Report # 3230

To: Faculty Council

From: Professor Jonathan Rose  
Chair, The Edward S. Rogers Sr. Department of Electrical and Computer Engineering

Date: May 27, 2009

Item: Faculty of Applied Science and Engineering  
Identity, Privacy and Security Institute (IPSI)

Recommendation

That the Faculty of Applied Science and Engineering establish the Identity, Privacy and Security Institute as an EDU:C type of extra-departmental unit.

Background

In the spring of 2007, Professor Dimitrios Hatzinakos, Faculty of Applied Science and Engineering, University of Toronto, joined by colleagues from the Faculty of Information and UTM Mississauga, created a new initiative at the University of Toronto focusing on identity, privacy and security. The Identity, Privacy and Security Initiative (IPSI) was established to carry out a pioneering, interdisciplinary program of research, education, outreach, industry collaboration and technology transfer with emphasis on technology, policy and science. IPSI has received generous financial support from the University of Toronto's Academic Initiatives Fund. The budget for the first three years of operation, effective May 2007, as well as the deliverables and milestones is attached.

Goals and Objectives

The overall goal of IPSI is to develop new approaches to privacy that maintain the security, freedom and safety of the user and the broader community.

Objectives

- To advance the integration of the basic, social and engineering science research required to generate sustainable solutions to identity integrity, privacy and security.
- To assemble a cross-disciplinary community of researchers and community partners to create excellence in interdisciplinary research and education in the field of identity, privacy and security technologies, policies and sciences.
To provide interdisciplinary high level training in identity, privacy and security applications through state of the art educational programs and specializations that will bring together faculty and students from different disciplines to study and think together about identity, privacy and security and related technologies, policies and sciences.

To facilitate the commercialization of technologies through effective technology transfer mechanisms and industrial partnerships.

To work with policymakers and regulatory agencies to inform their judgment of identity, privacy and security realities with evidence based considerations of the scientific, ethical, legal and social issues involved.

Teaching Programs, Staff and Role

Initiated as a result of the Academic Initiatives Fund in September 2007, IPSI developed and launched a unique interdisciplinary Masters level program with a focus on security that runs in parallel and jointly in the Faculty of Applied Sciences and Engineering (ECE, MEng program) and the Faculty of Information (MI program). The MEng component aims to provide strong expertise in security technologies and good understanding of security policies. The MI component aims to provide strong expertise in information security policies and good understanding of security technologies. Plans for a third graduate program at UT Mississauga have been cancelled since IPSI’s inception, and UTM involvement in IPSI has ended as a result.

All teaching faculty have their primary appointment in the participating Faculties. In accordance with EDU:C regulations, IPSI will not have primary teaching staff appointing rights.

Students enrol in a distinctive course of study. Programs are established and reviewed according to the participating department’s guidelines. In addition, approvals for joint programs will be obtained from all units involved and, if required, from any external agencies concerned.

Research

The goal of IPSI is to assemble a cross-disciplinary community of researchers and community partners to create excellence in interdisciplinary research and education in the field of identity, privacy and security technologies, policies and sciences. Initially, research projects will focus in the areas represented by the founding parties: engineering, information studies and mathematics. The scope of the research is broad and could include researchers from engineering, law, information studies, computer science, sociology, psychology, management, political science, health and policy.

Governance

IPSI will be an EDU:C extra-departmental research unit in accordance with the guidelines established by the University of Toronto Governing Council’s Guidelines for Administrative Functions and Protocols for Extra-Departmental Units (February 26, 2007) and will follow the procedures and policies outlined in that document.
The Institute will be headed by a Director appointed for a fixed term by the Deans of the Faculties of Applied Science and Engineering and the Faculty of Information, following a review of the Institute’s operations. The Director will be assisted by an Advisory Committee and a Management Committee (see below). The Director is responsible for:
1) policy, administrative and financial operation,
2) chairing the Management Committee, and
3) providing regular reports to the divisional leads.

**IPSI Advisory Committee**
- Appointed by the Deans of the two major participating Faculties on the recommendation of the Director
- Comprised of internal and external stakeholders from academia, government, civil society and industry
- Meets annually to review the annual report and plan, and to give input into IPSI activities
- Provides input on academic and research objectives
- Identifies linkages and opportunities and advances the objectives of IPSI
- May spawn one or more sub-committees with interest in specific technologies or policy issues
- Membership term is minimum one year, maximum three years

**IPSI Management Committee**
- Comprised of academics from the two major participating Divisions as well as the Executive Director, Research Development and External Relations
- Deals with operational decisions related to the program
- Members are selected by the Director, in consultation with the Dean of the relevant division
- Academic members are responsible for overseeing the development of the ECE and FI academic programs and related components of the collaborative seminar
- Membership on the committee is for a minimum of three years
- Members participate in Advisory Committee as ex-officio members
- Meets quarterly to review the program(s)
- Plans, executes and monitors IPSI activities
- Addresses operational issues related to the programs as required
Reviews

The original benchmarks and deliverables established for the Academic Initiatives Fund competition will be in effect until 2010 and are attached. Annual reports against these milestones and budget will be made to the Provost’s Office and to the Deans of the relevant divisions.

Space and Administration

Administrative space for this n will be provided on the 7th floor Bahen currently occupied by Bell University Laboratories. All other space is made available through the participating divisions.

