Keynote Speech 1:

Edge Federation: A new Computation Paradigm

Prof. Deke Guo
National University of Defense Technology, China

Abstract: Edge Computing is regarded as a new promising paradigm that break through the inherent limits of current cloud computing. It can not only improve the service capacity and application range for the entire network, but also reduce the response delay of services, and improve the execution performance of various big data applications; hence it has its value in both theoretical and practical perspectives. This keynote will discuss the development of representative computation paradigms, including client/server, P2P, cloud computing, and edge computing, and focus on three kind of edge computing paradigms. Then, this keynote will present the design of edge federation framework, hybrid edge computing framework, and mobile-assisted edge computing framework.

CV: Prof. Deke Guo received his B.E. degree from Beijing University of Aeronautic and Astronautic, China, and his Ph.D. degree in School from National University of Defense Technology, China. He is currently a Professor with the College of System Engineering, National University of Defense Technology. His research interests include distributed systems, software-defined networking, data center networking, wireless and mobile systems, and interconnection networks. He is a senior member of the IEEE and a member of the ACM. His research achievements have been integrated in the open-source Hadoop system. He has published more than 200 papers, including 56 papers that have been published by ACM/IEEE transactions journals, such as TON, TOC, TKDE, TPDS, TMC. Addtionally, three papers have been accepted as the Best Paper Award in international conferences, including the IEEE ICNP 2019. He has 50 and 5 first-authored invention patents in China and the United States, respectively. He published 2 books (1st author). In 2020, he has been elected as the CCF-IEEE CS young computer scientist.

Keynote Speech 2:

Novel Cryptanalysis and Design of Symmetric Ciphers

Prof. Meiqin Wang
Shandong University, China

Abstract: As the cornerstone to assure cybersecurity, the cipher plays a critical role in the security authentication and encipherment protection. With the advantage of high efficiency, the symmetric-key encryption scheme has a broader and more flexible application comparing to the public-key encryption scheme. This talk is focus on the design and cryptanalysis of symmetric ciphers. On the aspect of automatic cryptanalysis, we manage to depict the problems in cryptography from the view of operational research and algebraic theory. A series of automatic models regarding different kinds of attack methods are constructed, which become valuable universal analytical tools in the international cryptology field. These new models are integrated into the platform of automatic cryptanalysis, which can efficiently accomplish the tasks in cryptanalysis and plays a crucial part in the design of innovative ciphers. The design and cryptanalysis of ciphers are two complementary sides and bring out the best in each other. Thus, the update of cryptanalytic methods also promotes the development of design techniques. We transform powerful analytical methods into ingenious design techniques and design several novel symmetric ciphers.

CV: Prof. Meiqin Wang takes charge of Executive Vice-President of School of Cyber Science and Technology, Shandong University and Vice-Director of Key Laboratory of Cryptologic Technology and Information Security, Ministry of Education, Shandong University. Supported by the 973 Program, National Natural Science Foundation of China, and Chinese Major Program of National Cryptography Development Foundation, she mainly studies cryptanalysis and design methods of the symmetric cipher. In recent years, she has published more than 70 papers in top conferences and journals of cryptography.

Keynote Speech 3:

6G -The Journey Towards a New Breeze of Cloud-Native Mobile Networking

Prof. Tarik Taleb
Aalto University, Finland

Abstract: The architectures of mobile networks have seen an unprecedented techno-economic transformation, fusing the telco world within the cloud world, adding the spices of Software Engineering to the overall system design, and ultimately yielding the concept of Telco Cloud. This has brought significant benefits in terms of reducing expenditure and operational costs, flexibility in deployment, and faster time to market. The key enablers are Network Function Virtualization, Software-Defined Networking, and Edge/Cloud Computing. Artificial Intelligence is also kicking in this arena. When all these technologies are well integrated, the creation and lifecycle management of fully programmable, flexible, service-tailored, and automated end-to-end network slices become possible. This will support diverse 5G and beyond 5G services, spanning from Tactile IoT to Pervasive Robotics and Immersive Services.

