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NEWSLETTER

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Inside

If You Don't Reduce VSWR My Way, I'll Give You A Black Eye

J. Mike Golio

Page 10

Today's Engineer Magazine to Debut in January

Pender M. McCarter

Page 7

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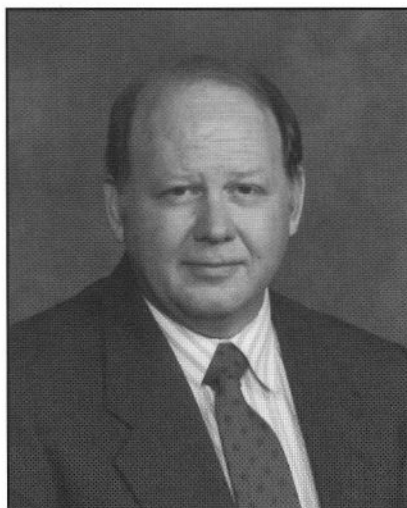
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Editor's Message

by Austin Truitt

The IMS held in Denver was very enjoyable. This was my first visit to Denver and I was impressed. Claude Weil and the volunteers were excellent hosts. I especially want to recognize Bob and Sharon Seely for staying on top of things. The next newsletter will feature the IMS.

I need to apologize for the lateness of the Winter newsletter. Our previous publisher has moved on, and our new publisher was hit with the daunting task of both the newsletter and the directory. This was also our first experiment with color in the newsletter. It looks

great, and I am very proud of it; however, we will be on schedule from now on.

I want to thank Mike Golio for his great feature, and I hope to have more from him. I would appreciate interesting articles for publication. Please send them to:

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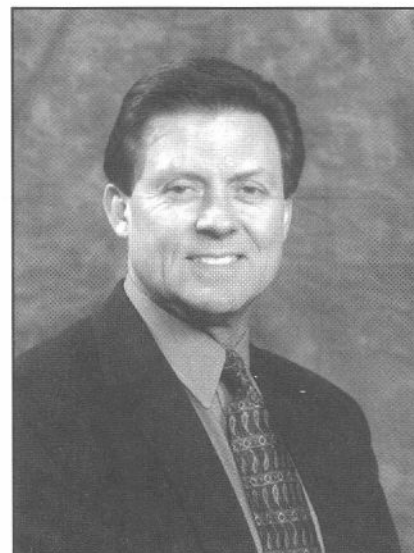
Editor's Note:

Please make the following correction to your 1997 Committee Directory: Hector J. De Los Santos' e-mail address should read "hjdlossantos@ccgate.hac.com." We apologize to Hector.

Chairmen, please send your information on the upcoming officers for your Chapter to Hector De Los Santos before September 15, 1997.

President's Message

R. E. "Skip" Bryan



The 1997 International Microwave Symposium was held in Denver, Colorado, USA, June 8-13. The IMS Chair, Claude Weil, and his committee prepared a program for this year's Microwave Week. I hope you have been able to support and participate so you could "Get on top of your technology in the Mile-High-City".

As part of our continuing effort to focus our technical meetings on the latest trends and topics in microwave technology, the Microwave and Millimeter Wave Monolithics Conference, held the first two days of Microwave Week, has evolved its focus and name to Radio Frequency Integrated Circuits (RFIC)

Symposium. The steering committee has expanded upon the former topics to focus on highly integrated ICs and sub-systems that include RF functions at any frequency. This forum now presents a broader platform for technology related to the rapidly expanding fields of cellular and portable telephony, radio frequency identification and asset tracking, IC technologies for hybrid fiber/coax applications as well as T/R modules for commercial and military applications.

And in a continuation of our tradition, on the Friday of Microwave Week, the 49th Automatic RF Techniques Group (ARFTG) Conference was held. This year's

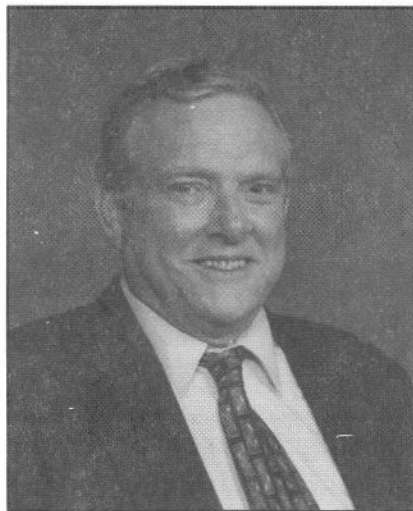
meeting focused on cable television with the theme Characterization of Broadband Telecommunications Components.

Our next newsletter will provide more coverage on Microwave Week.

I look forward to the challenges of 1997 and pledge my efforts to the continued support and development of the career's of our membership. Be active in your chapter, regional and international MTT events so you can provide AdCom feedback on your needs. Together we can move microwave technology further and faster toward the next millennium.



News from the Ombudsman



by Ed Niehenke

I have been selected by the Microwave Theory and Techniques Society Administrative Committee (ADCOM) to continue serving as your Ombudsman for 1997. It was a pleasure to serve in previous years and I look forward to continuing in 1997. The purpose of the Ombudsman is to receive complaints and assist members in solving problems encountered in obtaining membership services from IEEE and MTT-S.

As your Ombudsman in 1996, I received 24 inquiries and/or suggestions (11 non US) from MTT-S members. Responses were made to all requests. One member suggested that all past and future MTT-S periodicals be put on CD ROM along with an index and be offered to members. This had

already been under consideration and was acted upon at the January 1997 ADCOM meeting. The pricing structure is being worked out.

In 1997, I have had 14 requests to date. Three requests were for specific article reprints which were found and mailed. Three requests were made for better packaging of MTT-S periodicals. Presently, MTT-S periodicals are shipped in a brown wrapper, and some overseas members have had trouble with the periodical falling out of the wrapper during mail delivery. MTT-S is looking into the additional cost to have the periodicals sent in a plastic wrapper.

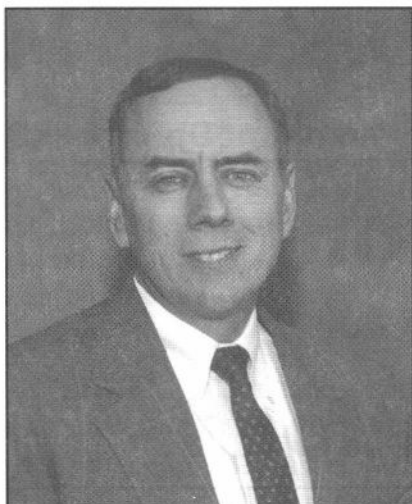
Two requests were from members who wanted and are not receiving their *MTT-S Transactions* and/or *MTT-S Microwave and Guided Wave Letters*. In checking with IEEE it was found that when they joined MTT-S they had not chosen to receive the publications. The basic MTT-S membership cost of \$8/year includes the *MTT-S Newsletter* and other member services. For an additional cost, members are given a choice to subscribe to *MTT-S Transactions*

for \$13/year, *MTT-S Microwave and Guided Wave Letters* for \$8/year, or both for \$21/year. This way members may choose what they want.

I received one request in each of the following six areas: Information on how to purchase *IMS 97 International Microwave Symposium (IMS) Digest*, request for missing *MTT-S Transaction* issue, how to receive CD ROM of *97 IMS Digest*, how to obtain an exhibition booth at IMS-97, information on new member application for MTT-S, and how to put an approved MTT-S topical meeting on the MTT-S home page. All requests were acted upon.

Please feel free to contact me by letter, telephone, or e-mail concerning any complaint you might have or any assistance you may need in obtaining membership services from IEEE and MTT-S. ■

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Distinguished Lecturer Program of the MTT-S

by Mike Harris

Program Is Open To (in Order of Preference):

MTT-S Chapters, Student Chapters, Other Society Chapters and non-IEEE Affiliated Organizations

To Request Speaker:

Contact the speaker directly. DML coordinator provides guidelines regarding acceptance criteria and priorities. Speakers make 6-7 lecture trips per year.

Speaker Expenses:

Travel and lodging expenses are subsidized; host entity pays local expenses.

Speaker Information:

Rahul Dixit (through Dec. 97)
Topic: *Automotive Electronics: Challenges and Opportunities*
TRW Automotive Electronics Grp
24175 Research Drive
Farmington Hills, MI 48335 USA
Phone: (810) 442-5305
Fax: (810) 478-7241
e-mail: dixitr@fhsmtp.fh.trw.com

Kikuo Wakino (through Dec. 98)
Topic: *Miniaturization Techniques of Microwave Components for Mobile Communications: Using Low-loss Dielectrics*
Murata Manufacturing Co., Ltd.
2-26-10, Tenjin
Nagaokakyo-shi
Kyoto, 617 Japan
Phone: +81-75-951-9111
Fax: 81-75-951-1916
e-mail: wakino@murata.co.jp

Wolfgang Menzel (through Dec. 99)
Topic: *Microwave/Millimeter-Wave Packaging*
Dept. of Microwave Techniques
University of ULM
Albert-Einstein-Allee 41
D-89 069 Ulm, Germany
Tel.: +49-731-502-63 50
Fax: +49-731-502-63 59
email: menzel@mwte-technik.uni-ulm.de

Dr. Chris Rauscher (through Dec. 99)
Topic: *Microwave Active Filters*
Naval Research Laboratory
Phone (202) 767-3526
Fax (202) 767-0455

Dr. Arye Rosen (through Dec. 99)
Topic: *New Frontiers in Medical Applications of RF/Microwave Technology*
David Sarnoff Research Center
CN 5300
Princeton, NJ 08543-5300
Phone (609) 734-2927
Fax (609) 734-2050

Dr. Peter Herczfeld (through Dec. 99)
Topic: *Application of Photonics to Microwave and Millimeter Wave Devices and Systems*
Center for Microwave/Lightwave Eng
Department of Electrical and Computer Engineering
Drexel University
Philadelphia, PA 19104
Phone (215) 895-2256
Fax (215) 895-4968

Program Coordinator:

Krishna K. Agarwal
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1997 IEEE MTT-S International Topical Symposium on Technologies for Wireless Applications



Reynold Kagiwada,
General Chairman

The 1997 IEEE MTT-S International Topical Symposium on Technologies for Wireless Applications was held on 23-26 February in Vancouver, BC, Canada. Those who attended were treated to a truly beautiful city and an excellent symposium. On Sunday, the "High Linear Power Amplifiers for Digital Communication Systems workshop had 82 people in attendance. Over 600 people attended the Joint Plenary Session on Wireless Technologies. There were three outstanding speakers:

- Andrew Viterbi, Vice Chairman and Chief Technical Officer, Qualcomm — *"Wireless Digital Communications: A Signal Processing Perspective"*
- George Brody, Vice President Wireless Networks Technology, Nortel — *"Wireless at the Crossroads: Network Challenges for the New Millennium"*
- William Evans, President, EB Systems Limited — *"Broadband Wireless Technology Employment in Canada"*

Everyone enjoyed the plenary speakers so much that they stayed 15 minutes past the scheduled end time!

