

APEC '99

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Electronics
Conference and
Exposition**

Volume 1

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IEEE Industry Applications Society
Power Sources Manufacturers Association**

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Proceedings**



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FOREWORD

On behalf of the Conference Committee and our sponsors, the IEEE Power Electronics Society, the IEEE Industry Applications Society, and the Power Sources Manufacturers Association, I would like to welcome you to Dallas and to participate in APEC, the annual premier event in applied power electronics.

The Applied Power Electronics Conference and Exposition (APEC) focuses on the applied aspects of power electronics, ranging from circuit design to components development to manufacturing to marketing. For the past several years, APEC has been enjoying continued success and steady growth. Today, it attracts more than 100 exhibitors and about 1,000 people from more than 35 countries. To many, APEC has become the preferred venue for practicing power electronics professionals to gather the latest information and to announce new technologies as well as products.

APEC'99 will be the fourteenth annual gathering. APEC'99 will offer 120 vendor exhibits, 191 technical papers in 5 parallel sessions, 15 professional educational seminars, 4 rap sessions, a micro-mouse contest, and a social gathering. Both the exhibits and technical program are the largest ever in APEC history. The newly expanded Adam's Mark Hotel offers a comfortable venue for both exhibitors and attendees.

For the second year in a row, APEC has attracted and accepted a large number of papers in motor drives, inverters, and switched-mode power amplifiers. This manifestation of continuing success and expansion of power electronics into more traditional disciplines of classical electrical engineering will continue, as we continue to strive to build vehicles, ships, and airplanes that are more electric.

As this year's conference chairman, I am particularly grateful to all previous conference and program chairs. Their technical expertise and leadership skills have made the task of managing the conference a well-structured, smooth, and robust operation.

I am also very grateful to members of the conference committee for volunteering their time and skills to make APEC'99 the largest ever in APEC history. My thanks must also go to members of the technical committee for reviewing all the digests and pulling together such a large technical program.

Again, welcome to APEC'99 and may your stay be enjoyable and productive!

F. Dong Tan
General Conference Chairman

APEC is grateful to the following distinguished individuals for their technical expertise and leadership skills that contributed directly to make what APEC is today.

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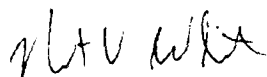
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The heart of the Technical Sessions at APEC is the peer review process. Each of the following individuals listed below gave freely of their time, energy and experience to review the digests submitted for consideration. On behalf of the APEC Conference Committee, I would like to thank each of them for the time and effort they contributed towards the outstanding Technical Program of APEC '99.



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