

60<sup>th</sup>



**DEVICE  
RESEARCH  
CONFERENCE**

University of California  
Santa Barbara, California

June 24–26, 2002

**TMS**



**ADVANCE PROGRAM**

*including*  
Housing and Registration Forms

# GENERAL INFORMATION

## DATE AND LOCATION:

The 60<sup>th</sup> Annual Device Research Conference (DRC) sponsored by the IEEE Electron Device Society will be held at the University of California, Santa Barbara, June 24-26, 2002. This conference is being coordinated with the Electronic Materials Conference of TMS, which will take place June 26-28, 2002 at the same location.

## INTENDED AUDIENCE:

The 60<sup>th</sup> Annual Device Research Conference brings together scientists, engineers, and students to discuss new and exciting breakthroughs and advances in the field of device research. DRC is sponsored by the IEEE, Electron Devices Society.

## TABLE OF CONTENTS:

Airline information .....	20
Campus map .....	16-17
Car Rental .....	21
Computer/Network Facilities .....	3
EMC Exhibit .....	4-5
JEM Publication & Subscription .....	22-23
Location, About Santa Barbara .....	3
Lunch Packages .....	9
Housing	
Off-Campus .....	10-13
On-Campus .....	6-9
On-Campus Housing Form .....	Center Pullout
Organizing Committee .....	18-19
Parking .....	14-15
Preliminary Schedule of Events .....	25
Recreation .....	3
Registration Form .....	Center Pullout
Registration Information .....	1-2
Social Activities .....	4-5
TMS Membership .....	24
Transportation Information .....	12-14
Technical Sessions .....	26

## For technical program information regarding the 2002 Device Research Conference, please contact:

Sanjay Banerjee, *General Program Chair*  
University of Texas  
10100 Burnet Rd  
Bldg 160, MER 1.606B/R9900  
Austin, TX 78758  
Telephone: 512-471-6730  
Fax: 512-471-8420  
E-mail: banerjee@ece.utexas.edu

or

Jeff Welser, *Technical Program Chair*  
IBM Microelectronics  
Mail Stop E40, 2070 Route 52  
Hopewell Junction, NY 12533  
Telephone: 845-892-5142  
Fax: 845-892-2568 (shared fax, please notify)  
E-mail: welser@us.ibm.com

## CONFERENCE REGISTRATION:

All attendees are encouraged to register in advance to avoid delays in registering at the conference. Both Device Research Conference (DRC) and Electronic Materials Conference (EMC) badges will be accepted by both conferences on Wednesday, June 26. Advance registration fees are as follows:

**IEEE and TMS members:** \$325.00

**Non-members of IEEE and TMS:** \$385.00

**Students:** \$125.00

Registration fee includes Sunday Welcoming Reception, Monday Poster Session Reception, Tuesday Conference Picnic, Tuesday Rump Session, Coffee Breaks, attendance to all Technical Sessions, and EMC Exhibition on Wednesday.

To register in advance, complete the registration form provided in the center of this mailer. **Advance registrations will be accepted until June 3, 2002.** For questions on advance registrations, please contact TMS Meeting Services at Telephone: 724-776-9000 ext. 243; Fax: 724-776-3770; or E-mail: mtgserv@tms.org.

You may register at the Conference. *Please note: On-site registration fees will be higher.* On-site registration will be located in the University Center/ Multicultural Lounge and begin on Sunday afternoon continuing through Wednesday morning during the following hours:

## GENERAL INFORMATION

*Sunday June 23* ..... 4:00 PM–9:00 PM  
*Monday, June 24*..... 7:30 AM–5:00 PM  
*Tuesday, June 25* .....7:30 AM–5:00 PM  
*Wednesday, June 26*.....7:30 AM–5:00 PM

### REFUND POLICY:

A written request must be sent to TMS Headquarters, 184 Thorn Hill Road, Warrendale, PA 15086, and postmarked no later than June 3, 2002. A \$50 processing fee will be charged on all cancellations. NO refunds will be issued after the deadline date.

### MESSAGES:

A telephone and message board will be located near the Registration Desk in the University Center/ Multicultural Lounge. Messages will be posted in this area throughout the Conference. Messages will also be posted in the Residence Halls. If you are residing on campus, you will receive the appropriate number to be used in an emergency in your housing packet.

### CAMPUS SMOKING POLICY:

University of California prohibits smoking in its buildings. Smoking will be allowed only in outdoor areas.

### TECHNICAL SESSIONS:

The Device Research technical program will commence at 8:30 AM on Monday, June 24. Sessions will be held on grounds at the University of California in the University Center. University Center/Corwin Pavilion will be the location of the conference plenary session.

*Session and paper titles are included in this brochure.*

### PROGRAM:

A conference digest with session titles and abstracts of papers to be presented at the meeting will be made available for all registrants at the registration desk when picking up your registration packet.



