North American Manufacturing Research Institution of SME announces...

ELEVENTH NORTH AMERICAN MANUFACTURING RESEARCH CONFERENCE and ANNUAL MEETING
MAY 24-26, 1983

College of Engineering
University of Wisconsin—Madison • Madison, Wisconsin, USA
REGISTRATION
rooms at $45.00. Advance registration is important to the organization of the conference, as adequate facilities and meeting space may be arranged only when the size of the group is known in advance. Please fill out the attached advance registration form and return it to us by May 9, 1983. All registrations will be acknowledged and further information will be sent including campus maps, parking permits, travel information, etc.

Final registration will be held Monday, May 23rd, 7:10 P.M. at Howard Johnson’s Downtown Motor Lodge and Tuesday, May 24th, 8:10 A.M. at Union South, corner of Randall and Johnson Streets, in the Daig-Hawkinson Room (Room 109).

FEE
The registration fee of $200.00 U.S. per person includes two lunches, the Tuesday banquet, the Thursday brunch, refreshment breaks and a bound copy of the NAMRC-XI Proceedings. There will be no one-day registration fees.

The registration fee must be paid by cash or check. The check should be payable to the University of Wisconsin. A refund will be made if notification of cancellation is received two weeks prior to the start of the conference. Substitutions will be accepted anytime.

LOCATION
The program sessions will be held at the Union South adjacent to the Engineering Campus of the University of Wisconsin—Madison, Madison, Wisconsin, USA.

Madison can be reached:
By car: Madison is 90 miles west of Milwaukee and 125 miles northwest of Chicago and is accessible from Interstates 90 and 94.
By air: The Dane County Regional (Madison) Wi airport is served by Republic, Northwest, Ozarkz, Frontier, and Missis- sippi Valley Airlines. Airport vans and shuttles serve the University of Wisconsin—Madison campus and nearby hotels and motels including those at which rooms have been booked.

VISIT TO LABORATORIES
The manufacturing laboratories of the College of Engi- neering are open for visits at times which will be posted in the conference lobby and shown in this brochure.

LOGGING
Bookings for rooms for the conference have been reserved at the following:
1. Howard Johnson’s Downtown Motor Lodge
525 West Johnson Street
Madison, WI 53703
(608) 251-5051

GENERAL AND REGISTRATION INFORMATION

Special U.W.—Median rates of $35 + 12% tax for single rooms or $45 + 12% tax for double rooms. Block reservations will be held until May 2, 1983.

2. The Madison Inn
601 Langdon Street
Madison, WI 53703
(608) 255-1030

Requests rates when writing or calling rates vary from $35 to $49 + 12% tax for singles and from $49 to $52 + 12% tax for doubles. Block reservations will be held until May 2, 1983.

BE SURE TO STATE THAT YOU ARE ATTENDING THE NAMRC-XI CONFERENCE AT THE UNIVERSITY OF WISCONSIN WHEN MAKING YOUR RESERVATION

SHUTTLE BUS SERVICE
Transportation will be arranged to bring participants to the Union South if desired. Union South is 7 miles from Howard Johnson’s and 6 miles from the Madison Inn. Pick-up points will be at all the hotels for going and on the north side Johnson’s for South for returning.

8:15 a.m. Tuesday, May 24
9:00 a.m. Tuesday, May 24 after the dinner
8:00 a.m. Wednesday, May 25
4:30 p.m. Wednesday, May 25
8:30 a.m. Thursday, May 26
11:30 a.m. Thursday, May 26

PARKING
For those who drive to campus, free parking is available in lot 17 on the Engineering Campus. A special parking permit will be mailed upon receipt of the conference registration form if arrived before the conference.

SPOUSES PROGRAM
A spouses program is being planned which includes interesting and enjoyable activities. Plan to start your NAMRC-XI activities by joining in the reception (cocktails and hors d’oeuvres) at Howard Johnson’s from 7-10 p.m. on Monday evening.

Tuesday, May 24, will begin with coffee and rots at Howard Johnson’s at 8:30 a.m. at 9:30 the group will leave for a driving tour of Frank Lloyd Wright homes in Madison and a guided tour of the Weiss home. A box lunch and slide lecture is planned at the H.L. Wright designed Unitarian Church. At 2:00 p.m. there will be the option walk through the University of Wisconsin Arboretum. Plan to join your spouses for cocktails at 5:15 and dinner at 7:00 p.m.

Up early on Wednesday, May 25, for an 8:00 a.m. departure by bus (coffee and rolls underway) to Milwaukee for a tour of the famous Pabst Mansion and Warn, a fishbeach luncheon and an option of main shopping or the art museum. Leaving Milwaukee at 3:00 p.m. to join your spouse and friends for an intimate dining experience at your own expense at any one of Madison’s many fine restaurants.

Join the conference participants for brunch on Thursday morning at 8:00 a.m. at Union South. The conference ends at 11:30 a.m. The change will be determined when we know the number of spouses interested. Please indicate your interest on the registration form.

PROCEEDINGS
All participants in the conference paying the registration fee will receive one bound copy of the NAMRC-XI Proceedings. Those who wish additional copies may order them in advance at the Conference. After May 26, 1983, copies will be available by mail order through the Society of Manufacturing Engineers, One SME Drive, P.O. Box 850, Dearborn, Michigan 48121, U.S.A. at $55.00 for NAMRF-SME and SME members and $50.00 for nonmembers.