There were nine sessions, with 40 papers presented, plus a panel session on "Global Wireless Applications." Session Topics included:

Wireless Technologies (Plenary Session); Broadband Wireless Multipoint Systems; High Efficiency/Linearity Power Amplifiers; Novel Antenna Configurations for Emerging Wireless Products; Communication Systems; Application of Array Antennas to Wireless Systems; Global Wireless Communications (Panel Session); Coverage Issues in Personal Communications Systems; HBT for Wireless Applications; ; Design Considerations for Passive Components; and Advanced Technologies for Wireless Applications.

Frank Sullivan and George Heiter put together an top notch technical program enjoyed by 161 attendees. Special acknowledgments go to Frank, George, and Dick Sparks, our Finance Chairman. This was definitely an outstanding symposium!



MTT-S AdCom Nominations

Call for AdCom Nominations and Committee Appointment Suggestions

**Reynold Kagiwada, Chairman
Nominations and
Appointments Committee**

The MTT-S Nominations and Appointments Committee (N&A Committee) is actively soliciting candidates for the MTT-S Administrative Committee (AdCom). The N&A Committee consists of:

Eliot Cohen
(e.cohen@ieee.org)
Tatsuo Itoh
(t.itoh@ieee.org)
Peter Staecker
(p.staecker@ieee.org)
Reynold Kagiwada
(r.kagiwada@ieee.org)
Kiyo Tomiyasu
(k.tomiyasu@ieee.org).

The nominations for AdCom will be processed in accordance with the MTT-S Bylaws and Procedures Manual. Nomination Procedure:

- Obtain suggested nominees from each member of the N&A Committee. Process must ultimately result in at least two nominees for each open slot.
- Chapter nomination submitted prior to July, 1997.
- Prepare a "Suggested Starting List of Candidates" of perhaps more than 40 names and solicit responses from AdCom.

- Committee shall downselect, and seek acceptance of nominee and commitment to perform as expected, if elected from this reduced list.
- Assemble list of suggested nominees and prepare a "spreadsheet" of biographical information emphasizing MTT-S, IEEE, and other activities. Compile results. Inform President of slate.
- Prepare ballot for use at Annual Meeting. Petition candidates (signed by 25 MTT-S members, by July 1, 1997) are automati-

cally included on the ballot.

All nominees will be contacted to ascertain that they will accept the nomination and will commit themselves for active participation in at least two meetings a year, held at various locations in the United States.

The geographical and affiliation distributions of current AdCom members are given in the table at right.

In addition to the elections, the N&A Committee seeks interested and qualified individuals who will be recommended to the president for his consideration to serve on various MTT-S committees.

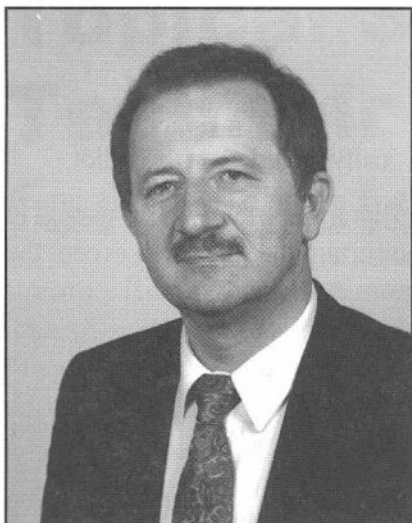
The N&A Committee is soliciting your help to suggest potential nominees to serve our membership as AdCom members. Please submit your suggestions by July 1, 1997. You may submit them to your local Chapter Chairman, to the N&A Committee by e-mail, or to:

R. Kagiwada
N&A Committee Chairman
TRW Incorporated
MS M5/1470
One Space Park
Redondo Beach, CA 91278
Fax: 310-814-5483

Present Elected AdCom (1997) Total = 18

Mid-Atlantic/Eastern US	3
Southeastern US	1
Middle Region US	3
Southwestern US	1
Western US	6
Europe	2
Asia-Pacific Region	2
Industry	10
Government	2
University	6

Message from the Transnational Committee



by Jozef Modelski,
Co-Chairman

Following my report in the Winter 1996 Newsletter I would like to underline that I have just concentrated on the consolidation of the new chapters in Former Soviet Union that have been established as a result of the Joint MTT/ED Initiative for Aiding EE/FSU. In this activity I am in close cooperation with Bill Van Der Vort from ED-S.

I am pleased to inform you that the activity is getting on very well. First of all I would like to let you know that the next MTT/ED Chapter in Republic of Georgia has been finally established. I would like to congratulate its Chairman, Prof. Revaz S. Zaridze.

The other Chapters are conducting a wide variety of activities, such as

organizing conferences, workshops or regular monthly technical meetings. Some of them are listed below. A few chapters are extremely active, i.e. West and East Ukraine, Novosibirsk, Saratov-Penza and Nizhny Novgorod. They have attractive and long-term plans, also for membership development. I wish great success to all of the new Chapters and their chairmen.

I am also excited to say that during the January MTT-S AdCom Meeting in Denver the MTT-S/ED-S initiative to subsidize membership and subscriptions for members in new EE/FSU Chapters was approved until the end of 1999.

Some of the Conferences and Workshops organized by the new MTT/ED Chapters from FSU in 1997:

Conference "Probe-Microscopy'97", Nizhny Novgorod, Russia, March 6-8, 1997,

The Second Belorussian-Russian Workshop on Semiconductor Lasers and Laser Systems, Minsk, Belarus, May 15-16, 1997,

International Conference on Antenna Theory and Techniques, ICATT'97, Kiev, Ukraine, May 20-22, 1997.

The 3rd International Conference on Antennas, Radiocommuni-

cation Systems and Means, ICARSM'97, Voronezh, Russia, May 26-29, 1997.

The Second Workshop of MTT/ED Saratov-Penza Chapter, Russia, June 28, 1997,

Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory, DIPED'97, Lviv, Ukraine, Sept. 15-17, 1997.

Workshop on Charged Particles Acceleration, LINAC-97, Alustha, Ukraine, Sept. 10-12, 1997

The 7th International Crimean Microwave Conference, CriMiCo'97, Sevastopol, Ukraine, Sept. 15-18, 1997.

Conference on Power Microwave Electronics - Measurements, Identification, Applications, MIA-ME'97, Novosibirsk, Sept. 23-25, 1997.

Chapter Chairmen Meeting

It is my pleasure to announce that on September 21, 1997 there will be a meeting of Division I/IV of Region 8 Chapter Chairmen in Stuttgart, as there was in Prague in 1996. It will be organized in conjunction with ESSDERC'97 (27th European Solid State Device Research Conference, Stuttgart, Sept. 22-24, 1997). The next one that is to be held will be in Amsterdam in 1998, in conjunction with the European Microwave Conference.

Today's Engineer Magazine To Debut In January

Pender M. McCarter
Assoc. Communications Director

Today's Engineer, the first magazine to be devoted exclusively to the professional lives of engineers in all technical fields, will begin quarterly publication in January 1998, according to its publisher, the career and technology-policy arm of The Institute of Electrical and Electronics Engineers (IEEE-USA). The magazine will begin with a controlled circulation of 75,000 and eventually convert completely to individual and group subscriptions.

"In our era marked by rapid changes in technology, the world economy and corporate culture, there is a crying need for a publication that gives engineers the tools they need to build successful and rewarding careers," said Gus Gaynor, the new magazine's editor-in-chief. "Today's Engineer aims to provide them what they can't get from technical courses, conferences and publications — and present it with intelligence, sparkle and wit."

Gaynor added that he hopes *Today's Engineer* will help

engineers "think outside the cubicle" in order to take control of their professional destinies. For engineers working in organizations, he explained, that mission would include tackling such topics as sharpening leadership skills, developing an entrepreneurial spirit and a business perspective, influencing one's organization, and preparing for management. "We're not Pollyannas; we share our readers' understanding of the many challenges facing today's professional," he said. "But we want to show that engineers don't have to be victims — there are a wealth of opportunities for professional growth available to those with the knowledge, desire and commitment to seize them."

The premier edition's cover story will examine "the crossroads of the engineering profession." In a preview of themes that the magazine will explore in later issues, the article will analyze contrary forces which either threaten to deprofessionalize the practice of engineering or promise to raise it to new levels of professionalism. "The

engineer today can be either priest or prole, master or minion," stated Gaynor. "Today's Engineer aspires to be a beacon for those who want to realize the greatest possibilities of their vocation."

