

## Service Statement

As faculty member, I view service as an important and integral part of my mission in ensuring high institutional quality through the shared governance, and I strive to maintain a balance between my commitments to the broader community as well as my home institution through service. This statement will document highlights of my professional and public services to my home institution, including university-, college-, and department-level services, and to the broad research community, including conference organization, technical program committees, panel services, ad-hoc reviews, and grant proposal review. Associated with my university services, I will also comment on my efforts in graduate students supervision and researchers' mentorship. For organization purpose only, I will divide this statement into two parts: service to home institution and service to the community.

**Service to the home institution.** My service to my home institution has been featured by playing the role of the chair or member of various university-, college-, and department-level.

At the **university-level**, I served in two key capacities: as a member of the university-level Faculty Senate, and associated graduate policy committee, and as the founding director of the INHA-UCF dual-degree doctoral program.

- *Faculty Senate and Graduate Policy Committee* At the university-level, I was elected to serve as one of seventy-five elected members of the Faculty Senate for a two-year term (2018–2020). The senate's role is to ensure the faculty's participation in university governance by being an advisory body to the president of the university. My duties in this elected position has included attending monthly meetings where policies affecting the constituents (students, faculty, and staff) are discussed and decided. The senate at UCF operates as various committees, and as part of my duties I served on the graduate council's graduate policy committee, which is in charge of examining and formulating policies and procedures, hear petitions for variances of program, college, and university requirements, and review actions and policy recommendations. During my term (2018–2020), various important policies have been discussed, drafted, and/or updated, including policies that touch upon graduate faculty membership, graduate program time limits, program-credit restrictions, and graduate student work-life balance issues (and associated policies).
- *UCF-INHA Dual-degree Doctoral Program* As part of a large project between INHA University (Republic of Korea) and UCF, a dual-degree doctoral program was envisioned between the two institutions, where I was selected as the director of the program from its inception to realization. My duties as the director of the program included writing the application of the program at the college level, which required compiling various detailed documents concerning the individual programs at both institution, filing a petition of the program and routing it to various units for study and approval at the college, university, and accreditation association level. My role further included meeting with various administrative leaders at the university level to analyze policy variations and suggest remedies, language around the implementation of the program, and helping with the final draft of the technical narrative of the agreement to be reviewed by the college of graduate studies, the legal council, and by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), which accredits UCF's programs. Per the program, doctoral students spend three years at INHA and two years at UCF, where courses taken at INHA are accepted by UCF, and vice-versa, and students pass the various degree milestones at both universities towards a dual degree. To date, the program graduated three doctoral students.

At the **college-level**, I have had the opportunity to serve in an elected position as the chair of the instructor and lecturer promotion committee in two consecutive years (2019 and 2020). The role of this committee is to advise Dr. Michael Georgopoulos, the dean of the college of engineering and computer science (CECS) by evaluating candidates from the six different departments of the college for their promotion. My role included leading the committee by enforcing the promotion policies and requirements, presenting the cases of the candidates before the committee for the promotion (to the rank of associate or senior lecturer/instructor), leading the discussion of the cases, taking into account both the material submitted by the candidate and the outcomes of the work done department-level committee and department chair's feedback, drafting the rationale of the committee's recommendation against the promotion criteria. During my two years term, the committee evaluated eight cases for promotion.

At the **department-level**, I have served in various capacities as a chair and member for different committees. Most recently, I served as the chair of the computer security technical research committee (2018–), where I am responsible for planning the offering of the different courses in the area, and coordinating their assignment to the different faculty members who teach them in light of their teaching load, the overall demand, and the department needs. From 2017 to 2018, I served as a member of the cyber security and privacy cluster initiative search committee team, which resulted in the successful recruitment of Dr. Yan Solihin as a lead upon a national search. I served on the

department faculty search committee as well as other ad-hoc committees for recruiting junior faculty members in 2017-2019, which resulted in hiring three assistant professors (two security and one machine learning).

I have also served on various department-level committees as a member, including the promotion and tenure committee (2019–2020), graduate committee (2017–2020); this committee is in charge of admission and graduate students' evaluation (including qualifier exam). While at UB, I also served as a member of the colloquium committee (2015–2017), the graduate studies committee (2015–2017), and the graduate admission committee (2015–2017).

