, key achievements include:

- a) Continued testing of GENI Cognitive Radio remote programming support.
- b) Initiated a software defined radio (SDR) seminar at Clemson focusing on SDR platforms and programming issues, including the GENI Cognitive Radio.
- c) Attended GEC10, meeting GENI Cognitive Radio project team members.

### ***A. Milestones achieved***

No milestones are due in this period.

### ***B. Deliverables made***

None in this reporting period.

## **II. Description of work performed during last quarter**

### ***A. Activities and findings***

- a) Continued testing of GENI Cognitive Radio remote programming support.
- b) Co-initiated a software defined radio (SDR) seminar at Clemson focusing on SDR platforms and programming issues, including the GENI Cognitive Radio.
- c) Attended GEC10, meeting GENI Cognitive Radio project team members. Identified new directions and action items for jointly testing new GENI Cognitive Radio features:
  - 1) Trial use of R3 framework
  - 2) Trial use of MicroBlaze core as potential R4 feature

### ***B. Project participants***

PI Kuang-Ching Wang is the only participant in this project.

### ***C. Publications (individual and organizational)***

Not available at this time.

### ***D. Outreach activities***

None in this reporting period.

### ***E. Collaborations***

This project is performed in collaboration with the “Cognitive Radios for GENI Spiral II” project staff, specifically Ivan Seskar (Rutgers WINLAB).

### ***F. Other Contributions***

**A Mobile Programmable Radio Substrate for Any-layer Measurement and Experimentation (1740)**

None in this reporting period.