

1990 MTT-S Symposium Steering Committee



John Wassel
Steering Committee
Chairman



Karl Varian
Steering Committee
Vice-Chairman



McKinley Carpenter
Steering Committee
Secretary



Tatsuo Itoh
Technical Program
Co-Chairman



Randall Lehmann
Technical Program
Co-Chairman



David Zimmermann
Technical Program
Vice-Chairman



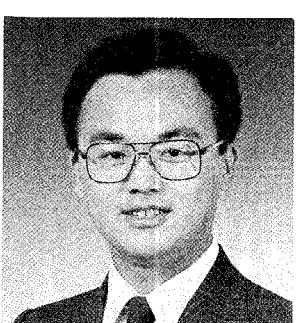
Ron Carter
Publicity Chairman



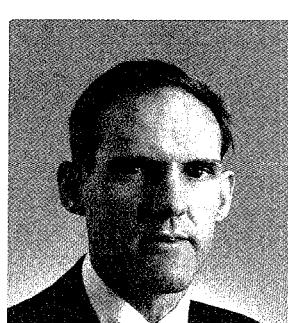
Paul Schurr
Publicity Vice-Chairman



Jim Griffiths
Registration Chairman



Hao Ling
Open Forum

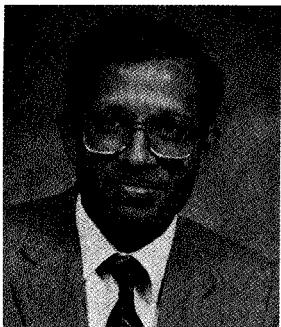


Alan Davis
Finance Chairman

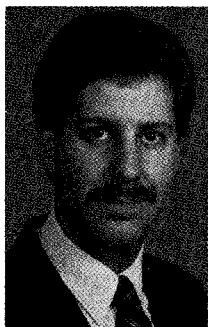


David Klemer
Finance Vice-Chairman

1990 MTT-S Symposium Steering Committee



Krishna Agarwal
Publications
Chairman



Ken Geisheimer
Publications
Vice-Chairman



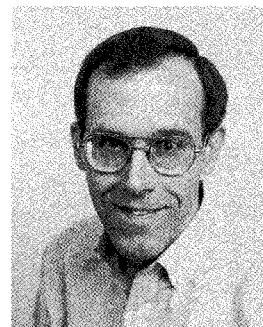
Denis Drury
Local Arrangements
Chairman



John Barnett
Local Arrangements
Vice Chairman



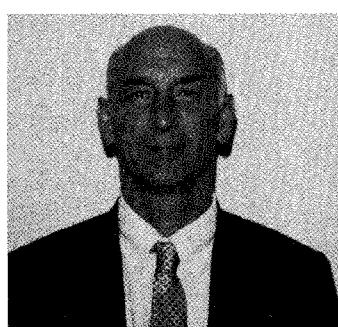
Thomas Trost
Local Arrangements



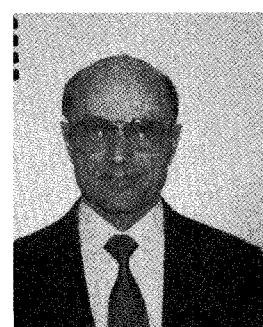
Gary Lerude
Chief of Protocol



David McQuiddy
Special Transactions
Issue Editor



Britt Vincent
Historical Exhibits
Chairman



Ben Hallford
Historical Exhibits



Ann Wassel
Spouses Program
Chairperson



Carol Varian
Spouses Program



Elisabeth Agarwal
Spouses Program

1990 MTT-S Symposium Steering Committee



Dottie Zimmermann
Spouses Program



Max Beasley
Exhibits Liaison



Ken Bradley
ARFTG Liaison



Hua Quen Tserng
Monolithic Symposium
Liaison



Howard Ellowitz
Exhibition



James Griffin
Official Photographer



Margaret Whicker
Conference
Management



Larry Whicker
Conference
Management

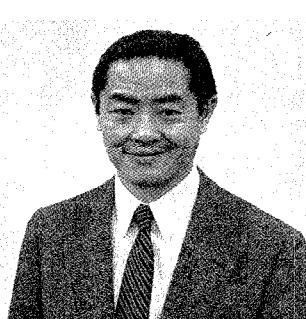


Diane Conti
VIP Meetings
& Conventions

1990 ASSOCIATED SYMPOSIUM CHARMEN



Shashi Sanzgiri
Steering Committee
Antennas & Propagation



Alejandro Chu
Steering Committee
Monolithic

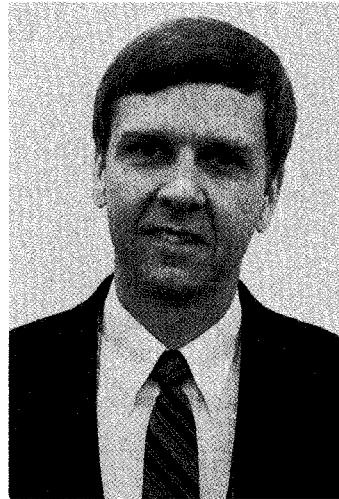


Bill Pastori
Steering Committee
ARFTG



Tatsuo Itoh

MESSAGE FROM THE TECHNICAL PROGRAM CO-CHAIRMEN



Randall E. Lehmann

The 1990 IEEE MTT-S International Microwave Symposium offers an outstanding technical program to challenge, inspire, and educate all of us involved in this area of work. To emphasize this year's theme of "Merging Technologies," the Symposium is being held jointly with the Antennas and Propagation Society, ARFTG, Microwave and Millimeter-Wave Monolithic Circuits Symposium, and URSI. This blend of disciplines offers a unique opportunity to examine details of specialty areas as well as to broaden our horizons in related areas.

