

**SUBMITTED BY:                   STEPHEN M. LANIER, PH.D., VICE PRESIDENT FOR RESEARCH**

**UNIVERSITY CONTRACT TO LICENSE A TECHNOLOGY TO  
IC, LLC, A COMPANY CO- OWNED BY A  
COLLEGE OF ENGINEERING FACULTY**

**RECOMMENDATION**

The Administration recommends the Board of Governors authorize the President or his designee to contract with IC, LLC, to enter into an exclusive license for commercialization of the intellectual property encompassing several technologies relating to “Ion Current Sensing for Control of Internal Combustion Engines.”

**BACKGROUND**

Naeim Henein, Ph.D, distinguished professor of mechanical engineering in the College of Engineering at Wayne State University (WSU), has developed technology and methodology related to decoding the ionization signature during combustion of air/fuel mixtures in internal combustion engines.

The technology has been disclosed to the university and is described in WSU Tech IDs 09-924, 10-982, 11-1009, 11-1034, 12-1073, 13-1160, and the technologies have issued patents or patent applications according to the following chart.

<b><u>Tech ID</u></b>	<b><u>Patents/Applications</u></b>
09-924	Granted US Patent: US 8973553 B2 PCT Application: PCT/US2010/042549 European Patent Application: 1082756.6
10-982	PCT Application: PCT/US2012/22774 US Patent Application: 13/981,840 European Patent Application: 12739262.9
11-1009	PCT Application: PCT/US2012/26873 US Patent Application: 14/001,668 European Patent Application: 12752002.1
11-1034	PCT Application: PCT/US2013/062146
12-1073	PCT Application: PCT/US2013/28231
13-1160	PCT Application: PCT/US2014/023245

This WSU Technology has benefitted from WSU financial, facility and equipment resources.

IC, LLC is a company founded by Detroit Engineered Products, and Dr. Henein together with his former graduate student, Dr. Tamer Badawy. Detroit Engineered Products is a Detroit area engineering services and product development company with engineering offices in Troy Michigan, Shanghai and Beijing China, Chennai India, and additional offices in Germany, Italy, Korea, and Japan. It is the intent of IC, LLC to further develop the technology for research and

development applications for global engine manufacturers as well as for volume production applications in engine control systems for automotive, motorized scooters, off-road farm and construction equipment, and military applications.

Michigan Conflict of Interest law requires specific sunshine procedures in order for a University employee, or a company owned by a University employee, to contract directly or indirectly with the University:

- (A) The employee must disclose any pecuniary interest in the contract to the Board and the disclosure must be made a matter of record in the Board's proceedings.
- (B) The contract must be approved by a vote of not less than two-thirds of the full membership of the Board in open session.
- (C) The Board's minutes must report:
  - (i) The name of each party involved in the contract.
  - (ii) The terms of the contract, including duration, financial consideration between the parties, facilities or services of the public entity included in the contract, and the nature and degree of assignment of employees of the public entity for fulfillment of the contract.
  - (iii) The nature of any pecuniary interest.

If the Board approves this Recommendation, the minutes will report as follows:

The Board of Governors authorized the President, or his designee, to contract with IC, LLC, of which Dr. Naeim Henein hold an equity position, to grant IC, LLC an exclusive license to the Technology known as "Ion Current Sensing for Control of Internal Combustion Engines."

- (i) The parties involved in the contract are Wayne State University and IC, LLC.
- (ii) The contract will provide:
  - (a) An exclusive, worldwide royalty bearing license
  - (b) Financial consideration of:
    - (1) License issue fee of \$10,000;
    - (2) 4% equity in Company;

(3) Repayment of past patent expenses totaling approximately \$315,000 and payment of future patent expenses;

(4) Royalties: Product Modifications - 2%; Diagnostic Equipment – 5%;  
Software – 10%;

(5) Three (3) Commercial Milestone Payments based on sales: \$20,000 total.

(c) No University employees are assigned in connection with the licensing contract.

(iii) Dr. Henein's pecuniary interest consists of an OWNERSHIP INTEREST, holding 37.5% equity interest in IC, LLC, and will therefore have the potential to financially benefit from the commercial success of the company, including the commercialization of the University's technology known as "Ion Current Sensing for Control of Internal Combustion Engines."