PROMOTION RECOMMENDATION
The University of Michigan – Flint
College of Arts and Sciences
Department of Mathematics and Applied Sciences

Suleyman Uludag, associate professor of computer science, with tenure, Department of Mathematics and Applied Sciences, College of Arts and Sciences, is recommended for promotion to professor of computer science, with tenure, Department of Mathematics and Applied Sciences, College of Arts and Sciences.

Academic Degrees:

Ph.D.	2007	DePaul University, Computer Science, Chicago, IL
M.S.	1996	DePaul University, Computer Science, Chicago, IL
M.B.A.	1992	Illinois Institute of Technology, Operations Management, Chicago, IL
B.A.	1991	Marmara University, Business Administration in Finance, Istanbul, Turkey

Professional Record:

2012-Present	Associate Professor of Computer Science, University of Michigan-Flint, Michigan
2006-2012	Assistant Professor of Computer Science, University of Michigan-Flint, Michigan
1998-2006	Adjunct Faculty, DePaul University, Illinois

Summary of Evaluation:

Teaching: Professor Uludag has successfully taught 11 distinct courses since his last promotion. Course content ranges from introductory (CSC 101) to graduate level (CSC 550). Courses serve several majors, including computer science as well as general education. Courses have been delivered in a variety of modes. Professor Uludag's teaching philosophy emphasizes contextualization and active learning. He provides challenging, real-world, problem-solving opportunities to facilitate student engagement and learning. Student evaluations indicate that Professor Uludag appropriately challenges and supports students. He is readily available and approachable. Students describe him as an "eager" and "open" professor who "genuinely cares." They recognize the value of, and seem inspired by, the challenging assignments that Professor Uludag creates. His pedagogy is often data driven as he consistently creates and applies pedagogical research knowledge to his classroom instruction.

Professor Uludag has made timely, important contributions to the computer science program curriculum. He has updated courses to make them competency based. This led to the creation of multiple, popular entry-level certifications. Professor Uludag has played a leading role in the development of the cybersecurity program which is jointly developed by faculty in the College of Arts and Sciences and those in the College of Innovation and Technology, where the degree is housed. These initiatives provide high demand programming that supports student, institution, and industry success. Professor Uludag is an active and effective advisor. He regularly involves students in the research process which has led to many student publications and presentations. 33 different students appear as co-authors on peer-reviewed publications. He also has a record of contributing to assessment efforts that improve programming and student success.

Research: Professor Uludag has amassed an impressive scholarly record that spans several areas of expertise. His work is exemplary across several areas in computer science as well as within the scholarship of teaching and learning. His research focus has been in privacy and security while he recently expanded his interests to include blockchain and software defined networks. Since his last

promotion, Professor Uludag has published over 15 peer-reviewed journal articles and over 30 conference and workshop papers. The record is particularly impressive given the high quality of the journals, the number of times his work is cited, and the importance of peer-reviewed conference publications in computer science, relative to other fields. Professor Uludag's research excellence was recognized with the UM-Flint Scholarly and Creative Activity Award in 2020. He has earned several other internal grants and awards. He earned the Fulbright Scholar Program Core Award twice (2012, 2018) and multiple visiting science grants from other institutions. He was awarded funding to support grant writing and has multiple proposals under review, including at the National Science Foundation, and other work is in progress.

Recent and Significant Scholarly Activity:
M. Alsheikh, L. Konieczny, M. Prater, G. Smith and S. Uludag, "State and Trends of IoT Security: Unequivocal Appeal to Cybercriminals, Onerous to Defenders," in *IEEE Consumer Electronics Magazine*, doi: 10.1109/MCE.2021.3079635.
M. Karakus, E. Guler and S. Uludag, "QoSChain: Provisioning Inter-AS QoS in Software-Defined Networks With Blockchain," in *IEEE Transactions on Network and Service Management*, vol. 18, no. 2, pp. 1706-1717, June 2021, doi: 10.1109/TNSM.2021.3060476.
K. Doshi, Y. Yilmaz and S. Uludag, "Timely Detection and Mitigation of Stealthy DDoS Attacks Via IoT Networks," in *IEEE Transactions on Dependable and Secure Computing*, vol. 18, no. 5, pp. 2164-2176, 1 Sept.-Oct. 2021, doi: 10.1109/TDSC.2021.3049942.