For more information on *Today's Engineer*, call Christopher Currie at 202-785-0017 or send e-mail to ieeusa-magazine@ieee.org. To subscribe, call 800-678-IEEE and ask for product no. JP2969. Annual subscriptions are \$18.95 for individuals (\$12.95 for IEEE members), and \$6.95 each for group subscriptions of 50 or more.

NOTE TO RECIPIENTS: If you wish to be added to or removed from this distribution list, please reply to: c.currie@ieee.org.

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1997 Calendar MTT-S Sponsored Conferences

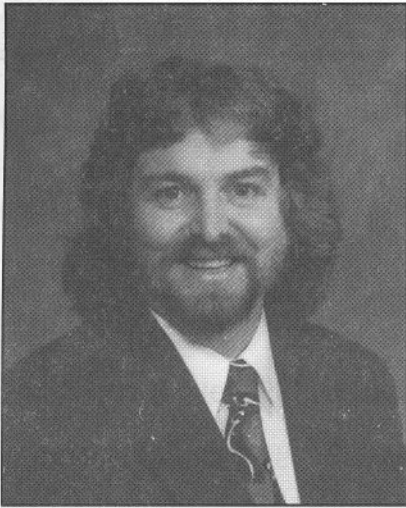
Name	Date/Location	Involvement	
SBMO International Microwave and Optoelectronics Conference	11-14 August Natal Brazil	Cosponsor	Adaildo G. d'Assuncao UFRN, EE Dept. PO Box 168 Natal, RN Brazil 5 9072-970 Tel.: 55 84 231 4254 FAX: 55 84 231 4254 email: sbmo97@ct.ufrn.br
SPS 97 and Third Conference on Wireless Power Transmission	24-28 August Montreal Canada	Cooperative	I. Ross Canadian Aeronautics and Space Institute #818-130 Slater Street Ottawa ON Canada, K1P6E2
International Topical Meeting on Microwave Photonics	4-6 September Duisburg Germany	Technical Cosponsor	Prof. Dr. Dieter Jaeger Gerhard-Mercator-Universitat Geshamthochschule Duisburg Kommandantenstrasse 60, KA D-47048 Duisburg, Germany Tel.: 49 02 03 379-2341 FAX: 49 02 03 379-2409 email:jaeger@ optorisc.uni-duisburg.de
IEEE Conference on Intelligent Transportation Systems	9-12 November Boston, MA USA	Cosponsor	Lyle Saxton 6108 Browning Lane Broadrun, VA 22014 Tel.: 540 347-9512 FAX: 540 347-3311 email: l.saxton@ieee.org

Notes:

(1) Meetings listed are those that have been officially sponsored by MTT-S (i.e., AdCom approved). There are many other microwave related meetings (chapter sponsored, commercial, etc.) that are not listed.

MTT-S Continuously Sponsored Conferences

MTT-S International Microwave Symposium (IMS)	Annual (Sponsor)
Automatic RF Techniques Group (ARFTG)	Semi-annual (affiliated)
European Microwave Conference (EuMC)	Annual (Cooperate)
Asia Pacific Microwave Conference (APMC)	Annual (Cooperate)
MIOP	Biennial - 1993, etc. (Cooperate)
MIKON	Biennial - 1994, etc. (Cooperate)
Combined Optical and Microwave Earth and Atmospheric Sensing	Biennial (1993, etc.) (with GRSS-S, LEO-S)
International Microwave Conference/Brazil (SMBO)	Biennial - 1993, etc. (Cooperate; Cosponsor 1995)
IEEE GaAs IC Symposium	Annual (Cosponsor)
IEEE Conference on the Computation of Electromagnetic Fields	Biennial - 1992, etc. (Cooperate)
European GaAs Applications Symposium	Biennial - 1992, etc. (Cooperate)
Topical Meeting on Electrical Performance of Electronic Packaging	Annual (Sponsor)
19th International Conference on Infrared and Millimeter-Waves	Annual (Cooperate)
Microwaves in Medicine	Triennial - 1993, etc. (Cooperate)
National Radio Science Meeting	Annual (Cooperate) (with International Union of Radio Science)
International Workshop on High-Performance Electron Devices for Microwave and Optoelectronic Applications (EDMO)	Annual (Cooperate) (with UKRI MTT/AP/ Leo Joint Chapter and King's College London)
Cornell University Conference on Advanced Concepts in High Speed Semiconductor Devices and Circuits	Biennial (Technical Cosponsor) (Sponsored by the IEEE Electron Device Society)



If You Don't Reduce VSWR My Way, I'll Give You A Black Eye

by Mike Golio

I was in the third grade when I had my first encounter with a truly evil school yard bully. I don't mean to imply that I hadn't seen my share of bickering and minor skirmishes between kids. But Mitch Davros was big, mean and ugly.

His very appearance was intimidating. It may be my imagination, but I have this memory of Mitch as a fifth grader with a permanent five o'clock shadow flicking a switchblade knife open and shut in the back of the class. He had lots of loathsome habits. He spit and smoked behind the schoolhouse and he smelled bad.

By all rational measures of success, Mitch was a pathetic failure, an embarrassment to the community. He did poorly in school, he was always in trouble, and he never even seemed to have fun. If he did laugh, it was only a kind of demonic laughter designed to punish his victims. He didn't have what I would call friends, but he did

have a following of toadies — kids too weak-willed to stand for anything themselves and anxious to gain power over others through the bullying strength and the intimidation factor of standing next to Mitch.

My personal encounter with Mitch came in a vacant lot in the neighborhood where I had been working with friends for several weeks on a major development program — building a treehouse. Sarah Shelton handled legal contracts, acquiring necessary permits, etc. Her parents owned the tree. The Conrad brothers headed up our Materials Division. Their barn had a stockpile of all kinds of old boards, ropes, wire, etc. QA activities were the responsibility of Arnie Davidson. He was a little bit pudgy, and we reasoned that if the floor held him, it would hold any of us.

Like many projects with a short schedule, our design and build phases were taking place simulta-

neously. We were well on the way to producing a structure we would be proud of when Mitch and his associates decided that our treehouse-building activity was undesirable. They made it clear that they were not interested in a partnership, but were thinking more along the lines of a hostile takeover.

A short board meeting of our treehouse development partners showed sharp disagreements in proposed corporate strategy. Everyone but me felt that immediate divestiture of all treehouse building activities, rapid relocation to Sarah's back yard, and a refocus toward lemonade production was the wisest course of action; but I felt certain that what Mitch wanted to do was wrong. So with righteous indignation I stood firm. I let Mitch and his corporate raiders know that they had no right to our structure or materials. I stated my unwillingness to compromise on this point.

However, Mitch had a very persuasive negotiating style. It didn't involve a discussion of facts, a collection of data or detailed analysis. He did not want to hear about the treehouse, the advantages of having one, or the amount of time and energy that had already been placed into this production. He was certainly not interested in the negative impact his plan might have on the morale of those who had worked so hard and come so far.

On the other hand, his method was quick. A few minutes of tough negotiation resulted in a final settlement. Mitch and Company would take control of all treehouse building materials, locate them in a common pile and set them on fire. For my efforts, I would receive one black eye and several small cuts and abrasions. The settlement was less than I had hoped for...

I had worked as a microwave engineer for several years before I encountered my first truly evil workplace bully. Oh, I had witnessed office politics. But Bo Cambert was truly malevolent.

He had no technical credentials or accomplishments to speak of. In fact, he was very weak technically. He seemed to have no

management skills — unless you consider the arts of delivering condescending insults to subordinates, sucking up shamelessly to the boss, or backstabbing peers to be management skills. His organizations spent lots of money, printed lots of color viewcells and produced almost nothing of value.

By all rational measures of engineering success, Bo was a pathetic failure, an embarrassment to the engineering community. Most of his colleagues feared, but did not respect him. He did, however, have a following of toadies — engineers of limited creative and technical potential, anxious to gain power over others through the bullying strength and the intimidation factor of standing next to Bo. You might call them bullies-in-training.

Bo was different from Mitch in some ways. He had a vision. (Some would call it an hallucination). It was never clear to me exactly what that vision was, but I believe it involved him becoming High Emperor of the Galaxy and the mandatory blind worship by all other life forms. Now that I think about it, maybe that's not so different from Mitch.

Unlike Mitch, Bo was not smelly and ugly. Such an appearance would hardly lead to intimidation of corporate office dwellers, although the thought of it does create an interesting image. When it came to Bo's style of negotiation and to the way he interacted with others, however, he was very similar to Mitch in many ways. Bo did not want to cloud his visionary decision-making process with facts, data or engineering analysis. Such information was far too likely to indicate that a different approach would be needed. And this not only took more time, but tarnished the image of himself as all-knowing that was central to his vision.

Like Mitch, ethical principles did not figure prominently into the tactics and methods he would use to achieve his ends. Although the delivery of black eyes and abrasions would not have been effective for Bo, people and their feelings were no more a consideration to him than they were for Mitch. Much like the ink that was consumed for the endless stream of color viewcells, engineers were an expendable item in his quest to achieve control over others.

A lot of people from many different places have told me

their own stories of schoolyard bullies. They seem to be all too common. And with only a few exceptions, the technique most of us have used to deal with these bullies is a two pronged strategy—run and hide.

Equally common in the corporate engineering environment is the likes of Bo Cambert. I am sometimes amazed at how little we have advanced in moving from the school yard to the corporate tower. Again, avoidance seems to be our only alternative.

One final note: The last time I heard anything about Mitch, he had been sent to prison. It took about 15 years, but apparently he never changed, and his behavior finally caught up to him. The time frame for Bo's behavior to catch up to him is probably similar. Instead of going to prison, though, Bo will be promoted to Strategic Director of Important Stuff with a staff of zero, but with a six- or seven- figure salary.

