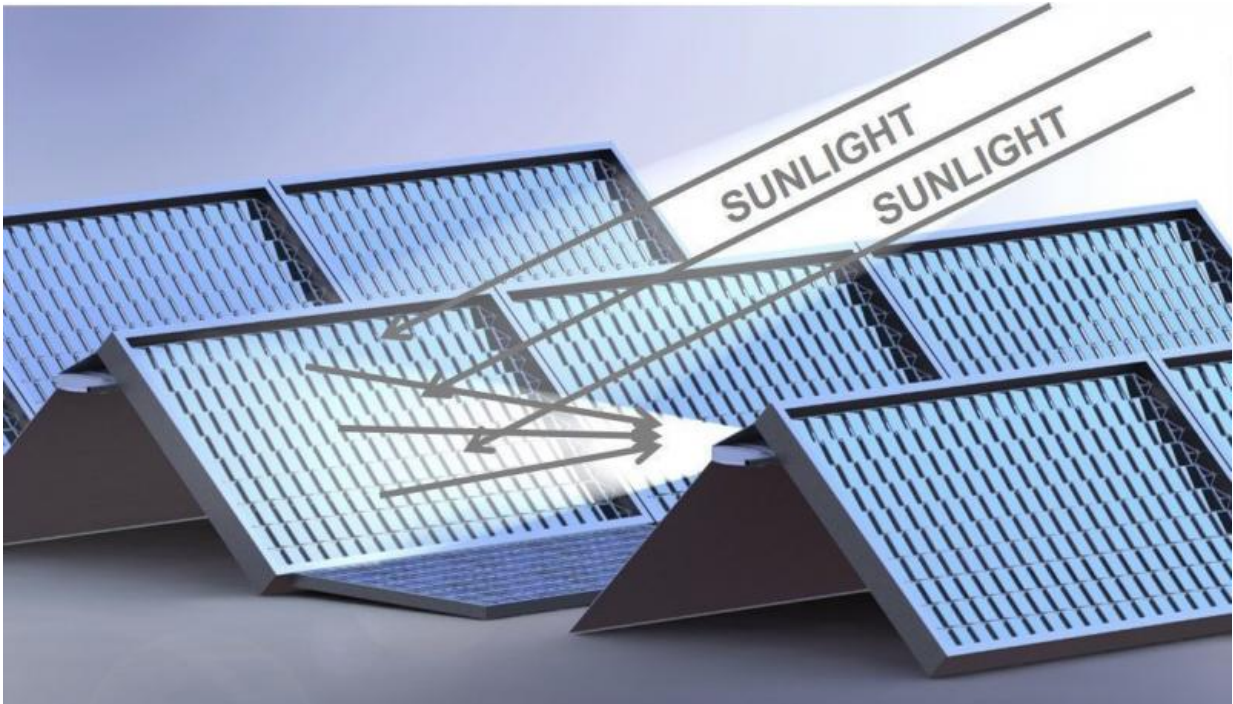


Labs team to build new solar optics system

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Pictured is a rendering of the solar panels that the UT Arlington Research Institute and Skyven Technologies will build. Credit: Skyven Technologies

The University of Texas at Arlington Research Institute and Dallas-based Skyven Technologies have been awarded a National Science Foundation's Small Business Innovation Research program grant to build and test a Phase 1 prototype of a novel optics system for concentrating sunlight more than 1,000 times the usual amplification.

Arun Gupta, founder and [chief executive officer](#) of Skyven Technologies, in collaboration with Aditya Das of the institute have received the \$25,000 grant to develop a test model of this cost-efficient solar energy technology of the future.

"Once installed, these solar panels can last 20 or 30 years without any major maintenance," said Das. "This will cut down the cost on an electricity bill, something that matters to the average consumer."

The team will design and test the new energy electronics. A full panel will be developed which will incorporate the novel optics, mechanical drive and control electronics. After that, for one month the prototype will be made weather-tight and placed outside for examination and measurement, during which time the performance of the technology design will be monitored and studied.

The goal of this new technology is to create cost-effective energy that may be used in the commercial market. For a consumer, this can mean many different things including health benefits through pollution reduction as well as improvement to environmental surroundings and ecological conditions. It can also be a hedge against future increases in grid energy costs. The technology could translate to less reliance on foreign oil and reduced stress on the electrical grid.

"This project combines advanced robotic control systems with an optical design that pushes the limits of conventional manufacturing," Gupta said. "This unique combination will allow us to achieve the ground-breaking performance required to drive down the cost of solar energy."

Another important aspect of this project is the collaboration between Skyven and UTARI. This venture was made possible in part through the Texas Research Alliance and the Dallas Regional Chamber of Commerce.

"Our goal is to bring businesses and university researchers together to address important technical challenges," Geoffrey Orsak, Texas Research Alliance executive director, said. "The alliance between Skyven Technologies and UTARI is a perfect example of the positive results that stem from these types of collaboration."

The NSF SBIR program seeks to transform scientific discovery into societal and economic benefit by catalyzing private sector commercialization of technological innovations. The program increases the incentive and opportunity for startups and small businesses to undertake cutting-edge, high-quality scientific research and development.

Provided by University of Texas at Arlington

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