TCC: State of the Transactions

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2018 has seen another good year for the *IEEE Transactions on Cloud Computing* (*TCC*). The *TCC* has been indexed in Clarivate Analytics' Web of Science under the Science Citation Index (SCI), and has received its initial impact factor assessment. According to the 2018 Journal Citation Reports (based on 2017 data), the *TCC* has a journal impact factor of 7.928 and is ranked third among all journals around the world in the category of "Computer Science - Information Systems". The impressive impact factor also places the *TCC* in the top 5 percent of the approximately 200 IEEE publications across Computer Sciences, Electrical and Electronic Engineering, and Telecommunications. This is an attestation of the dedication and accomplishments of the *TCC* community at large. Congratulations to all!

In 2018, we received a total of 322 manuscripts, including both original and revised submissions. The average time from submission to decision was less than 3 months. A final decision was made on 309 papers, out of which 88 were accepted and 321 were rejected. We have been improving time to publication by expanding the journal volume. We managed to publish 92 articles in 2018, compared to 62 articles published in 2017, and fewer than 40 in the years before.

We have integrated the *TCC* with the IEEE DataPort system to support researchers who have data storage needs or require access to datasets. When an author uses ScholarOne to submit an article to the *TCC*, they will now have an option to upload their dataset to IEEE DataPort, receive a DOI, and then input the DOI into ScholarOne. From that point on, the dataset will be associated with the article through the publication process. When the article is eventually published in IEEE Xplore, readers will also be able to reference the dataset from Xplore.

We have continued our collaboration with top-tier conferences in cloud computing. The ScholarOne manuscript system has been configured to allow the submission of the best papers from the *TCC*'s partner conferences, currently the IEEE International Conference on Cloud Engineering (IC2E) and the International Conference on Cloud Computing Technology and Science (CloudCom), for fast-track publication. Details on fast-track paper submission can be found on the *TCC* Web site. Also, the partner conferences may feature special sessions dedicated to *TCC* accepted papers. In particular, IC2E 2019 will be held in Prague, Czech Republic. Authors of *TCC* accepted papers who are interested in presenting their work at IC2E 2019 and receiving feedback from the conference attendees are welcome to contact the IC2E Program Chairs.

We have instituted the Editorial Excellence and Eminence (EEE) award to recognize the Associate Editors of the *TCC* who have really stood out in terms of workload, review quality, and turnaround time. It is my great pleasure to announce that the inaugural EEE awards are given to Jiannong Cao, Jinjun Chen, David Eyers, Thomas Fahringer, Kartik Gopalan, Bingsheng He, Jie Li, Vincenzo Piuri, Chunming Rong, Jun Wang, Xiaorui Wang, and Yun Yang.

I would like to welcome the following new Associate Editors who joined the Editorial Board in 2018. Brief biographies and photos of the new Associate Editors are available at the end of this article.

- Danilo Ardagna - Politecnico di Milano
- Ali Butt - Virginia Tech
- Kai Chen - Hong Kong University of Science and Technology
- Xiaotie Deng - Peking University
- Amol Deshpande - University of Maryland, College Park
- Frédéric Desprez - INRIA
- Peter Dinda - Northwestern University
- Song Guo - The Hong Kong Polytechnic University
- Howie Huang - The George Washington University
- George Pallis - University of Cyprus
- Luis Rodrigues - Universidade de Lisboa
- Mema Roussopoulos - University of Athens
- Bhuvan Urgaonkar - The Pennsylvania State University
- Rich Wolski - University of California, Santa Barbara
- Chuan Wu - The University of Hong Kong

I would also like to take this opportunity to thank the Associate Editors who have completed their services. They are Jinjun Chen, Murat Demirbas, Janakiram Dharanipragada, Dick Epema, Thomas Fahringer, Pan Hui, Keqin Li, Meikang Qiu, Lizhe Wang, Yongwei Wu, Yun Yang, and Xiaofang Zhou.

