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MATERIALS SCIENCE AND ENGINEERING PH.D. STUDENT BRINGS HOME POSTER PRIZE

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Doctoral candidate Sara Pouladi won the Best Poster Award for her work on thin film solar cells at the 44th IEEE Photovoltaic Specialists Conference in Washington D.C.

Titled ?Flexible GaAs single-junction solar cells based on single-crystal-like thin-film materials directly grown on metal tapes," the work offers that III-V compound semiconductor materials are the top candidates for thin-film photovoltaics.

?There is a fast and increasing demand for thin film solar cells in the photovoltaics industry due to several advantages including their light-weight, mechanical flexibility, low cost, wide range of applications and easy scalability,? said Pouladi.

Pouladi, who studies under Assistant Professor Jae-Hyun Ryou of mechanical engineering, developed, in collaboration with Professor Venkat Selvamanickam?s group, flexible thin Film GaAs solar cells based on a technology that can provide high-quality semiconductor thin films on low-cost metal foils, which would bypass expensive wafer substrates while also offering scalability and flexibility. This approach offers a new technology platform which has the potential for next-generation low-cost high-efficiency flexible solar cells.