

University Council Athens, Georgia 30602

March 17, 2017

UNIVERSITY CURRICULUM COMMITTEE - 2016-2017 Dr. Alison F. Alexander, Chair Agricultural and Environmental Sciences - Dr. Elizabeth Little Arts and Sciences - Dr. Sujata Iyengar (Arts) Dr. Rodney Mauricio (Sciences) Business - Dr. Myra L. Moore Ecology - Dr. Sonia Altizer Education - Dr. Seock-Ho Kim Engineering - Dr. Sudhagar Mani Environment and Design - Mr. David Spooner Family and Consumer Sciences - Dr. Patricia Hunt-Hurst Forestry and Natural Resources - Dr. John C. Maerz Journalism and Mass Communication - Dr. Jay Hamilton Law - Ms. Elizabeth Weeks Leonard Pharmacy - Dr. Robin Southwood Public and International Affairs - Dr. Robert Grafstein Public Health - Dr. Anne Marie Zimeri Social Work - Dr. David O. Okech Veterinary Medicine - Dr. Kira L. Epstein Graduate School - Dr. Timothy L. Foutz Ex-Officio - Provost Pamela S. Whitten Undergraduate Student Representative - Ms. Gabrielle Roth Graduate Student Representative - Ms. Ashley E. Fallaize

Dear Colleagues:

The attached proposal from the Franklin College of Arts and Sciences for a new Institute for Cybersecurity and Privacy will be an agenda item for the March 24, 2017, Full University Curriculum Committee meeting.

Sincerely,

alison algander

Alison F. Alexander, Chair University Curriculum Committee

cc: Provost Pamela S. Whitten Dr. Rahul Shrivastav

Committee on Facilities, Committee on Intercollegiate Athletics, Committee on Statutes, Bylaws, and Committees, Committee on Student Life, Curriculum Committee, Educational Affairs Committee, Executive Committee, Faculty Admissions Committee, Faculty Affairs Committee, Faculty Grievance Committee, Faculty Post-Tenure Review Appeals Committee, Faculty/Staff Parking Appeals Committee, Human Resources Committee, Program Review and Assessment Committee, Strategic Planning Committee, University Libraries Committee, University Promotion and Tenure Appeals Committee

Proposal to Establish the Institute for Cybersecurity and Privacy (ICSP) at the University of Georgia

3/5/2017

1. Summary

This proposal seeks to establish an Institute for Cybersecurity and Privacy at the University of Georgia. The primary objectives of the Institute will be to directly expand research in cybersecurity and privacy, and to indirectly enhance the cybersecurity and privacy curriculum currently offered at UGA.

Initially, the Institute's function will be primarily within the Department of Computer Science. The Department of Computer Science currently houses four faculty whose main areas of research are directly related to multiple aspects of cybersecurity and privacy. These research areas include network and system security, software security, web security, security for mobile devices and the Internet of Things (IoT), security of the Internet's core infrastructure, cyber-crime attribution, telephony security, and differential privacy.

While initially the institute will primarily involve faculty from the Department of Computer Science, one of the objectives of the institute will be to expand collaborations between cybersecurity researchers in the Department of Computer Science with researchers in other UGA units that conduct research related to the technical and non-technical aspect of cybersecurity and privacy. This may include faculty housed in the College of Engineering, the Department of Public Administration and Policy, the Department of Sociology, UGA School of Law, and the Department of Management Information Systems, among others. *The ICSP will participate as one of the institutes contributing to the Georgia Informatics Institutes for Research and Education (https://gii.uga.edu/)*.

By increasing the volume and enhancing the quality of cybersecurity and privacy research at UGA, the institute hopes to attract and recruit new talented faculty whose research expertise can complement current strengths in areas such as web security, security and privacy in social networks, cyber physical systems security, etc.

The Department of Computer Science currently offers several courses related to cybersecurity and privacy, both at the undergraduate and graduate level, and already offers a graduate certificate in cybersecurity. One of the goals of the institute will be to coordinate efforts to also expand the existing cybersecurity and privacy curriculum.