The Executive Director, Research Development and External Relations, IPSI, will have lead responsibility for the following administrative services:

1) Business development: Industry/government relations, Development of a Partnership program, Proposal drafting/support, Opportunities scanning
2) Events/Communications: event organization (seminars, workshops, meetings), website newsletters, publications
3) Administration: finance reporting, oversight and timing of university requirements (including the University’s Policy on Appointment of Academic Administrators), handling correspondence, meeting support (minutes, reports etc)

The Edward S. Rogers Sr. Department of Electrical and Computer Engineering provides FIS financial services for the IPSI funds.

Budget and Budgetary Authority

Initially, IPSI is funded through monies received from the Academic Initiatives Fund. The budget for the three years of the AIF is attached. The Director is responsible for ensuring that the budget is followed, and for reporting to the Provost’s Office and the Deans of the relevant units.

The Executive Director, Research Development and External Relations, is tasked with finding revenue for the n at the end of the AIF funding period.
## Appendix A: Budget – IPSI (May 2007)

<table>
<thead>
<tr>
<th></th>
<th>2007-08</th>
<th>2008-9</th>
<th>2009-10</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty *</td>
<td>30,000</td>
<td>45,000</td>
<td>45,000</td>
<td>Instructor time release or support for preparing new courses and organizing common seminar course.</td>
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<tr>
<td>Staff *</td>
<td>25,000</td>
<td>40,000</td>
<td>40,000</td>
<td>Part time secretarial support; part time Lab technician; part-time business development officer</td>
</tr>
<tr>
<td>Equipment</td>
<td>40,000</td>
<td></td>
<td></td>
<td>Equipment and software needed for the new courses and projects in the undergraduate courses and dual MEng, MIST programs</td>
</tr>
<tr>
<td>Operating *</td>
<td>15,000</td>
<td>20,000</td>
<td>20,000</td>
<td>Maintenance of equipment, software licenses and upgrades, office rental fees and supplies,</td>
</tr>
<tr>
<td>Construction/renovation</td>
<td>20,000</td>
<td>10,000</td>
<td>0</td>
<td>Renovations in two lab facilities</td>
</tr>
<tr>
<td>Outreach</td>
<td>25,000</td>
<td>15,000</td>
<td>15,000</td>
<td>Marketing study ($10K), Webcasting, Website development, bimonthly newsletter</td>
</tr>
<tr>
<td>Forums/workshops</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>Funds for organization of annual event</td>
</tr>
<tr>
<td>Seminar Series</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td>Support for the common seminar course/series (bi-weekly seminars)</td>
</tr>
<tr>
<td>Postdoctoral Fellowships</td>
<td>45,000</td>
<td>45,000</td>
<td></td>
<td>3 fellowship per year (50% funding)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>190,000</td>
<td>210,000</td>
<td>200,000</td>
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## Appendix B: Original AIF Proposal Deliverables and Milestones

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Deliverables and milestones Major milestones in BOLD</th>
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<tbody>
<tr>
<td><strong>2007-08</strong></td>
<td>• <strong>Organization/Communications</strong>&lt;br&gt;  o Creation of Advisory Council&lt;br&gt;  o <strong>Create web-site, branding, communications</strong>&lt;br&gt;  o <strong>Put together new EDU proposal for consultation</strong>&lt;br&gt; • <strong>Academic Programs</strong>&lt;br&gt;  o <strong>Launch two new graduate programs within MEng, MIST</strong>&lt;br&gt;  o Create new joint graduate seminar program&lt;br&gt;  o Complete marketing study for professional masters program&lt;br&gt;  o Develop forums, speakers series for undergraduates and public&lt;br&gt; • <strong>Development Activities</strong>&lt;br&gt;  o Establish new local and international partnerships/linkages&lt;br&gt;  o Support Ont government plans for new provincial centre of Excellence in privacy&lt;br&gt;  o <strong>Prepare proposal for NSERC Strategic network</strong>&lt;br&gt; • <strong>Research program</strong>&lt;br&gt;  o Conduct interdisciplinary research meetings&lt;br&gt;  o Prepare Lab requirements&lt;br&gt;  o Prepare requirements for research personnel</td>
</tr>
<tr>
<td><strong>2008-09</strong></td>
<td>• <strong>Organization/Communications</strong>&lt;br&gt;  o Ongoing communications: web, press, newsletters&lt;br&gt; • <strong>Academic Programs</strong>&lt;br&gt;  o Deliver forums, speakers series for undergraduates and public&lt;br&gt;  o Hold first annual research forum&lt;br&gt; • <strong>Development Activities</strong>&lt;br&gt;  o Build partnerships: local/international&lt;br&gt;  o Expand development activities from year 1&lt;br&gt;  o Develop industry membership program&lt;br&gt; • <strong>Research program</strong>&lt;br&gt;  o Conduct interdisciplinary research meetings&lt;br&gt;  o Develop new research proposals&lt;br&gt;  o Hire research personnel</td>
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<td><strong>2009-10</strong></td>
<td>• <strong>Organization/Communications</strong>&lt;br&gt;  o Ongoing communications: web, press, newsletters&lt;br&gt; • <strong>Academic Programs</strong>&lt;br&gt;  o Deliver forums, speakers series for undergraduates and public&lt;br&gt;  o <strong>Hold second annual research forum</strong>&lt;br&gt; • <strong>Development Activities</strong>&lt;br&gt;  o Build partnerships: local/international&lt;br&gt;  o Expand development activities from years 1&amp;2&lt;br&gt;  o <strong>Implement industry membership program</strong>&lt;br&gt; • <strong>Research program</strong>&lt;br&gt;  o Conduct interdisciplinary research meetings&lt;br&gt;  o Develop new research proposals&lt;br&gt;  o Expand research program</td>
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