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TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

Call IEEE Chicago Section Office at 1-800-898-IEEE to make your reservations.

November 8 Tuesday	Chicago Section	Executive Committee	DeVry - DuPage 1221 N. Swift Rd. Addison, IL	Meeting: 7:15 PM
November 9 Wednesday	Power Engineering Society	Disturbance and Harmonic Analysis: Do You Have a Problem?	Chicago Bar Assoc. 321 S. Plymouth Ct. Chicago, IL	Social: 11:30 AM Lunch: 12:00 PM Presentation: 12:30 PM
November 10 Thursday	Antennas/Propagation & Microwave Theory and Tech Societies	Microwave Technology For Therapeutic Medicine	DeVry - DuPage 1221 N. Swift Rd. Addison, IL	Social: 6:00 PM Dinner: 6:30 PM Presentation: 7:00 PM
November 14 Monday	Communications Society	Origins of Cellular Mobile Communications	Jerry Sharko's 2225 Ogden Ave. Lisle, IL	Social: 6:00 PM Dinner: 7:00 PM Presentation: 8:00 PM
November 16 Wednesday	Fox Valley Subsection	Patenting Software-Related Inventions: Recent Legal Developments	Jerry Sharko's 2225 Ogden Ave. Lisle, IL	Social: 6:00 PM Dinner: 7:00 PM Presentation: 8:00 PM
November 16 Wednesday	EMC Society	Modeled Vs. Measured Data of Rantec Space Saver EMC Chambers	AT&T Bell Laboratories 2000 N. Naperville Rd. Naperville, IL	Social: 7:15 PM Presentation: 7:30 PM
November 17 Thursday	Reliability Society	Reliability of Personal Communications Services	Wyndham Garden Hotel 1200 N. Mittel Blvd. Wood Dale, IL	Social: 6:00 PM Dinner: 7:00 PM Presentation: 8:00 PM
November 17 Thursday	Electron Device Society and Northwest Subsection	Quick Turn Manufacturing of Interconnect Systems Using Pre-Drilled and Plated Via Arrays	Motorola Meacham/Algonquin Rd. Schaumburg, IL	Presentation: 7:00 PM
November 29 Tuesday	Power Electronics Chapter	Charging Techniques For Rechargeable Batteries	Motorola Meacham/Algonquin Rd. Schaumburg, IL	Social: 6:00 PM Presentation: 7:00 PM
December 7 Wednesday	Fox Valley Subsection	Flywheel Energy Storage System	Jerry Sharko's 2225 Ogden Ave. Lisle, IL	Social: 6:00 PM Dinner: 7:00 PM Presentation: 8:00 PM
December 13 Tuesday	Chicago Section	Executive Committee	DeVry - DuPage 1221 N. Swift Rd. Addison, IL	Meeting: 7:15 PM

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POWER ENGINEERING SOCIETY

FEATURES A LUNCHEON PROGRAM

DISTURBANCE AND HARMONIC ANALYSIS: DO YOU HAVE A PROBLEM?

Presented by

Roderic L. Hageman of PRIT Service, Inc.

Wednesday, November 9, 1994

ABOUT OUR TOPIC

Power Quality is a subject that is getting more attention as additional non-linear loads are connected to the power system. In office buildings, a primary concern is the presence of high magnitude third harmonic currents on the power system neutral. In industry, the shift to variable speed drives and their accompanying higher order harmonics can cause excessive transformer heating. In addition to harmonic problems, power systems are susceptible to sags, swells, impulses and voltage regulation problems that may happen infrequently but are nevertheless a major problem. Methods for determining the source of these problems are discussed.

ABOUT OUR SPEAKER

Mr. Hageman graduated from Iowa State University with a BSEE. He is a Professional Engineer in the State of Illinois. Rod has spent his entire engineering career in the field of power system analysis and power system maintenance. He is the CEO and the owner of PRIT Service, a consulting and maintenance firm with engineers and technicians who perform system studies and maintenance of power distribution systems. Rod is also President of the "International Electrical Testing Association" and is active with the Association's technical committees.

PLACE

Chicago Bar Assoc.
321 S. Plymouth Ct.
Chicago, IL
(Near Jackson and Dearborn)

TIME

Social
11:30 AM

Lunch
12:00 PM

Presentation
12:30 PM

NOTES

Call the IEEE Message Center at (800) 898-IEEE to make your reservation no later than noon, Monday, November 7, 1994. Lunch tickets can be purchased in the lobby (\$7.50).