### AMERICANS WITH DISABILITIES ACT:

TMS strongly supports the federal Americans with Disabilities Act (ADA), which prohibits discrimination against, and promotes public accessibility for those with disabilities. In support of and compliance with this Act, we ask that those registered attendees requiring specific equipment or services, indicate your needs on the enclosed housing and registration forms.

### POLICY ON AUDIO AND VISUAL RECORDING OF TECHNICAL PAPER PRESENTATIONS/SESSIONS:

TMS reserves the rights to any audio and video reproduction of all presentations at every TMS sponsored meeting. Recording of sessions (audio, video, still photography, etc.) intended for personal use, distribution, publication, or copyright without the express written consent of TMS and the individual authors is strictly prohibited.

### RECREATION:

The RecCenter is open daily Monday – Sunday. Hours will be posted at the Service Desk for your convenience. The cost is \$5.00 for adults and \$3.00 for children. **NO ONE MAY ENTER THE FACILITY WITHOUT A PHOTO ID.** Equipment includes racquetball and squash courts, weight training rooms, gym and 3 swimming pools.

### ABOUT SANTA BARBARA:

The city of Santa Barbara, founded by the Spanish in the 18<sup>th</sup> century, is considered to be one of the jewels of the California coast. It lies approximately 100 miles northwest of Los Angeles, nestled against the Santa Ynez Mountains and overlooking the Pacific Ocean. In June, the days are warm (70s) and the nights are cool (50s), with occasional morning fog. Nearby are many excellent ocean beaches, lakes, forests, mountains with varied hiking trails, and such man-made attractions as the Hearst Castle, the flower fields of Lompoc, the Old World Danish Village of Solvang, the Mission, Court House, and other examples of Spanish architecture.

### DRESS:

Casual clothing is in order with a sweater or light jacket occasionally needed for the evenings. The University of California is essentially a walking campus, so be sure to wear comfortable walking shoes.

### COMPUTER/NETWORK FACILITIES:

Those registrants residing in the Residence Halls will have access to a computer lab for their e-mail use between the hours of 7:00 AM–11:00 AM and 7:00 PM–11:00 PM from Monday through Thursday. There are a few public computer lounges located in the University Center, which can be used by those attendees not residing in the Residence Halls.



## EXHIBIT

### TECHNICAL EXHIBIT:

On Wednesday, June 26, from 9:15 AM until 4:00 PM, DRC attendees are invited to attend the EMC Exhibition of electronic materials technology and related services. It is an opportunity for DRC attendees to meet EMC's world electronic materials research and industry leaders in addition to learning more about EMC products and services. You are encouraged to visit the exhibits and interact with the participating vendors.

### Exhibition Location:

University Center/Lagoon Plaza

### Exhibit Dates and Times:

Wednesday, June 26, 2002

9:15 AM–4:00 PM and 7:00 PM–9:00 PM

Thursday, June 27, 2002

9:00 AM–4:00 PM

**NOTE:** Companies interested in participating in this exhibit should contact TMS for more details and exhibitor information at the following:

Cindy A. Wilson, Exhibits Coordinator

TMS/EMC Technological Exhibit

184 Thorn Hill Road

Warrendale, PA 15086

Telephone: 724-776-9000, ext. 231

Fax: 724-776-3770

E-mail: wilson@tms.org

## SOCIAL ACTIVITIES

### SUNDAY, JUNE 23

#### Welcoming Reception:

All attendees are invited to attend a hosted Welcoming Reception 6:00 PM-8:00 PM in the University Center/Lagoon Plaza.

### MONDAY, JUNE 24

#### Poster Session:

The poster session will be held Monday evening in the University Center/Lagoon Plaza. Presenters will be on hand to discuss individual posters. A Buffet Reception will be held concurrently from 5:30 PM to 8:30 PM.

### TUESDAY, JUNE 25

#### Conference Picnic:

Conference attendees and their guests will have the opportunity to enjoy a catered picnic dinner at Goleta Beach, a public beach adjacent to the University of California, Santa Barbara. The beach is easily accessible by walking. The dinner will begin at 6:00 PM and continue till 8:00 PM. **The cost of this event is included in the full conference and student registration fee. It is not included in the one-day registration fee.**

The cost of the picnic for one-day registrants and guests is \$45 for adults and \$20 for children 12 and under. You may order tickets for this event on the registration form. You are encouraged to purchase your tickets in advance. Tickets will be available at the registration desk at the conference. Deadline for ticket sales will be 5:00 PM on Monday, June 24, 2002.

#### Tuesday Rump Session:

After the dinner on the beach, attendees are invited to attend the Rump Session on Tuesday evening from 8:30 PM till 10:30 PM. The reception will be located in the Lagoon Plaza.