The IEEE RF Society of the University of British Columbia

While attending the 1997 IEEE MTT-S International Topical Symposium on Technologies for Wireless Applications held in Vancouver, BC, Canada I spent some time walking through the associated INTERCOMM Exhibition. I stopped at the IEEE booth and met the local Section Chairman, Merrill Wittman, who was in attendance. He introduced me to a student from the University of British Columbia, Dmitry Riftin, who subsequently gave me his business card which gave his name and under it his title which read, "UBC IEEE RF Society Chair." I mentally reviewed the list of IEEE Societies I was familiar with and couldn't recall any RF Society.

After further questioning of Dmitry as to the origin of this entity, I asked him to provide a short background on the organization which I thought would be of interest to all MTT-S members. He has prepared the submission that appears below.

R. A. Sparks

by Dmitry Riftin
IEEE UBC RF Society Chair

In September 1988, Electrical Engineering students of UBC initiated the development of an amateur radio station. The Department of Electrical Engineering provided funding for equipment and made space available in their building for the radio station and an RF electronics lab for student initiated projects. Proceeds from sales of Amateur Radio course materials and other fund raising activities provided the balance of the funding required to outfit the lab.

MPR Teltech, Glenayre Electronics, Nexus Engineering, and Mobile Data International agreed to provide funding for routine operating expenses on an ongoing basis through purchase of corporate memberships. In May 1989, the IEEE Student Branch took over the responsibility for managing the facility in the Electrical Engineering building. In the IEEE UBC branch structure, the RF Society fits in under the umbrella of McNaughton Center, along with the Computer Society.

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The years from 1989 through 1991 have seen a great deal of activity and much success. Electrical Engineering students involved with the RF Society won the IEEE Vincent Bendix award and the Dean's Award for Technical Excellence for their "Digital Simplex Repeater Project". One of the students won first prize at the IEEE Student Papers Competition in Vancouver for a presentation based on the project. The paper was also presented at the IEEE Mobile Communications Symposium held at Sheraton Villa in 1989.

In 1990, we won the IEEE Vincent Bendix Award and the Dean's Award for Technical Excellence for the second time in a row. Our

project, "A Transportable Amateur Radio Earth Satellite Station" also took first prize at the Western Engineering Competition Conference held in Winnipeg, Canada. 1991 saw the coming of RATAN, Radar and Television Aid to Navigation, an RF project that won us yet another first prize at the Western Engineering Competition Conference.

In the past few years, IEEE UBC RF Society has been closely involved with the Amateur Radio Society of UBC, sharing equipment and projects like Low-Speed Data Packet Internet Access. This year, the RF Society has dedicated its resources to the Engineering Ball Model Competition project. Again, we received the Dean's

Award for Technical Excellence with our project "Convey - A Computer Controlled Lego Production Cell", succeeding over 6 other engineering departments.

Throughout the years, the theme has been to take a proven technology, and then add an innovative twist. The projects traditionally involved hardware, software, and RF design, allowing many students to participate.

Much of the success of the RF Society has been due to the dedication and hard work of the students involved, and guidance and expertise of the UBC EE alumni, who keep close ties with the IEEE UBC RF Society through the Amateur Radio Club of UBC. ■

Reduce Government Secrets, Senators Say

by Edith Carper

Special to

IEEE-USA PERSPECTIVES

Two senators with widely divergent political views have joined forces in proposing legislation to overhaul the entire system of managing classified information. The bill (S. 712, filed on May 7) calls for downsizing the amount of secret information and for examination and declassification of government documents at specified intervals. The cost of keeping the federal government's secrets was an estimated \$5.2 billion in 1996. Sens. Patrick Moynihan, D-N.Y.,

and Jesse Helms, R-N.C., are the Senate sponsors. Reps. Larry Combest, R-Tex., and Lee Hamilton, D-Ind., are sponsoring companion legislation in the House.

Moynihan and Helms agree that we must develop "a culture of openness" in the federal government and that the term "secrecy" must be defined by statute. Secrecy, they say, belongs in the realm of national security and "must serve that interest alone."

Helms went on to say that Congress must establish a life cycle for secrets so that "all information, classified and unclassified alike, has a life span in which decisions must be made regarding creation, management and use," he said. This kind of rationalization would favor openness and reduce costs. The bill is now in the Senate Governmental Affairs Committee.

ITSC '97 Brings A Broad IEEE Participation To Intelligent Transportation Systems

by Lyle Sexton

The Boston Park Plaza Hotel in downtown Boston, Massachusetts, is the site of the first IEEE Conference on Intelligent Transportation Systems, November 9-12, 1997. ITSC '97 provides a major milestone in the involvement of the IEEE in the rapidly evolving field of Intelligent Transportation Systems (ITS). Designed as a professional level meeting emphasizing high quality presentations on important ITS technical and system topics, the conference begins on November 9 with four parallel tutorial sessions. The conference technical sessions will begin Monday, November 10 with an Opening Plenary and run through Wednesday, November 12.

The conference features three separate plenary sessions with leading industry speakers. The opening session will feature Mr. Richard Weiland who has been a national leader and focal point for coordinating the development of ITS standards. On Tuesday, a four-member panel of international experts will present "A Perspective on Key ITS Technologies" including navigation and position location, communications,

automated vehicle control, and in-vehicle information systems. A highlight of Wednesday will be the closing plenary where Dr. Kan Chen will provide a special presentation on "The Past, Present and Future of ITS – A Personal Perspective".

Five parallel technical sessions will be maintained through the conference to provide ample opportunity to cover a broad range of ITS technical topics. Embedded in the conference are several sets of sessions on organized around specific topics such as "Applied Computer Vision" and "Crash Avoidance Systems". The sessions will include a mix of both invited sessions on selected ITS technical topics as well as sessions arranged around peer reviewed papers received in the excellent response to the Call for Papers. Some of these timely and challenging technical issues will include:

- *Communication design and system tradeoffs associated with deploying ITS*
- *Vision technology applications to ITS*

- *Partial and fully automated vehicle control design*
- *Microprocessor and computer applications to ITS systems*
- *Navigation and vehicle location technologies*
- *Analytic and algorithmic issues in communications and control*
- *Systems design as influenced by the national architecture*
- *ITS standards development technical issues*

The IEEE has a very successful history in organizing international conferences associated with ITS. These have included the Vehicle Navigation and Information Systems (VNIS) and Intelligent Vehicle Systems (IVS) series of conferences.

With ITSC '97, seventeen IEEE Societies are cooperating together to host this major conference which will focus on ITS technologies and systems. As member societies of the IEEE's TAB ITS ad hoc Committee, they represent the broad range of technical and system aspects of ITS. Of these, seven societies advanced the

funding to support this first ITSC '97. The seventeen societies are:

- Aerospace and Electronic Systems Society
- Antennas and Propagation Society
- Communications Society
- Consumer Electronics Society
- Control Systems Society
- Electron Devices Society
- Electromagnetic Compatibility Society
- Industrial Electronics Society
- Instrumentation and Measurement Society
- Microwave Theory and Techniques Society
- Power Electronics Society
- Professional Communication Society
- Reliability Society
- Robotics and Automation Society
- Signal Processing Society
- Systems, Man, and Cybernetics Society
- Vehicular Technology Society

ITSC '97 is focused on a broad range of technical and system disciplines – not just electronics. This is in keeping with the nature of major systems development that today is strongly interdisciplinary and the wide technical scope of ITS itself. To further assure this perspective, additional international Conference Supporters were invited. The conference is proud that it has the participation of the following supporters.

- American Association of State Highway and Transportation Officials
- German Institute of Navigation
- International Bridge Tunnel and Turnpike Association
- Institute of Electrical Engineers
- Institute of Navigation
- Institute of Transportation Engineers
- Intelligent Transportation Society of America
- Intelligent Transportation Society of Massachusetts
- University of California – Berkeley PATH Program
- Royal Institute of Navigation

- Society of Automotive Engineers
- US Dept. of Transportation
- Vehicle, Road and Traffic Intelligence Society (VERTIS)

ITSC '97 is occurring at a significant time in the development, deployment and operational use of ITS. In North America, the program now has over five years of major research and development now completed and the experiences gained from over seventy on-going and completed field operational tests. In addition, the program has completed a major multi-year development of a national systems architecture and has launched a major research initiative in automated vehicle control systems. In Europe and Japan, similar major accomplishments including system development and field demonstrations have been completed.

With this base, the ITS program is now transitioning to a much more significant commitment to implementation and deployment. This includes major public and private efforts in systems associated

with traffic management, traveler information, transit management and operations, and commercial vehicle operations. It also includes an acceleration of the development of user products and services by private industry for specific ITS markets.

This evolving ITS program direction is now placing considerable emphasis on the development of a very wide range of standards to support the growth in these various markets and to assure the interoperability of systems where needed. The IEEE is a major participant in these standards developments including such areas as data dictionaries, message sets, and vehicle to roadside communications issues.

However, as the ITS program matures and more emphasis is placed on markets and operational use, many substantial technical challenges are found. Significant issues facing the program range from near term frequency and communications protocols questions to selection of preferred system approaches for longer range automated vehicle control systems. ITSC '97 will provide a professional technical forum for presenting and discussing current views, developments and relevant technical activities associated with the broad spectrum of ITS systems issues.

With this being the first IEEE Intelligent Transportation Systems Conference, a metropolitan area

was desired that included a significant scientific and engineering community. Sites were considered throughout the United States and Boston was selected to host ITSC '97. With its major university community, substantial scientific and research community, and active participation in the ITS program, Boston is an excellent setting. ITSC '97 is planned to be held in the future on at least a biannual basis and future conference sites will include both international as well as other US cities.