I view advising and mentorship as a significant portion of service, which nicely fits across the three units. At the department-level, I have been an active mentor and advisor, where to date I mentored two postdoctoral researchers who are currently in academia at the rank of tenure-track assistant professors. To date, I have also graduated seven PhD students, six of whom went on to assume positions in academia, four at the rank of tenure-track assistant professors, and two as postdoctoral researchers. I am currently advising seven PhD students, three of whom will graduate by the end of 2021, and two more by May 2022. My advising also includes eleven master's students and ten undergraduate research assistants. At the college-level and university-level, I have been an active mentor of junior faculty members, including mentoring two assistant professors, Dr. Amro Awad (ECE; hardware security; since then he has left UCF to join NCSU) and Dr. Sung Choi (Health informatics; healthcare security and privacy). I hosted several researchers to date, including more than ten interns while in industry, half a dozen in academia, and as a dissertation committee member for five PhD students (at UB, NEU, GMU, and UCF).

**Service to the community.** My service to the broader community includes organizing and leading various conferences and workshops, serving on the technical program committee of various conferences, serving on the editorial board of journals, and serving on various panels of merit review for proposals.

During the past five years, I have been on the editorial board of various top journals as an associate editor, including IEEE Transactions on Mobile Computing (2018–2021), IEEE Transactions on Parallel and Distributed Systems (2020-2022), IEEE Transactions on Cloud Computing (2021-2023), Transactions on Internet and Information Systems (2015-2017), Wiley's ETRI Journal (security section editor; 2017-), and Computer Networks (2019-). My role as an editor has been assigning papers to reviewers, ensuring quality of reviews, and making recommendations to the editor-in-chief. I also have been a co-editor-in-chief (along with Sencun Zhu from PSU; 2019-2021; term ending in August) of EAI Endorsed Transactions on Security and Safety, where my role has been recruiting editors, shaping the editorial policies, and ensuring a healthy pipeline of quality publications to move the journal forward.

Since 2012, I have served on various organizing committees in various capacities, which I list in my vitae. At the leadership front, I have been the vice chair of the technical committee on the Internet of the computer society (since 2020). Moreover, I have been the general co-chair of ACM CoNEXT 2019 (along with Zhi-Li Zhang from the University of Minnesota), and the program chair of SecureComm 2019 (along with Wenjing Lou from Virginia Tech). I have also chaired various security tracks in networked systems conferences, including IEEE ICDCS, ICC, MASS, ICPADS, ICASSP, etc. I have also served as the publicity chair of CNS and ASIACCS, workshops chair of ACM SEC and IEEE DSC, the travel chair of IEEE CNS, treasurer of ACM MobiSys, among many other services.

I have also been on the technical program committee of more than 50 reputed conferences, workshops and symposia in my area, including the Network and Distributed System Security Symposium (NDSS), the annual Privacy Enhancing Technologies Symposium (PETS), International World Wide Web Conferences (WWW), IEEE Conference on Computer Communications (INFOCOM), International Conference on Distributed Computing Systems (ICDCS) International Conference on Web and Social Media (ICWSM), the AAI Conference on Artificial Intelligence (AAI), ACM Symposium on Information, Computer and Communications Security (ASIACCS), International Conference on the Detection of Intrusions and Malware, and Vulnerability Assessment (DIMVA), and IEEE Conference on Communications and Network Security (CNS), among others. Additionally, I also served as an external reviewer for various major conferences, including NDSS, WWW, CCS, S&P, and IMC, among others.

I served regularly as a reviewer for various reputed and leading journals, including: ACM Transactions on Privacy and Security (TOPS, formerly TISSEC), ACM/IEEE Transactions on Networking, IEEE Internet of Things Journal, IEEE Transactions on Dependable and Secure Computing, and IEEE Transactions on Mobile Computing, etc.

Since 2012, I served on various review panels for various funding agencies, e.g., the European Research Council (ERC), US National Science Foundation (CPS, CSR, NeTS, SaTC, and CAREER), US Department of Homeland Security, US Army Research Office, US–Israel Binational Science Foundation, and National Science Centre of Poland.

**Concluding remarks and future plans.** Service is a crucial role faculty members can use to improve their institutions and the community as a whole. I have been privileged to serve in multiple capacities, an experience that have exposed me to the various aspects of higher education at the department, college, university, and the community as a whole. I plan to continue those engagements to improve the outcomes of higher education by high-quality service.