#### INFORMAL COFFEE BREAKS:

During the intermission of morning and afternoon sessions (at approximately 10:00-10:40 AM and 3:00-3:40 PM) coffee, tea, and sodas will be served in the University Center/Lagoon Plaza.

# ON-CAMPUS HOUSING ACCOMMODATIONS

We are pleased to invite DRC attendees to reside on the seaside campus of UCSB. On-campus accommodations will be available on a first request basis; therefore, early registrations and reservations are essential.

UCSB Residence Halls and Dining Facilities are located within a 5-10 minute walk from the session meeting rooms and from the beach. Residence Hall accommodations are either single or double occupancy, with single rooms reserved on a first request basis. **There are no rooms with private restrooms; restroom and shower facilities are located on each floor.** Lodging includes beds made on arrival day and daily room service with washcloth and towel change. Unfortunately, there is no housing on campus for those with children. We would recommend a selection from one of the hotel blocks if you will be traveling with children. Please check the hotel listings in the Off-Campus Housing section of this brochure.

We offer the following package plans to provide planning flexibility and the option to attend both DRC and EMC. All residence hall package plans include full meal service. Residence hall rooms without meals are not available. No adjustments for lodging or meals will be made for late arrival or early departure from the chosen package.

Please indicate your plan preference on the enclosed reservation form and return it with payment to:

Sally Vito  
Campus Conference Services  
University of California  
Santa Barbara, CA 93106-6120  
Telephone: 805-893-3072  
Fax: 805-893-7287  
E-mail: [svito@housing.ucsb.edu](mailto:svito@housing.ucsb.edu)

Reservations received by May 31, 2002, will be sent a confirmation by the Conference Office. Prepayment for the anticipated number of nights is required.

Meals will be served in the Dining Commons during the following hours:

Breakfast .....7:00 AM–8:00 AM  
Lunch ..... 11:45 AM–1:15 PM  
Dinner .....5:30 PM–7:00 PM

NOTE: Food facilities on campus close at 7:00 PM.

## **Plan A:**

Includes lodging Sunday through Tuesday nights and the following 7 meals:

### *Sunday*

Dinner

### *Monday*

Breakfast and lunch (no dining commons meal offered Monday night due to the DRC Poster Session Reception)

### *Tuesday*

breakfast and lunch (no dining commons meal offered Tuesday night due to the DRC Banquet)

### *Wednesday*

breakfast and lunch

### **NOTE:**

This package includes dinner on your arrival day.

Single Occupancy .....\$248.00 per person

Double Occupancy .....\$200.00 per person

## **Plan B:**

Includes lodging Monday and Tuesday nights and the following 5 meals:

### *Monday*

lunch (no dining commons meal offered Monday night due to the DRC Poster Session Reception)

### *Tuesday*

breakfast and lunch (no dining commons meal offered Tuesday night due to the DRC Banquet)

### *Wednesday*

breakfast and lunch

Single Occupancy .....\$176.00 per person

Double Occupancy .....\$144.00 per person

# ON-CAMPUS HOUSING ACCOMMODATIONS

## Plan C:

(for those planning to attend DRC and EMC) Includes lodging Sunday through Thursday night and the following 12 meals:

### *Sunday*

dinner

### *Monday*

breakfast and lunch (no dining commons meal offered Monday night due to the DRC Poster Session Reception)

### *Tuesday*

breakfast and lunch (no dining commons meal offered Tuesday night due to the DRC Banquet)

### *Wednesday*

breakfast, lunch and dinner

### *Thursday*

breakfast and lunch (no dining commons meal offered Thursday night due to the EMC Banquet)

### *Friday*

breakfast and lunch

**NOTE:** This package includes dinner on your arrival day.

Single Occupancy .....\$398.00 per person

Double Occupancy .....\$319.00 per person

## EARLY ARRIVAL PACKAGE

### **Saturday Night (June 22) Room Rate:**

(includes lodging Saturday night with a sandwich bar in the Residence Hall from 6:00 PM–8:00 PM and a Continental Breakfast Sunday morning in the Residence Hall from 7:00 AM–9:00 AM.)

Single Occupancy .....\$73.00 per person

Double Occupancy .....\$57.00 per person

## LATE DEPARTURE

### **Friday Night (June 28) Room Rate:**

(includes lodging Friday evening and the following meals):

### *Friday*

dinner

*(Breakfast & Lunch included in main packages)*

### *Saturday*

breakfast

**NOTE:** Checkout is Saturday, 11:00 AM

Single Occupancy .....\$70.00 per person

Double Occupancy .....\$55.00 per person

## COMMUTER LUNCH PACKAGE

Attendees that plan to make off-campus housing arrangements directly with the hotel/motel and wish to purchase a commuter lunch package for on-campus meals, the following packages are available through the University of California.