We hope you'll participate in ITSC '97 on November 9-12, 1997. We also invite you to visit the ITSC '97 website for further information, located at <http://www.ieee.org/itsc/itsc97>. ■

IEEE-USA News Bytes

At the 1997 IEEE-USA Technology Policy Council Symposium on June 11, Rep. Dan Schaefer, R-Colo., told more than 100 attendees that the House Commerce Energy and Power Subcommittee should pass his legislation to restructure the electric-utility industry by the end of this month. Schaefer, who chairs the subcommittee, also told the group that he expects the full Commerce Committee to take up the bill in the fall. H.R. 655 would permit consumers to choose their electricity supplier by Dec. 15, 2000.

In comments aired June 11 on nearly 20 radio newscasts around the country, IEEE-USA Energy R&D Policy Committee Chair Robert J. Thomas urged federal lawmakers not to lose sight of the technical challenges involved in reworking the nation's complex electric-power delivery system. According to Thomas: "Lower electric bills are small comfort if your lights don't work when you flip the switch. We take the high reliability of our nation's electricity for granted. But can we maintain reliability while creating a national power grid out

of many small regional ones, while transmitting power long distances from generating facilities, and while facing pressure to cut costs by reducing research and development? To make restructuring work, legislators, regulators and industry will need to work together with engineers to create a new industry that will deliver electricity reliably, as well as cheaply."

MTT IMS-97

Special Session On

HF/VHF/UHF Technology

To emphasize MTT's interest in serving the needs of "RF" engineers, MTT's International Microwave Symposium (Denver, June 8 - 13, 1997) will include a special session Tuesday evening. The agenda features eight talks on the state of the art in HF, VHF, and UHF technology, followed by an open discussion on future MTT activities in HF/VHF/UHF.

Agenda

S. K. Leong, Polyfet, "RF Power Transistors for Use Below 1 GHz"

Jerry Sevic, Consultant, "Transmission-Line Transformers - Guanella or Ruthroff?"

Fritz Raab, GMRR, "High-Efficiency Transmitters and Power Amplifiers"

Dan Myer, "Feedforward Amplifiers for High Linearity"

Jim Eagleson, RF Technologies, "RFID: Overview of Technology"

Dick Brounley, Brounley Engineering, "Solid-State RF Generators As Plasma and Laser Drivers"

George Ploussios, GS Inc., "HF/VHF Antenna Systems"

Ulrich Rhode and Jerry Gerber, Compact Software, "CAD Techniques for HF and VHF"

Open discussion of future IEEE-MTT activities in HF/VHF/UHF.

Please send inquiries to F. H. Raab via e-mail or fax.

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USA

Tel./Fax.: +1 (802) 655-9670

E-mail: f.raab@ieee.org

IMOC97 on the Web

We would be very grateful if you could announce in the MTT-S Newsletter, the homepage address for the "1997 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference," Natal, RN, Brazil, 11-14 August, 1997. That is :

<http://www.etfrn.br/sbmo/imoc97.html>

Thank you very much,
Denise Consoni
International Liaison
IMOC'97

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

**1997 IEEE – RUSSIA CONFERENCE
"HIGH-POWER MICROWAVE ELECTRONICS:
MEASUREMENTS, IDENTIFICATION, APPLICATIONS"
MIA-ME'97**

September 23-25, 1997

Novosibirsk State Technical University, Novosibirsk, Russia

The 1997 IEEE-Russia Conference MIA-ME'97 organized by the Joint MTT/ED Chapter of IEEE, Novosibirsk, Russia and Novosibirsk State Technical University, Russia and cosponsored by the IEEE MTT-S and ED-S, Systems TV Ltd. (Russia), Microtech Co. (Russia), Society of Radioelectronics and Communication (Russia)

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MIA-ME'97 CONFERENCE SESSIONS:

Session 1. Characterization of high power microwave devices as nonlinear n-ports:

- Procedures of identifications of non-linear devices, using multitone and other signals
- Techniques for measurements and testing of non-linear microwave devices
- Use of nonlinear n-ports models for CAD of nonlinear microwave circuits
- Other related topics

Session 2. Microwave passive and active filters, and acoustics-electronic devices and systems:

- Modeling and CAD microwave filters and acoustics-electronic devices
- New realizations, fabrication technologies and applications
- Other related topics

Session 3. Microwave/RF: Industrial, Scientific and Medicine Applications:

- Industrial microwave heating
- Microwave processing materials and foodstuffs
- Electromagnetic techniques for medical diagnostics and therapy
- Future of microwave technology
- Other related topics

SHORT COURSES (Workshops)

Short courses (workshops) will be offered in conjunction with the Conference covering:

- Computational methods analysis of non-linear circuits based on a Volterra-Wiener representation of nonlinear systems
- Modeling and design microwave active filters

EXHIBITS AND EXCURSIONS

Vendor booths and demonstrations of commercial products, computer hardware/software and company capabilities in areas of measurements, TV and medical techniques are available. Excursions to Siberia Medical Research Center, Microwave Products Manufacturers, and Microwave Research Institutes will be organized.

INSTRUCTIONS FOR AUTHORS AND TIMETABLE

The title of the paper, authors name, affiliation, full address, telephone/fax numbers and e-mail address should be given in a separate A4 page, together with session reference number that seems most appropriate to the work.

Papers should be submitted English or Russian, typed in camera ready form, of no more than 5-6 A4 pages. Please use Times New Roman 12pt font or an equivalent serif typeface, set all margins to 25mm (1 inch), set paragraph indentation to 3.5mm (0.14 inch). Type title in bold, centered in the top. Below title center name of author(s) with the affiliation. Left and right justified is recommended.

Three (3) hard copies of the paper and the diskettes of standard IBM format (1.2 - 5.25" or 1.44-3.5") must be submitted to Vice-Chairman of MIA-ME'97. The text and figures on the diskettes must be combined into files written at word processing Microsoft Word (version 2.0, 6.0 or 7.0), named as follows: paper.doc - for the text of the paper; author.doc - for information about the authors.

May 30, 1997 : Submission papers in Conference Committee (3 hard copies and diskettes)

June 30, 1997 : Acceptance notifications

August 10, 1997: Advanced Program

**International Workshop on
Finite Elements for Microwave Engineering
From Electromagnetics To Microwave
Electronics Software
Futuroscope — Poitiers, France
July 10-11, 1998**

Second Announcement and Call for Papers

Organized by IRCOM, University of Limoges, UMR CNRS, France with the collaboration of

the University of California at Los Angeles, USA and the University of
Florence, Italy
Conference Themes

The Workshop on Finite Elements for Microwave Engineering will focus principally on finite element software relevant to problems of microwave electronics, passive and active microwave devices, antennas and field simulation. Other related topics of current interest and importance will also be considered. Papers presented at the Workshop will be fully refereed and published in the French scientific journal *Annales of Telecommunications*.

Location

The Workshop is planned to be held at the Futuroscope Center in Poitiers, France on Friday and Saturday, 10-11 July 1998. The Workshop will immediately precede PIERS (Progress In Electromagnetics Research Symposium), which will take place in Nantes, France.

Poitiers is an attractive city located just a brief train ride from Nantes and Paris, making it convenient to attend PIERS as well as this Workshop.

Call For Papers And Deadlines

Prospective authors are requested to submit a two-page paper by January 31, 1998 (by this date your paper must be in the hands of the Conference Secretariat). Acceptance notification: May 15, 1998.

Extended paper will be requested at the date of the Conference: July 10, 1998.

The instructions for the authors are available at the Internet site: <http://ingfi9.die.unifi.it/poitiers/> where up-to-date information is also available. Papers should be addressed to the Conference Secretariat (see address at right).

Language

The official language of the conference for written contributions and discussions will be English.

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1998 Asia-Pacific Microwave Conference — APMC'98 —

December 8-11, 1998
Pacifico Yokohama, Yokohama, Japan



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APMS'98
Home page address
<http://www.ieice.or.jp/jipinkai/apmc/jpn/index.html>

First Call for Papers

The 1998 Asia-Pacific Microwave Conference (APMC'98) will be held at the Convention Center in Pacifico Yokohama, Yokohama, Japan, on December 8-11, 1998. This conference is organized and sponsored by the Institute of Electronics, Information and Communication Engineers (IEICE) of Japan, and is cooperatively sponsored by IEEE MTT-S, URSI and IEEE MTT-S Tokyo Chapter.

CONFERENCE TOPICS

- | | |
|--|---|
| 1. Solid State Devices and Circuits | 14. Remote Sensing |
| 2. FET, HEMT, HBT and other Devices | 15. Microwave Medical/Biological Applications |
| 3. Low-Noise Devices and Techniques | 16. EMC/EMI |
| 4. High-Power Devices and Techniques | 17. Active Phased Array Antenna Systems |
| 5. Signal Generation, Frequency Conversion and Control Circuits | 18. Scattering and Propagation |
| 6. Monolithic Integrated Circuits | 19. Electromagnetic Field Theory |
| 7. Passive Devices and Circuits | 20. Computer-Aided Design |
| 8. Packaging Techniques | 21. Microwave Antennas |
| 9. Guided Waves | 22. Microwave Photonics |
| 10. Filters and Resonators | 23. Microwave Superconductivity |
| 11. Ferrite and Surface Wave Components | 24. Submillimeter-Wave Techniques |
| 12. Microwave and Millimeter-Wave Systems | 25. Measurement Techniques |
| 13. Communication Systems (Satellite, Mobile/Personal and Terrestrial) | 26. Others |

Submission Guidelines: All paper submissions must be in English. Fax and e-mail submittals cannot be accepted.

Authors are invited to submit

1. Ten (10) copies of a 30-50 word abstract on a single separate sheet. This sheet should indicate the title, author(s) of the paper, complete mailing address, FAX number, E-mail address, statement specifying the most appropriate topic from the preceding list, and authors preference of oral or poster presentation.

2. Ten (10) copies of a 500-1000 word summary with no more than four (4) pages of supporting illustrations. The title and author's name(s) should be on the front page of each copy.

The official language of the conference will be English.