The Plenary Session, to be held Wednesday morning, features three keynote speakers who will address "Merging Technologies for the 90's" from their positions in industry, university, and government. We are pleased to have Dr. Harold (Hal) Sobol of the University of Texas at Arlington, Robert Mailloux of the Hanscom Air Force Base, and William (Bill) Edwards of the Air Force Avionics Laboratory share their ideas and perspectives with us.

Four parallel sessions will be held, which will include special Focused Sessions to highlight areas with rapid technology advances. The Open Forum Sessions, European Microwave Session, Panel Sessions and Workshops round out the technical program. The Technical Program Committee selected 299 papers to be presented at the Symposium, consisting of 111 regular length papers (20 minutes), 95 short length papers (10 minutes), and 93 Open Forum papers. Sixteen papers will be presented jointly with the AP-S Symposium, twelve with the MMMC Symposium, and five with URSI.

The Focused Sessions are intended to provide special forums for technologies that are of special interest. This year six areas will be highlighted, including integrated optics, active quasi-optical techniques, microwave superconductors, acoustic charge transport (ACT), and computer-aided design for MMICs.

Two Open Forum Sessions, to be held on Tuesday, will permit one-on-one interactions with the authors and will include focused poster papers to highlight significant areas. A special session on Wednesday will feature a historical perspective of Phillip H. Smith and his revolutionary contribution of the Smith Chart to the microwave industry.

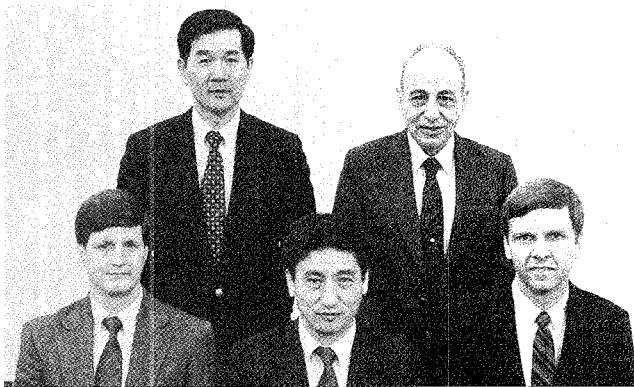
The European Microwave Session, which will be held as a special luncheon session this year, features three outstanding invited papers. Topics to be covered include Optoelectronic Device Applications for Microwave Signal Transmission and Processing, Microwave Communications Activity in Eastern Europe, and Short Range Microwave Links for Traffic and Transport Applications. Special thanks to A. Vander Vorst and R. Sparks for organizing this session.

