

**BOARD OF TRUSTEES**

**UNIVERSITY OF THE DISTRICT OF COLUMBIA**

**UDC Resolution 2016 -**

**SUBJECT: UDC School of Engineering & Applied Sciences Tenure Approval for Dr. Dong Jeong**

**WHEREAS**, pursuant to 8B DCMR §1467, the School of Engineering & Applied Sciences (SEAS) Promotion Committee and Dean Devdas Shetty have determined that Dr. Dong Jeong qualified for the position of Associate Professor of Computer Science; and

**WHEREAS**, pursuant to 8B DCMR §1462, Dr. Dong Jeong has served as Assistant Professor at UDC since 2010, and is recognized by his students, fellow faculty members, administrators, and other experts in his field for his excellent teaching skills and contributions to undergraduate and graduate students' research (including the creation of an innovative teaching environment, by integrating both the latest technologies and interactive educational materials); for a track record of strong research activity and contributions in the areas of Visual Analytics, Big Data Analytics, and Cloud computing; for having received grants amounting to \$500,000 to promote cyber security research and education at UDC; and for having published to-date more than 50 peer-reviewed papers, and 19 research papers (seven journal and 12 conference publications) and whose publications have been cited more than 400 times according to the Google Scholar;

**WHEREAS**, Dr. Dong Jeong is also recognized for his collaborations and many contributions to the UDC community, such as: serving on numerous university committees, including the UDC Faculty Senate (2012-2014), the UDC University Graduate Council, and the ABET (Accreditation Board for Engineering and Technology, Inc.) self-study, for which he documented outcomes-based course assessment results to create a procedure to support closing the loop in the curriculum; and serving in SEAS as interim department chair 2013, undergraduate program director 2013-2014, and graduate program director (since 2014), as well as a curriculum committee chair and a faculty search committee chair (2013-2015); and,

**WHEREAS**, pursuant to 8B DCMR §§ 1468 and 1470 the Dean, the Chief Academic Officer and the President have affirmed the recommendation of tenure for Dr. Dong Jeong and the President has forwarded the recommendation for tenure to the Board of Trustees;

**NOW, THEREFORE BE IT RESOLVED** that the Board of Trustees of the University of the District of Columbia approves the award of tenure to Dr. Dong Jeong of the School of Engineering & Applied Sciences.

Submitted by Academic and Student Affairs

April 12, 2016

Approved by the Board of Trustees

July 26, 2016

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Elaine A. Crider  
Chairperson of the Board



## FISCAL IMPACT STATEMENT

**TO:** The Board of Trustees  
**FROM:** Managing Director of Finance *David L. Franklin*  
**DATE:** July 8, 2016  
**SUBJECT:** Tenure Approval for Professor Dong Jeong

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### Conclusion

It is concluded that there is no fiscal impact associated with the granting of tenure to Professor Dong Jeong in the School of Engineering & Applied Sciences (SEAS) at the University of the District of Columbia (UDC).

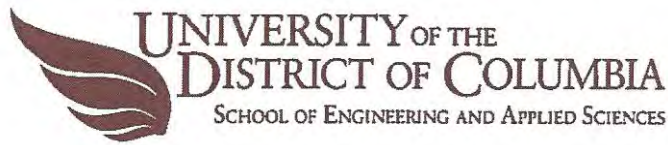
### Background

Dr. Dong Jeong has served as Assistant Professor at UDC since 2010, and is recognized by his students, fellow faculty members, administrators, and other experts in his field for his excellent teaching skills and contributions to undergraduate and graduate students' research (including the creation of an innovative teaching environment, by integrating both the latest technologies and interactive educational materials); for a track record of strong research activity and contributions in the areas of Visual Analytics, Big Data Analytics, and Cloud computing. Dr. Jeong is also recognized for his collaborations and many contributions to the UDC community, such as: serving on numerous university committees, including the UDC Faculty Senate (2012-2014), the UDC University Graduate Council, and the ABET (Accreditation Board for Engineering and Technology, Inc.)