WORKSHOPS AND SHORT COURSES

The APMC'98 provides exciting workshops and short courses to learn from a group of specialists in a wide range of timely and interesting subjects.

MICROWAVE EXHIBITION '98

The Microwave Exhibition in association with the Conference will be held at the Exhibition Hall in Pacifico Yokohama on December 8-11, 1998. Please contact the following address for further information:

Microwave Exhibition '98

do REALIZE INC., 4-1-4 Hongo, Bunkyo-ku, Tokyo 113, Japan

Tel: +81-3-3815-8590 Fax: +81-3-3815-8529 E-mail: rlz@ppp.bekkoame.or.jp

JAPAN MICROWAVE PRIZE

During the APMC'98, the Japan Microwave Prize will be awarded to the authors selected from those accepted for presentation at the APMC'98 by the Japan Microwave Prize Committee, as outstanding contributions to the microwave field.

SUPPORT PROGRAM FOR SPEAKERS

A financial support program is available for a limited number of authors from developing countries. Candidates are requested to send an application letter describing their reasons for requesting assistance under this program, together with a copy of their submitted paper, to the following address:

Dr. Masaaki Kuzuhara, Vice Chairperson of Technical Program Committee do REALIZE INC., 4-1-4 Hongo, Bunkyo-ku, Tokyo 113, Japan Tel: +81-3-3815-8590 Fax: +81-3-3815-8529 E-mail: rlz@ppp.bekkoame.or.jp

YOKOHAMA

Yokohama is situated on the southwestern coast of Tokyo Bay and lies just 30 kilometers south of Tokyo. The port of Yokohama, a naturally blessed harbor surrounded by gently undulating hills, was opened in 1859 and ever since has played a major role as the largest international trading port of Japan.

Among its attractions is a thriving Chinatown, where visitors can enjoy first-class Chinese cuisine. To the south of Yokohama lies historical and cultural Kamakura - once the capital of the shogunal government between 1192 and 1333.

Those attendees who desire less expensive accommodations during the APMC'98 period should contact the Steering Committee for information on the home-stay program of the Yokohama Convention Bureau.

For further information, please contact:

Prof. Yoshio Kobayashi

Chairperson, Steering Committee

c/o REALIZE INC., 4-1-4 Hongo, Bunkyo-ku, Tokyo 113, Japan

Tel: +81-3-3815-8590 Fax: +81-3-3815-8529 E-mail: rlz@ppp.bekkoame.or.jp

TIMETABLE

Paper Submission Deadline:	June 1, 1998
Notification of Acceptance:	August 1, 1998
Camera-Ready Manuscript Deadline:	October 1, 1998



AUTOMATIC RF TECHNIQUES GROUP

CALL FOR PAPERS

50th ARFTG Conference

Portland, Oregon

Dec. 4-5, 1997

Measurement Techniques for Digital Wireless Applications

The Automatic RF Techniques Group will hold its 50th conference at The Benson Hotel in Portland, Oregon. The Benson is a landmark hotel in Portland, and has been host to several US presidents and other distinguished guests.

With the acceptance of wireless as a commercially viable information and data transfer medium several parameters must be measured to meet the performance levels demanded by users. Papers are sought that address relevant issues such as:

- Intermodulation distortion
- Phase noise
- Bit Error Rate
- Adjacent Channel Power
- Efficiency
- Data Throughput
- Signal to Noise Ratio

Papers are also invited in other areas of automated microwave and RF measurements, including network analysis, nonlinear characterization, and noise.

Contact Ed Godshalk at (503) 628-0159 or redpoint@aracnet.com for further information.

Call for Papers

IEEE Transactions on Microwave Theory and Techniques

Special Issue on New Developments in Design of Microwave and Millimeter-Wave Oscillators

Microwave and millimeter-wave oscillators are the most basic and essential components in a system, because they convert DC power into micro- or millimeter-frequency power as required. Oscillators use active devices, such as diodes or transistors, situated in a passive structure. The design process of oscillators has been complicated with the increasing operating frequency band, by using new substrate materials and advanced measurement techniques. Thus, there is a need to improve the efficiency of the oscillator design, especially due to the emergence of new application areas in the fixed and mobile communications and due to the requirements of low cost systems.

In this Special Issue of IEEE Transactions on Microwave Theory and Techniques it is intended to give an overview of the latest advances in the oscillator design, and provide a room for the comparison of methods already known and the introduction of new techniques.

Suitable topics include, but are not limited to:

- Improved treatment of diode on and transistor oscillator (hybrid and monolithic)
- CAD of oscillators design
- Application of new substrate materials and passive structures
- Noise and temperature effects in oscillators
- Technological aspects
- New measurement techniques for oscillators

Authors wishing to have their contributions considered for publication in this Special Issue, which will be published within the second half of 1998, are invited to submit four copies of their manuscript to one of the Guest Editors, but not later than **September 1st, 1997**. Manuscript requirements for submitted papers can be found in the January 1997 issue of the IEEE Transactions on Microwave Theory and Techniques.

Guest Editors:

Prof. Dr.-Ing. Adalbert Beyer
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**1998 Wireless Communications Conference
Colorado Springs, CO USA August 9-12, 1998
<http://www.boulder.nist.gov/wcc>**

ADVANCE NOTICE

1998 Wireless Communications Conference (WCC'98)

Sheraton Colorado Springs, Colorado Springs, Colorado
August 9-12, 1998

Having expanded beyond its original venue, the Wireless Communications Conference moves in 1998 to the Sheraton Colorado Springs, a luxurious resort hotel with fine amenities and extensive and convenient conference facilities. The hotel is only seven miles from the Colorado Springs Airport, which offers excellent connections and low fares. Colorado Springs is home to many telecommunications businesses and is one of the world's most beautiful tourist destinations, particularly in the summer season. With the excellent response to WCC'97, and with the extensive publicity to be generated by the many press representatives in attendance, we are confident of continued strong growth. This means an even bigger audience for your important technical results and product demonstrations.

ADVANCE CALL FOR PAPERS

Due to its broad focus and single-track format, WCC'98 offers authors an outstanding venue with a sophisticated audience of your customers, suppliers, and competitors. Our IEEE Conference Proceedings ensures wide distribution of your archival publication. We will offer significant registration discounts to speakers and will provide speakers with valuable publicity through listings and hyperlinks on our highly-visible World Wide Web site.

We seek original, practical technical presentations in wireless technologies including:

- systems: LMDS, wireless LANs, PCS, cellular, paging, etc.
- active components: technology, modeling, linearity, characterization, etc.
- passive components: integrated passives, filters, resonators, etc.
- packaging/integration: ceramics, MCMs, miniaturization, etc.
- antennas, propagation, electromagnetic compatibility, and interference
- measurements: digital modulation, nonlinearity characterization, etc.

Authors are asked to submit five copies of a 1-2 page summary (including figures) to the Technical Program Chair by March 2, 1998. Submissions will be evaluated for originality, significance of the work, and interest to a broad audience. Authors will be notified of acceptance by May 1, 1998. Final accepted papers (5-5 pages in length) must be received in camera ready form by June 12, 1998 to be included in the published Proceedings.

For submission information, contact the Technical Program Chair:

Dr. Michael S. Heutmaker
Lucent Technologies, Princeton, NJ
tel: + 1-609-659-5116
fax: + 1-609-659-5197
heutmaker@lucent.com

EXHIBITION

WCC'98 includes a tabletop exhibition beginning on Tuesday afternoon, August 11, 1998. We have secured exhibit space immediately adjacent to the technical sessions. As in 1997, we expect a large press contingent at the conference, which makes WCC'98 an excellent platform for news and product announcements. We offer exhibitors useful hyperlinks from our popular World Wide Web site. To get in line for your choice of table for 1998, please contact the Exhibits Chair:

Michael Fennelly
ATN Microwave, Inc.
N. Billerica, MA
tel: +1-508-667-4200 x18
fax: +1-508-667-8548
mfennelly@atn-microwave.com

SUPPLEMENTARY TECHNICAL EVENTS

WCC'98 plans to continue and possibly expand on the successful Workshop and Panel Session program begun in 1997. We are particularly interested in adding a full-day workshop on Sunday, August 9. We also welcome industry groups and committees to consider co-locating their events with WCC'98 and offer to coordinate on publicity, local arrangements, etc. We welcome your suggestions and offers to organize events. Please direct your suggestions to the General Chair:

Dr. Roger B. Marks
National Institute of Standards & Technology
Boulder, CO
tel: +1-505-497-5057
fax: +1-505-497-7828
r.b.marks@ieee.org

THE CONFERENCE SITE

For information on the conference site and available facilities, please contact the Local Arrangements Chair:

Mr. John G. (Jack) McIlnay
The MITRE Corporation
Colorado Springs, CO
tel: +1-719-572-8541
fax +1-719-572-8477
mcilnay@mitre.org

THE WCC'98 MAILING LIST

To receive updates on WCC'98, please send your address (e-mail address preferred) to the Registration Chair:

Mr. George Jankovic
Microwave Online Services Co.
Boulder, CO
tel: +1-505-415-9255
fax: +1-505-415-9258
george@mosco.com

NEW VOLUNTEERS

WCC'98 needs additional volunteer support, particularly in the areas of publicity and publications. Please contact the General Chair if you are interested in this opportunity to support your profession and develop new skills.

Watch <http://www.boulder.nist.gov/wcc> for the latest information on WCC'98!