Along with an expansion of research in cybersecurity and privacy, the institute will pursue the National Security Agency/Department of Homeland Security designation as a National Center of Academic Excellence in Cyber Defense Research and will aggressively pursue new federal funding opportunities.

2. Background

Cybersecurity and privacy have become critical components of our digital lives. Security and privacy vulnerabilities affect every technology we use, from wearable and portable devices,

such as smartwatches, smartphones, etc., to national critical infrastructure, such as the power grid and air control systems. The exploitation of such vulnerabilities has opened the doors not only to widespread cyber-crime, but also to cyber-warfare, as demonstrated by recent events related to the possible interference of foreign governments into the 2016 U.S. presidential elections.

The need for research and expertise in the broad field of cybersecurity has grown tremendously in recent years. In 2015, *Forbes Magazine* reported that "between \$9 and \$21 trillion of global economic value creation could be at risk if companies and governments are unable to successfully combat cyber threats."

• Forbes Magazine: <u>www.forbes.com/sites/frontline/2015/07/13/why-</u> cybersecurity-leadership-must-startat-the-top

In addition, through the Comprehensive National Security Initiative, the White House "has identified cybersecurity as one of the most serious economic and national security challenges we face as a nation, but one that we as a government or as a country are not adequately prepared to counter." To sustain the advancement in cybersecurity defense, the Cybersecurity National Action Plan calls for an investment of over \$19 billion for advancing cybersecurity.

 "FACT SHEET: Cyber security National Action Plan | whitehouse.gov." February 9, 2016, <u>https://www.whitehouse.gov/the-press-office/2016/02/09/fact-sheet-</u> cybersecurity-national-action-plan. Accessed February 17, 2017.

Other federal agencies, including the Defense Advanced Research Projects Agency (DARPA), National Science Foundation (NSF), Department of Homeland Security (DHS), and the Department of Energy (DOE) have robust programs dedicated to funding cybersecurity research and education, as illustrated by the following linked initiatives:

- <u>Defense Advanced Research Projects Agency (DARPA)</u>: "DARPA Cyber Grand Challenge." <u>http://archive.darpa.mil/CyberGrandChallenge_CompetitorSite/</u>. Accessed February 17, 2017.
- <u>National Science Foundation (NSF)</u>: "NSF FY 2017 Budget Request to Congress - National Science" <u>https://www.nsf.gov/about/budget/fy2017/pdf/01_fy2017.pdf</u>. Accessed February 17, 2017.
- <u>Department of Homeland Security (DHS)</u>: "CSD Projects | Homeland Security." <u>https://www.dhs.gov/science-and-technology/csd-projects</u>. Accessed February 17, 2017.
- <u>Department of Energy (DOE)</u>: "OE Announces Funding to Improve the Cybersecurity of the Nation's Power Grid." (January 20, 2016), <u>https://energy.gov/oe/articles/oe-announces-funding-improve-cybersecuritynation-s-power-grid</u>. Accessed February 17, 2017.

3. Mission

The mission of the proposed Institute for Cybersecurity and Privacy (ICSP) is to contribute to meeting the nation's cybersecurity defense research and education needs. To this end, the ICSP will coordinate efforts related to pursuing new funding opportunities in cybersecurity and privacy research and education.

The four primary goals of the institute are to:

- 1. Lead and advance cybersecurity and privacy research at the University of Georgia, in the state of Georgia, and at the national and international levels.
- 2. Serve as UGA's hub for interdisciplinary research in cybersecurity and privacy. Organize annual workshops and scientific meetings with all key stakeholders, including UGA faculty, staff, and students, other universities, and industry and government representatives.
- 3. Meet and sustain the qualifications required to obtain designation as a NSA/DHS National Center of Academic Excellence in Cyber Defense Research.

