



Tech Biz



Office of Technology Transfer and Commercialization

Winter Term 2007, Issue 1

OTTC Awards \$485,000 in CCAT Grants for Robotics and Biometrics

Sensors that can sniff out bombs, a compact 3-D imaging radar system and a method of identifying people using blood vessels were among the projects from seven technology companies that received \$485,000 in CCAT grants from OTTC. OTTC awarded CCAT grants for robotics technologies to:

CornerTurn in Corona, Calif. A grant of \$75,000 will be used for prototype testing and evaluation development (PDT&E) and up to \$25,000 for a market study (MS) of BOTDROPS, sensors that can be left behind by robots to continue to maintain surveillance of previously cleared spaces such as buildings or caves.

Nano Engineering in West Palm Beach, Fla. The company will receive \$75,000 PDT&E, and funds for a MS to reduce the size and weight of a highly sensitive sensor to be integrated into a robot used to detect roadside bombs, munitions dumps and chemical weapons caches while the operator remains at a safe distance.

Trex of Kahului, Hawaii. The company will receive \$75,000 for PDT&E and up to \$25,000 for a MS of a compact imaging radar system capable of real-time 3-D imaging that improves environmental scanning of an area, particularly when visibility is poor due to rain, fog and dust and where conventional sensors have limited use. The system is to be installed on robots now being used in Afghanistan and Iraq.

The following firms are receiving CCAT funding for biometrics technologies:

Bionics America of Los Angeles will receive \$25,000 for a MS for evaluation of a blood vessel authentication system. Like fingerprints, the web of blood vessels under a person's skin is unique to each individual. The work will be co-authored with Unisys, at its facilities in Reston, Va.

Embedded Computer Products of Wildomar, Calif., has been awarded \$15,000 for a business plan for its new computer chip and software that can monitor video cameras or other security sensors and analyze the data provided in real-time for fast response. The company's system uses

advanced pattern recognition to analyze imprecise or "fuzzy" patterns quickly, and is "self-learning."

GEM Power of Redlands, Calif., has been awarded a marketing and feasibility study for its GEM Power Universal Battery Charger for Biometric Sensing Equipment, an intelligent battery charging system that automatically determines the size and type of battery to be charged and rapidly, correctly and completely recharges it. This eliminates the need to support one charger per device and improves response to homeland security, crisis management and public safety needs.

Lumidigm of Albuquerque, N.M., will receive two grants for two technologies. Award 1: \$50,000 for PDT&E of a secure interface to work with its "J-Series Biometric Platform," which is the most secure, robust, single-finger biometric sensor available.

Award 2: \$75,000 to develop a single-finger biometric sensor for the commercial and private-sector, where size and cost must be reduced to be competitive. The goal is to reduce the cost of production and the volume and weight of the existing "J Series" sensor, while adding user feedback concerning finger placement.

Client News

- **Physical Sciences Inc.** has had several successful field tests of its prototype fuel monitoring system and is closing in on commercial production agreements for aviation applications.



- **Empirical Technologies** completed work on its beat-by-beat, non-invasive blood pressure monitor, the "BPGuardian"™ and has attracted significant investment interest, as well as research inquiries.



Empirical Technologies' "BPGuardian" measures blood pressure beat-by-beat.