ANTENNAS AND PROPAGATION SOCIETY and MICROWAVE THEORY AND TECHNIQUES SOCIETY

FEATURES A JOINT DINNER PROGRAM

MICROWAVE TECHNOLOGY FOR THERAPEUTIC MEDICINE

Presented by

Professor James C. Lin of the
University of Illinois at Chicago

Thursday, November 10, 1994

ABOUT OUR TOPIC

In recent years there has been increasing interest in non-ionizing radiation and non-pharmacological therapies, and minimally invasive procedures for treatment of diseases. Investigations to date have demonstrated that percutaneous treatments of a number of diseases are amenable to catheter-based, minimally invasive thermal microwave therapy. It has been shown that substantial quantities of microwave energy could be transported via miniature flexible coaxial transmission lines and delivered via catheter antennas to produce localized tissue modifications.

The absorption, distribution, penetration and localization of microwave energy in biological tissue is governed by the source frequency, antenna configuration, tissue geometry and permittivity. With consideration of these factors and judicious antenna design, it is possible to titrate, in a stepwise manner, the amount of microwave energy delivered to cause varying degrees of tissue modification. This presentation discusses several developments in the therapeutic uses of microwave energy.

ABOUT OUR SPEAKER

Dr. James Lin received his BSEE, MSEE, and PhDEE from the University of Washington, Seattle. He is Director of Special Projects, College of Engineering, and Professor of Electrical Engineering, Physiology and Biophysics at UIC. Professor Lin is a Fellow of the American Association for the Advancement of Science. He has served as editor and board member of for several professional societies and as Chairman of the IEEE Technological Policy Committee on Man and Radiation.

PLACE

DeVry, Rm 254
1221 N. Swift Rd.
Addison, IL

TIME

Social 6:00 PM
Dinner 6:30 PM
Presentation 7:00 PM

DIRECTIONS

Take I355 to Lake Street (US20). Go Westbound on Lake Street. Immediately move left to pick up Swift Road South. DeVry is on the east side of the street about 1/2 mile.

NOTES

Call the IEEE Message Center at (800) 898-IEEE to make your reservation no later than noon, Monday, November 7, 1994. Attendees should gather in Room 254 at 6:00 PM. Dinner will be available in the cafeteria at 6:30 PM. Everyone will be billed individually on their selection.

IEEE COMMUNICATIONS SOCIETY

FEATURES A DINNER PROGRAM

ORIGINS OF CELLULAR MOBILE COMMUNICATIONS

Presented by

Dr. Joel S. Engel of Ameritech
Co-Recipient of 1994 National Medal of Technology

Monday, November 14, 1994

ABOUT OUR TOPIC

Dr. Joel Engel and Dr. Richard Frenkiel, pioneers in the early days of cellular communications technology, jointly received the 1994 National Medal of Technology from President Bill Clinton at the White House in October. The medal, which is presented annually, is the country's highest honor for technical achievement. This year's award is for break-through concepts and inventions directly responsible for increasing mobile communications capabilities a thousandfold and making possible today's \$13-billion cellular industry.

The pioneering work begun by Dr. Engel, Dr. Frenkiel and others at AT&T Bell Laboratories shaped the basic cellular system architecture and solved complex problems, such as how cellular systems locate vehicles and hand off calls from cell to cell as vehicles move. Their work led to a series of proposals to the Federal Communications Commission (FCC), and is the foundation for the cellular systems that have revolutionized mobile communications and made cellular services readily available. Today, there are more than 19 million cellular users in the United States, with 17,000 new subscribers signing up every day. - Excerpt from "Bell Labs News" (September 26, 1994)

ABOUT OUR SPEAKER

Dr. Engel received a B.S. degree from the City College of New York, an M.S. degree from MIT, and a Ph.D. degree from the Polytechnic Institute of Brooklyn. He joined Bell Laboratories in 1959. In 1967, he was one of the initial architects of the cellular mobile telephone system at Bell Labs. While at Bell Labs (1975-1983), he was responsible for systems planning on a variety of exploratory services, including video teleconferencing, residential energy management, and video text. In 1983, he joined Satellite Business Systems as Vice President of Engineering. In 1986, he became Vice President of Research & Development for MCI. He joined Ameritech in August of 1987 as Vice President of Technology. Dr. Engel is a Fellow of the IEEE and a co-recipient of the Alexander Braham Bell medal of the IEEE.