Key qualifications include, among others:

- Evidence of a strong peer-reviewed publication record by faculty and students
- Alignment of research to stated core areas of NHS/DHS, including 1) principles,
 2) security mechanisms/functionality, 3) architectures, 4) assurance, 5)
 operations, 6) analysis, and 7) non-technical areas (including legal, policy, privacy, business, awareness, and supply chain).
- Continuous and sustained graduate-level production with theses and dissertations related to the stated core areas; and
- Continuous and sustained research funding, especially from DARPA, NSF, and IARPA, but also industry.

Therefore, key criteria that should be used in the annual and periodic review of ICSP will be the success in achieving NSA/DHS designation and maintaining or building on the metrics needed to retain such designation.

4. Create the impetus and opportunity for new educational programs to be developed and offered by the Department of Computer Science in the areas of cybersecurity and privacy education.

For example, in 2016, due to the initiatives of the initial core faculty identified in this proposal, the Graduate Certificate in Cybersecurity was developed and approved by University Council. The Graduate Certificate in Cybersecurity program, offered by the Department of Computer Science, is designed to equip graduate students with both foundational and cutting-edge cybersecurity and privacy concepts and to contribute to the formation of well-trained cyber-defense practitioners and researchers. Admission to the Certificate is open to graduate students across the university, but is specifically targeted towards graduate students in Computer Science, as well as related mathematical and engineering disciplines.

4. Value Added

In addition to the reasons relating to national security, the establishment of the ICSP brings significant and timely value to the University of Georgia due to *i*) alignment with the stated grand challenges of UGA, *ii*) the requirement for such an established Institute to receive NSA/DHS designation, and *iii*) Governor Deal's proposed "Georgia Cyber Innovation and Training" as part of his 2017 budget. Each of these will be briefly addressed in this section to provide necessary context.

i) Alignment with the stated grand challenges of UGA

In his 2017 State of the University Address, President Morehead highlighted UGA's grand challenges, the third of which is "Promoting Cyber, Domestic, and Global Security." Thus, ICSP is very closely aligned with the stated priorities of the University of Georgia.

ii) The requirement for such an established Institute to receive NSA/DHS designation

The National Security Agency (NSA) and the Department of Homeland Security (DHS) jointly sponsor the National Centers of Academic Excellence in Cyber Defense (CAE-CD) program.

Source: <u>https://www.nsa.gov/resources/educators/centers-academic-excellence/cyber-defense/</u>

The goal of the program is to reduce vulnerability in our national information infrastructure by promoting higher education and research in cyber-defense and producing professionals with cyber-defense expertise for the Nation. The program comprises institutions receiving either designation for excellence in Education or Research or both.

A clear expectation of receiving NSA/DHS designation is the following:

"The university has a declared, operational, and active center for Cyber Defense education or a center for Cyber Defense research. Provide a link to the center's website."

Therefore, the establishment of ICSP at the University of Georgia not only closely aligns with the priorities of the University, it is a stated requirement for receiving NSA/DHS designation.

In the state of Georgia, seven institutions have such NSA/DHS designation.

Designation as a National Center of Academic Excellence in Cyber Defense Education (CAE-CDE)

Armstrong State University Augusta University Columbus State University Kennesaw State University Middle Georgia State University University of North Georgia

Designation as a National Center of Academic Excellence in Cyber Defense

Research (CAE-R)

Georgia Institute of Technology

Although designation as a National Center does not carry a commitment of funding from NSA or DHS, it is clear that Georgia Tech enjoys added funding opportunities because of the designation from NSA/DHS.

In addition to Georgia Tech, seven of UGA's twelve peer institutions and four of UGA's twelve aspirational institutions have designation as a National Center for CD in Research (CD-R).

Peer Institutions having Designation as a National Center of Academic Excellence in Cyber Defense Research (CAE-R):

Ohio State University University of Arizona University of California – Davis University of Florida Iowa State University North Carolina State University University of Maryland

Aspirational Institutions having Designation as a National Center of Academic Excellence in Cyber Defense Research (CAE-R):

University of Illinois – Urbana-Champaign Pennsylvania State University University of Texas – Austin University of Washington

iii) Governor Deal's proposed "Georgia Cyber Innovation and Training Center"

Governor Deal's 2017 budget recommendation (dated January 11, 2017) included \$50 million for a new Georgia Cyber Innovation and Training Center in Augusta. The Center would be in partnership with state and federal agencies, as well as the private sector, to create a secure environment for cybersecurity education programs, testing, and training.

