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COMMUNICATIONS SOCIETY

and

AT&T Corporation
Along with Computer Society
and Engineering Management
Professional Communications
Society

Welcomes You to an
Afternoon Technical
Program

CONCURRENT DEVELOPMENT PROCESS MODEL

Presented by
Mikio Aoyama of
Fujitsu Limited, Japan

Tuesday, May 2, 1995

ABOUT OUR TOPIC

Mikio Aoyama will discuss a new software development process model, *concurrent-development*, and its application to the development of large-scale software systems.

Cutting the development cycle-time has been promoted to one of the major goals of software development. However, conventional software development process models have paid little attention to this issue. At Fujitsu, they have re-engineered their development process model and developed a new development process model, *concurrent-development*, where multiple functions to a single software system are concurrently developed from the very beginning of the development process, i.e. requirement specification, to system testing.

The process model has been practiced in the development of large-scale communication software systems for more than five years, and has produced more than two million source code lines. As a result, the release cycle-time is shorten to one-fourth, (i.e. three months instead of one year). Besides cycle-time, the *concurrent-development* process model has improved the entire development process as lean-production systems did in the hardware production process.

ABOUT OUR SPEAKER

Mikio Aoyama is a supervisor at Fujitsu Ltd. His research interests include real-time distributed software systems, software development environments, and software process management. Mikio is an IEEE member.

PLACE

AT&T, Silver Room
2000 N. Naperville Road
Naperville, IL

TIME

Be There at 12:30 PM
Talk Begins 1:00 PM
Concludes 3:00 PM

FOR RESERVATIONS and DIRECTIONS

Please make your reservation by contacting the IEEE Business Office at (800) 898-IEEE. You must register to attend this program. The Business Office will provide you with travel directions and guest procedures.

NOTES

Presentation is free. IEEE Student members are welcome.

FOR FURTHER INFORMATION

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

POWER ELECTRONICS SOCIETY

with

Industry Applications
Society and Industrial
Electronics Society

Welcomes You to an
Evening Program

MOS CONTROLLED THYRISTORS

Presented by
Glen DeMichele of
Harris Semiconductor

Wednesday, May 3, 1995

ABOUT OUR TOPIC

The MOS Controlled Thyristor, or MCT, is a new power switching device that has current densities, surge capabilities, and forward voltage drops that rival the SCR, but which can be switched on and off with a low energy gate signal at high frequencies. Devices are currently available that can handle 80A continuously with a 2000A surge rating and 1000V blocking capability. The talk will discuss how the device is made and how it compares with MOSFETs and IGBTs in both a structural and an applications context. Driving these devices will be discussed as well as Harris' future development plans.

ABOUT OUR SPEAKER

Glenn DeMichele has been a field applications engineer for Harris Semiconductor for the past eight years and provides technical support to Harris' customers and sales force in the midwest. Prior to joining Harris, he worked as a design engineer and has experience in scientific instrumentation, military power supplies, and commercial equipment.

PLACE

Motorola Schaumburg Campus
Building 1301, Door Location 13
1301 Algonquin Road, Gate A
Schaumburg, IL

TIME

Dinner 5:30 PM
Social 6:00 PM
Presentation 7:00 PM

DIRECTIONS

Use the far left gate of Gate A and inform security that you will be attending the IEEE Meeting in Building 1301. Proceed to Building 1301 and enter through door 13 where you will receive a security badge and be escorted to a Conference Room.

FOR RESERVATIONS

Please make your reservation by calling the IEEE Business Office at (800) 898-IEEE no later than noon, Monday, May 1.

NOTES

Dinner can be purchased at low cost in the cafeteria starting at 5:30 PM, if you desire. Coffee and donuts will be provided during the Social.

FOR FURTHER INFORMATION

Contact George Studtmann at (708) 392-7189.