PLACE

Jerry Sharko's
2225 Ogden Ave.
Lisle, IL

TIME

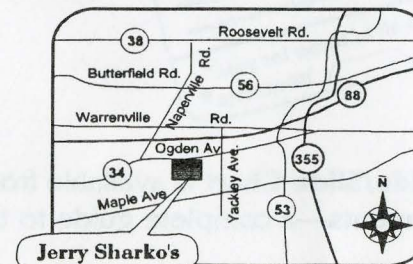
Social 6:00 PM
Dinner 7:00 PM
Presentation 8:00 PM

NOTES

Call the IEEE Message Desk at (800) 898-IEEE to make your dinner reservations no later than Friday, November 11, 1994. Dinner cost is \$14 per person. Spouses and guests are welcome.

FOR MORE INFORMATION

Contact Dr. Weider Yu at (708) 224-4511.



FOX VALLEY SUBSECTION

FEATURES A DINNER PROGRAM

PATENTING SOFTWARE-RELATED INVENTIONS: RECENT LEGAL DEVELOPMENTS

Presented by the Panel

James Sprowl of Zenith Data Systems
Peter Trzyna of Keck, Mahin, & Cate
Bruce Stuckman of Motorola Software Enterprises
Jack Larson of the League for Programming Freedom

Wednesday, November 16, 1994

ABOUT OUR TOPIC

Patenting software has been controversial for decades. Recently, in an unusual proceeding, all judges of the appeals court that oversee patents met to decide whether patentable subject matter extends to a programmed computer; the majority held that it does. The panel of speakers will discuss what this legal development means to IEEE members and their companies.

ABOUT OUR SPEAKER

The panel chair is Bruce Stuckman, a Ph.D. in Systems Engineering, former professor of electrical engineering at the University of Louisville, and in-house patent counsel for Zenith Data Systems, a partner at Fitch, Evan, Tabin & Flannery, and an Adjunct Professor of Computer Law at Loyola. Peter Trzyna is a patent attorney/partner at Keck, Mahin & Cate who has focused on software-related inventions for over a decade and who is widely quoted in the press, including recent articles in the Wall Street Journal, New York Times, and Computerworld.

PLACE

Jerry Sharko's
2225 Ogden Ave.
Lisle, IL

TIME

Social 6:00 PM
Dinner 7:00 PM
Presentation 8:00 PM

NOTES

Call the IEEE Message Desk today at (800) 898-IEEE to make your reservation. Dinner cost is \$15 per person. The dinner will include Soup, Medallions of Veal, Dinner Rolls, Coffee, Dessert, and complimentary cocktails from 6:30 to 7:00 PM. Dietary and vegetarian meals can be requested when you make your reservation.

FOR MORE INFORMATION

Contact Martin Lake at (708) 224-6626.

CHICAGO CHAPTER OF THE EMC SOCIETY

FEATURES AN EVENING PROGRAM

MODELED Vs. MEASURED DATA OF RANTEC SPACE SAVER EMC CHAMBERS

Presented by

Fernando Mendosa of Rantec Microwave and Electronics

Wednesday, November 16, 1994

ABOUT OUR TOPIC

This new chamber design is intended for ANSI C63.4, IEC 801-3 and MIL STD 461 types of testing. The data to be presented was recently obtained and should be of interest for site correlation purposes.

PLACE

AT&T Bell Laboratories
2000 N. Naperville Road
Naperville, IL

TIME

Social 7:15 PM
Presentation 7:30 PM

Call (800) 898-IEEE to make your reservation.

**RELIABILITY SOCIETY with
COMMUNICATIONS SOCIETY and
SYSTEMS, MAN, and CYBERNETICS SOCIETY**

FEATURES A JOINT DINNER PROGRAM

**RELIABILITY OF
PERSONAL COMMUNICATIONS SERVICES (PCS)**

Presented by David Hume of Motorola

Thursday, November 17, 1994

ABOUT OUR TOPIC

PCS, using the next generation of cellular technology, is expected to be less costly and to provide higher quality of service with lighter handsets than current cellular systems.