The recommendation of tenure for Professor Dong Jeong has been affirmed by the Dean, Chief Academic Officer, and President.

### Financial Impact

This request has been approved based upon the information provided. There are no anticipated risks at this time.



Office of the Dean

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May 2, 2016

Dr. Rachel Petty,  
Provost,  
University of the District of Columbia,  
4200, Connecticut Avenue, NW,  
Washington DC

**Ref: Dr. Dong Jeong- Recommendation regarding Promotion to Associate Professor with Tenure**

I have the pleasure of strongly supporting Dr. Dong Jeong's candidacy for promotion to the rank of Associate Professor of Computer Science and Information Technology with tenure.

Dr. Dong Jeong joined the University of the District of Columbia as an Assistant Professor in August 2010, after completing his Ph.D. in Computer Science from the University of North Carolina, Charlotte. He had previous work experience in industry in a related area that helped him to combine theory and practice at UDC.

His Ph.D. work had been in the area of knowledge visualization and the development of visualization tools. He developed addition techniques to enhance the capabilities of Agent Based Modeling (ABM) methodology, which is used to simulate and explore behaviors such as collaboration, conflict, violence and population change. The major contributions made by Dr. Jeong can be examined as a combination of theory and practice. The results are available through his array of scholarly publications. The college promotion and tenure committee, while pointing out his exemplary performance have unanimously recommended him for promotion and tenure.

I will outline his contributions in the areas of teaching, research and service.

### Teaching

Dr. Jeong's teaching philosophy in computer science and information technology is based on applying his deep knowledge of the field and using the teaching skills to solve complex domain problems in an insightful manner. His role as a teacher has been to motivate students to improve their creative thinking and problem-solving skills. He created a teaching environment in class that utilized technologies by integrating interactive educational materials (*i.e. web-based hands-on tools and multimedia*) with curriculum and learning approach to understand

computing technologies and theories. He normally places emphasis on hands-on exercises and questions students so that they can link theoretical concepts covered in class with practice. He believes in effective mentoring, which includes providing advice, support, information, encouragement, and constructive feedback.

As a dedicated teacher, Dr. Jeong has observed that many students have struggled to understand the underlying meaning of complex computer science concepts. He developed his deep learning approach over the years at UDC and addressed the complex problem in his own way. His approach involved continuous communication with faculty members at UDC and exploring alternate pathways to be successful as an effective scholar teacher.

I had the opportunity of visiting his undergraduate class in Spring 2016. This was a senior capstone class that required of the Computer Science majors. He integrates two educational approaches, experiential learning and cooperative learning to increase students' understanding of computer science concepts and algorithms. I have observed him interfacing with student projects and at the same time applying the topic of critical thinking skills.

Dr. Jeong taught fourteen different courses for undergraduate and graduate students. The new courses he designed are as follows: *Advanced Web Programming*, *Information Security (UG)*", *Visualization (UG + G)*", and *Big Data Analytics (G)*". Dr. Jeong developed new educational materials including lecture notes, handouts, different types of in-class activities to help students understand complex concepts and approaches. One of the areas Dr. Jeong focused on was Human Computer Interaction (HCI). Since HCI concentrates on the study of interaction between human (users) and computers, it is important to understand methodologies (including theories) from computer science, psychology, behavioral sciences, and many other areas. Dr. Jeong applied these techniques in his teaching. He emphasized cooperative learning that emphasized on organizing classroom activities into academic learning experiences by making them to solve problems together.

Dr. Jeong has consistently received high evaluations from his students. He received an overall composite rating of 4/EP in each year that he has worked at UDC. His teaching, scholarship, university and community service have all received an overall rating of EP. His research efforts and experiences are continuously adapted to develop class materials for training students.

### Research

Dr. Jeong's major research contribution has been in the areas of Visual Analytics and Big Data Analytics. Visual analytics is the area, in where the utilization of visualization techniques to help human understand data in an effective way is emphasized. Based on this research effort he had a research grant from the Department of Defense titled "Designing a Robust Closed-Loop Intrusion Detection Predictive Model using Signal Processing Techniques in Cloud Computing Environment".