Three (3) DRC lunches .....\$23.25

Five (5) DRC/EMC lunches.....\$38.75

**NOTE:** It is important to apply early on the Housing Reservation Form.

**NO REFUNDS WILL BE MADE FOR LATE ARRIVALS, EARLY DEPARTURES, OR MISSED MEALS**

## Method of Payment:

Payment is U.S. dollars may be made by:

- Personal Check or Money Order. Checks must be drawn on a U.S. Bank and made payable to "U.C. Regents".
- Credit Card: American Express, Visa, or MasterCard

If you have any questions, regarding on-campus reservations and accommodations, please contact:

Sally Vito

Campus Conference Services

University of California

Santa Barbara, CA 93106-6120

Telephone: 805-893-3072

Fax: 805-893-7287

E-mail: svito@housing.ucsb.edu

## OFF-CAMPUS HOUSING ACCOMMODATIONS

Blocks of rooms have been reserved at special conference rates for the hotels listed below. Rooms will be released as early as mid-May. Thereafter, reservations can be obtained only on a space available request. Please contact the hotel directly by mail, phone, or fax as soon as possible. Rooms are available for DRC, EMC or both, Sunday through Thursday nights, and **you must identify yourself as either a DRC or EMC attendee**. You can also stay Friday or Saturday night if you request it at the time you make your reservations, however, **the special rates below DO NOT apply to weekend rates. Friday and Saturday rates will be higher. Please note that the following rates DO NOT include 10-12% tax.**

**The following hotels are located in Goleta approximately 4-5 miles from campus (7-10 minutes driving time)**

### **Best Western South Coast Inn**

5620 Calle Real  
Goleta, CA 93117

Telephone: 805-967-3200

Fax: 805-683-4466

\$120 single/double (Sunday – Thursday night)

All rooms have high-speed Internet access, refrigerator, coffeemaker, hairdryer, iron and ironing board. Rate includes continental breakfast buffet daily and evening hospitality Monday through Thursday. Complimentary shuttle service to and from the Santa Barbara Airport.

### **Holiday Inn (Reservation Code 2-DRC)**

5650 Calle Real  
Goleta, CA 93117

Telephone: 805-964-6241

Fax: 805-964-8467

\$109.99 single/double (Sunday – Thursday night)

Full service restaurant; heated pool in palm garden setting. Holiday Inn's nationally recognized high service standards; complimentary airport shuttle between 6 AM-10 PM.

### **Ramada Limited**

4770 Calle Real  
Santa Barbara, CA 93110

Telephone: 805-964-3511

Fax: 805-964-0075

\$112 single; \$10 each additional person  
(Sunday – Thursday night)

Lushly landscaped gardens and beautiful water lily lagoon; Complimentary Buffet-style Continental Breakfast included; rooms are equipped with cable television, data ports for high-speed internet access, irons and ironing boards and hair dryers.

**The following hotel is located off the main entrance onto campus (3 minute driving time):**

### **Pacifica Suites**

5490 Hollister Avenue  
Goleta, CA 93117

Telephone: 805-683-6722

Fax: 805-683-4121

\$121 single (Sunday – Thursday night)

Complimentary cooked-to-order breakfast daily, complimentary evening beverages Monday – Saturday. Heated pool and spa. Complimentary airport shuttle 7 AM– 7 PM with 24-hour notice.

### **The following hotels are located in Santa Barbara: El Encanto Hotel and Garden Villas**

1900 Lasuen Road  
Santa Barbara, CA 93103

Telephone: 805-687-5000

Fax: 805-687-0943

\$129 single (Sunday – Thursday night)

Nestled in the foothills of Santa Barbara and overlooking the Pacific Ocean, the historic El Encanto Hotel features garden villas and cottages – many with wood-burning fireplaces, private patios or balconies and an elegant dining room with outdoor terraces. Charter Member of Historic Hotels of America.

## OFF-CAMPUS HOUSING ACCOMMODATIONS

### The Upham Victorian Hotel and Garden Cottages

1404 De La Vina Street  
Santa Barbara, CA 93101

Telephone: 805-962-0058

Fax: 805-963-2825

\$120 single (Sunday – Thursday night)

All rates include a deluxe continental breakfast, afternoon refreshments of fruit, wine, and cheese, and Oreo cookies and milk in the evening.

### Radisson Hotel Santa Barbara

1111 East Cabrillo Boulevard  
Santa Barbara, CA 93103

Telephone: 805-963-0744

Fax: 805-962-5555

\$129 single (Sunday – Thursday night)

A Mediterranean style hotel conveniently located across the street from the famous East Beach. Amenities include swimming pool, fitness center, restaurant, in-room coffee maker, hairdryer, iron and ironing board plus Dataport modems for on-line access.