ABOUT OUR SPEAKER

David Hume is a member of the PCS Marketing Group at Motorola. Before that, he was in the PCS Engineering Group.

PLACE

Wyndham Garden Hotel
1200 N. Mittel Blvd.
Wood Dale, IL

TIME

Social	6:00 PM
Dinner	7:00 PM
Presentation	8:00 PM

DIRECTIONS

Exit I355 (IL53) at Thorndale Rd. Go east 1.5 miles, passing the Wyndham Hamilton Hotel (which is just off the expressway), and turn left onto Mittel Blvd.

NOTES

Call the IEEE Message Center (800) 898-IEEE by Noon, Monday, November 14, 1994 to make your reservation and choice of entree. Dinner cost is \$15.00 per person. You will have a choice of entree — Baked Meat Ravioli, Lemon Baked Cod, or Vegetarian. All entrees will include salad and dessert.

FOR MORE INFORMATION

Contact Ed Walbridge at (708) 445-0117.

**ELECTRON DEVICE SOCIETY and
NORTHWEST SUBSECTION**

FEATURES A JOINT DINNER PROGRAM

**QUICK TURN MANUFACTURING OF
INTERCONNECT SYSTEMS USING
PRE-DRILLED AND PLATED VIA ARRAYS**

Presented by Keith Casson of Sheldahl, Inc.

Thursday, November 17, 1994

ABOUT OUR TOPIC

As the electronic industry matures and becomes even more competitive, it will cease to be survival of the fittest, but rather the fastest. This means that the circuit manufacturer must be quick to respond with prototypes. This talk will describe a method for removing manufacturing steps from the PCB fabrication process. It utilizes pre-drilled and plated through via holes. To take advantage of such a system, the board layout must follow design rules based on a regular array of vias. Sheldahl, Inc. plans to offer an interconnect solution based on via arrays called ViaGrid™. This system allows flexibility from advanced packaging concepts to traditional flexible circuit design.

ABOUT OUR SPEAKER

Keith Casson is Vice-President of Research and Development at Sheldahl, Inc. He holds an engineering degree from Iowa State University and is a registered Professional Engineer. He has twenty-six years of experience in flexible electrical interconnect and flexible material technology. He is active in IEEE, IPC, IEPs, and other industry associations. He has written and published numerous technical papers, articles, and book chapters.

TIME

Presentation 7:00 PM

Motorola Schaumburg Campus
Building 1301, Door Location 13
Meacham and Algonquin Roads
Schaumburg, IL

NOTES

Call the IEEE Message Center (800) 898-IEEE by Tuesday, November 15, 1994 to make your reservation. Reservations are required. Your attendance will be confirmed.

**POWER ELECTRONICS CHAPTER with
ELECTRON DEVICES SOCIETY and
NORTHWEST SUBSECTION**

FEATURES A JOINT DINNER PROGRAM

**CHARGING TECHNIQUES FOR
RECHARGEABLE BATTERIES**

Presented by

Norman E. Phoenix of International Components Corp.

Tuesday, November 29, 1994

ABOUT OUR TOPIC

Rechargeable batteries are finding their way into more products in the marketplace. Economic, environmental, and consumer considerations require that smart charging systems be developed to balance the needs of low cost, extended battery life, and fast charge time. Mr. Phoenix will discuss commonly used charger topologies, selection of charge rate, and termination techniques for NiCd, NiMH, and Lithium Ion batteries.

ABOUT OUR SPEAKER

Norm Phoenix holds a BSEE and MSEE from IIT. His previous work experience includes the design of analog circuits for monochrome computer monitors, dot matrix printers, and mass transportation control systems. He is presently a Senior Electronics Engineer for International Components Corp. ICC is a recognized world leader in battery charging solutions for the rechargeable product industry. Mr. Phoenix is a Senior member of the IEEE. He is the Secretary/Treasurer of the Chicago Chapter of the Electron Device Society.

PLACE

Motorola Schaumburg Campus
Building 1301, Door Location 13
Meacham and Algonquin Roads
Schaumburg, IL

TIME

Social	6:00 PM
Presentation	7:00 PM

NOTES

Call the IEEE Message Center (800) 898-IEEE by Noon, Tuesday, November 22, 1994 to make your reservation. Dinner can be purchased in the cafeteria starting at 5:30 PM if desired.