4th INTERNATIONAL CONFERENCE ON MILLIMETER AND SUBMILLIMETER WAVES AND APPLICATIONS

January 5-9, 1998

Town and Country Hotel, San Diego, California, USA

Sponsored by SPIE, The International Society for Optical Engineering

CALL FOR PAPERS

The 4th International Conference on Millimeter and Submillimeter Waves and Applications will be held in San Diego, California at the Town and Country Hotel for five days from Monday, January 5 through Friday, January 9, 1998. Paper are solicited describing original work for millimeter- and submillimeter- waves and applications. The following subject areas concerned with millimeter and submillimeter waves and applications will be covered:

- Millimeter- and Submillimeter-Wave source of radiation
- Vacuum Microelectronics
- Millimeter- and Submillimeter-Waves Systems, Detectors and Mixers
- Millimeter- and Submillimeter-Wave Guided-Wave Propagation
- Millimeter-Wave Imaging
- Millimeter-Wave 3 terminal devices
- Millimeter- and Submillimeter-Wave Integrated Circuits and devices
- Quasi-optical and beam wave techniques
- Gyrotron and free-electron lasers
- Spectroscopy and Material characterizations
- Spectroscopy of semiconductors
- High temperature superconductors and Magnetism
- Millimeter and Submillimeter Wave Astronomy
- Atmospheric Physics
- Scientific applications and Fusion applications
- Gyrotron and Free Electron lasers
- Commercial and Wireless applications
- Automobile Electronics
- Environmental Effects
- Submillimeter and Infrared Devices and Technology
- Submillimeter and Infrared Laser

Authors are required to submit a 200 word summary for each paper that clearly explains what is new and its potential application. All papers must be sent by **August 1, 1997**

Mail submissions to:

Mohammed N. Afsar
Department of Electrical Engineering and Computer Science
Tufts University
Halligan Hall, 161 College Avenue
Medford, Massachusetts 0215-5528, USA
Telephone (617) 627-3219, Fax (617) 627-3220

Authors will be notified of the status of their submission by October 1, 1997. Authors of accepted papers will receive the preliminary program, copyright release forms and instructions for two-page digest publication and presentation.

Camera ready digest manuscripts will be required by October 15, 1997

PROCEEDINGS: A special SPIE Proceedings will be devoted for publication of full length papers presented at the conference. Authors will be required to bring their manuscript for the full length paper to the conference.

ACCOMMODATION AND CONFERENCE SITE: The conference will be held at the San Diego Town and Country Hotel at the 500 Hotel Circle North, Mission Valley, San Diego, California 92108, Tel.(619)291-7131, (800) 445-2324. A block of rooms has been reserved at a reduced rate (\$59.00 single- and double-occupancy for Garden rooms and \$79.00 single- and double-occupancy for Tower rooms). The San Diego Zoo, Sea World, Balboa Park, Mission Bay and the Old town are within minutes drive from the Town and Country Hotel. A number of airlines serve the San Diego International Airport

REGISTRATION: The advance registration fee for the conference is \$275.00 (\$300.00 on site). Send checks payable to MMSMMW Conference. The registration fee includes the digest, Proceedings, continental breakfast, refreshments, and two receptions.

TECHNICAL EXHIBIT: A two-day (Tuesday and Wednesday) tabletop technical exhibit will be held along with the conference. The leading manufacturers and distributors of millimeter- and submillimeter-wave instrumentation and publishers of technical literature are invited to participate in the technical exhibit The fee per table is \$700.00.

CONFERENCE ORGANIZATION: Conference Chairman : Professor Mohammed N. Afsar, Tufts University, Department of Electrical Engineering and Computer Science, Halligan Hall, 161 College Avenue, Medford, Massachusetts 02155-5528, USA, tel.: (617) 627-3129, (617) 623-2998 fax: (617) 627-3220, (617) 623-7633 e-mail: mafsar@emerald.tufts.edu

Progress Through Microwaves



1998 IEEE MTT-S International Microwave Symposium and Exhibition

Baltimore, Maryland — June 7-12, 1998

FIRST CALL FOR PAPERS

The 1998 IEEE MTT-S International Microwave Symposium (IMS) will be held in Baltimore, Maryland on June 7-12 as the centerpiece of *Microwave Week 1998*. Contributed papers describing original work on the utilization and application of microwave theory and techniques are solicited. The Symposium subcommittee topics and their particular areas of interest are listed on the third page of this brochure. Additional information is available at <http://www.ieee.org/mtt/mtt.html>.

1998 IEEE Radio Frequency Integrated Circuit (RFIC) Symposium

The second annual RFIC Symposium will be held in Baltimore during June 7-9, 1998 in conjunction with the 1998 MTT-S International Microwave Symposium. Papers are solicited describing original work on highly integrated IC design, fabrication, testing and packaging that supports RF, microwave and millimeter-wave applications. Papers for this conference must be submitted by December 1, 1997 to: 1998 RFIC TPC Chairman, do LRW Associates/Chesapeake Mailing Services, 707 E. Ordinance Road, Suite 401, Baltimore, MD 21226-1741 USA. Indicate "RFIC" as the conference choice on the Author Information Form. For more information, please contact the Technical Program Chairman: Christian Kermarrec, 617-937-1217, Fax 617-937-1011, christian.kermarrec@analog.com.

RF Wireless Technology Focused Sessions

Selected papers from both the RFIC Symposium and the IMS will be featured on Tuesday, June 9, 1998 in the area of RF Wireless Technology.

51st Automatic RF Techniques Group (ARFTG) Conference

This conference will be held in Baltimore on Friday, June 12, 1998 in conjunction with the 1998 IEEE MTT-S International Microwave Symposium. This year's meeting will continue ARFTG's leading-edge telecommunications focus, with the topic of *Characterization of Spread Spectrum Telecommunications Components and Systems*. Submit 500-1000 word summaries by March 13, 1998 to John Gregory Burns, Northrop Grumman, PO Box 1521, Mail Stop 3K13, Baltimore, MD 21203 USA. Contact him at 410-765-7331 or burns.john@postal.essd.northgrum.com. For information on two ARFTG/IMS Joint Sessions, see the back page of this announcement. For detailed and updated information, check the Web site.

SUBMISSION DEADLINES

September 1, 1997	Panel Session, Workshop, and Special Session proposals
December 1, 1997	International Microwave Symposium & RFIC papers
March 13, 1998	ARFTG papers

Sorry, no Fax or e-mail submittals.

For the latest information, visit <http://www.ieee/mtt/mtt.html>

Authors will be notified of the status of their submission by Monday, January 26, 1998. Authors of accepted papers will receive copyright release forms and instructions for publication and presentation. Final manuscripts for publication in the *Symposium Digest* will be required by Monday, March 2, 1998. In addition to camera-ready copy, authors of accepted papers will be required to provide a version of their material in electronic format. Instructions will be included in the kits sent to authors.

Sponsored by the Baltimore and Washington, DC/Northern Virginia Chapters IEEE-MTT-S

Mailing address: IEEE MU-S 1998, PO Box 18507, Baltimore, MD 21240

Local Arrangements: Frank Halgas, Brian Sequeira, John Jacobi Publications: John Margosian

ARFTG Liaison Greg Burns Northrop-Grumman 410-765-7331 Historical Exhibit Ted Nelson, Jeff Kruth, Warren Cooper

PAPER SUBMISSION REQUIREMENTS

Please submit a **synopsis** and **author information form** for each paper.

- The **Synopsis** includes the title of the paper, the name(s) and affiliation(s) of author(s), a 30- to 50-word abstract, and, continuing on the same page, a 500- to 1000-word summary. Include supporting illustrations as needed. The introduction should include a clear indication as to what is original and why the author believes it is important to the microwave community. (See Evaluation Criteria on the first page.) The clarity with which the summary presents its information will be used to judge the ability of the author to communicate to the conference attendees. Fifteen copies are required.
- The **Author Information Form** is included in this brochure (see next page). The submitting author must indicate the conference choice, the length/type of presentation, and the topic category. The submitting author must sign the statement indicating that the same or similar material has not been submitted to any other publication and will not be until disposition is determined by the *Symposium*.

IMS Paper Evaluation Criteria — All submissions are reviewed by subcommittees of the *Symposium* Technical Program Committee. The scoring criteria used are based upon equal weighting of the following four factors:

Originality — The contribution must be unique and significant.

Quantitative content — The summary should give an explicit description of the work with complete supporting data and adequate references to the existing literature.

Quality — The writing and figures must clearly communicate the authors' purpose and results.

Interest to MTT-S membership — Why should this conference and a particular subcommittee support this work?

Language — Text must be in English.

Choice of Conference — By indicating your choice on the form, you can submit a paper to either the *IEEE MIT-S International Microwave Symposium* or the *IEEE Radio Frequency Integrated Circuit Symposium*. Do not submit the same material to both. Indicate if your *RFIC* or *IMS* paper covers *PF* Wireless Technology so that it can be included in the RF Wireless Technology focused session on Tuesday, June 9, 1998. See the first page of this announcement for information on *ARFTG* submission.

Type of Presentation — The *International Microwave Symposium* offers three types of presentations. *Full-length* papers (20 minutes) report significant contributions, advancements or applications of microwave technology. *Short* papers (10 minutes) typically report specific refinement in the state-of-the-art. *Interactive Forum* papers provide an opportunity for authors to present theoretical or experimental material in poster format, or to display hardware, perform demonstrations, and conduct discussions in an informal manner with interested colleagues. The author's preference will be honored where possible, but the paper will be placed in the most appropriate category, consistent with the constraints of the technical program.

Topic Categories — The selected topic categories will be used to determine the appropriate reviewers and sponsorship of the papers submitted to the *International Microwave Symposium*. Choose three topics from the list on the following page and prioritize them on the form. Use the letter to the left of the topic to indicate your choices.

Clearances — Authors are cautioned to obtain all required company and government clearances prior to submittal of summary. A statement signed by the submitting author that such clearances have been obtained must accompany the final manuscript of accepted papers to be published in the *Symposium Digest*.

