

Editorial

Ravi Sandhu

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It is a distinct privilege, honor, and pleasure to serve as Editor-in-Chief of the *IEEE Transactions on Dependable and Secure Computing (TDSC)*. I am grateful to the IEEE for this opportunity and to my predecessors, Professor Ravi Iyer and Professor Virgil Gligor, for nurturing this journal in its early days and establishing its reputation of high quality and competitiveness.

As computer scientists we live in exciting but uncertain times. The anticipated pace of technological change in the near future is almost overwhelming even as we struggle to cope with already deployed technologies whose dependability and security characteristics are poorly understood and of far lower grade than we would wish. Without serious debate or discussion, human society has become frighteningly dependent on a fragile cyber infrastructure which is being exploited by criminals, spies, and saboteurs. Adversaries have proved to be incredibly innovative and we know they have a practically unlimited arsenal that will be deployed as existing attack channels are closed by a largely reactive defensive ecosystem. Looking ahead, the defenders need new methodologies and endless innovation for which the *TDSC* community must be a major contributor and leader. Among the many challenges is the ability to take an effective systemic view even as the system is changing and evolving. The silver lining is that there is ample excellent impactful research to be done and published in *TDSC*.

The computer science research community has been engaged in two ongoing debates with respect to publications. One is the future of electronic versus paper publishing. The IEEE Computer Society has announced a schedule to transition all its transactions to a primarily electronic format by 2015. While some of the details remain to be worked out, including provisions for publishing paper copies on demand, this debate is essentially over for *TDSC* and its sister transactions. One might wonder why this shift took so long but at least we now know it will happen fairly quickly. *TDSC* has committed to be in the first cohort to make this shift, which should happen as soon as 2011. I look forward to working with the IEEE Computer Society staff to effect this change. The second debate is about the relative importance of conferences versus journals. The community has fought hard-won battles to get academic tenure committees to recognize the special status of conference publications in computer science. Ultimately each researcher must determine the best mix of conference and journal papers appropriate for the kind of research they do. For many researchers, the abbreviated conference paper format and abbreviated conference reviewing cycle are simply inadequate for publication of well-thought-out and well-developed lines of research. I am firmly convinced that carefully refereed papers are the hallmark of a mature profession. The volume of submissions to *TDSC*, and the high quality of accepted papers, testifies to the high interest of our community in journal publications. One long-standing and legitimate complaint from authors is the long lead time for journal publications. While the situation has improved, we can do better. Rapid turnaround is essential to attract submissions of the best research. I will place high priority on improving the situation. Ultimately the community needs to step up and treat the reviewing process with urgency beyond what we have seen in the past while maintaining the quality and depth of reviews.

I am pleased to announce that the current Associate Editors-in-Chief, Catherine Meadows and Neeraj Suri, have agreed to continue in that capacity. I appreciate their service and commitment to *TDSC* and will work with them to help streamline *TDSC* operations. I would like to add my welcome and thanks to the new Associate Editors joining our team. In terms of editorial focus, *TDSC* will continue the policies developed by my predecessors to emphasize papers that deal specifically with dependability or security issues, as opposed to papers on generic technologies, such as cryptography or network and systems management without the specific tie. I look forward to an exciting and productive tenure as Editor-in-Chief.

Ravi Sandhu
Editor-in-Chief