



Research Experience for Teachers



UNIVERSITY OF CINCINNATI

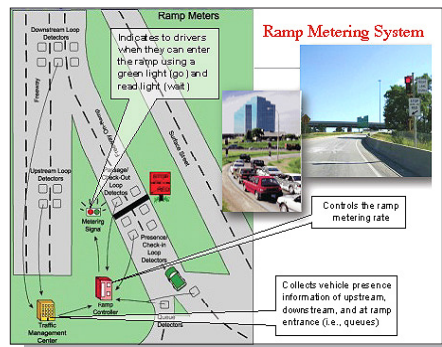
# NSF Summer Research Experiences for Teachers (RET) Opportunity for Secondary (grades 7 – 12) Math and Science Teachers on Challenge-Based Learning and Engineering Design Process Enhanced Research Experiences for Middle and High School Teachers

## Research Projects Include:

- Project 1: "Interaction of Nanoparticles with Microbial Biofilm in Water Treatment Facility"
- Project 2: "Identification and Measurement of Metal Complexes in Aqueous Solutions for Electrochemical Energy Storage"
- Project 3: "A Biological Optoelectronic Nanopore for DNA Sequencing and Stochastic Sensing"
- Project 4: "Enhancing Decision Making Emulating Human Reasoning"
- Project 5: "Ramp Metering Control for Mitigating Freeway Congestion with Emission Reduction"
- Project 6: "Secure Cyberspace"



Gas Chromatograph with Mass Spectrometry Setup



Field Data Collection at an On-Ramp



UV-Vis Spectrophotometer

### Benefits of being a RET Teacher?

- \$6000 and a laptop for participation in 2014 RET Site for the 2014-15 academic school year
- 7-week RET program, from June 16th – August 1st including research, coursework, and PD workshops and seminars
- Mentored by a RET Resource Teacher
- Create a Unit that utilizes challenge based learning and the engineering design process
- Participate in professional opportunities presenting at the annual STEM Conference and/or presenting papers at other regional and national conferences

**Apply NOW!** if you are interested in this tremendous professional leadership opportunity! *Don't miss out!*

Go to <http://www.eng.uc.edu/step/ret/> for more information.

Email the application packet to:

[futurescience.uc@gmail.com](mailto:futurescience.uc@gmail.com)

Application deadline is April 11, 2014.

Questions? Contact: Debbie Liberi

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