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DOE TO FUND MAJOR SOLAR
RESEARCH CENTER AT TECH

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ATLANTA, GA -- Georgia Tech's Solar energy program got a major boost recently when the Department of Energy (DOE) awarded the Institute $504,000 to start the Solar Thermal Advanced Research Center on the Tech campus.

The funding is the first installment of an $8.75 million, five-year research program which includes high temperature solar energy research and the operation of the Advanced Components Test Facility on the Tech campus. If the five-year research program is fully implemented, the contract will be the largest the station has ever received.

"Until this year, DOE emhasized demonstrations of existing solar thermal technologies," said center director Dr. Robert Cassanova. "The new thrust is to get universities and industries more involved in problem-focused research which creates new technologies for more efficient use of solar energy and for conversion of solar energy to storable chemicals and fuels."

Solar thermal energy systems collect the heat from the sun and convert it into useful forms of energy. Examples of systems of this type are rooftop collectors on homes or fields of parabolic mirrors which reflect and concentrate solar rays onto a central focusing point. A large "power tower" solar system is now under construction at Barstow, California. In contrast to thermal systems are photovoltaic panels, small cells made of silicon and glass which use solar light to produce electricity.

Georgia Tech already has an experimental testing program in solar thermal energy underway. This program will continue and expand under the auspices of the new center. Tech performs these tests at its 325 kilowatt Advanced Components

Test Facility on the north side of the campus. The new center will emphasize research and development on advanced, high temperature solar systems.

Researchers will conduct projects aimed at:

- Development of materials with greater resistance to high temperatures;
- Production of synthetic fuels and chemicals with solar energy; and
- Development of solar systems as viable sources of industrial electricity and high temperature heat for certain industrial processes.

In the past, DOE has funded solar thermal R&D on a project by project basis. The Tech center and a similar center being established at the University of Houston will focus the agency's work in this area.

Georgia Tech will staff the center with researchers already working in its Energy and Materials Sciences Laboratory. Later, personnel from other Tech laboratories and from private industry may become involved in the center's activities.

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