April 14, 2016

**Jes Asmussen presented with the 2016 MSU Technology Transfer Achievement Award**

Jes Asmussen, University Distinguished Professor of electrical and computer engineering, was honored April 14 at the sixth annual MSU Innovation Celebration with the 2016 MSU Technology Transfer Achievement Award. It recognized his work on microwave plasma machines and processes to produce synthetic diamonds.

Asmussen holds 26 U.S. and more than 20 international patents in the field of microwave technology and microwave processing. These methods have been critical to the advance of the semiconductor industry. Asmussen’s design incorporates proprietary internal tuning and precise control of microwave mode and plasma conditions, which enable operation at the extremes for desired plasma applications.

Asmussen’s microwave reactor technology was successfully licensed to Microwave Enterprises of Morrisville, N.C. This advanced equipment is used in the deposition and growth of polycrystalline and single-crystal diamonds used in industrial, scientific, and gemstone applications.

Along with the presentation of the 2016 MSU Technology Transfer Achievement Award, the MSU Innovation Center recognized the MSU Innovator of the Year and Innovation of the Year. Awardees were presented with plaques and a cash prize. The celebration was in the Huntington Club of Spartan Stadium.

**2016 Innovation of the Year** -- Bruno Basso was recognized for his work with crop growth management technology. Basso, a professor in the Department of Geological Sciences, is creating algorithms and software involving advanced
crop system models that incorporate plant physiology to predict the impact of weather, soil and management practices on crop yield.

**2016 Innovator of the Year** -- Gemma Reguera, associate professor in the department of microbiology and molecular genetics, has developed a system to extract bioproducts from waste via microbial electrochemical reactors. This process has the potential to assist in remediation of radioactive and toxic metals and in generation of renewable energy.

*Story courtesy of MSU Technologies.*

**Related Website:** [Center for Coatings and Diamond Technologies](https://www.egr.msu.edu/)
[MSU Technologies](https://www.egr.msu.edu/)
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