## TRANSPORTATION

The Santa Barbara area may be reached by:

### CAR:

UCSB is easily accessible from US 101. From the South, take the UCSB/Highway 217 exit and identify yourself at the gate as either a DRC or DRC/EMC attendee. From the North, take the Storke Road/UCSB exit and drive south (toward the ocean) to a "T" junction with El Colegio Road. Turn left onto El Colegio Road and ask for directions at the University gate. If you are residing on campus you will be notified in your confirmation which Residence Hall you have been assigned and the attendant at the gate can provide you with directions and a temporary parking permit. If you are residing off campus and will be driving to UCSB, please stop at the gate for directions as well.

### TRAIN:

Amtrak Train Service serves Santa Barbara. The Amtrak terminal is located in downtown Santa Barbara as well as in Goleta. From there, you may reach the campus or your hotel by SuperRide Shuttle or taxi only. **Note:** The UCSB Campus Shuttle cannot pick you up from the train station if you are residing on campus.

### AIR:

Most people traveling by air will initially land at Los Angeles International Airport (LAX), about 2.5 hours away from Santa Barbara. From there, you have the option to either fly to Santa Barbara, travel to Santa Barbara via the Santa Barbara Airbus, or rent a car and drive to Santa Barbara.

### Flying into Santa Barbara:

A free UCSB Shuttle Bus will carry those participants staying at the University from the Santa Barbara Airport to their campus residence hall. **You will receive the appropriate phone number to call to secure our UCSB Shuttle Bus upon arrival at the Santa Barbara Airport in your confirmation packet.** At the end of the conference, the UCSB Shuttle Bus will take on campus participants back to the Santa Barbara Airport for their departure. Those staying in local hotels are responsible for their own transportation from the Airport to their individual hotel; some hotels provide this service so please check when reading the hotel descriptions. If your hotel does not provide this service, you may wish to try SuperRide Airport Shuttle, (805) 683-9636, which offers a local rate ranging from \$9.00 - \$18.00, depending on the location of your destination site in Santa Barbara. Reservations are strongly recommended.

### The Santa Barbara Airbus:

Provides several daily bus trips from the Los Angeles International Airport to Santa Barbara; Phone: US/Canada 800-423-1618; 805-964-7759 for those calling outside the US/Canada area, or Fax: 805-683-0307. Please remember that if you will be residing on campus at UCSB and will be using the Santa Barbara Airbus, make sure that your Drop-off site is in **Goleta**. That way our UCSB Shuttle Bus will be able to pick you up and bring you to campus. **You will receive the appropriate number to call to secure our UCSB Shuttle Bus upon arrival at the Goleta**

## TRANSPORTATION

**Drop-off site in your confirmation packet.** At the end of the conference, the UCSB Shuttle Bus will take on campus participants back to the Santa Barbara Airbus Goleta Drop-off site for their departure. Again, those staying in local hotels are responsible for their own transportation from the Santa Barbara Airbus Drop-off site to their individual hotel.

### **TAXI:**

Taxi service is available from the Airport to the local hotels not offering free shuttle service.

### **PARKING:**

Parking is by permit only. If you are staying *on campus*, identify yourself at the entry gate as a participant in DRC (or DRC/EMC) and you will receive a one-hour temporary permit. You will be notified in your confirmation packet which Residence Hall you have been assigned; drive to that Hall and obtain a long-term permit which you may use for the duration of your stay. *Parking is complimentary*

*for those staying in the Residence Hall.* Attendees residing off campus can purchase a permit ahead of time by indicating this on the On-Campus Housing Reservation Form; permits may also be purchased at the on-site registration desk.

DRC: .....Monday through Wednesday - \$15.00

DRC/EMC: .....Monday through Friday - \$25.00

**Attendees residing off-campus CANNOT** purchase a multi-day parking permit on-site, only one-day permits will be sold from the gate attendant. Pre-purchasing of parking permits is encouraged to eliminate standing in lines. See the Housing Reservation Form to pre-purchase parking permits. Parking citations are issued for cars incorrectly parked or lacking permits. Please note that UCSB is a walking campus and parking is limited. Your parking assignment may not necessarily be close to your assigned Residence Hall or session location.

### **For information regarding meeting registration and pricing, contact:**

TMS Meeting Services  
184 Thorn Hill Road  
Warrendale, PA 15086  
Telephone: 724-776-9000 Ext. 243  
Fax: 724-776-3770 • E-mail: mtgserv@tms.org

### **For information regarding conference logistics, contact:**

Michael Packard, CMP  
Manager, Meeting Services  
TMS  
184 Thorn Hill Road  
Warrendale, PA 15086  
Telephone: 724-776-9000 Ext. 225  
Fax: 724-776-3770 • E-mail: packard@tms.org

### **For information regarding University of California on-campus housing, contact:**

Sally Vito  
Campus Conference Services  
University of California  
Santa Barbara, CA 93106-6120  
Telephone: 805-893-3072  
Fax: 805-893-7287  
E-mail: svito@housing.ucsb.edu