Six panel sessions will provide coverage of a wide variety of topics, including MMIC power amplifiers, mm-wave subsystems, MMIC reliability, MMIC low noise amplifiers, spread spectrum technology, and microwaves in a globalized world market. Eight all-day workshops will be held on Monday and Friday, featuring topics such as superconductivity, numerical modeling, and various aspects related to MMICs.

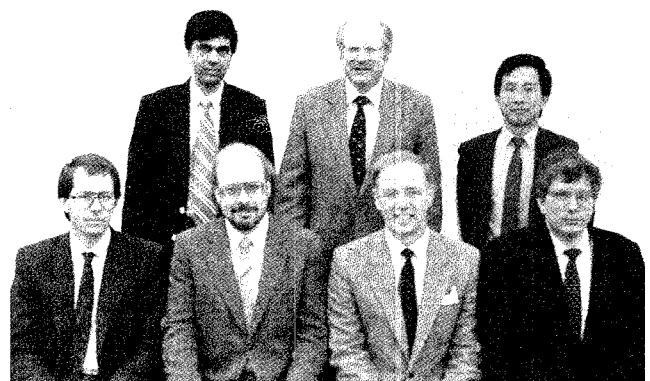
This outstanding program could only be made possible by the contributions of the authors and the dedicated work of the Technical Program Committee. We would like to express special thanks for the efforts of Vice-Chairman David Zimmermann, Open Forum coordinator Hao Ling, and Special Session, Panel Session, and Workshop Coordinators Bill Rhyne and Lew Claiborne.

Tatsuo Itoh
Randall E. Lehmann

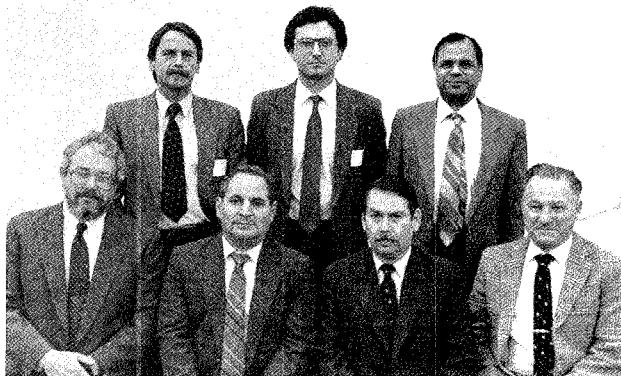
Technical Program Committee



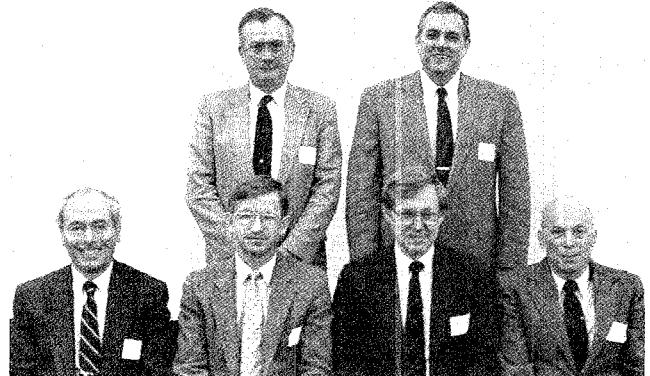
Front Row (l-r): David Zimmermann, Tatsuo Itoh,
Randall Lehmann
Standing (l-r): Kenneth Yano, Jesse Taub