FOR MORE INFORMATION

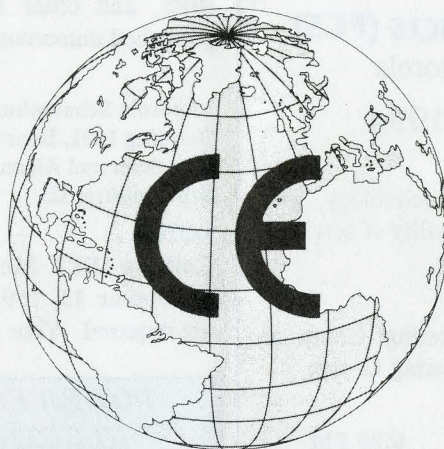
Contact George Studtmann at (708) 392-7189.



EUROPEAN SAFETY-EMC & MEDICAL SEMINARS



Two one-day seminars are scheduled to help manufacturers and exporters comply with the new European Community (EC) directives, standards and regulations. TUV Rheinland and D.L.S. Electronic Systems, Inc. will present information on European Product Safety, EMC and Medical Directives.



Who should attend:

- Product Safety and EMC Engineers
- Design Engineers and Managers
- Reliability and Standard Personnel
- Marketing Managers
- Test Engineers and Technicians
- R&D Engineers and Managers
- Manufacturing Personnel

SEMINAR 1: "Introduction to European Product Safety and EMC"

This introductory seminar will give attendees a basic understanding of the European Community (EC) directives that cover product safety and EMC regulations. The goal of this seminar is to provide participants with a general understanding of the applicable EC laws, directives and standards, in addition to the impact of each on products manufactured for Europe.

The first half of the day will focus on the basics of product safety, especially for Information Technology Equipment (ITE). The second half of the day will concentrate on EMC, covering ITE, medical equipment, appliances, telecom and the Generic standards. Questions are encouraged throughout the day as experts will be available to address specific issues.

Topics

- EC Laws and Directives Overview
- Certification vs Self-Declaration
- Risk of Non-Compliance
- Safety and EMC Authorities
- Test Labs, Competent & Notified Bodies
- Safety Design Tips
- Product Marking and the "CE" Marking
- Test Standards and Applicability
- EMC and Product Safety Standards
- Questions and Answers

SEMINAR 2: "Introduction to New European Medical Directives"

This one-day seminar will cover the new European Community (EC) Medical Directives: Active Implants (AIMD), and Medical Devices.

An explanation of the scope of these new directives and their impact on U.S. manufacturers will be given and the differences from current national regulations will be discussed. The seminar will also explore the EC directives' requirements for product safety, quality assurance and electromagnetic compatibility (EMC).

Topics

- Current and Future Regulatory Situation
- EC Medical Directives: MDD, AIMD
- The Role of Notified Bodies
- The Modular System for Conformity Assessment
- Meeting Essential Requirements through Standards
- EMC Requirements in Brief
- Quality Assurance—ISO 9000
- The "CE" Marking & Declaration of Conformity
- Questions and Answers

To REGISTER CALL (708) 699-0310 or FAX THIS FORM to (708) 699-6898

NOTE: Course attendance is limited, pre-register by phone or fax to guarantee registration. Complete and return this form with your payment to: TUV RHEINLAND, 4236 COMMERCIAL WAY, GLENVIEW, IL 60025

The cost for each day is \$195 which includes lunch and course materials

Name _____ Title _____
Company _____
Address _____
City _____ State _____ Zip _____
TEL () _____ ext. _____ FAX () _____
Signature _____ Date _____

✓ CHECK COURSE ATTENDING

	Safety-EMC	Medical
Chicago, IL Holiday Inn (708) 671-6350	☐ Nov. 8, 1994	☐ Nov. 9, 1994
Columbus, OH Concourse (800) 541-4574	☐ Nov. 15, 1994	☐ Nov. 16, 1994
St. Louis, MO Marriott (314) 253-5203	☐ Nov. 29, 1994	☐ Nov. 30, 1994

PAYMENT IS DUE IN ADVANCE. Please make checks payable to: TUV Rheinland. Amount enclosed: \$ _____