### **For further information pertaining to the Electronic Materials Conference, contact:**

Ilesanmi Adesida, EMC General Chair  
University of Illinois  
Microelectronics Lab  
208 N. Wright St.  
Urbana, IL 61801  
Telephone: 217-244-6379  
Fax: 217-244-6375  
E-mail: adesida@capone.micro.uiuc.edu

OR

April Brown, EMC Program Chair  
Georgia Institute of Technology  
School of ECE  
Carnegie Building  
Atlanta, GA 30332  
Telephone: 404-894-5053  
Fax: 404-894-1277  
E-mail: april.brown@carnegie.gatech.edu



# ORGANIZING COMMITTEE

## GENERAL PROGRAM CHAIR

### Sanjay Banerjee

Fedex address:

10100 Burnet Rd., Bldg. 160

MER 1.606B/R9900

Austin, TX 78758

U.S. mail address:

MER 1.606B/R9900

University of Texas

Austin, TX 78712

Telephone: 512-471-6730

Fax: 512-471-8420

E-mail: banerjee@ece.utexas.edu

j.toll@mail.utexas.edu (Jean Toll, Assistant)

*Area of expertise:* Silicon-germanium device

## TECHNICAL PROGRAM CHAIR

### Jeff Welsler

IBM Microelectronics

Mail Stop E40

2070 Route 52

Hopewell Junction, NY 12533

Telephone: 845-892-5142

Fax: 845-892-2568 (shared fax, please notify)

E-mail: welsler@us.ibm.com

## PAST CHAIR

### Mark Rodwell

University of California

## LOCAL ARRANGEMENTS CHAIR

### Nadir Dagli

Electrical & Computer Engineering Department

University of California

Santa Barbara, CA 93106

Telephone: 805-893-4847

Fax: 805-893-3262

E-mail: dagli@ece.ucsb.edu

## TREASURER

### Tom Jackson

Pennsylvania State University

## TECHNICAL PROGRAM COMMITTEE

### Pallab Bhattacharya

University of Michigan

### Karl Bohringer

University of Washington

### Colombo Bolognesi

Simon Fraser University

### Bobby Brar

Rockwell Scientific Company

### Jeff Casady

Mississippi State University

### Kent Choquette

University of Illinois

### Jack Hergenrother

Agere Systems

### Richard Kiehl

University of Minnesota

### Hagen Klauk

Infineon Technologies

### Fumio Koyama

Tokyo Institute of Technology

### Theresa Mayer

Pennsylvania State University

### Yasuyuki Miyamoto

Tokyo Institute of Technology

### Ed Nowak

IBM Microelectronics

### Leonard Franklin Register

University of Texas

### Joerg Schulze

University Bundeswehr-Muenchin

### Alan Seabaugh

University of Notre Dame

### Herb Shea

Bell Labs/Lucent Technologies

### Vivek Subramanian

University of California

### Yasuo Takahashi

NTT Basic Research Labs

### Bin Yu

Advanced Micro Devices Inc

## SPECIAL AIRFARE



# U-S AIRWAYS

## Official Carrier of the 60<sup>th</sup> Annual Device Research Conference

US Airways agrees to offer an exclusive low rate for the attendees traveling to the 2002 Device Research Conference in Santa Barbara, California.

This special fare will offer a 5% discount off First or Envoy Class and any published US Airways promotional round trip fare and a 10% discount off unrestricted coach fares will apply with seven-day advance reservations and ticketing required for flights to Orange County, CA. For travel to Los Angeles, CA, this special fare will offer a 7% discount off First or Envoy Class and any published US Airways promotional roundtrip fare. A 12% discount off unrestricted coach fares will apply seven-day advance reservations and ticketing required. **Plan ahead and receive an additional discount by ticketing 60 days or more prior to departure.** These discounts are valid provided all rules and restrictions are met and are applicable for travel from all points on US Airways' route system.

US Airways will also offer exclusive negotiated rates for attendees who are unable to meet the restrictions of the promotional round trip fares.

The above discounts are not combinable with other discounts or promotions, and are valid three days before and after the meeting dates. Additional restrictions may apply on international travel.

To obtain these discounts, you or your professional travel consultant must call US Airways' Group and Meeting Reservation Office toll free at **877-874-7687; 8:00 AM – 9:30 PM, Eastern Time.**

### REFER TO GOLD FILE NO. 14192113

Once your reservations are confirmed, US Airways' Group & Meeting Reservation Office will mail the tickets to you or suggest several other convenient methods of purchase.

If you normally use the services of a travel agent or corporate travel department, please have them place the call so that they may obtain the same advantages for you. The special meeting fare is only available through the Group and Meeting Reservation Office.

## SPECIAL RENT-A-CAR



### Hertz Rent-a-Car System...

has been selected as the Official Car Rental Company for the 2002 Device Research Conference in Santa Barbara, California.