Front Row (l-r): Michael Steer, Stephen Sussman-Fort,
Walter Curtice, Anthony Pavio
Standing (l-r): Rajeev Bansal, Arye Rosen, Jim-Son
Chou



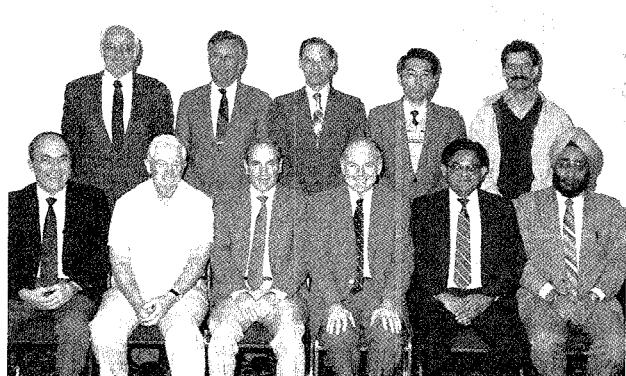
Front Row (l-r): William Childs, Barry Perlman,
Steven March, Robert Pucel
Standing (l-r): Rolf Jansen, Murat Iron, K. C. Gupta



Front Row (l-r): Marvin Cohen, Paul Greiling,
Peter Staecker, Leonard Cohen
Standing (l-r): Bill Wisseman, Edward Niehenke

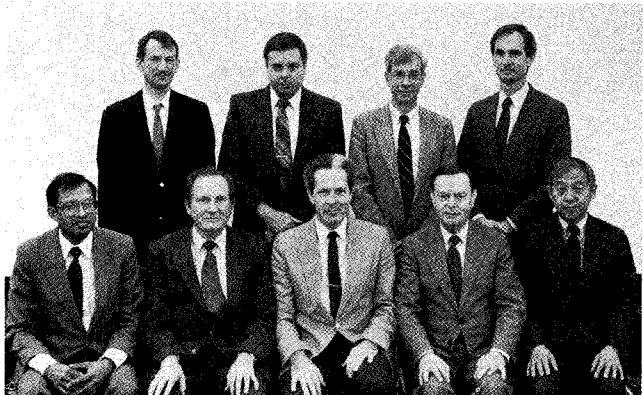


Front Row (l-r): Burhan Bayraktaroglu, Joseph White,
Natalino Camilleri
Standing (l-r): Daniel Masse, Thomas Midford,
Dean Peterson



Front Row (l-r): Jim Crescenzi, Chuck Swift,
Joseph Calviello, James Whelehan, Madhu Gupta,
Paul Khanna
Standing (l-r): Chuck Buntschuh, Harlan Howe,
Edgar Denlinger, Hiroyo Ogawa, Michael Ciminera

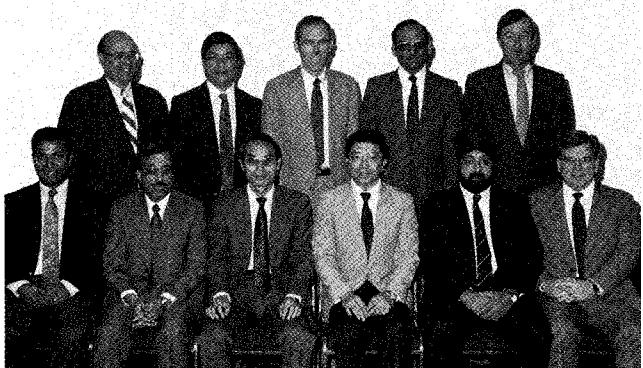
Technical Program Committee



Front Row (l-r): Krishna Agarwal, John Horton, George Heiter, Ferdo Ivanek, James Tsui
Standing (l-r): Christoph Mahle, David McQuiddy, Harry Cronson, Klaus Breuer



