

**COLLEGE OF ENGINEERING
ECECS**

**SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN**

APPLICATION DEADLINE: March 1, 2006

The Department of ECECS/College of Engineering is pleased to offer the following research project for the summer of 2006. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and if possible, develop a timetable for the twelve-week research period.

MICRO AND NANO-SCALE ELECTROWETTING MATERIALS AND DEVICES

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The Novel Devices Laboratory (NDL) at the University of Cincinnati invites applicants for one summer research position as part of the 2006 WISE Summer Research Experience for Women. NDL research is currently focused on micro- and nano-scale electrowetting materials and devices. Electrowetting is a very new technological field which is experiencing globally explosive growth in research and commercial development. The fundamental electrowetting effect is electrically driven wetting/dewetting of a droplet of water on a hydrophobic (water-repelling) surface. For further information, including device photographs, please visit www.ececs.uc.edu/devices/NDL_Research.html. Current research paths in NDL are focused on applying electrowetting to a new breed of flat-panel-television/displays, to flat/flexible optics, to textiles, and to biomedical devices. Research experiences for undergraduates include: (1) characterization of new materials for electrowetting devices; (2) implementation of new concepts for use of electrowetting in textiles or biomedical applications; (3) support of existing electrowetting projects in displays, optics, and protein separation devices.