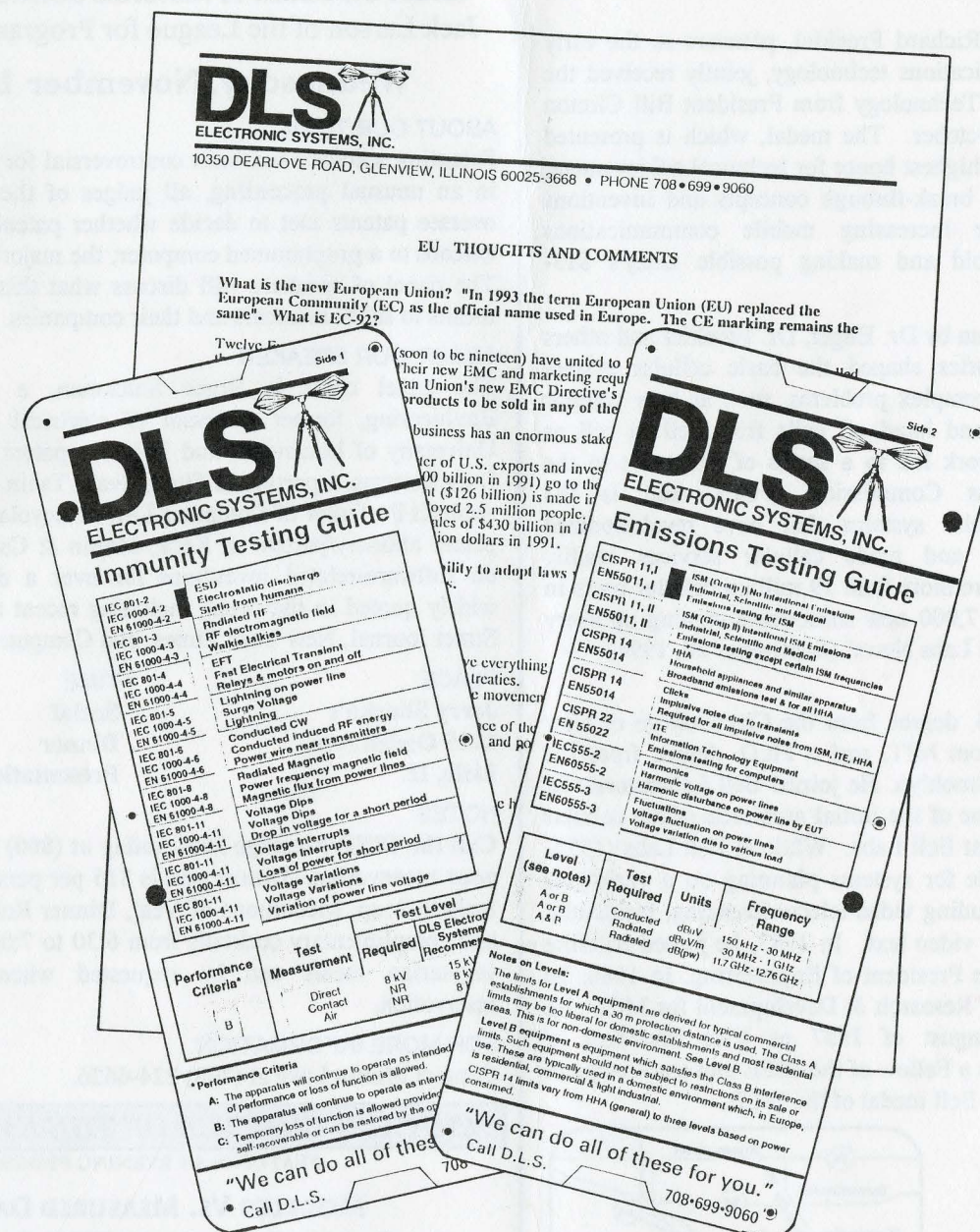


Notice!!!

Starting January 1, 1995, all machinery exported to the European Community must comply with the European Machinery Directive. For machinery assessment, call the TUV Rheinland office nearest you.

Scanfax -- November 1994

FREE European Testing Guide



An Immunity and Emissions Testing Guide/Slide Chart is available from D.L.S. along with EU Thoughts and Comments—a complete guide to the EMC requirements for Europe.

Call: (708) 699-9060 or FAX: (708) 699-9093 with your request. Ask for the Testing Guide and EU Thoughts and Comments.

D.L.S. Electronic Systems, Inc. ■ 10350 Dearlove Road ■ Glenview, IL 60025-3668

Scanfax -- November 1994