The stated mission of the proposed Institute is to "promote modernization in cybersecurity technology for private and public industries through unique education, training, research, and practical applications." The vision of the Institute is to "be recognized as a world-class cyber range and training facility focused on developing the next generation cyber workforce through real-world practice, education, public-private collaboration, and interdisciplinary research in the fields of healthcare, computer science, electrical engineering, mathematics, and robotics."

The proposed Institute specifically highlights those seven institutions in the state that have designation as a National Center of Academic Excellence for either education or research.

President Morehead is quoted in Governor Deal's proposal as follows: "The depth and breadth of the University of Georgia's expertise in cybersecurity and related fields—which ranges from training tomorrow's workforce to conducting groundbreaking research and leveraging the University's statewide infrastructure and networks—will enable this institution to play a key role in this critical initiative," said UGA President Jere W. Morehead. "We are committed to working with partners in government, industry and academia to enhance national security and economic vitality. Working together, we can stay one step ahead of emerging threats and create a more secure future."

 Georgia Cyber Innovation and Training Center. <u>https://gov.georgia.gov/sites/gov.georgia.gov/files/related_files/press_release/Georgia%20Cyber%20Innovation%20and%20Training%20Center.pdf</u>

5. Educational Offerings

ICSP will not initially be involved with the oversight of educational offerings at the University of Georgia. Consistent with its stated mission and goals, ICSP intends to be a leader in cuttingedge research relating to cybersecurity and privacy. To this end, it is likely that ideas and concepts for new educational offerings will be developed which will be implemented and overseen by the Department of Computer Science and/or collaborating academic departments on campus.

6. Governance and Organization

The governance and organization of ICSP will be consistent with Academic Affairs Policy Statement No. 7 titled "UGA Policy on Center and Institutes."

- a. <u>Administrative Unit and Reporting Structure</u>. The ICSP will be housed within the Department of Computer Science and will administratively report to the head of the Department of Computer Science, who in turn reports directly to the dean of the Franklin College of Arts and Sciences. The establishment of ICSP will involve minimal additional administrative structure.
- b. <u>Founding Director of ICSP</u>. The founding director of ICSP will be Dr. Kang Li. Dr. Li will report to the head of the Department of Computer Science. The director's appointment will be an administrative appointment subject to periodic review as described below.
- c. <u>ICSP Advisory Board</u>. ICSP will have an Advisory Board that will advise the head of the Department of Computer Science on all aspects of ICSP. The Advisory Board will meet at least annually to review annual progress of ICSP. The Advisory Board should have members within the Department, Franklin College of Arts and Sciences, and members outside the College. In addition, the Advisory Board may have members outside the University of Georgia. Advisory Board membership will be recommended by the director and head of the Department of Computer Science, and will be subject to the approval of the dean. Advisory Board members will have three-year terms that may be renewed.
- d. <u>Annual Reports</u>. ICSP will submit an annual report summarizing progress toward achievement of the four goals detailed in this proposal.
- e. <u>Periodic Review of Director</u>. The director will be reviewed every five years per the accepted guidelines of the Franklin College of Arts and Sciences.
- f. <u>Periodic Review of ICSP</u>. ICSP will be reviewed every five years. The review will address the extent to which ICSP achieved or is achieving the four stated goals. Key

criteria that will be used in the annual and periodic review of ICSP will be the success in achieving NSA/DHS designation and maintaining or building on the metrics needed to retain such designation. The review report will also include a statement that continuation of the Institute is either recommended or not recommended. If continuation is not recommended, the head of the Department of Computer Science shall decide whether to invoke the process for dissolution as described in Academic Affairs Policy Statement No. 7.