Service: Professor Uludag has contributed meaningful service across the program, department, college and university. He served as the interim associate chair in his department for a half year, and has regularly completed tenure stream performance evaluations and peer observations of tenure stream and lecturer faculty. He has supported colleagues by writing award nomination letters on their behalf. Professor Uludag was the MS exit exam reviewer and chaired a committee to standardize content in CSC courses. He also obtained academic licenses for commercial software and participated in activities related to ABET accreditation. He has served on many departmental curricular related committees. At the college level, he has served as the chair of the Nominating Committee. Professor Uludag has considerable university level service experience that includes serving on the Chancellor's Advisory Committee for Budget and Strategic Planning (CAC/BSP), the Honors Council, and the Higher Learning Commission Reaccreditation Steering Committee.

Professionally, Professor Uludag has served on a wide range of committees and panels related to conference organization, peer reviews for scholarship awards, accreditation program reviews, grant proposals, reviews of journal articles and book chapters. His community service is relevant to his expertise. He is a working group member of the US Department of Commerce, National Institute for Cybersecurity Education for K-12, and the coach for First Lego League at Logan Elementary School. He has served the Michigan Math and Science Academy K-12 Charter School as a chief administrative officer, treasurer and board member. He has also been a science fair judge for the Michigan Math and Science Academy.

External Reviewers:
Reviewer A: "Prof. Uludag has 76 refereed publications. Most of them are published in the transactions of IEEE or the proceedings of the conferences supported by IEEE which is a well-known prestigious society in the field of computer sciences/engineering."

Reviewer B: "Many of Dr. Uludag's publications during the past nine year appears in some of the most prestigious venues including IEEE Transactions and IEEE sponsored conferences. Given the fact that the department does not currently offer a PhD degree in computer science, Dr. Uludag's efforts on producing this level of research output are highly commendable."

Reviewer C: "It is my opinion that Prof. Uludag is most certainly meritorious of promotion to Professor and has done incredibly well leveraging collaborations to publish at a high level with deep and thoughtful research."

Reviewer D: "Dr. Uludag and his research group are well-published at top-tier venues such as IEEE Transactions on Smart Grid, IEEE Transactions on Industrial Informatics, IEEE Transactions on Dependable and Secure Computing, and so on. The steady record of publication is a good indication that Dr. Uludag will continue to be an active researcher after being promoted to full professorship."

Reviewer E: "Dr. Uludag has a rich set of coauthors and collaborators from the US and overseas."

Reviewer F: "Dr. Uludag has an impressively long list of undergraduate and graduate advisees. It is quite remarkable to see so many high quality publications involving BS and MS students. His distinct contribution is to appear in the IEEE Transactions on Dependable and Secure Computing, which is one of the most selective and reputable journals."

Summary of Recommendation:
Professor Uludag is a versatile teacher who continues to innovate. He clearly cares about his students and strives to elevate his pedagogy whenever possible. His record of involving students in the research and publication process is phenomenal. He received uniformly positive praise from students, peers and external reviewers. Professor Uludag has a highly productive, impactful research program that is supported by multiple sources of funding. There is a strong record of service that represents a balance across levels. It is with the support of the College of Arts and Sciences Executive Committee that I recommend Suleyman Uludag for promotion to professor of computer science, with tenure, Department of Mathematics and Applied Sciences, College of Arts and Sciences.

Recommended by: Recommendation endorsed by:

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Susan Gano-Phillips, Dean
College of Arts and Sciences   _____
                                                     Sonja Feist-Price, Provost and
                                                     Vice Chancellor for Academic Affairs

                                                     _____
                                                     Debasish Dutta, Chancellor
                                                     University of Michigan – Flint

May 2022