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# Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications 2007

Belur V. Dasarathy Editor

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## Introduction

This conference, with this eleventh successful consecutive offering in the ongoing series on multisensor, multisource information fusion, has entered the second decade of its existence. To date, we have so far published in these proceedings nearly 380 papers. Since its initiation in 1997, the title has been modified over the years to reflect the broadening of the scope of the conference to include fusion of information not only from multiple traditional sensors but also from other nontraditional data sources. The expanded scope also includes fusion of information derived through multiple information extraction algorithmic processes. As the title indicates these proceedings are spread across the three key facets of developments in the field, namely, architectures, algorithms, and applications. As has been the practice, the session titles are dynamically redefined each year to represent the changing contents driven by the evolving research and development in the community. This year, the presentations have been grouped into the following seven sessions:

- Image Registration and Related Issues
- Image Fusion
- Detection, Classification, and ATR
- Higher Level Fusion and Fusion System Architecture
- Applications
- Miscellaneous Topics I
- Miscellaneous Topics II

Following the long-held custom of this conference, and contrasting the policy of post-conference publication of the proceedings at most SPIE conferences, we are once again offering the printed proceedings on-site at the conference. This not only serves the purpose of rapid dissemination in print form of the most recent developments in this area but also helps in appreciating the oral presentations. Incidentally, it also complements the prime archival journal in this field, *Information Fusion*, which because of its dependence on formal peer reviews is a more drawn-out process. Further, this helps us to ensure that the program is limited to those that have been able to submit the full manuscript ahead of time thus portending a more mature presentation.

In accordance with our long held tradition, the variation in the size of these proceedings in terms of the number of papers offered under this series over the years is graphically illustrated below in Figure 1 to provide us with an introspective look at our performance over the years. We regret to note that there has been a significant down turn this year. Possible excuses for this include ever increasing multiplicity of conferences catering to the fusion topic across the globe, a far cry from the scenario of uniqueness we had when we started this event more than a decade back. A second perhaps more telling one is the increasing overlap in terms of the scope with other conferences here itself at this Defense and Security Symposium at Orlando which do not impose our stringent requirement of full manuscripts well before the conference time. (It is far easier to dream up an abstract than to develop a full manuscript). Additionally international travel related hardships, economic as well as geopolitical, have had a chilling impact on attendance in US. It is therefore imperative that we redouble our efforts for next year to ensure continued viability of the conference in the future. Towards this end, we welcome from the conference participants and the readership of this proceedings on ways to rejuvenate the growth of this conference and broaden its appeal in the coming years.

The international character of this conference is once again reflected, not only in the program committee, but also in the contents of the proceedings, which includes **27** papers from five countries (unfortunately, fewer than prior years, especially from Europe) spread over multiple continents: Canada, China, France, South Korea, and, obviously, the United States. We plan to continue this series in the coming year and look forward to your participation, hopefully in greater numbers and depending upon the state of global politics and economy from a wider geographical background. Further details regarding the call for papers and schedule for next year will be made available in due course on the Internet at SPIE (www.spie.org) as well as on my home page (http://belur.no-ip.com).

I am pleased to acknowledge the authors for choosing this avenue for publication of their contributions. I also would like to take this opportunity to thank the members of my program committee and the session chairs for their continued support. Thanks are also due to SPIE staff for their invaluable help in making this all possible.

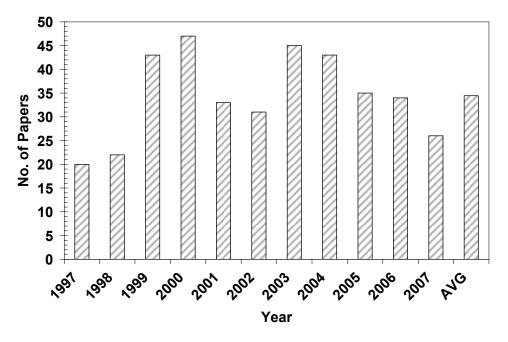


Figure 1. Number of papers published in this series over the past decade

All those wishing to participate actively in this endeavor next year, perhaps as members of the program committee, are encouraged to contact me via Email (to <u>fusion consultant@yahoo.com</u>) at their earliest convenience (preferably during the course of the conference itself, in any case before the end of month - April 2007) to help plan and develop next year's program.

कायेन वाचा मनसेन्द्रियैर्वा बुध्यात्मनावा प्रकृते स्वभावात करोमि यद्यत सकलं परस्मै श्रीमन्नारायणायेति समर्पयामि

"kaayena vaachaa manasendriyairvaa budhyaatmanaavaa prakR^ite svabhaavaat karomi yadyat sakalaM parasmai shriiman naaraayaNaayeti samarpayaami" Be it with my body, or with my mind With words, or organs of any kind, With my intellect, or with my soul, Or by force of Nature pushing me to my goal, Whatever it is, with all these I do, Oh! Supreme Lord! I surrender to you.

Wishing all of you a safe return journey

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