7. Institute Location and Physical Resources

ICSP will be physically located within the Department of Computer Science in Boyd GSRC within the existing laboratories and offices of the initial Core Faculty.

8. Finances

ICSP will fund itself through a combination of extramural sources, including federal grants and contracts, industry contracts, and foundation grants, as well as through endowments. No new resources are required to begin the ICSP.

9. Core ICSP Faculty

The initial core faculty members of ICSP will include the following faculty members, all appointed as tenured or tenure-track faculty in the Department of Computer Science and all having primary areas of research pertaining to cybersecurity and privacy. NSF biosketches for all four core faculty are found in Appendix A.

Brief Bios of Four Core Faculty

Kang Li. Kang Li is a Professor of Computer Science at the University of Georgia. He is the director of the Network System and Security (NSS) Lab at UGA. He worked as a research scientist at the College of Computing of Georgia Tech before joining University of Georgia. Kang Li's research interests are in the area of computer network and operating systems, especially system issues related to data security and privacy. His recent research focuses on detecting bugs in system software such as virtualization and cloud platforms. His research topics also include DNS security and defenses against various network abuses, such as Denial-of-Service attacks, Phishing, and SPAM. His current research is supported by National Science Foundation, Intel, Cisco Systems, and Georgia Research Alliance. Current research projects in Dr. Li's lab pertain to device and firmware security, virtualization and cloud security, and DNS security. Dr. Li is the founder of the DISEKT security team, which has competed and achieved high rankings in various global hacking competitions.

<u>Roberto Perdisci</u>. Dr. Perdisci is an Associate Professor in the Department of Computer Science, an Adjunct Associate Professor in the Georgia Tech School of Computer Science, and a faculty member of the UGA Institute for Artificial Intelligence. Before joining UGA he was Post-Doctoral Fellow at the College of Computing of the Georgia Institute of Technology. Dr. Perdisci also worked as Principal Scientist at Damballa, Inc., and prior to joining Damballa he was Research Scholar at the Georgia Tech Information Security Center and Ph.D. candidate at the University of Cagliari, Italy, with the Pattern Recognition and Applications Group. Dr. Perdisci's research focuses on securing networked systems. His lab is particularly interested in web security, automating the analysis of security incidents, and defending networks from malware. His lab often combine systems research with machine learning and large-scale data mining techniques to solve challenging computer and network security problems. He is also interested in broader aspects of networked systems, including Internet-scale measurements, analysis and optimization of systems performance, and the design of networking protocols. In 2012, Dr. Perdisci received an NSF CAREER award on a project titled "Automatic Learning of Adaptive Network-Centric Malware Detection Models."

Jaewoo Lee. Dr. Lee is an Assistant Professor in the Department of Computer Science. Before joining UGA, he was a postdoctoral research associate at Penn State University. Dr. Lee was one of the eight hires of the Presidential Informatics Hiring Initiative completed in 2016. Dr. Lee received a Ph.D. in computer science in 2014 from Purdue University where he studied privacy-preserving data analysis techniques. Dr. Lee's research interests lie at the intersections of data mining, machine learning, data privacy and security. The primary interests of his lab relate to data privacy—providing strong privacy guarantees while making accurate computations on sensitive datasets possible. His lab works on developing new methodologies for performing machine learning and data mining tasks on the privacy-enhanced data. He also works on developing efficient mining algorithms for data streams. A data stream is a sequence of data elements continuously generated at a fast rate. Due to its distinct characteristics, such as massiveness, evolving concept and high data growth rate, stream data mining poses new challenges. The research topics of interest include data privacy, machine learning, data mining on high-dimensional data, and security analytics.

<u>Kyu Hyung Lee</u>. Dr. Lee is an Assistant Professor in the Department of Computer Science. He earned his Ph.D. from Purdue University (2014) and M.S. (2008) from Hong-Ik University. His research interest lies in combining analyses at the program level and the system level to develop synergetic solutions for problems in cybersecurity, software reliability, and mobile security. His background broadly covers several areas: cybersecurity, dynamic/static program analysis, software engineering, operating systems, and distributed systems. Dr. Lee's recent publications address accurate reconstruction of android attacks via multi-layer forensic logging, enabling reconstruction of attacks on users via efficient browsing snapshots, and self-destructing exploit executions via input perturbation.

