REGISTRATION AND GENERAL INFORMATION

CONFERENCE PROSPECTUS
The Thirteenth North American Manufacturing Research Conference (NAMRC XIII) is designed to provide a forum for the presentation and critical discussion of results of basic and applied research in metalworking and related manufacturing and manufacturing automation. The format of the conference is similar to that of NAMRC XII at Michigan Technological University in Houghton. The papers presented at this conference will describe work in the field of metal forming, metal cutting, machine tools and manufacturing systems and controls. All papers presented at the conference are contained in the bound conference proceedings and represent work conducted in many of the renowned metalworking and manufacturing research centers throughout the world.

The conference sessions will be conducted in an atmosphere that encourages discussion. We urge you to attend and contribute actively.

CONFERENCE CENTER LOCATION
Stephen D. Oechtel Engineering Center, University of California (UC), Berkeley. Registration/Information desk is in Lobby on Level 2. Please note: A registration and reception will be held at the Hotel Durant in Berkeley on Sunday evening, May 19 from 5-8 p.m.

FEE
$220 (U.S.) advance registration fee; $245 (U.S.) all-door registration fee on May 19 and 20. Fee includes two lunches, the conference banquet, refreshments, and a bound copy of the NAMRC XIII proceedings. There will be no one-day registration fee nor any reduced fee for authors or session chairs.

Advance registration will be confirmed in writing. Retain this program as your guide to conference arrangements.

TO REGISTER
BY MAIL—Complete and return the UC form provided. You may pay by VISA, MasterCard, or check. Make check payable to the UC Regents.
BY TELEPHONE—You may register by phone if you use VISA or MasterCard; call (415) 642-4111.

CANCELLATIONS
If you register and then cannot attend the conference, a refund will be granted if requested prior to May 10. No refunds can be given after May 10. Substitutions will be accepted at any time.

LODGING
Blocks of rooms for conference participants have been reserved at the following two hotels. Attendees must make their own reservations prior to April 15 to assure accommodations. To receive the special conference rates, be sure to state that you are attending the NAMRC XIII Conference at UC Berkeley. Because these hotels are within walking distance of the campus, no special arrangements for daily transportation from hotels to the conference have been made.

Hotel Durant
2600 Durant Ave.
Berkeley, CA 94704
(415) 848-8981
Rates: $55 single/$65 double, plus tax.
Shattuck Hotel
2046 Allston Way at Shattuck Avenue
Berkeley, CA 94704
(415) 845-7300
Rates: $44 single/$50 double, plus tax

We recommend the following two hotels for conference participants who wish resort accommodations. No room blocks at these hotels have been specially reserved. City buses run frequently from the Marriott Inn to the campus; the Claremont Hotel is only convenient to campus by car.

Marriott Inn
Berkeley Marina
Berkeley, CA 94710
(415) 548-7503
Rates: $88-$114, plus tax

Claremont Resort Hotel & Tennis Club
Ashby and Domingo Avenues
Oakland, CA 94608
(415) 843-3000
Rates: $86-$105, plus tax; UC rate

AIRPORT TRANSPORTATION
San Francisco and Oakland International Airports are convenient to Berkeley. From San Francisco, the Airport Connection runs mini-van service to Berkeley. Reservations can be made through your travel agent or by calling (415) 841-0150. A one-hour taxi ride costs about $35. From Oakland, rapid transit (BART) and buses provide service to Berkeley. A 30-minute taxi ride costs about $20. Major car rental agencies are available at both airports.

CAMPUSSHUTTLE
A free shuttle bus, Humphrey Go-BART, leaves from the corner of Center and Shattuck Streets (across from the Berkeley BART station, in front of the Bank of America) and circles through the campus; stops are marked on the campus map in this brochure. Shuttles operate every 10 minutes from 7 am - 7 pm.

PARKING
Conference parking is available for 75¢ in Parking Structure A, entrance on Scenic Ave. and in Parking Structure H, entrance on Ridge Rd. Enter Student and Staff “Fee” lot section with dispenser machine (machine accepts only quarters); no other permit is required.

WEATHER/CLOTHING
Early summer weather in the Bay Area is unpredictable. Temperatures can range from 80°F (31°C) to 55°F (13°C). A warm coat is recommended for evening wear. Conferences may dress casually on campus.

WINE COUNTRY TOUR AND VISITOR’S PROGRAM
Start your visit in the Bay Area on Sunday, May 19, with an all-day trip to the famous Napa Valley wine country. This special tour, at $25 per person, includes transportation, private tastings at three wineries and a picnic lunch. You will return in time for the pre-conference reception at the Hotel Durant. Group size is limited; payments is required by May 10. Please use the registration form in this brochure.

