

Statement of Interest
Running for The Position of
Vice Chair from Academia of DSTC
Cai Kui

I would like to run for the position of **Vice Chair from Academia** of the Data Storage Technical Committee (DSTC). I am currently the program leader of the non-volatile memory (NVM) coding and signal processing program at Data Storage Institute (DSI), Singapore. I am also an adjunct Professor of Nanyang Technological University (NTU). I believe my qualifications, expertise, and experience fit very well with the position of the Vice Chair from Academia, and I would like to make contributions to DSTC and to the signal processing for data storage society.

I have more than **fourteen years'** experience on research and development of advanced coding and signal processing algorithms and techniques for various data storage systems. My research has covered the entire evolution of the data storage technologies, ranging from optical recording (such as blu-ray disc and high-definition DVD), longitudinal magnetic recording, perpendicular magnetic recording, bit-patterned media recording (BPMR), heat-assisted magnetic recording (HAMR), two-dimensional magnetic recording (TDMR), to the most recently emerged solid-state non-volatile memory (NVM) technologies. I have published more than 80 journal and conference papers and have filed 20 patents and invention disclosures. I am the winner of 2008 IEEE Communications Society Best Paper Award in Coding and Signal Processing for Data Storage.

I have played a very active role in DSTC. I have attended most of the DSTC meetings in ICC and Globecom over the past ten more years, and have made efforts to contribute to DSTC whenever possible. Furthermore, since 2010, I have been serving as the **Treasurer** of DSTC. During this time period, I have chaired and organised various events of DSTC and IEEE. I have chaired the selection of IEEE Communications Society Best Paper Award in Coding and Signal Processing for Data Storage for 2009, 2011, and 2012. I was the symposium/session chair at IEEE Globecom and ICC for the last few years. I am the invited paper chair of ICNC 2015 as well. A list of my recent contributions for DSTC and IEEE is as follows.

- **IEEE senior member**
- **Treasurer, IEEE Communications Society, Data Storage Technical Committee (DSTC)**
 - 2010-2014
- **Invited paper chair**
 - IEEE International Conference on Computing, Networking and Communications (ICNC) 2015
- **Conference Symposium/ Session Chair**
 - IEEE International Conference on Computing, Networking and Communications (ICNC) 2013
 - IEEE International Communications Conference (ICC) 2012
 - The Asia-Pacific Magnetic Recording Conference (APMRC) 2012
 - Non-Volatile Memory Workshop (NVMW), University of California San Diego, 2011
 - IEEE Global Communications Conference (Globecom) 2010
- **Technical Program Committee (TPC) Member**
 - IEEE International Communications Conference (ICC) 2014
 - IEEE Global Communications Conference (Globecom) 2013
 - IEEE International Communications Conference (ICC) 2013
 - International Conference on Information, Communications & Signal Processing (ICICSP) 2013
 - IEEE Global Communications Conference (Globecom) 2012
 - Non-Volatile Memory Workshop (NVMW), University of California San Diego, 2011

- IEEE Global Communications Conference (Globecom) 2010
- **Chair, Selection Committee for “2009 Communications Society Best Paper Award in Coding and Signal Processing for Data Storage”**
- **Chair, Selection Committee for “2011~2012 Communications Society Best Paper Award in Coding and Signal Processing for Data Storage”**

By running for the position of Vice Chair from Academia, I certify that I will continue spend the time and effort to organise various events of DSTC. I will play a leading role in promoting the impact of DSTC in the data storage society, and also assist the Chair and collaborate with other officers of DSTC. I would appreciate your support and vote.