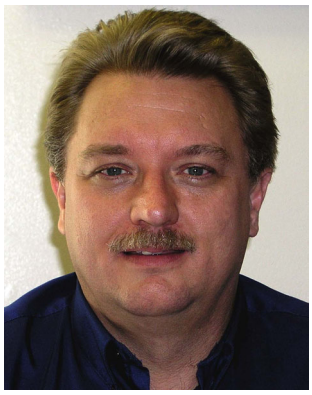
From the Editor in Chief:

July 2006



Moore's law tells us that the number of semiconductor devices on an integrated circuit doubles every 24 months and this law has reliably predicted that growth since 1960 [1]. This growth in semiconductor density has led to the popular interpretation of Moore's law as the computer capability and memory double every 18 months [2]. This rapid growth in computing and data storage has already given us the ability to collect more information than a human can process in many applications, and it appears that the trend will not end soon. Some are predicting the continued shrinkage in memory devices to the size of a white blood cell in 2020 [3]. Furthermore, systems-on-package promises to leapfrog Moore's Law by combining ICs with micrometer-scale thin-film versions of discrete components and embedding them in a new type of package [4]. With this growth in computing and memory in smaller packages, sensors are becoming cheaper and more plentiful allowing the visions of more sophisticated and automated systems to be realized, and effective information processing plays a critical role in those systems. Examples of that processing might include rapid and efficient distillation of a massive data set to a few salient features or fusion of the information from multiple sources into a common representational form.

With the pressing demand and interest in information processing methods, scientists and engineers organized the first International Conference on Information Fusion (Fusion 1998) in Las Vegas, Nevada on July 6–9, 1998. With 146 papers and 161 attendees, the first Fusion conference was considered a great success, and the International Society for Information Fusion (ISIF) was founded to be the premier global information community for multidisciplinary approaches for theoretical and applied information fusion technologies. The second Fusion conference was an even greater success with 190 papers and 211 attendees. After strong sponsorship by ONERA and Thomson-CSF in 2000 and Lockheed-Martin Canada in 2001, the fourth Fusion conference became a self-supporting conference in 2002.

After five years of success of Fusion conferences as summarized in the accompanying table, the ISIF

Board of Directors voted in 2003 to establish a peer-reviewed archival journal in the area of information fusion in the name of Journal of Advances in Information Fusion (JAIF). In 2003, editors were appointed for JAIF and a web-based review system was established at http://jaif.msubmit.net to handle the peer review of manuscripts electronically. This system facilitates the review of manuscripts for authors and archives the reviewers' comments and editorial decisions for all manuscripts. Researchers are invited to volunteer to be a referee by registering as an author at the web site.

With this inaugural issue, ISIF introduces JAIF as its flagship journal. JAIF is a peer-reviewed, semi-annual archival journal that will be published electronically and distributed via the internet. JAIF has established high standards for the peer review process through an editorial board with strong academic and industrial backgrounds. Prior to publication, each manuscript will require a review from at least three referees and manuscript corrections that address any shortcoming identified by the referees and editors. The inside of the front cover gives the scope of JAIF and the editorial board and their associated technical areas. Additional information on the editorial process and board is available at http://www.isif.org.

William Dale Blair
Editor in Chief

Ten Years of the International Conference on Information Fusion (Fusion)

Year	Location, Date Chair	Number of Papers	Number of Attendees
1st	Las Vegas, Nevada, July 6–9, 1998 Dongping Daniel Zhu, Zaptron Systems, Inc.	146	161
2nd	Sunnyvale, California, July 6–8, 1999 Dongping Daniel Zhu, Zaptron Systems, Inc.	190	211
3rd	Paris, France, July 10–13, 2000 Jean Dezert, ONERA	173	253
4th	Montréal, Quebec, Canada, August 7–10, 2001 Pierre Valin, Lockheed-Martin, Canada	146	261
5th	Annapolis, Maryland, July 7–11, 2002 X. Rong Li, University of New Orleans	232	289
6th	Cairns, Queensland, Australia, July 8–11, 2003 Subhash Challa, University of Technology, Sydney	204	256
7th	Stockholm, Sweden, June 28–July 1, 2004 Per Svensson, Swedish Defence Research Agency	171	300
8th	Philadelphia, Pennsylvania, July 25–29, 2005 John Sudano, Lockheed-Martin	181	332
9th	Florence, Italy, July 10–13, 2006 Stefano Coraluppi, NATO Undersea Research Ctr. Peter Willett, University of Connecticut	263	397
10th	Quebec City, Quebec, Canada, July 9–12, 2007 Eloi Bossé, DRDC Valcartier	—	—

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Moore's law meets its match.
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