THE UNIVERSITY OF MICHIGAN REGENTS COMMUNICATION

ACTION REQUEST

Subject:

Option Agreement between the University of Michigan

and Perception Analytics & Robotics LLC

Action Requested:

Approval of Option Agreement

Preamble:

A statutory conflict of interest situation was identified by the Office of Technology Transfer while reviewing the technology transfer agreement that then triggered a review by the OVPR Conflict of Interest Review Committee. A plan for management of the possible risks associated with the conflict of interest was then developed and approved by this Committee and agreed to by the parties involved in this plan.

This proposed option agreement ("Agreement") falls under the State of Michigan Conflict of Interest Statute because Professor Vineet Kamat, Suyang Dong (post-doc) and Manu Akula (post-doc) are all employees of the University of Michigan ("University") and partial owners of Perception Analytics & Robotics LLC. The law permits such an Agreement provided it is disclosed to the Board of Regents ("Regents") of the University of Michigan and approved in advance by a 2/3 vote.

Background:

Dr. Kamat, a Professor in the Department of Civil and Environmental Engineering, Dr. Suyang Dong, a Post-doctoral Researcher in the Department of Civil and Environmental Engineering, and Dr. Manu Akula, a Post-doctoral Researcher in the Department of a Civil and Environmental Engineering, are the partial owners of a for-profit company called Perception Analytics & Robotics LLC (the "Company"). The Company was formed recently to commercialize a Collision Avoidance System for Monitoring a Digging Excavator's Proximity to Invisible Underground Assets and desires to option from the University of Michigan the University's rights associated with the following technologies:

UM OTT File No. 5601, entitled: "Collision Avoidance System for Monitoring a Digging Excavator's Proximity to Invisible Underground Assets" (Vineet R. Kamat, Sanat A. Talmaki)

UM OTT File No. 5607, entitled: "KEG Tracker: A Hybrid Marker and Algorithms for High-Precision 3D Pose Estimation of Mobile Cameras" (Vineet R. Kamat, Chen Feng)

UM OTT File No. 5627, entitled: "Algorithm and Software for Ubiquitous, Multi-Sensory Localization of Mobile Asset in Unstructured Environments" (Vineet R. Kamat, Manu Akula)

UM OTT File No. 5628, entitled: "Algorithms and Software for Implementing Real-Time Occlusion in Augmented Reality Visualizations" (Vineet R. Kamat, Suyang Dong)

UM OTT File No. 5629, entitled: "Reusable and Extensible Software Framework for Augmented Reality Applications" (Vineet R. Kamat, Suyang Dong)

UM OTT File No. 5630, entitled: "Mobile Hardware Platform Augmented Reality Applications" (Vineet R. Kamat, Suyang Dong)

UM OTT File No. 5811, entitled: "Displaying Buried Utility Locations in Excavator Cabin Using Geo-Referenced Augmented Reality" (Vineet R. Kamat, Suyang Dong)

UM OTT File No. 5820, entitled: "3D Pose Estimation of Articulated Earth Excavating Machine in Real-Time Using Networked Cameras" (Vineet R. Kamat, Chen Feng)

The Office of Technology Transfer selected the Company as a University partner and negotiated the terms of the proposed Agreement in accordance with University policy and its accepted licensing principles.

Parties to the Agreement:

The Regents of the University of Michigan and Perception Analytics & Robotics LLC

Agreement Terms Include:

Agreement terms include granting the Company an option to further evaluate the subject technology and, upon meeting specific milestones, the ability to negotiate an exclusive license with the right to grant sublicenses. The Company will pay an option fee to the University.

The University will retain ownership of the optioned technology and may continue to further develop it and use it internally. No use of University services or facilities, nor any assignment of University employees, is obligated or contemplated under the Agreement. Standard disclaimers of warrantees and indemnification apply, and the Agreement may be amended by consent of the parties, such as adding related technology. University procedures for approval of these changes will be followed and additional conflict of interest review will be done as appropriate.

Pecuniary Interest:

The pecuniary interests of Drs. Kamat, Dong and Akula arise from their ownership interest in Perception Analytics & Robotics LLC.

Net Effect:

The Office of Technology Transfer has negotiated and finalized the terms of an option agreement for patents and software related to UM OTT File Nos. 5601, 5607, 5627, 5628, 5629, 5630, 5811 and 5820 for all fields of use. Perception Analytics & Robotics LLC will obtain use and commercialization rights to the above listed University technology.

Recommendations:

This matter has been reviewed and approved by the OVPR Conflict of Interest Review Committee. In light of this disclosure and our finding that the Agreement was negotiated in conformance with standard University practices, I recommend that the Board of Regents approve the Agreement between the University and Perception Analytics & Robotics LLC.

Respectfully submitted,

Stephen R. Forrest

Vice President for Research

July 2013