

# **Strong Ferroelectric Effect Research**

## **Overview:**

Undergrad position to start **January 2009** (and potentially continuing through Summer and Fall semester 2009) with the U.S. Army Construction Engineering Research Laboratory located in Champaign, IL.

## **Position Description:**

The successful candidate would be capable, hard-working and creative in support of research work involving plasma physics and materials science. In particular, ferroelectric based plasma/particle sources have potential for use as high intensity cold-cathode electron sources, x-ray sources, non-volatile RAM/capacitors/transistors and other possibilities. However, ferroelectrics can lose their useful properties and quickly degrade in use. The current ongoing research effort is focused on understanding and quantifying this degradation.

## **Requirements:**

The position requires from **10-20 hours per week** and scheduling is flexible. U.S. citizenship required. Enrollment in University of Illinois NPPE, Physics, ECE, ME, or Material Science is typically expected but other disciplines will be considered with applicable experience.

Familiarity with one or more of the following considered a plus:

- vacuum systems
- Lab View
- circuit design/analysis
- ferroelectrics

## **Questions, Comments, Concerns?**

Please contact Dr. Charles Marsh, [Charles.Marsh1@us.army.mil](mailto:Charles.Marsh1@us.army.mil), Adjunct Professor NPPE, 217-373-6764.