After joining UDC, he continued working on enhancing his research expertise and applying in-depth knowledge to conduct research in the areas of visual analytics and cloud computing. As a result of his efforts, he received several internal and external grants. The research results have

been disseminated and have appeared as scientific publications in the field of Computer Science. He published about 50 peer-reviewed scientific papers. Over the past five years (at UDC), 19 research papers have been published (7 journal publications, 12 conference / workshop publications). According to the Google Scholar, his publications have been cited 369 times.

He actively participated in submitting proposals to National Science Foundation (NSF), National Oceanic and Atmospheric Administration (NOAA), National Security Agency (NSA), and DoD (Department of Defense).

His research work that was funded includes:

- Collaborative Research: A Partnership for Developing the IA Workforce, NSF, (co-PI) \$300,000, Aug. 2010 - Aug. 2014.
- Developments of Software Analytical Tool to conduct Storm Event Analysis, DC WRRI, co-PI, \ \$50,912, Mar. 2014 - Feb. 2015.  
Designing a Robust Closed-Loop Intrusion Detection Predictive Model using Signal Processing Techniques in Cloud Computing Environment,(PI) The U.S. Army Research office (DoD - the Department of Defense), \ \$89,000, 2013-16.
- Establishment of Computational Infrastructure at UDC to Conduct Climate Change Research for District of Columbia, National Institute of Food and Agriculture (NIFA), \ \$75,000, May 2014 - Aug. 2017. These grants were in addition to his seed grant from UDC on Managing and Representing Uncertainty Sensor Data using Cloud, \ \$4,000, Fall 2011 - Spring 2012

His research contribution to the field has been the design and creation of collaborative touch table application by extending the range and capability of single user system. He also contributed to the important cyber security area by creating a multi-level intrusion detection system that can detect external attacks and neutralize them. His external reviewers are highly appreciative of him for his contribution to the field of Computer Science. Some of his collaborative work done recently has been with Bowie State University, Tufts University on the development of interface tools to carry out visual analytics tasks.

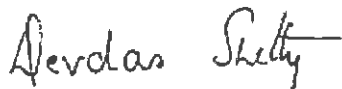
Dr. Ramakrishna Thurimella, Professor and Chair of Computer Science and Director of Colorado Research Institute for Security says that Dr. Jeong's idea of connecting the intrusion detection techniques to cloud computing is a novel and effective approach. It overcomes the limitations the current intrusion detections methods that support high-speed computation. To support interactive understanding of high volume data, Dr. Jeong aggregated different approaches and created a novel method. Dr Kayvan Najarian, Ph.D. from University of Michigan identified Dr Jeong's work as very useful for; creating possible opportunities for students to learn new technologies (especially in Computer Science) is important for them to build successful career goals. Min C. Shin, Ph.D, Department of Computer Science, UNC Charlotte talks about how his overall work focuses on addressing the limitation by providing a highly interactive visual analysis tool, with which users can interactively change parameters to see the effectiveness of results

**Service**

Dr. Jeong's contribution to the Computer Science and Information Technology program has been outstanding. He was deeply involved in creating the ABET self -study for computer science. He documented the outcome based assessment results and created the procedure for closing the loop in the curriculum. He was an interim department Chair, Director of graduate program, Undergraduate Program Director of CSIT; Faculty Senator 2012-2014; Curriculum Committee Chair 2011-2014; He was the leading member of UDC National Center & CNSS designation from NSA, in 2011. Dr. Jeong also received an outstanding service award in 2014.

Dr. Jeong's contribution to UDC has been outstanding. In view of the above, I strongly recommend him for promotion to the rank of Associate Professor with tenure.

Sincerely,



Devdas Shetty, Ph.D., P.E.  
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School of Engineering and Applied Science  
Professor of Mechanical Engineering  
University of the District of Columbia  
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Washington, DC 20008  
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