Mail submissions to: International Microwave Symposium 1998
c/o LRW Assoc./Chesapeake Mailing Services
707 E. Ordnance Road, Suite 401
Baltimore, MD 21226-1741 USA
Telephone: 410-768-8757

Submission **must be received by Monday, December 1, 1997.**

Late submissions will not be considered. Sorry, Fax and e-mail submittals *cannot* be accepted

Acknowledgment — If acknowledgment of receipt of papers is desired, include a self-addressed, stamped postcard with the title of your paper noted.

INTERNATIONAL MICROWAVE SYMPOSIUM TOPICS AND SUBCOMMITTEES

- B Biological Effects and Medical Applications**
Microwave techniques in biology, medicine, hyperthermia, imaging
- C Passive Components**
Striplines, microstrip, planar transmission lines, transitions
- D Filters and Multiplexers**
Microwave and millimeter-wave filters and multiplexers
- E Ferrite Components**
Ferrite circulators, isolators, switches, other ferrite components
- F Acoustic and Surface Wave Components**
SAW filters, resonators, delay lines, other surface or bulk acoustic devices
- G Signal Generation, Frequency Conversion, etc.**
Oscillators, mixers, frequency multipliers, attenuators, phase shifters, switches
- H Nonlinear Modeling and Analysis**
Large signal and nonlinear models, simulation techniques, distortion analysis
- I Transistor Power Amplification**
Transistor amplifier design and performance, discrete or IC (Submit low noise papers to Topic K.)
- J High Power Generation, Amplification, and Control Circuits**
TWTS, gyrotrons, sources and control from watts up to megawatt levels
- K Low Noise and Receivers, etc.**
Low-noise receivers, amps, detectors; receiver amps; log, limiting, AGC
- L Advances in Hybrid Technology**
Microwave hybrid technology, substrates, assembly techniques
- M Monolithic Technology**
MMIC processes, passive and active devices (Submit circuit papers to Topics G, I, K, etc.)
- N Millimeter- and Submillimeter-wave Technology**
Active and passive techniques (incl. antennas) above 300Hz (Submit device papers to Topic M, active antenna papers to Topic Z.)
- O Field Theory**
Theory of electromagnetic fields, solution to field problems (See also Topic P.)
- P EM Analytical and Numerical Techniques**
Analytical and computer techniques for solving electromagnetic problems
- Q CAD Procedures, Techniques and Modeling**
Computer-aided design, linear modeling, circuit analysis (Submit nonlinear models to Topic H.)
- R Guided Waves and Propagation Techniques**
Modeling and measurement of waveguide structures, dielectric waveguide
- S Measurement Theory and Techniques**
Network parameters, nonlinear characterization, time domain and noise measurements, dielectrics, field mapping
- T Microwave and Communication Systems**
Digital radio, commercial and satellite communications
- TA Vehicular Technology**
Intelligent transportation systems, collision avoidance, vehicle identification
- TB Wireless Technology**
Cellular and personal communication systems, wireless LANs, RF ID systems
- TC Broadband Telecommunication Systems**
Characterization of hardwired facilities, including coax, HFC (hybrid fiber coax), DSL (digital subscriber line)
- U Phased Arrays**
Active and passive phased-array radar (or receiver) design techniques
- V Lightwave Technology and High-Speed Applications**
Fiber-optic links, services, and communications systems; microwave optoelectronic circuits, devices, and interactions
- W Superconducting Technology**
Superconducting microwave and millimeter-wave circuits and systems
- X Manufacturing, Production and Packaging**
Manufacturing processes; yield improvement; device, IC, and subsystem packaging; assembly; thermal and stress modeling
- XC Digital Interconnection Techniques and Characterization at GHz Frequencies**
High-speed plastic packaging, MCMs, and on-chip interconnections
- V Digital Microwave Circuits**
Digital circuits at microwave or millimeter-wave frequencies, or using microwave techniques
- Z Active and Quasi-Optic Antennas**
Quasi-optical oscillators and amplifiers, microstrip and active antennas

AUTHOR INFORMATION FORM

Name of submitting author:	Date:
Affiliation:	Phone:
Address:	Fax:
	e-mail:
Submitting to which Conference? (check only one) <input type="checkbox"/> IMS <input type="checkbox"/> RFIC	
<input type="checkbox"/> Check if Student Paper	
Presentation Preference? (check only one) <input type="checkbox"/> Full-length <input type="checkbox"/> Short <input type="checkbox"/> Interactive Forum	
IMS Topic Area? (Prioritize 3 topics from the list above, using Topic letters) 1. _____ 2. _____ 3. _____	
Would you like your paper considered for the RF Wireless Technology Focused Sessions on Tuesday June 9, 1998? <input type="checkbox"/> YES	
Paper Title:	

STATEMENT THAT THIS MATERIAL IS NOT BEING SUBMITTED ELSEWHERE

Neither this material nor essentially similar material has been submitted to any other publication or meeting, and will not be submitted until disposition is determined by MTT-S, or until Monday, February 16, 1998. We understand that publication by MTT-S will require assignment of copyright for this material to the IEEE. Printed name and signature of submitting author confirming above:

Printed Name _____ Signature _____

ADDITIONAL SOLICITATIONS

ARFTGIIMS Joint Sessions

ARFTG and MTT-S will cosponsor two *Joint Sessions* on the topics of *Broadband Telecommunications (TC)* and *Digital Interconnection Techniques and Characterization at GHz Frequencies (XC)*. Measurement papers are encouraged. Submit papers to the 1998 IEEE MTT-S International Microwave Symposium following instructions on pages 2 and 3; indicate "TC" or "XC" as the paper topic.

Student Paper Contest

A student paper contest will be held as part of the *Symposium*. Papers are submitted following the *Paper Submission Requirements* with an additional notation of "Student Paper" on the *Author Information Form*. Student papers will be reviewed in the same manner as all other conference papers. To be considered for an award, the student must have been a full-time student (9 hours/term graduate, 12 hours/term undergraduate) during the time this work was performed. The student must be the lead author of the paper and must present the paper at the *Symposium*. A statement must be attached by the student's advisor on university letterhead stating that the work is primarily that of the student. Papers accepted for the competition will be judged on content. First, Second, and Third Prizes will be awarded.

Proposals for Special Sessions (Focused and Honorary), Panel Sessions, and Workshops

Special Session (Focused and Honorary), *Panel Session* and *Workshop* proposal abstracts giving technical descriptions and names of proposed organizers and speakers must arrive by Monday, September 1, 1997 to be considered. Sponsorship of an MTT-S Technical Subcommittee is required for *Special Sessions*, *Panel Sessions*, and *Workshops*. A list of subcommittee chairpersons and their contact information is available in the *IEEE MTT-S Committee Directory*. Send *Special Session* proposals to Bob Moore, 1243 Balfour Drive, Arnold, MD 21012 USA, 410-647-0968, Fax 410-768-5321, Work 410-768-5233. Send *Panel Session* proposals to Shyam Bajpai, NOAAINESDIS, FB#4, Room 3010, Washington, DC 20233 USA, 301-457-5225, Fax 301-420-0932, s.bajpai@ieee.org. Send *Workshop* proposals to Lee Phelps, MAICOM, 22300 Comsat Dr., Clarksburg, MD 20871 USA, 301-428-4569, Fax 301-540-8512, phelpsl@mailback.macom.com.

Suggestions Solicited

We invite all MTT-S members to provide suggestions regarding the *Symposium* Technical Program. Be prepared to support your ideas with some time and effort if needed. Contact the Technical Program Committee Chairman Ed Niehenke, 410-796-5866, Fax 410-796-5829, e.niehenke@ieee.org, or the Technical Program Committee Vice Chairman, Denis Webb, 202-767-3312, Fax 202-767-0455, d.webb@ieee.org

HELP DISTRIBUTE THIS CALL FOR PAPERS, PLEASE!

Please feel free to copy, post, or further distribute this Call for Papers by any other means.
All prospective authors are welcome!

Visit the MTT-S web site at <http://www.ieee.org/mtt/mtt.html>

MTT Technical Chairman/Co-Chairman

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MTT-2	Bruce McAvoy Robert Weigel-Co	none weigel@mechatronik. uni-linz.ac.at	412-621-2791 43-732-2468-9710	412 682-6315 43-732-2468-9712
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MTT-12	Rick Sturdivant Vijai Tripathi-Co	r.sturdivant@ieee.org vkt@ece.orst.edu	714 446-3714 541 737-2988	714 985-4869 541 737-1300
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MTT-16	Klaus Breuer-Co George Heiter-Co	k.breuer@ieee.org g.heiter@ieee.org	215 996-2643 617 937-2625	215 822-1185 617 937-1022
MTT-17		No Committee Assigned		
MTT-18	Martin Nisenoff Guo-Chun Liang-Co	m.nisenoff@ieee.org guochun@conductus.com	202 767-3099 408 523-9419	202 767-0455 408 523-9999
MTT-19	Bert Berson	b.berson@ieee.org	415 328-1919	415 328-1734
MTT-20	Bernard Geller John Horton-Co	bgeller@sarnoff.com j.horton@ieee.org	609 734-2629 310 813-1156	609 734-2050

In This Issue

- 1 President's Message R. E. "Skip" Bryan
- 2 News From the Ombudsman Ed Niehenke
- 3 Distinguished Lecturer Program of the MTT-S Mike Harris
- 5 MTT-S AdCom Nominations Reynold Kagiwada
- 6 Message From the Transnational Committee Jozef Modelski
- 7 *Today's Engineer* Magazine to Debut in January Pender M. McCarter
- 8 Calendar MTT-S Sponsored Conferences
- 10 If You Don't Reduce VSWR My Way, I'll Give You A Black Eye J. Mike Golio
- 12 The IEEE RF Society of the University of British Columbia Dmitry Riftin
- 17 MTT IMS-97 Special Session on HF/VHF/UHF Technology Frederick H. Raab
- 18 Announcements and Calls for Papers



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