Additional Core Faculty within the Department of Computer Science or outside the Department of Computer Science may apply for membership as Core Faculty subject to the majority vote by the existing Core Faculty at the time. All Core Faculty will retain their appointments in their home units. Promotion, tenure, and salary decisions will be made in the home unit according to the unit criteria in consultation with the ICSP Director.

10. Affiliated Faculty and Staff Membership

Although ICSP will be physically located and organized within the Department of Computer Science, any interested faculty or staff, including postdoctoral fellows associated with the University of Georgia, will be eligible to apply for membership as Affiliated Faculty or Affiliated Staff. Applicants should submit a resume or curriculum vitae with a cover letter stating their interest and the extent to which the applicant may contribute to the mission and goals of ICSP. Affiliate membership will be subject to the majority vote of the existing Core Faculty. All Affiliated Faculty will retain their appointments in their home units.

11. Student Membership

Any current undergraduate or graduate UGA student may apply for student membership. Applicants should submit a resume or curriculum vitae with a cover letter stating their interest and the extent to which the applicant may contribute to the mission and goals of ICSP. Student membership will be subject to the majority vote of existing Core Faculty.

12. Letters of Support

- 1. Alan Dorsey, Dean, Franklin College of Arts and Sciences
- 2. David Lee, Vice President, Office of Vice President for Research

13. Appendix A. NSF biosketches of initial four core faculty

Dr. Kang Li, Professor, Department of Computer Science

Dr. Roberto Perdisci, Associate Professor, Department of Computer Science

Dr. Jaewoo Lee, Assistant Professor, Department of Computer Science

Dr. Kyu Hyung Lee, Assistant Professor, Department of Computer Science



Department of Computer Science

Dr. Alan Dorsey/Dean Franklin College of Arts and Sciences Old College University of Georgia Campus

Dear Dean Dorsey,

The Computer Science Department is proposing to establish an Institute for Cybersecurity Institute and Privacy (ICSP) at the University of Georgia.

The importance of advancing research and education in cybersecurity and privacy is addressed by recent events that are reported in Section 2 of the proposal.

The increasing demand to address cybersecurity and privacy issues is reflected by the increasing funding initiatives at both the national and state levels. The White House has issued a plan that calls for large investments dedicated to advancing cyber security. Governor Deal's 2017 budget recommendation include the establishment of a Cyber Innovation and Training Center.

The Computer Science Department at UGA hosts an exceptional cyber security research program. Currently, it has four Faculty members whose research focus in entirely on cybersecurity and privacy. Their research results have been recognized at the international level. For instance, many of their publications have been featured in the most renowned and selective international conferences and peerreviewed journals in the areas of cybersecurity and privacy (CVs are included). This ICSP will be one of the affiliated institutes with the Georgia Institutes of Informatics (GII). The establishment of this Institute will enhance the GII mission, and will go along with the University strategic plan.

One of the reasons for establishing the ICSP will be to support UGA's efforts towards applying for accreditation as a center of excellence in cyber defense research sponsored by NSA and the Department of Homeland Security. Such accreditation will allow UGA faculty to qualify for large cyber security research and scholarship grants. It is to be noted that there is only one Cyber Security Research Institute in the state of Georgia, and UGA is in an excellent position and very well qualified to be the second one.

In summary, the ICSP at UGA will serve as a platform to explore interdisciplinary cybersecurity and privacy research within UGA. In my view, this proposal is timely and of great significance to the further development of UGA's research and education as a land grant institution. I think that it will have a big impact on our Graduate programs and our research funding through UGA.