To assist your spouse or guest in combining a vacation with your attendance at this meeting, additional information about San Francisco and local Bay Area excursions will be available at the Conference Center Information desk.
MESSAGES
Incoming messages for conference participants will be taken by Continuing Education in Engineering, (415) 642-4151, and posted on a bulletin board at the Conference Center for your viewing. Sessions will not be interrupted to relay messages personally.

PROCEEDINGS
All registered conference participants will receive one bound copy of the NAMRC XIII Proceedings at conference registration. Additional copies may be purchased at the Conference or, after June 1, by mail order through the Society of Manufacturing Engineers, One SME Drive, P.O. Box 990, Dearborn, Michigan 48121 U.S.A. The cost per copy is $55 for NAMRI/SME members and $65 for nonmembers.

FOR ADDITIONAL INFORMATION
Write or call Continuing Education in Engineering, University Extension, University of California, 2223 Fulton St., Berkeley, CA 94720; (415) 642-4151.
TECHNICAL SESSIONS AND PROGRAM
Thirteenth North American Manufacturing Research Conference and Annual Meeting • May 20-22, 1985

Sunday, May 19
5:00-8:00 pm
Registration and Reception
Lobby, Hotel Durant, 2600 Durant Ave., Berkeley

Monday, May 20
8:00-9:00 am
Registration
Lobby, Bechtel Center
(Guests and coffee served)
9:00-10:00 am
GENERAL SESSION
Sibley Auditorium, Bechtel Center
Welcoming Address:
K.S. Polvar
Dean, College of Engineering
University of California, Berkeley

Introductory Remarks:
S. Kajewski
President, NAMRI/SME
Department of Mechanical Engineering
Illinois Institute of Technology, Chicago

Opening Address:
"Research on Information Systems for Design and Manufacturing," D.A. Rogers, Professor, Department of Electrical Engineering and Computer Sciences, University of California, Berkeley
10:00-10:30 am
Coffee Break
Lobby, Bechtel Center

SESSION 1
9:30-10:30 am
A. Sibley Auditorium, Bechtel Center
Co-chairs:
S. Kobayashi, University of California, Berkeley, and
J.M. Story, Alcoa Technical Center, Pennsylvania
2. Optical Lubricant Film Thickness Measurements in Sketch Forming, L.G. Hector and W.R.D. Wilson, Northwestern University, Evanston, Illinois
3. A Friction Model Based on the Upper-bound Approach to the Ridge and Sublayer Deformations, Ant. Avruch, Lehigh University, Bethlehem, Pennsylvania, and Y.G. Zhao, Xian Aero-Engine Factory, China
B. Room 120 B, Bechtel Center
Co-chairs:
B.F. van Tuyenburg, University of Vermont, Burlington, and R.J. King, Lockheed Missiles and Space Co., Sunnyvale, California
1. Chatter, Rezonant Vibration and Accuracy in High Speed Milling, J.T.S. Smith, University of Florida, Gainesville
2. Some Design Aspects for High Speed Milling Machines, F.J. McGee, LTV Aerospace & Defense Co., Dallas, Texas
3. Force and Temperature Effects When Machining Titanium, C.J. Brown and B.K. Hinds, The Queen’s University of Belfast, Northern Ireland
C. Room 225 A, Bechtel Center
Co-chairs:
J. Mars, The Pennsylvania State University, University Park, and G. Horne, Cintec, Berkeley, California
1. Expert Systems for Manufacturing: Manufacturability and Process Planning and Analysis Tools, S. Rameshwar, University of Minnesota, Minneapolis
2. Investigation on the Engineer’s Thinking Flow in the Process Planning of Machine Tool Manufacture, M.F. Chiu and Y.R. Tao, Tokyo Institute of Technology, Japan
12:00-1:30 pm
Luncheon
The Faculty Club
4. Effect of Material Parameters on Stretch Formability in Uniaxial Tension in 2003-A Al
   Alloy, A.J. Bruggen, Washington State University, Pullman, and M. Constantine, North
   Carolina State University, Raleigh.

C. Room 205 A-B, Bechtel Center

1. Dynamometer and Machine Tool Calibration from Impact Test Response, S.M. Kendall and D. Lin, Michigan Technological University, Houghton.

2. The Static Behavior of Torsal Head with Curvico Coagulation, S. Hanen, M. Tsuchiya, and Y. No, Tokyo Institute of Technology, Japan.


