

LEMELSON-MIT

\$30,000 Illinois Student Prize

A portrait of Pradeep Shenoy, a young man with dark hair, wearing a dark sweater over a light purple collared shirt. He is smiling slightly and looking towards the camera.

To meet the world's growing energy demand, two actions must be taken simultaneously. Energy consumption needs to reduce, and sustainable energy sources need to become reliable, safe, and cost competitive. An important enabling technology in energy systems is power electronics, which convert and control electricity. Pradeep's work on differential power processing has led to techniques that demonstrate system level improvements specifically in microprocessor power delivery and solar PV energy conversion. SolarBridge Technologies (a university startup that makes solar power converters) decided to license his idea and applied for an ARPA-E grant from the U.S. Dept. of Energy's SunShot Initiative. In November, they were awarded \$1.75 million to commercialize the technology.

2012 FINALIST

PRADEEP SHENOY

GRADUATE STUDENT **ELECTRICAL ENGINEERING**