Front Row (l-r): John Owens, William Hord, Douglas Adam, Gordon Harrison
Standing (l-r): Bruce McAvoy, Robert Moore, Ted Lukaszek



Front Row (l-r): Fazal Ali, Ravender Goyal, James Chen, Hing-Loi Hung, Sarjit Bharj, Ronald Carter
Standing (l-r): Roger Sudbury, Ching-Der Chang, Gary Lerude, Ramesh Gupta, Thomas Burke



Front Row (l-r): Arthur Paoella, Paul Stabile, Chi Lee, Peter Herczfeld, Harold Sobol
Standing (l-r): John Barr, Franco Sechi, Robert Garver, Jitendra Goel



Front Row (l-r): Long Bui, J. W. Dees, James Wiltse, Kiyo Tomiyasu, Glen Thoren, Phillip Smith
Standing (l-r): N. G. Alexopoulos, S. T. Peng, David Rutledge, James Rautio, Hao Ling



Front Row (l-r): Michael Dydyk, Wolfgang Hoefer, Linda Katchi, James Mink
Standing (l-r): Louis Medgyesi-Mitschang, Richard Sparks, J. Dayton Adams

Technical Program Committee



Front Row (l-r): R. Bonetti, H. C. Bell, Albert Williams,
George Mattheai, Alan Davis
Standing (l-r): Ali Atia, Peter LaTourrette,
Jerry Fiedziuszko, Ti-Chi Shih



Front Row (l-r): Morris Engelson, Mario Maury,
Stephen Adam, Roger Pollard, Ron Ham
Standing (l-r): Seng Peng Tan, Dean Neikirk,
Mohammed Afsar



(l-r): Fred Rosenbaum, Jeanne Pavio,
Vladimir Gelnovatch



Front Row (l-r): Denis Webb, Barry Spielman,
Ervin Belohoubek, Clifford Krowne, Aly Fathy
Standing (l-r): Martin Nisenoff, George Gruener,
Kul Bhasin

1990 IEEE MTT-S Administrative Committee

Officers

President	Tatsuo Itoh
Vice President	Ferdo Ivanek
Treasurer	Robert A. Moore
Secretary	Zvi Galani

Elected ADCOM Members

Krishna K. Agarwal	Rolf H. Jansen	Jorg E. Raue
E. James Crescenzi, Jr.	Reynold S. Kagiwada	Martin V. Schneider
Al L. Estes	D. Gary Lerude	Peter W. Staecker
Zvi Galani	Mario A. Maury, Jr.	Steven J. Temple
Tatsuo Itoh	Robert A. Moore	Rodney S. Tucker
Ferdo Ivanek	Barry S. Perlman	James C. Wiltse

Immediate Past Presidents

1989	Vladimir G. Gelnovatch
1988	Barry E. Spielman
1987	David N. McQuiddy, Jr.

Honorary Life Members

A. C. Beck	Arthur A. Oliner	Kiyo Tomiyasu
Seymour B. Cohn	Theodore S. Saad	Leo Young



Front Row (l-r): John Barr, James Crescenzi, Tatsuo Itoh,
James Wiltse, Louis Medgyesi-Mitschang
Back Row (l-r): Krishna Agarwal, Andre Vander Vorst,
Martin Schneider, Paul Stabile, Joe White, Al Estes

1990 IEEE MTT-S Administrative Committee



Front Row (l-r): Rodney Tucker, Ferdo Ivanek,
Tatsuo Itoh, Zvi Galani, Robert Moore
Back Row (l-r): Vladimir Gelnovatch, Barry Spielman,
Richard Sparks, David McQuiddy, Harlan Howe



Front Row (l-r): Gary Lerude, Peter Staeker,
Tatsuo Itoh, Mario Maury, Barry Perlman
Back Row (l-r): Kiyo Tomiyasu, Ted Saad, Ed Niehenke,
Larry Whicker, Steve Adam, Rolf Jansen