NAMRC-VII

Seventh
NORTH AMERICAN
METALWORKING
RESEARCH
CONFERENCE

May 13-16, 1979

The University of Michigan • Ann Arbor, Michigan
CONFERENCE ORGANIZATION

Antonina G. and Y. P. have coordinated the organization of this conference with the support of the local committee. The conference was held in a beautiful location with state-of-the-art facilities.

PROCEDURES

The conference proceedings were compiled and published in a special issue of the journal. All papers were reviewed by experts in the field.

THEME

The theme of this conference was "Advancements in Energy and Environmental Technologies." The conference covered a wide range of topics related to energy and the environment.

TECHNOLOGIES

A special focus was given to renewable energy technologies, such as solar and wind energy, as well as energy efficiency and conservation techniques.

REGISTRATION

Registration for the conference was open to all interested parties. Special discounts were offered to students and researchers. A limited number of scholarships were available for those in financial need.
SEVENTH NORTH AMERICAN METALWORKING RESEARCH CONFERENCE
MAY 13-16, 1979 • THE UNIVERSITY OF MICHIGAN • ANN ARBOR, MICHIGAN

SUNDAY, MAY 13
7:00-9:00 pm, Registration, Marriott Inn, Main Lobby

MONDAY, MAY 14
7:00 am A-maleti, Marriott Inn
8:00 am Registration, Chrysler Center, Lobby

OPENING SESSION, 9:15 am, Chrysler Center, Auditorium
Chairman
William B. Rice, Chairman, Scientific Committee, HAMMIC-WI, Mechanical Engineering Department, University of Wisconsin, Madison, Wisconsin

Speakers:
Wardens of Wisconsin: David V. Regone, Dean, College of Engineering, The University of Michigan; Introductory Speaker: William S. Rice
Announcements: Don Smith, Chrysler, Industrial Development Division; Institute of Science and Technology, The University of Michigan

COFFEE BREAK, 10:00-10:30 am, Chrysler Center, Lower Lobby

SESSION 1, 10:30 am, Chrysler Center, Room 133
Co-Chairman
F. W. Beuliger, Battelle Columbus Laboratories, Columbus, Ohio

Speakers:
W. A. Hurlbut, Lehigh University, Bethlehem, Pennsylvania

Authors:
"Cold and Hot Deformation of Titanium-Alloys," G. Schneider, Brown-Boveri Research Centre, Essen-Deutsch, Switzerland

SESSION 2, 10:30 am, Chrysler Center, Auditorium
Co-Chairman
J. R. Manasse, Warner and Swasey Company, Elyria, Ohio

Speakers:
S. M. Pandit, Michigan Technological University, Houghton, Michigan

Authors:
"Significance of Structural Joints in Thermal Deformation of Machine Tools," M. H. Ake and L. Kapa, McGill University, Montreal, Quebec, Canada

Monday, May 14, continued
SESSION 6, 3:30 pm, Chrysler Center, Room 135
Co-Chairman
R. G. Koenig, General Motors Division, Detroit, Michigan

Speakers:
A. W. Kolb, General Motors Division, Detroit, Michigan

Authors:
"An Investigation of Orthogonal Cutting of Non-Armco Iron Enamel Steel," D. Denneh, University of California-Davis, Berkeley, California
"Noise Generation by Milling and Methods of Analysis," N. K. Tanenfeld, G. Rehier and R. Westphal, University of Hannover, Federal Republic of Germany

RECEPTION, 7:00-7:30 pm, Win Schuler’s/Marriott Inn
BANQUET, 7:00-9:00 pm, Win Schuler’s/Marriott Inn

TUESDAY, MAY 15
BREAKFAST, 7:00 am, Win Schuler’s/Marriott Inn
REGISTRATION, 8:00 am, Chrysler Center, Lobby

SESSION 7, 8:30 am, Chrysler Center, Room 133
Co-Chairman
M. Fideli, Metallurgical Research Associates, Cincinnati, Ohio
K. Z. Trigge, University of Illinois, Urbana, Illinois

Speakers:
"Wire and Rod Drawings: The Peculiarities and the Product," R. A. Kohn, University of Missouri-Rolla, Rolla, Missouri, and R. J. Chaveil, McDonnell-Douglas Corporation, St. Louis, Missouri
"Forming of Tea Joints on Metal Tubes by an Elastic Flow Technique," D. B. Marecco and H. A. Atur-Sani, Institute Tecnologico de Aeronautica-Sao Jose dos Campos, Sao Paulo, Brazil
"Load Requirement and Process Limitations for Open Die Extrusion of Rod," N. Binder and H. Lange, Untersuchungs-Institut, Stuttgart, W. Germany

SESSION 8, 8:30 am, Chrysler Center, Room 165
Co-Chairman
A. F. Welsh, General Motors Thomas Division, Detroit, Michigan

Speakers:
D. W. Barth, T.H. W. International Consultant, Inc.

