

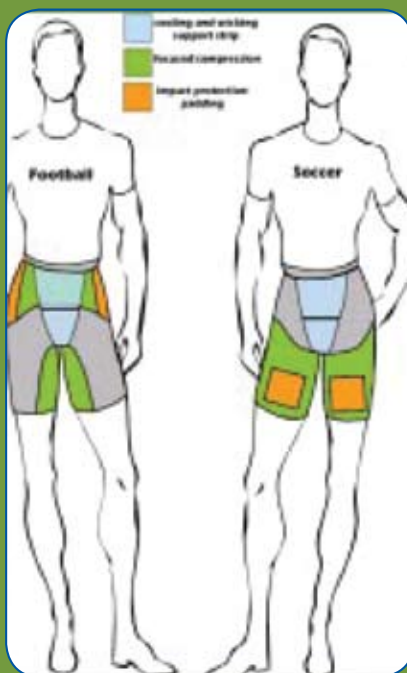
## Materials Design Winners Announced

This year, AATCC celebrates its third annual Materials Design Competition, open to graduate and undergraduate students. The competition aims to promote innovative product development in several categories, from a material structures design perspective.

The judges were Gary C. Lickfield, Clemson University; Ian Hardin, University of Georgia; Bill Haile, Journal of Engineered Fibers and Fabrics; Phillip J. Brown, Clemson University; and Fred L. Cook, Georgia Institute of Technology. All submissions were evaluated on concept originality, design element integration, technical feasibility, clarity of supporting documentation, technical and materials rationale, efficacy of the proposed commercialization of the idea, and viability of economic cost analysis.

Winning entries received cash awards of US\$1,000 for first place and US\$500 for second place in each category, plus complimentary student registration for the 2009 AATCC International Conference.

### Industrial/Technical and Sports Materials Winners



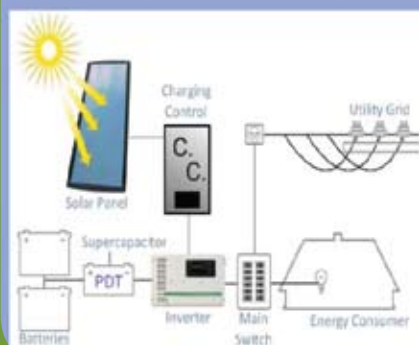
**1<sup>st</sup> Place:** *Private Protection Inc.*  
by Elizabeth Lyles, Courtney Merritt,  
William Alligood III, and Mallory Foushee  
of North Carolina State University



**2<sup>nd</sup> Place:** *Fuzie Mat* by Paul Hoang, Sarah Davis, Carly Herring, and Amanda Wayer  
of North Carolina State University

### Smart/Electronic/Optoelectronic and Nano-materials Winners

#### Product Integration:



This diagram shows a sample system using our supercapacitor product:

- ❖ A solar panel or panels will collect energy from the sun.
- ❖ The power generated by the solar panel will be sent to the supercapacitor.
- ❖ The supercapacitor will act as a buffer, charging the batteries and itself, and stopping energy storage once the device are charged.
- ❖ Once the batteries are charged, any additional energy generated by the solar panel will be sent through an inverter to convert the energy into AC power
- ❖ The switch will regulate energy transfer between the solar system and the utility grid.
- ❖ Once the batteries are charged, any additional energy generated can be transferred back onto the grid for a reduction in utility costs.

**1<sup>st</sup> Place:** *Smart Material for Energy Storage for Solar Panels* by Palkin Zed  
of University of Nevada, Reno

More pictures of the winning entries can be viewed at:  
[www.aatcc.org/members/students/AATCC\\_2008design\\_comp.cfm](http://www.aatcc.org/members/students/AATCC_2008design_comp.cfm)