Sincerely,

HA.J.K

Thiab Taha/Professor & Head of Computer Science Department



Old College Athens, Georgia 30602 TEL 706-542-3400 www.franklin.uga.edu

Franklin College of Arts and Sciences *Office of the Dean*

March 1, 2017

Dear Members of the Curriculum Committee,

I write in support of the proposal to establish an **Institute of Cyber Security and Privacy** (ICSP) at UGA. This proposal is submitted by the Department of Computer Science.

The importance of cyber security and privacy research and education are evident in every corner of our lives, from elections to online commerce to personal communications. The great demand to address cyber security and privacy issues is reflected by the increasing funding initiatives at both the national and state levels. The White House has issued a plan that calls for investment for advancing cyber security, and Governor Nathan Deal recently proposed a Cyber Innovation and Training Center in Georgia.

UGA is well positioned to offer an excellent cyber security research program. The Department of Computer Science has multiple faculty whose research focus is on cyber security and privacy, and we anticipate interest and participation by other Franklin College and UGA faculty with related interests.

One of the first priorities for ICSP is to secure designation as a National Center of Academic Excellence in cyber defense research sponsored by the National Security Agency and the Department of Homeland Security. One benefit of such an institute is that it would allow UGA to qualify for large cyber security research and scholarship grants. ICSP will also serve as a platform to explore interdisciplinary research at UGA.

I view this proposal as timely and of great significance that will advance UGA's research and education missions. I enthusiastically support the formation of the Institute of Cyber Security and Privacy.

Sincerely, Alan T. Dorsey

Dean

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OFFICE OF RESEARCH 147 Paul D. Coverdell Center for Biomedical and Health Sciences Athens, GA 30602 TEL 706-542-5969 | FAX 706-542-5978 www.uga.edu

March 6, 2017

Dear University Curriculum Committee,

This letter is in support of the proposal, submitted by the Department of Computer Science, to establish an Institute for Cyber Security and Privacy (ICSP) at UGA.

The importance of advancing research and education in cybersecurity and privacy is highlighted by recent events, such as the use of cyber-attacks by a foreign country to potentially influence the results of US elections, numerous breaches into corporate databases and personal communications, and denial-of-service attacks against popular web services and critical cyber-infrastructure. Within our own UGA community, employees and students were directly impacted by the hacking of Anthem two years ago. We should not, therefore, be surprised to see the increasing demands for better cyber security defense and privacy protections.

This new and increasing demand to address cybersecurity and privacy issues is reflected by increasing funding initiatives at both the national and state levels. The White House has issued a plan that calls for large investments dedicated to advancing cybersecurity. Governor Deal's recommended 2017 budget includes the establishment of a Cyber Innovation and Training Center in the State of Georgia.

UGA has an impactful cyber security research program, primarily housed within the Department of Computer Science, which currently has four faculty whose research is entirely focused on cybersecurity and privacy. Their research has been recognized at the international level. For instance, many of their publications have been featured in top-tier international conferences and peer-reviewed journals in the areas of cybersecurity and privacy.

ICSP will be the catalyst for UGA's application for accreditation as a center of excellence in cyber defense research sponsored by NSA and the Department of Homeland Security. Such accreditation will allow UGA faculty to qualify for large cybersecurity research and scholarship grants. The cybersecurity center at UGA will also serve as a platform for interdisciplinary cybersecurity and privacy research here on campus.

In conclusion, I view this proposal as timely and of great significance to our impact as a land grant institution. I support the formation of the Institute of Cyber Security and Privacy with considerable enthusiasm.

Sincerely,

David Lee, Ph.D. Vice President for Research

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Approvals on File

Proposal: Institute for Cybersecurity and Privacy

Department: Computer Science

College: Franklin College of Arts and Sciences

Proposed Effective Term: Semester after approval

Department:

• Computer Science Department Head, Dr. Thiab Taha, 3/5/2017

School/College:

- Franklin College of Arts and Sciences Associate Dean, Dr. Jean Martin-Williams, 3/22/17
- Franklin College of Arts and Sciences Dean, Dr. Alan Dorsey, 3/1/17

Additional Support:

• Vice President for Research, Dr. David Lee, 3/6/17