This talk will showcase how the architectures of different generations of mobile networks have evolved. It will also show the journey that 6G will be likely taking towards enabling a new breeze of cloud-native mobile networking; whereby the old-fashioned concept of "network of networks" would be simply replaced by a new vision of "service of services."

CV: Prof. Tarik Taleb is Professor at the School of Electrical Engineering, Aalto University, Finland. He is the founder and director of the MOSA!C Lab (www.mosaic-lab.org). He is also Professor at the Center of Wireless Communications, University of Oulu, Finland. Prior to his current positions, he was working as Senior Researcher and 3GPP Standards Expert at NEC Europe Ltd, Heidelberg, Germany. Before joining NEC and till Mar. 2009, he worked as assistant professor at the Graduate School of Information Sciences, Tohoku University, Japan, in a lab fully funded by KDDI, the second largest mobile operator in Japan. From Oct. 2005 till Mar. 2006, he worked as a research

fellow at the Intelligent Cosmos Research Institute, Sendai, Japan. He received his B. E degree in Information Engineering with distinction, M.Sc. and Ph.D. degrees in Information Sciences from Tohoku Univ., in 2001, 2003, and 2005, respectively.

Prof. Taleb's research interests lie in the field of network softwarization & slicing, mobile cloud networking, network function virtualization, software defined networking, mobile multimedia streaming, and cloud computing. He served as the general chair of the 2019 edition of the IEEE Wireless Communications and Networking Conference (WCNC'19) held in Marrakech, Morocco. He was the guest editor in chief of the IEEE JSAC Series on Network Softwarization & Enablers. He is/was on the editorial board of the IEEE Transactions on Wireless Communications, IEEE Wireless Communications Magazine, IEEE Journal on Internet of Things, IEEE Transactions on Vehicular Technology, IEEE Communications Surveys & Tutorials, and a number of Wiley journals. Till Dec. 2016, he served as chair of the Wireless Communications Technical Committee, the largest in IEEE ComSoc. He also served as Vice Chair of the Satellite and Space Communications Technical Committee of IEEE ComSoc (2006 - 2010).

Prof. Taleb is the recipient of the 2017 IEEE ComSoc Communications Software Technical Achievement Award (Dec. 2017) for his outstanding contributions to network softwarization. He is also the (co-) recipient of the 2017 IEEE Communications Society Fred W. Ellersick Prize (May 2017), the 2009 IEEE ComSoc Asia-Pacific Best Young Researcher award (Jun. 2009), the 2008 TELECOM System Technology Award from the Telecommunications Advancement Foundation (Mar. 2008), the 2007 Funai Foundation Science Promotion Award (Apr. 2007), the 2006 IEEE Computer Society Japan Chapter Young Author Award (Dec. 2006), the Niwa Yasujirou Memorial Award (Feb. 2005), and the Young Researcher's Encouragement Award from the Japan chapter of the IEEE Vehicular Technology Society (VTS) (Oct. 2003). Some of Prof. Taleb's research work have been also awarded best paper awards at prestigious IEEE-flagged conferences.

Opening Remarks and Keynotes

2021-10-30 9:00-12:00、14:00-14:50(Wenyuan Building 201)			
Time	**Conference Program**	**Spokesman**	**Chairman**
09:00-09:15	Welcome Speech	Norio Shiratori	Haiping Duan
09:15-09:30	Opening Remarks	Jinfu Qian	Haiping Duan
09:30-09:50	Group Photo Taken		Xin Wang
09:50-10:40	Keynote Speech 1	Deke Guo	Naijie Gu
10:40-11:10	**Coffee Break**		
11:10-12:00	Keynote Speech 2	Meiqin Wang	Lisheng Ma
14:00-14:50	Keynote Speech 3	Tarik Taleb	Xiaohong Jiang

The Tencent conference is used for online participation, the relevant information is shown in the following table.

Time	Conference Theme	Conference ID	Conference Password
2021.10.30-2021.10.30 09:00-14:50	**Opening Remarks and Keynote Speech**	58813372994	2021
2021.10.30-2021.11.1 09:00-18:00	**SessionA1-A8**	58813372994	2021
2021.10.30-2021.11.1 09:00-18:00	**SessionB1-B8**	60188642795	2021