I would like to express my sincere gratitude to our authors, the members of the *TCC* Editorial Board and Steering Committee, the IEEE Computer Society Staff, and our reviewers, for their contributions and support. I am confident that together we will maintain the *TCC* as a top-notch journal and an excellent resource for the researchers and practitioners in cloud computing.

Hui Lei
Editor-in-Chief
IEEE Transactions on Cloud Computing
CTO, Watson Health Cloud, IBM

Danilo Ardagna received the graduate and the PhD degree in computer engineering from the Politecnico di Milano, in 2000 and 2004, respectively. He is an associate professor at the Dipartimento di Elettronica Informazione and Bioingegneria at Politecnico di Milano, Milan, Italy. He was also visiting researcher at IBW T.J. Watson Research Center and Basque Center for Applied Mathematics. He is a regular member of the program committee of important conferences related to cloud computing, big data, performance evaluation, service-oriented computing, and web-based systems and he was the general chair of the IEEE Special Technical Community on Sustainable Computing from May 2014 to July 2015. He co-authored more than 100 papers. Some of his papers appeared on prestigious journals and magazines like *IEEE Transactions on Software Engineering*, *IEEE Transactions on Cloud Computing*, *IEEE Transactions on Services Computing*, *IEEE Software*, and *ACM Transactions on Modeling and Performance Evaluation of Computing Systems*. He was the recipient of an IBM Faculty award (2010), co-recipient of an IBM SUR grant (2016), and several awards from Microsoft and Amazon for the experimentation of cloud systems. His research interests touch different aspects of performance modelling and resource management of cloud systems. He developed several solutions for web services compositions, green and autonomic computing, optimization of virtualized and cloud based systems and resource management of big data systems and deep learning applications. This research has been funded by participating to diverse national and international projects. More information is available at: http://ardagna.faculty.polimi.it.
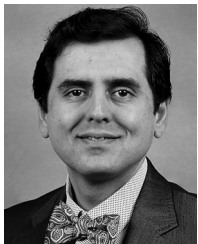
Ali Butt received the PhD degree in electrical and computer engineering from Purdue University, in 2006. He is a professor of computer science and (by courtesy) electrical and computer engineering at Virginia Tech (VT). He is a recipient of an NSF CAREER Award (2008), IBM Faculty Awards (2008, 2015), a VT College of Engineering (COE) Dean's award for "Outstanding New Assistant Professor" (2009), an IBM Shared University Research Award (2009), and NetApp Faculty Fellowships (2011, 2015). He was named a VT COE Faculty Fellow in 2013. Ali was an Academic Visitor at IBM Almaden Research Center (Summer 2012) and a Visiting Research Fellow at Queen's University of Belfast (Summer 2013). He has served as the associate editor for *IEEE Transactions on Cloud Computing* (2018-present), *ACM Transactions on Storage* (2016-present), *IEEE Transactions on Parallel and Distributed Systems* (2013-2016), *Cluster Computing: The Journal of Networks, Software Tools and Applications* (2013-present), and *Sustainable Computing: Informatics and Systems* (2010-2015). He is an alumni of the National Academy of Engineering's US Frontiers of Engineering (FOE) Symposium (2009), US-Japan FOE (2012), and National Academy of Science's AA Symposium on Sensor Science (2015). He was also an organizer for the US FOE in 2010. His research interests include distributed computing systems, cloud computing, edge computing, file and storage systems, Internet of Things, I/O systems, and operating systems. At Virginia Tech he leads the Distributed Systems & Storage Laboratory (DSSL).
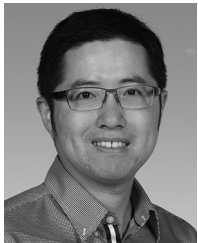
Kai Chen he received the BS and MS degree from the University of Science and Technology of China, in 2004 and 2007 respectively, and the PhD degree from Northwestern University, in 2012. He is an associate professor at the Hong Kong University of Science and Technology (HKUST). His areas of interest include datacenter networking, cloud computing, large-scale infrastructures for big-data and machine learning.