UIC

The University of Illinois at Chicago

College of Engineering
Department of Electrical Engineering
and Computer Science

presents three 2-day seminars

- **Introduction to Object-Oriented Programming and C++**
May 8-9, 1995

- **Advanced C++**
May 15-16, 1995

- **Object-Oriented Programming Using Smalltalk**
May 22-23, 1995

The fee for each 2-day seminar is \$350 which includes lunch and all course materials. Participants registering for two or more seminars will receive a 10% discount. The seminars will be held at the University of Illinois Office of Statewide Programming in Oak Brook, Illinois.

for more information contact:

UIC Office of Continuing Education
and Public Service
(312) 996-5225

TECHNICAL CAREER FAIR

Monday, May 22 • 3pm - 8pm
Tuesday, May 23 • 3pm - 8pm

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and
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**OPTICS
AT THE
BOARD LEVEL?**
Presented by
Dr. Frank Chambers of
Technology Plus
Wednesday, May 10, 1995

ABOUT OUR TOPIC

Clock rates on microprocessors are approaching 300 MHz, and are expected to reach 500 MHz in two to three years. Multiple processor systems are now available for desktop use, requiring large interprocessor bandwidths. At these speeds, questions of signal integrity, propagation, and timing are becoming very important issues in board and system design. This talk will discuss the potential for using optical interconnects at the board level to alleviate the substantial design problems that originate in high speed processing environments form a variety of perspectives. Advantages and constraints of optical alternatives will be reviewed along with the technologies that are presently in the R&D phase. The presentation will conclude with some speculations about the future direction of optics in this difficult engineering environment.

ABOUT OUR SPEAKER

Dr. Chambers holds M.A. and Ph.D. degrees in Physics from Princeton University. He has over thirty years of experience in computing systems and networks, and has authored and co-authored over fifty-five publications. Prior to starting his own firm, Technology Plus, he was with Amoco Technology for fifteen years where he held the position of Senior Scientist and Business Development Manager for datalink products.

PLACE
Motorola Schaumburg Campus
Building 1301, Door Location 13
1301 Algonquin Rd, Gate A
Schaumburg, IL

TIME
Presentation 7:00 PM

FOR DIRECTIONS
See May 3 Meeting

FOR RESERVATIONS

Please make your reservation by calling the IEEE Business Office at (800) 898-IEEE on or before May 8th. You must register and your reservation will be confirmed.

ANTENNAS AND
PROPAGATION
SOCIETY,
ELECTROMAGNETIC
COMPATIBILITY
SOCIETY, and
MICROWAVE THEORY
AND TECHNIQUES
SOCIETY
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Evening Program

**GAINING INSIGHT
FROM
EMI RADIATION**
Presented by
Scott Roleson of
Hewlett-Packard Company
Wednesday, May 10, 1995

ABOUT OUR TOPIC

When radiated EMI amplitude is plotted as a function of rotational angle, and when these patterns fall into recognizable shapes, specific antenna-like structures can be inferred as the source of this EMI in some cases. In this way, antenna-like azimuthal radiated emission

INDUSTRY
APPLICATIONS
SOCIETY and
INDUSTRIAL
ELECTRONICS
SOCIETY
with
POWER ENGINEERING
SOCIETY
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Luncheon Program

**CITY OF CHICAGO
ELECTRICAL CODE**
PROPOSED CHANGES TO THE ELECTRICAL CODE
AND PERMIT SUBMITTAL REQUIREMENTS
Presented by
Tim Cullerton of the
City of Chicago
Tuesday, May 16, 1995

ABOUT OUR TOPIC

What are the proposed changes to the City of Chicago Electrical Code? How do you prepare your documents for permit submittal? Our speaker, Tim Cullerton, will discuss upcoming changes, submittal requirements, and general information to help you comply with the City of Chicago Electrical Code.

ABOUT OUR SPEAKER

Mr. Cullerton is the Chief Electrical Inspector for the City of Chicago. He is responsible for overseeing all aspects of the City of Chicago Electrical Code.

PLACE	TIME
Como Inn	Social 11:30 AM
546 N. Milwaukee Ave.	Lunch 12:30 PM
Chicago, IL	Presentation 12:45 PM

FOR RESERVATIONS

Please call the IEEE Business Office today at (800) 898-IEEE to make your reservation.

NOTES

The lunch is open to all interested people involved in electrical systems. Lunch cost is \$15.00 per person. The lunch will include soup, salad, pasta or chicken, coffee, and dessert.