CONFERENCE ORGANIZATION
The North American Manufacturing Research Confer- ences were created by a group of researchers dedicated to further knowledge, and its dissemination and application in the field of materials processing. Presently the Conference is part of the activities of the North American Manufacturing Research Institution of SME.

The papers presented at this Conference have been selected by the Scientific Committee of NAMRF-SME from a large number of submitted abstracts. Conference arrange- ments are the responsibility of the NAMRC-XI Organizing Committee, University of Wisconsin—Midwest.

CONFERENCE PROSPECTUS
The Eleventh North American Manufacturing Research Conference (NAMRC-XI) is designed to provide a forum for the presentation and informed critical discussion of results of research and applied research in metalworking and related manufacturing. The format of the Conference is similar to that of NAMREC-I (McMaster University, 1973), NAMREC-II (University of Wisconsin—Madison, 1974), NAMREC-III (Car- negie-Mellon University, 1975), NAMREC-IV (Belle Isle Colom- bus Laboratories and Ohio State University, 1976), NAMREC- V (University of Massachusetts, 1977), NAMREC-VI (University of Florida, 1978), NAMREC-VII (University of Michigan, 1979), NAMREC-VIII (University of Missouri, 1980), NAMREC-IX (The Pennsylvania State University, 1981) and NAMREC-X (McMaster University, 1982).

The papers presented at this conference will be considered for publication in the fields 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 representative work conducted in many of the renowned metalworking research centers throughout the world.
ELEVENTH NORTH AMERICAN MANUFACTURING RESEARCH CONFERENCE
MAY 23-26, 1983

TECHNICAL SESSIONS AND PROGRAM

MONDAY, MAY 23
10:00-10:06 a.m.
REGISTRATION AND RECEPTION
University "A." Howard Johnson's Downtown Motor Lodge

TUESDAY, MAY 24
8:00-10:30 a.m.
REGISTRATION
Dag Hammarskjold Room (Room 106), Union South Building
9:00-9:00 a.m.
Welcoming Address: Prof. J. D. Bollinger, Dean, College of Engineering and President, NAMRI/SME
Opening Address: Dr. M. E. Merchant, Principal Scientist, Manufacturing Research, Cincinnati Milacron Inc., Cincinnati, Ohio
10:00-10:30 a.m.
REFRESHMENT BREAK
10:30-11 a.m.
SESSION 1
1. Co-Chairman: T. Allan, Battelle Columbus Labs and S. Kilpakjian, Illinois Institute of Technology
   a. "What Stress-Strain Curve Sh Li?" E. G. Thomas, University of California, Berkeley

B. Co-Chairmen: M. E. Merchant, Cincinnati Milacron and J. D. Walton, BHP Melbourne Research Laboratories
   a. "Fatigue on the Shear Plane in Continuous Cutting," W. S. Sampath and M. C. Shaw, Arizona State University
   b. "Experimental Verification of a Catastrophic Theory Chip Formation Model," B. E. Klemeski, University of New Mexico
   c. "A Slip-Line Solution for Two-Dimensional Steady State Machining with a Steep Regain at the Tip of the Tool," M. Abebe and P. C. Appi, Kansas State University

C. Co-Chairman: L. E. Jenneke, Landis Tool and J. G. Bollinger, University of Wisconsin-Madison
   c. "Use of Special Milling Cutters Against Chatter," T. Thurt, I. Ismail and W. Zaton, McMaster University, Hamilton, Ontario, Canada

12:00-1:30 p.m.
LUNCHEON
Union South
1:30-2 p.m.
SESSION 2
1. Co-Chairmen: P. F. Boulger, Battelle Columbus Laboratories, T. Allan, Battelle Columbus Laboratories
   a. "Flattening of Workpiece Surface Asperities in Metal-forming," S. Shau, and W. R. D. Wilson, Northwestern University
   b. "Determination of Stress Distribution in Metal Forming Processes Using Indentation Methods," G. J. Chen and P. F. Boulger, State University of New York at Stony Brook
   c. "Influence of End Condition on Instability of Free Flap-up of Turbines," G. S. B. Sonneman, Astralia Labs. and H. A. Al-Qowai, Instituto Tecnologico de Aerodinamica, Sao Jose dos Campos, Brazil

   c. "The Significance of the Sawdust-Phase During Pump Qnd Operations," C. H. Shen, General Motors Technical Center

3. Co-Chairmen: J. W. Minke, Barber Colman Company and Dennis Bray, Ingersoll Milling Machine Company

2:30-3:00 p.m.
REFRESHMENT BREAK
3:00-6:00 p.m.
SESSION 3
   a. "A Note on Evaluation of Interfacial Friction in Ring Tests," S.
WEDNESDAY, MAY 25

6:30 a.m.
SESSION I

A. Co-Chairmen: K. J. Vracka, Michigan Technological University and R. J. Fromm, University of Wisconsin-Madison


B. Co-Chairmen: John E. Mays, Jr., Kennametal Inc. and R. A. Joseph, Republic Steel Corporation.


10:00-10:30 a.m.
REFRESHMENT BREAK