Xiaotie Deng received the BSc degree from Tsinghua University, the MSc degree from Chinese Academy of Sciences, and the PhD degree from Stanford University, in 1989. He is currently a chair professor at Peking University. He taught in the past at Shanghai Jiaotong University, the University of Liverpool, the City Universtiy of Hong Kong, and York University. Before that, he was an NSERC international fellow at Simon Fraser University. His current research focuses on algorithmic game theory, with applications to Internet Economics and Finance. His works cover online algorithms, parallel algorithms, and combinatorial optimization. He is an ACM fellow for his contribution to the interface of algorithms and game theory, and an IEEE Fellow for his contributions to computing in partial information and interactive environments.

Amol Deshpande received the BTech degree from the Indian Institute of Technology, Bombay, in 1998, the MS and PhD degrees in computer science from the University of California, Berkeley, in 2001 and 2004, respectively. He is a professor in the Department of Computer Science at the University of Maryland at College Park, with a joint appointment in the University of Maryland Institute for Advanced Computer Studies (UMIACS). His research projects have spanned a spectrum of data management topics including data privacy, graph databases, big data analytics, collaborative data science platforms, data management for IoT, and query processing. He has authored more than 100 research publications, and has received best paper awards at the VLDB 2004, EWSN 2008, and VLDB 2009 conferences. He received a National Science Foundation (NSF) CAREER award in 2006, which is given to outstanding junior faculty who exemplify the role of teacher-scholars so they can further their research in their areas of expertise. He has served as a program committee member for many conferences in databases and sensor networks, including as PC co-chair for SIGMOD 2019 and as a vice chair/group leader for SIGMOD 2016, PVLDB 2017 and 2019, and ICDE 2011 and 2013. He is on the editorial boards for the *Journal of Distributed and Parallel Databases*, *ACM TODS Journal*, *VLDB Journal*, and *IEEE Transactions on Cloud Computing*.

Frédéric Desprez received the MS degree in computer science from ENS Lyon, in 1990, and the PhD degree in computer science from Institut National Polytechnique de Grenoble, France, in 1994. He is a chief senior research scientist at Inria (Corse team Grenoble). At Inria, he holds a position of deputy scientific director in charge of High Performance Computing, Distributed Systems, Networks, and Software Engineering. Between 2001 and 2006, he was deputy director of the LIP laboratory at ENS Lyon, France and between 2006 and January 2009 director of the LIP. In 2010, he co-founded the SysFera startup company where he held a scientific advisor position. In 2008, he obtained an IBM faculty award for his work around data distribution and scheduling for grid and Cloud platforms. His current activities include parallel algorithms, scheduling for large scale distributed platforms, data management, cloud computing, and large scale experimental infrastructures. He leads the Grid'5000 project (and co-leads its followup SILECS), which offers a platform to evaluate large scale algorithms, applications, and middleware systems. See: https://fdesprez.github.io/ for further information.

Peter Dinda received the BS degree in electrical and computer engineering from the University of Wisconsin, and the PhD degree in computer science from Carnegie Mellon University. He is a professor in the Department of Electrical Engineering and Computer Science at Northwestern University where he headed the Computer Engineering and Systems division for five years. He works in experimental computer systems, particularly parallel and distributed systems, and has authored more than 130 scientific papers, authored or is a major contributor to several large publicly available codebases, and holds five patents. His research currently involves virtualization and operating systems for distributed and parallel computing, programming languages for parallel computing, and empathic systems for bridging individual user satisfaction and systems-level decision-making. He is a fellow of the IEEE. You can find out more about him at pdinda.org.