3:30: 5:00 pm

Coffee Break

Lobby, Bechtel Center

3:30-5:00 pm

SE1951 A

A. Bechtel Auditorium, Bechtel Center

Co-chairmen: D.G. Thomas, University of California, Berkeley, and S.J. Ohi, Battelle Columbus Laboratories, Ohio.

1. Ceramic Education Di's and Analysis
   and Application, R. Langi and R. Nester, University of Cincinnati, Cincinnati, Ohio.


4. Metal-Shaping Techniques Applied to the Analysis of Elastodynamics, J. Dileonardo, Technical University of Denmark, Lyngby.

B. Room 100 B-C, Bechtel Center


Tuesday, May 21
8:00-8:30 am
Dinners and Coffee
Lobby, Bechtel Center
8:30-10:00 am
SESSION I

A. Sibley AudRoom, Bechtel Center
Co-Chairmen:
K. Lange, University of Stuttgart, West Germany, and N. Abele, MAHC, Palo Alto, California

B. Room 120 B-C, Bechtel Center
Co-chairmen:
W.R. Wilson, Northwestern University, Evanston, Illinois, and R.L. Young, Rockwell International Science Center, Thousand Oaks, California.
1. Computer-Aided Design and Production of Pipe Contour, J. Fisch, University of California, Berkeley, and R.Y. Fei, Beijing Polytechnic University, China.

2. Computer-Aided Design and Analysis of MFR's. J.S. Simha and S.M. Wi, University of Wisconsin, Madison,

C. Room 205 A-B, Bechtel Center
Co-Chairman:


10:00-10:30 am
Coffee Break
Lobby, Bechtel Center
10:30-12:00 pm
SESSION II

A. Sibley Auditorium, Bechtel Center
Co-Chairmen:


4. Fabrication of Tamponated Vent Section Using Slavamor Manual, by E. S. Sklai and N. A. Al-Dweiki. Institute of Aeronautic, São José dos Campos, Brazil.


C. Room 325 A-B. Bechtel Center
Co-chairman: A. Eitan, University of Wisconsin, Madison, and S.A. Donnell, University of California, Berkeley
2. Cross Coupled Compensators for Countouring Control of Multi-axis Machine Tools, P.R. Kulak and K. Srinivasan, The Ohio State University, Columbus
6:00 am HARRI Membership Meeting. The Faculty Club
Wednesday, May 22
8:00-8:30 am
Donuts and Coffee
Lobby, Bechtel Center
8:30-10:00 am SESSION I
A. Seley Auditorium, Bechtel Center
Co-chairman: A. Seley, University of California, Los Angeles, and T. Atell. Battelle Columbus Laboratories, Ohio
4. Rolling a Square Bar Between Flat, Parallel Rolls—an Upper Bound Analysi, Z. Zelman, Bethlehem Steel Corporation, Bethlehem, Pennsylvania
6:00 am NAHBRI Membership Meeting. The Faculty Club
B. Room 325 B-C. Bechtel Center
Co-chairman: K. Garth, University of Wisconsin, Madison, and J. Neveu, Rockwell International Science Center, Thousand Oaks, California
2. Process Models in Grinding Based on a Three-Dimensional Description of the Grinding Wheel Topography, K.-S. Bouzakis and G. Kasaventi, Loughborough University, The Netherlands, Greece
3. An Analysis of the Metal Cutting Process in Forms of Sheet Surface Topology, B.E. Rambeck, University of New Mexico, Albuquerque
C. Room 325 A-R. Bechtel Center
Co-chairman: C.K.Y. Dreen, University of California, Berkeley, and G. Lock, The Tonkin Co., Canton, Ohio
1. Surface Damage and Shock Waves in EDM, K.P. Raykar, University of Notre Dame, Lincoln, Nebraska
2. Development of Hard Cutting Tool Edges by Laser Processing, N.C. Rajakrishna and F.A. Stob, Iowa State University, Ames
3. Heat Flow Patterns in Superhard Tools When Cutting Superalloys, M.E. Fagge, F.E. Weisbruch, J. Kmerhaut, W.F. Shin and M. Houch, University of Cincinnati, Ohio
10:00 am CONFERENCE ENDS
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NAMRC XIII • May 20-22, 1985

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Enclosed is payment for NAMRC XIII as follows:

____ registrations in NAMRC XIII @ $220 U.S. per person

____ additional banquet tickets @ $25 U.S. per person

Enclosed is payment for Wine Country Tour:

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NAMRC XIII
May 20-22, 1985
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