Tuesday, May 15, continued
SESSION 11, 1:30 pm, Chrysler Center, Room 133
Co-Chairman
R. C. Ludington, The University of Michigan, Ann Arbor, Michigan
B. P. Deleu, Whirlpool Corporation, Benton Harbor, Michigan

Speakers:
"The Effect of Lateral Pressure on Prestressed Tendons," J. Negri, Caltal University of Calz, Santiago, Chile, A. H. Stobuk, University of California-Los Angeles, and E. G. Thomas, University of California-Berkley

SESSION 12, 1:30 pm, Chrysler Center, Room 165
Co-Chairman
R. C. Wilson, The University of Michigan, Ann Arbor, Michigan
R. J. Rees, Deere & Company, Royal Oak, Michigan

Speakers:

COFFEE BREAK, 3:30-3:50 pm, Chrysler Center, Lower Lobby

SESSION 13, 3:30 pm, Chrysler Center, Room 133
Co-Chairman
R. M. Coloduro, The University of Michigan, Ann Arbor, Michigan
A. G. Schmidt, The Pennsylvania State University, University Park, Pennsylvania

Speakers:
SESSION 3. 1:30 pm, Chrysler Center, Room 153
Co-Chairmen
H. L. Geiger, Wright Patterson Air Force Base, Dayton, Ohio, and K. L. Weinstock, Virginia Polytechnic Institute, Blacksburg, Virginia
Authors

SESSION 4. 1:30 pm, Chrysler Center, Room 165
Co-Chairmen
S. C. Jain, Wayne-Joplin Corporation, Framingham, Massachusetts, and L. Kopp, Nightingale University, Montreal, Quebec, Canada
Authors
"Measurement of the Strain Rate in the Primary Deformation Zone of the Machined Surface of a Metal," G. M. Stevenson, University of South Wales, Sydney, Australia, and R. H. Bush, Pryor Design, Napa, California.

COFFEE BREAK. 2:05-2:55 pm, Chrysler Center, Lower Lobby

SESSION 5. 3:00 pm, Chrysler Center, Room 133
Co-Chairmen
A. L. Hoffman, Bata Inc Columbus Laboratories, Columbus, Ohio, and S. Kabayashi, University of California-Berkeley, Berkeley, California
Authors

LUNCHEON. 12:00-1:30 pm, North Campus Commons

SESSION 6. 4:00 pm, Chrysler Center, Room 166
Co-Chairmen
R. C. Wao, The University of Michigan, Ann Arbor, Michigan, G. A. Wang, Cornell University, Ithaca, New York
Authors
"Ultrasonic Determination of the Nosing of the Nozzle of an Extrusion Die:" W. M. R. Wilson and L. A. Andegard, University of Massachusetts, Amherst, Massachusetts, and A. B. Norell and H. G. Quin, Chalmers Institute, Göteborg, Sweden.

SESSION 7. 10:30 am, Chrysler Center, Room 165
Co-Chairmen
R. C. Wao, The University of Michigan, Ann Arbor, Michigan, and G. A. Wang, Cornell University, Ithaca, New York
Authors
"Dynamic Effects of Carborundum Tires on Thrust Forces in Orthogonal Cutting of Steel and Copper," A. K. Lakhwani, Amritha Corporation, Sunnyvale, California, and W. B. Rice, Queen's University, Kingston, Ontario, Canada.

LUNCHEON. 12:00-1:30 pm, North Campus Commons
Enveloped in a check or money order in U.S. Funds payable to The University of Michigan in the amount of $_________ for:

- Full registration @ U.S. $180 per person (includes NAMRC-VIII Proceedings; parking permit; breakfast May 14, 15, 16; luncheon May 14, 15 and banquet May 14)
- One-day registration @ U.S. $100 per person (includes NAMRC-VIII Proceedings, parking permit, breakfast & luncheon day attending; luncheon at attending May 14)
- Day attendee @ May 14  ☐ May 15  ☐
- Spouses Program @ U.S. $35 per person Name ____________________________
- Additional copies of NAMRC-VIII Proceedings @ U.S. $30 per copy
- Please mail me parking permits for ☐ May 14  ☐ May 15  ☐ May 16

To register more than one person (except spouses), please duplicate or request additional forms.

Mail for delivery by Tuesday, May 1, 1979, to U-M Extension Service, Conferences & Institutes, 412 Maynard St., Ann Arbor, Mich. 48109, U.S.A.