Song Guo is a full professor at Department of Computing, the Hong Kong Polytechnic University. His research interests are mainly in the areas of big data, cloud computing, and distributed systems with more than 400 papers published in major conferences and journals. He is the recipient of the 2018 IEEE TCGCC Best Magazine Paper Award, the 2017 *IEEE Systems Journal Annual Best Paper Award*, and other 5 Best Paper Awards from IEEE/ACM conferences. His work was also listed in the 2016 Annual Best of Computing: Notable Books and Articles by ACM Computing Reviews. He was an associate editor of *IEEE Transactions on Parallel and Distributed Systems* and an IEEE ComSoc distinguished lecturer. He is now on the editorial board of *IEEE Transactions on Emerging Topics in Computing*, *IEEE Transactions on Sustainable Computing*, *IEEE Transactions on Green Communications and Networking*, *IEEE Network*, etc. He also served as general and TPC chair for numerous IEEE conferences. He currently serves as a director and member of the Board of Governors of ComSoc.

Howie Huang received the PhD degree in computer science from the University of Virginia. He is a full professor in Department of Electrical and Computer Engineering, with a courtesy appointment in Department of Computer Science, at the George Washington University. Motivated by the needs of big data and cybersecurity applications, he works at the intersection of algorithms, computer architecture and systems, with recent research focus on developing high-performance computing and machine learning techniques tailored for large-scale graph datasets. His X-Computing Lab (XCLab) explores novel applications of graph-based knowledge discovery in computer systems, cybersecurity, social networks, biology and health. He is a recipient of the prestigious National Science Foundation CAREER Award, NVIDIA Academic Partnership Award, Comcast Technology Research and Development Fund Award, IBM Real Time Innovation Faculty Award, and Outstanding Young Researcher Award of School of Engineering and Applied Science. His research won a Champion Award and a Student Innovation Award at the 2018 Graph Challenge of IEEE High-Performance Extreme Computing (HPEC) conference, and his work on big graph traversal has ranked highly on both the Graph500 and Green Graph500 benchmarks, which measure the performance and energy efficiency of the most powerful data-intensive supercomputers in the world.

George Pallis received the BSc and PhD degrees in the Department of Informatics of Aristotle University of Thessaloniki, Greece. He is currently an assistant professor at the Computer Science Department, University of Cyprus. He is editor in chief in the *IEEE Internet Computing* magazine. His research interests include cloud computing with focus on cloud elasticity and monitoring, edge computing and big data analytics. He has published more than 70 papers in international journals (e.g., *IEEE Transactions on Knowledge and Data Engineering*, *IEEE Transactions on Cloud Computing*, *IEEE Transactions on Services Computing*, *ACM Transactions on Internet Technology* etc), magazines (e.g., *Communications of the ACM*, *IEEE Internet Computing*) and conferences (e.g., INFOCOM, IPDPS, ICDCS, IEEE BIG DATA etc) and he is contributor of the first international DIN (German Institute for Standardization) SPEC standard. He has been involved in numerous national and international research projects. He has served as PC co-chair of CloudCom 2018 and CCGrid 2019. He has also served in numerous Program and Organization Committees for international conferences and he received the best paper awards in the IEEE Big Data Conference (IEEE BIG DATA 2016) and the International Conference on Service-Oriented Computing (ICSOC 2014). More information on his background is available at: http://www.cs.ucy.ac.cy/~gpallis/.

Luis Rodrigues received the engineering degree, in1986, the MSc degree, in 1991, and the PhD degree, in 1996 in electrotechnical engineering and computers by the Instituto Superior Técnico (IST), the Universidade Técnica de Lisboa. He is a full professor of the Departamento de Engenharia Informática of the Instituto Superior Técnico, the Universidade de Lisboa. He is also a senior researcher of the Distributed Systems Group at INESC-ID, a research laboratory associated with IST. He has served both as scientific coordinator of his research group and also as president of the board of directors of INESC-ID. His scientific interests include distributed fault-tolerance, cloud-computing, data replication, middleware, and networking. He has participated in more than 20 national and international research projects and has more than 200 scientific publications in these areas. He is co-author of two books on distributed computing.