FOR MORE INFORMATION

Contact Patrick Murphy at (312) 664-7200 on extension 4440.

UPCOMING EVENTS

Do you know someone who would be interested in advancing the technical knowledge of themselves and others, meeting with top professionals in the industry, and networking with electrical professionals in the Chicago area? Mark your calendars for a June 7th meeting for nominations of officers for the Chicago Chapter of the IEEE Industry Applications Society. Stay tuned for the next issue of Scanfax for details.

patterns can lend useful insight into EMI problems in computing and other electronic equipment.

This talk will describe methodologies for obtaining EMI radiation patterns and how they can be used to infer antenna structures. Examples will be given and technique limitations will be described.

PLACE	TIME
Hewlett-Packard Company	Social/Buffer 6:30 PM
5201 Tollview Drive	Presentation 7:30 PM
Rolling Meadows, IL	Complimentary finger-food buffet hosted by HP.

FOR RESERVATIONS

Please make your reservation by calling the IEEE Business Office at (800) 898-IEEE by noon, Monday, May 8th. You must make a reservation.

DIRECTIONS

Exit IL Rt. 53 at Algonquin Rd. Go east approximately 2 blocks to Tollview Drive. Turn right (south) onto Tollview and enter first HP Parking lot driveway on your right. Enter the building from the north parking lot doorway.

POWER ENGINEERING SOCIETY

Welcomes You
to a
Luncheon
Program

OPEN TRANSMISSION ACCESS: TECHNICAL ISSUES AND RECENT TRENDS

Presented by
Dr. Gerald Shelbe' of
Iowa State University

Wednesday, May 17, 1995

ABOUT OUR TOPIC

The energy industry is presently regulated through federal and state agencies that set the rates and approve expansion plans. To date, the delivery of energy to consumers has been solely the responsibility of the local electric utility. In this sense, utilities have a monopoly on this portion of the energy market. In an effort to open the market to competition, many legislators and consumer advocates are attempting to break the monopoly of the electrical utilities by deregulating the access to the transmission system. The deregulation seems to be an inevitable outcome of a free market society that thrives on competition. The transition to an open market is difficult. Technical and legal problems need to be resolved. This presentation will give background information about the commodities and financial markets and compare them to the energy market. It also points to problems that deregulation will introduce and presents some solutions.

ABOUT OUR SPEAKER

Dr. Shelbe' is an Associate Professor of Electrical Engineering at Iowa State University. He received his BSEE and MSEE from Purdue University and PhDEE from Virginia Tech. His industrial experience includes over fifteen years with a public utility (Commonwealth Edison), with a research and development firm (Systems Control), with a computer vendor (Control Data Corporation), and with a consulting firm (Energy and Control Consultants). His research interests are power system optimization, scheduling, and control.

TIME

Social 11:30 AM
Lunch 12:00 PM
Presentation 12:30 PM

PLACE

Chicago Bar Association
321 S. Plymouth Court
(near Jackson and Dearborn)
Chicago, IL

NOTES

Lunch tickets can be purchased in the lobby (\$7.50). Refer to posted list of daily meetings for exact floor and room.

FOR RESERVATIONS

Please make your reservation by calling the IEEE Business Office at (800) 898-IEEE no later than noon, May 15th.

FOX VALLEY SUBSECTION

Welcomes You
to a
Dinner
Program

ADVANCED DIGITAL SIGNAL PROCESSORS (DSPs) AND THEIR APPLICATION

Presented by
Craig Rupp of Motorola

Wednesday, May 24, 1995

ABOUT OUR TOPIC

With the advent of Multimedia, Digital Audio, Higher Performance Modems, and Digital Cellular Systems, **Digital Signal Processors (DSPs)** are becoming commonly used components which make the technology realizable. What do these processors do that a microprocessor can not? What are the types of the DSPs that are available today and why are they used in these applications?

Joins us for an informative evening where Craig will answer these questions by explaining the history, types, architectures, and common applications of DSPs.

A demonstration of audio applications of DSPs will follow the talk. Craig will bring along DSPs that he has used and show you how a program on a DSP implements a filter. You will see (rather than hear!) how audio inputs are modified by the DSP.

