



## I-SENSE Announces Internal Grant Recipients

Boca Raton, Fla. (April 19, 2018) – Through the Division of Research, we are pleased to announce the recipients of our second annual internal grants program, as part of a new initiative to stimulate external research funding. We sought proposals to grow multidisciplinary collaborations that lead to externally funded research programs in the Sensing and Smart Systems pillar.

We are distributing \$100,000 among all awardees, summarized below.

***Title: SeeGan: Deep Learning-Aided Human Attention Modeling for Robots Learning***

**PI: Elan Barenholtz**

**Co-PI: William Edward Hahn and Yufei Tang**

**Amount: \$24,000**

The investigators plan to assess a novel computational model of human attention embedded in a behaving/learning robot context, to develop the attentional model as a method to improve the performance of autonomous systems, and to release and promote the rover research platform as a scientific and engineering research tool.

***Title: Multidiscipline Capacity Building to Expand Microfluidics for Environmental Monitoring and Data Collection***

**PI: Jordon Beckler**

**Co-PI: Sarah Du**

**Amount: \$30,776**

The investigators aim to develop four modular microfluidic “building blocks” specialized for in situ analysis, that will comprise the “nuts and bolts” of many oceanographic instruments: chromatographic separation, mixing and reaction with reagents, absorption detection, and ultramicroelectrode detection.

***Title: Human Aspects of Autonomous Driving***

**PI: Mehrdad Nojournian**

**Co-PI: Dimitris Pados**

**Amount: \$25,570**

The investigators will explore how to establish, sustain, and rebuild (in the case of incidental failures) trust between humans and autonomous systems. They will perform experiments and look at the interaction between humans and their autonomous testbeds under the lens of trust in a controlled setting. They will develop a reflective module with three operation modes in the software system that controls the autonomous system.



(cont'd)

**Title: A Sensor-Based, Dynamical Systems Approach to Guiding Therapeutic Interactions**

**PI: Paul Peluso**

**Amount: \$20,313**

This research project is an extension of observational research into the therapeutic relationship that relies on the notion of synchrony to quantify emotional valence on both sides of the relationship. The Department of Counselor Education-based project aims to provide insights into the dynamics of therapist-client interactions, and ultimately, to guide those interactions to successful outcomes.

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