Mema Roussopoulos received the BS degree in computer science from the University of Maryland, College Park, and the PhD degree in computer science. She is an associate professor of computer science and head of the Distributed Systems Research Group at the Department of Informatics and Telecommunications at the University of Athens in Athens, Greece. She was a postdoctoral fellow in the Computer Science Department at Stanford University. She was an assistant professor of Computer Science on the Gordon McKay Endowment at Harvard University in the School of Engineering and Applied Sciences. She was also a faculty member at the Department of Computer Science at the University of Crete and an associated researcher at the Institute of Computer Science at FORTH. Her interests are in the areas of distributed systems, networking, mobile computing, and digital preservation. She is a recipient of the NSF CAREER award from the National Science Foundation, the ERC Starting Grant Award from the European Research Council, and the Best Paper Award at ACM SOSP 2003.

Bhuvan Urgaonkar received the BTech (honors) degree in computer science and engineering from the Indian Institute of Technology Kharagpur, in 1999, the MS and the PhD degrees in computer science from the University of Massachusetts Amherst, in 2002, and 2005, respectively. He is an associate professor of computer science and engineering at the Pennsylvania State University, Penn State. During 2005-2011, he was an assistant professor of computer science and engineering, also at Penn State. His research involves applying ideas from distributed computing, resource management, scheduling, performance evaluation, and analytical modeling to the design and evaluation of data centers & clouds, operating systems, virtualization techniques, and storage systems. He is a recipient of an ACM Sigmetrics Test of Time award (2016), IBM faculty partnership awards (2015, 2017 and 2018), the National Science Foundation CAREER award (2010), and a research award from Cisco (2007). With his co-authors, he has received the following awards or other recognition: "Best Paper Candidate" at IEEE ICAC 2016, "Best Student Paper" at IEEE CLOUD 2016, "Best Paper (Runner Up)" at ACM e-Energy 2015, "Best Paper" at IEEE IISWC 2013, "Best Paper" at IEEE MASCOTS 2012, "Best Paper Nomination" at ACM Sigmetrics 2012, "Pick of the Month" by IEEE STC (Oct. 2012) for his paper at ACM ASPLOS 2012, "Best Student Paper" at IEEE MASCOTS 2008, and "Best Student Paper" at IEEE ICAC 2005. He is an associate editor of the *IEEE Transactions on Parallel and Distributed Systems* (TPDS), and a program co-chair of IEEE ICAC 2019. He is a senior member of the ACM and IEEE.

Rich Wolski received the MS and PhD degrees from the University of California, Davis. He is the duval family presidential chair in Energy Efficiency and the professor of computer science at the University of California, Santa Barbara (UCSB). He was a research scientist at Lawrence Livermore National Laboratory, he has also held positions at the University of California, San Diego, and the University of Tennessee, the the San Diego Supercomputer Center and Lawrence Berkeley National Laboratory. He has led several national scale research efforts in the area of distributed systems and is the progenitor of the Eucalyptus open source cloud project.
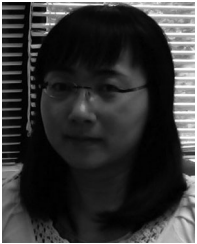
Chuan Wu received the BEngr and MEngr degrees from the Department of Computer Science and Technology, Tsinghua University, China, in 2000 and 2002, and the PhD degree from the Department of Electrical and Computer Engineering, University of Toronto, Canada, in 2008. Since September 2008, she has been with the Department of Computer Science at the University of Hong Kong, where she is currently an associate professor and serves as an associate head on curriculum and development matters. Her current research is in the areas of cloud computing, distributed machine learning/big data analytics systems, network function virtualization, and data center networking. She was the co-recipient of the best paper awards of HotPOST 2012 and ACM e-Energy 2016.