Meeting rates listed below, with free unlimited mileage, are guaranteed one week before through one week after the actual meeting dates and are subject to car availability. Rates are available from all California locations.

Advance reservations may be made by booking online at [www.hertz.com](http://www.hertz.com) or calling the Hertz reservations number (US: 1-800-654-2240; Canada: 1-800-263-0600; International: contact your nearest Hertz reservation center) and identify yourself as an attendee of the Electronic Materials Conference and reference the CV number which follows:

**You must give the reservations agent  
Hertz CV #02QJ0002**

Car Class	DAILY	WEEKEND	WEEKLY
	Per Day	Per Day	5-7 Days
A Economy 2DR	\$34.99	\$24.99	\$159.99
B Compact 4DR	\$40.99	\$27.99	\$174.99
C Midsize 2/4DR	\$43.99	\$28.99	\$180.99
D Sporty 2DR	\$47.99	\$30.99	\$194.99
F Fullsize 4DR	\$49.99	\$31.99	\$203.99
G Premium	\$53.99	\$34.99	\$214.99
I Towncar	\$65.99	\$65.99	\$304.99
L 4 Wheel Drive	\$59.99	\$59.99	\$299.99
R Minivan	\$59.99	\$59.99	\$299.99
U Convertible	\$59.99	\$59.99	\$299.99

Standard rental and credit qualifications apply. Taxes, vehicle licensing fees/tax reimbursement, transportation fee, transaction fee and optional items, such as refueling, are extra. At many airports and hotels, a 5% - 12.75% airport/hotel concession fee recovery applies on car rental.

### Terms and Conditions:

- UNLIMITED MILEAGE ALLOWANCE ON ABOVE RATES.
- One-way service fee will apply when cars are not returned to renting location.
- Additional daily charges for optional coverage (Loss Damage Waiver, Personal Accident Insurance, Personal Effect Protection, refueling and state tax) are not included in the above rates.
- Drivers must meet standard Hertz age, driver and credit requirements.
- Hertz is a frequent flyer partner with US Airways, Delta, Northwest, United and American Airlines. Frequent flyer information may be requested at time of car booking.



# Journal of ELECTRONIC MATERIALS



The *Journal of Electronic Materials* (*JEM*), a monthly archival publication of the Institute of Electrical and Electronics Engineers (IEEE) and The Minerals, Metals & Materials Society (TMS), was created to serve as the publication of the Electronic Materials Conference. Throughout the year, *JEM* publishes

selected papers presented at this conference and others in the electronic materials field and welcomes the submission of articles related to electronic materials issues.

The journal contains technical papers detailing critical new developments in the electronics field, as well as invited and contributed review papers on topics of current interest, designed to enable those in the field of electronics to keep abreast of activities in areas vital to their own technical interests.

Articles that appear in *JEM* are reviewed, selected, and edited by peers in the field who serve as voluntary members of the editorial board or the board of associate editors or as section editors. Generally, they are members of the Electronic Materials Committee of TMS or members of IEEE.

## Manuscript Submission:

General manuscripts should be sent to Theodore C. Harman, editor of the *Journal of Electronic Materials* at the following address:

Theodore C. Harman  
Lincoln Laboratory  
Massachusetts Institute of Technology  
244 Wood Street  
Lexington, MA 02420-9108  
Telephone: 781-981-4418  
Fax: 781-981-0122  
E-mail: tharman@ll.mit.edu

Detailed manuscript submission guidelines are available from the *JEM* web site at <http://www.tms.org/pubs/journals/JEM/jem.html>.

## Subscription Information

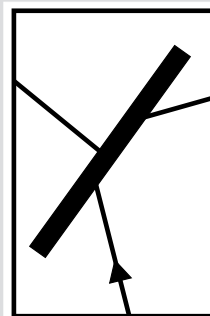
The *Journal of Electronic Materials* acts as a forum for the rapid circulation of the results of original research, enabling those in the electronic materials field to keep abreast of activities peripheral to their own. The journal focuses on electronic memory and logic structures, magnetic-optical recording media, superlattices, packaging, detectors, emitters, metallization technology, superconductors, and low thermal-budget processing and includes general papers on electronic materials for device application, structure making, reliability, and yield. Articles on methods for preparing and evaluating the chemical, physical, and electronic properties of electronic materials are also included.

*JEM* subscriptions are available in both print and electronic formats. In addition to receiving on-line access to the current issues of the journal, electronic subscribers have unlimited access to past journal issues with their subscription.

TMS and IEEE members receive significant discounts on *JEM* subscriptions.