ABOUT OUR SPEAKER

Craig Rupp is a lead engineer for Motorola in Libertyville. He has worked on Digital Cellular Systems incorporating Digital Signal Processors.

PLACE

Jerry Sharko's
2225 Ogden Ave. Lisle, IL

TIME

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

NOTES

Dinner cost is \$15.00 per person and the presentation is free. Dinner menu includes Caesar Salad, Dinner Rolls, Stir Fry Chicken, Coffee, and Dessert. During the social from 6:30 to 7:00 PM, you can enjoy complimentary bar beverages. Dietary and vegetarian meals can be requested when you make your reservation.

FOR RESERVATIONS

Please call the IEEE Business Office at (800) 898-IEEE to make your reservation. Because a high turnout is expected, please make your reservation early. Seating is limited. Even if you can only arrive for the presentation, please make a reservation.

FOR MORE INFORMATION

Contact Pierre Dumay at (708) 898-2800 extension 451.

Just a reminder . . .

UIC The University of Illinois at Chicago
Off-Campus Graduate Engineering Programs
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Planning to take a graduate course this fall?

Please file an application for admission by:

June 9, 1995 for degree admission

July 14, 1995 for nondegree admission

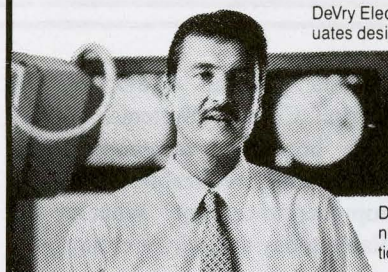
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CME 502 Advanced Traffic Control Strategies
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EECS 476 Programming Language Design
EECS 572 Distributed Software Engineering
ME 422 Heating, Ventilation, and Air Conditioning
ME 408 Intermediate Vibration Theory
ME 522 Convective Heat Transfer

For more information, contact: Coordinator, Off-Campus Engineering Programs (M/C 160), 851 South Morgan Street, Room 818, Chicago, Illinois 60607-7050. Phone: (312) 996-2311
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(708) **953-1300**

Chicago Section Executive Committee Meeting
Tuesday, May 9 • 7:15 PM
DeVry • 1221 N. Swift Rd • Addison, IL

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A new program has been initiated with both semester length and short courses, to address the needs of the working professional. The program is based on the Software Engineering Institute model, with course projects and laboratories that offer hands-on experience in all life cycle phases. A sampling of life cycle coverage is shown below.

Life Cycle Phase Analysis/Design

Coding

Test

Maintenance

Measurement

Project Management

Tools

Course Title

Software Systems Architecture,
Object-Oriented Modeling and Design
Advanced Software Eng. Development,
Object Oriented Programming
Software Testing and Quality Assurance
Software Maintenance
Software Metrics
Programming Project Management
CASE Tools

Students can take courses on the Main Campus in Chicago, the Rice Campus in Wheaton, and through our distance learning facility, IITV. **For more information call:**
Ilene Burnstein, 312-567-5155 or Bogdan Korel, 312-567-5145.

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1. Contact the Section Office for an application.
2. Follow the instructions listed on the form.
3. Submit completed form to Robert Schrage at the address found on form.

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Submit articles to Editor. Articles for September '95 Scanfax due July 27.

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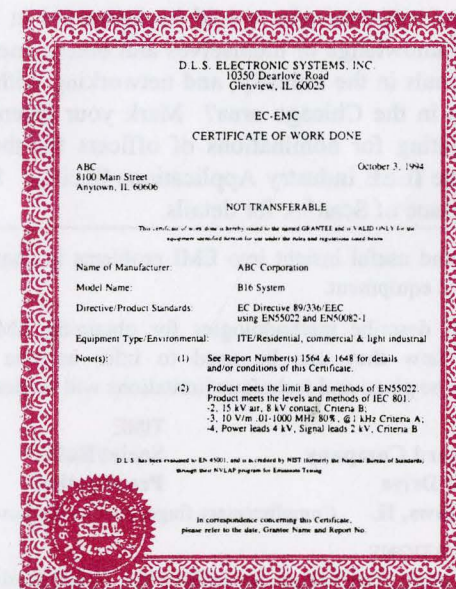
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