Individual issues of the journal may also be purchased through the TMS Document Center for \$25 a copy, plus shipping, at <http://doc.tms.org> or through TMS Subscriptions Representative Mark Cirelli at the following address:

TMS Subscriptions  
184 Thorn Hill Road  
Warrendale, PA 15086  
Telephone: 1-800-759-4867  
(U.S. only) or  
724-776-9000, ext. 251  
Fax: 724-776-3770  
E-mail: [subscriptions@tms.org](mailto:subscriptions@tms.org)







**ON-CAMPUS HOUSING  
RESERVATION FORM**

**60<sup>TH</sup> ANNUAL DEVICE RESEARCH CONFERENCE**

June 24–26, 2002 / University of California, Santa Barbara, California

Attendees wishing to be housed on campus are required to complete this reservation form.

**PAYMENT IN FULL MUST ACCOMPANY THIS FORM IN ORDER TO RESERVE A ROOM.**

Please print or type:

Name: Mr. Ms. \_\_\_\_\_  
(first) (last)

Affiliation \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip/Country Code \_\_\_\_\_ Country \_\_\_\_\_

Telephone (Home) \_\_\_\_\_ (Business) \_\_\_\_\_

Fax \_\_\_\_\_ E-mail \_\_\_\_\_

 Please indicate any special needs here: \_\_\_\_\_

The residence hall accommodations reserved at the University are single and double rooms for individuals or couples. Bath facilities are shared. Rooms will be assigned on a first-request basis so early reservation is recommended.

I PLAN TO ATTEND DRC ONLY AND WISH TO MAKE THE FOLLOWING ARRANGEMENTS: (See On-Campus Housing in this brochure for more details)

PLAN A: Lodging on Sunday through Tuesday and 7 meals; Includes Parking

- PLAN A: Single Occupancy ..... \$248.00
- PLAN A: Double Occupancy..... \$200.00

PLAN B: Lodging Monday and Tuesday and 5 meals; Includes Parking

- PLAN B: Single Occupancy ..... \$176.00
- PLAN B: Double Occupancy..... \$144.00

PLAN C: Lodging Sunday through Thursday and 12 meals; Includes Parking

I PLAN TO ATTEND BOTH DRC AND EMC. I UNDERSTAND THAT I MUST REGISTER FOR THE ELECTRONIC MATERIALS CONFERENCE SEPARATELY ON THE EMC REGISTRATION FORM, BUT WISH TO MAKE MY HOUSING AND MEALS ARRANGEMENTS ON THIS FORM AS FOLLOWS: (Submit one Housing Reservation form only)

- PLAN C: Single Occupancy..... \$398.00
- PLAN C: Double Occupancy..... \$319.00

**SATURDAY NIGHT (JUNE 22) ROOM RATE:**

Lodging Saturday evening and meals

- Single Occupancy .....\$73.00
- Double Occupancy .....\$57.00

**FRIDAY NIGHT (JUNE 28) ROOM RATE:**

Lodging Friday evening and meals

- Single Occupancy.....\$70.00
- Double Occupancy .....\$55.00

**NOTE: PLEASE RETURN THIS FORM BY MAY 31, 2002 to:**

**BY MAIL:** DRC c/o UCSB Campus Conference Services  
Attn: Sally Vito, University of California, Santa Barbara, CA 93106-6120

**BY FAX:** (if paying by credit card) 805-893-7287

Name of person sharing double room: \_\_\_\_\_

Requesting shared double accommodation; please assign roommate:  
(Roommate will be assigned on a first request basis)

Single  Double

Female  Male

ARRIVAL DATE: \_\_\_\_\_

DEPARTURE DATE: \_\_\_\_\_

**COMMUTER LUNCH PACKAGE**

I plan to make off-campus housing arrangements and wish to purchase a Commuter Lunch Package for on-campus meals.

- 3 DRC Lunches \$23.25 per person \$ \_\_\_\_\_
- 5 DRC/EMC Lunches \$38.75 per person \$ \_\_\_\_\_

**CAMPUS PARKING PASS**

- DRC Monday–Wednesday \$15.00
- DRC/EMC Monday–Friday \$25.00

TOTAL U.S. Dollars Accompanying this form \$ \_\_\_\_\_

**PAYMENT METHOD:**

- Personal/Bank Check (check must be drawn on a U.S. Bank and made Payable to "U.C. Regents")
- Charge to my Credit Card
- Master Card  VISA  American Express

Credit Card # \_\_\_\_\_

Expiration Date \_\_\_\_\_

Signature \_\_\_\_\_

Cardholder Name \_\_\_\_\_

Return this form no later than May 31, 2002.

Complete and return this form together with your remittance to:

DRC c/o Campus Conference Services, Attn: Sally Vito  
University of California, Santa Barbara, CA 93106-6120 USA

Fax: If paying by Credit Card Fax to 805-893-7287

Confirmation of reservation (received by May 31, 2002) will be sent to you by the UCSB Conference Office. If you have questions regarding on-campus reservations, please call 805-893-3072; fax 805-893-7287; or e-mail svito@housing.ucsb.edu

**NOTE:  
DO NOT  
mail or  
fax to  
TMS**