Final Program
Workshop on Applied Computing '89
Stillwater, Oklahoma, U.S.A.
March 30 & 31, 1989

WAC '89 is the third workshop in a continuing series of workshops on Applied Computing. The purpose of the workshop is to bring together computer scientists from academia and industry. It also serves as a forum for graduate students to present their research. WAC '89 is supported in part by the NSF and MASUA. In cooperation with ACM and IEEE Computer Society.

WAC '89 STEERING COMMITTEE

H. Berghel
The University of Arkansas

G. Hedrick
Oklahoma State University

R. Hetherington
University of Missouri

S. Lakshimivaraman
University of Oklahoma

J. Talburt
U. of Arkansas at Little Rock

G. Thompson
Amoco TRC

E. Unger
Kansas State University

R. Wainwright
University of Tulsa

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WAC '89 PROGRAM CHAIR
K. George, Oklahoma State University
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WAC '89 Final Program

Day 1

Thursday, March 30, 1989

8:30-9:30 Registration

9:30-10:40 Opening Session: Keynote Speaker Professor Joseph E. Urban, 1st Vice President, IEEE Computer Society and Associate Dean for Research, College of Engineering, University of Miami

10:50-12:30 Parallel Session I A: Software Engineering: Session Chair: Mansur Samadzadeh
2. A New Software Reliability Model for Estimating Failure Rate Due to Residual Software Defects: Frederick T. Sheldon and Krishna Kavi: The University of Texas at Arlington
4. Translating from Formal Specifications to High Level Languages Using PROLOG: Richard Rankin: University of Arkansas

10:50-12:30 Parallel Session I B: Languages: Session Chair: John Talburt
6. A Directed Graph for Intermediate Code Representation: Jonathan M. Asuru and George E. Hedrick: Oklahoma State University
8. An Implementation of a Procedural Language for Representing Turing Machines: Charles Bradley Staten: AT&T Bell Laboratories

Short papers are denoted by *
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>12:30-1:45</td>
<td>Lunch (on your own)</td>
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<tr>
<td>2:00-3:15</td>
<td><strong>Parallel Session II A: Expert Systems I: Session Chair: Hal Berghel</strong></td>
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<td>2:00-3:15</td>
<td><strong>Parallel Session II B: Numerical Computation: John Chandler</strong></td>
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<td>3:30-5:10</td>
<td><strong>Parallel Session III A: Data Base and Data Structures: Session Chair: Glen Thompson</strong></td>
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<td>15. Object-Oriented Databases: An Overview and a Proposal: Mary Lou A. Hines; University of Missouri-Kansas City; Elizabeth A. Unger; Kansas State University • 16. Implementation and Evaluation of Grid and BANG (Balance and Nested Grid) File Structures: Tiong-Hu Lian, Don Fisher, and Huizhu Lu; Oklahoma State University • 17. Managing Concurrent Transactions on Extendible Hashing: Vijay Kumar and Ling Ling Polican; University of Missouri-Kansas City • 18. Deletions on Persistent B-Trees: M.Kazerouni-Zand; Langston University; D.D. Fisher; Oklahoma State University</td>
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<tr>
<td>3:30-5:10</td>
<td><strong>Parallel Session III B: Networks I: Session Chair: Roger Wainwright</strong></td>
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<td>6:00-7:00</td>
<td>Reception (Sunmark Hotel)</td>
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<td>8:30-9:30</td>
<td>Informal Student Session: MASUA Birds of a Feather Session</td>
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Day 2

Friday, March 31, 1989

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>8:30-9:00</td>
<td>Registration</td>
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<tr>
<td>9:00-10:15</td>
<td>Special Session: Learning in Neural Networks: Session Chair: G.E. Hedrick</td>
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<td></td>
<td>Speaker: S. Lakshmivarahan, University of Oklahoma</td>
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<td>Time</td>
<td>Session</td>
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<tr>
<td>12:10-1:40</td>
<td>Lunch in the Sunmark Ballroom</td>
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</table>

Short papers are denoted by *
WAC '89 Registration Form

Name ___________________________ Institution ___________________________
Social Security Number ___________________________
Address ___________________________
City ___________________ State _______ Zip _______
Daytime Phone ___________________________

I will be making reservations with the Sunmark Hotel in Stillwater (conference site) ______ yes ______ no

Please Note: Payment of Registration Fee must accompany your registration form.

Check:

Non-Member........$85.00
Member ACM or IEEE.............$75.00
Student..............$25.00* (Copy of Student I.D. must accompany registration)

Late Registration (after February 28, 1989)

Non-Member...............$100.00
Member ACM or IEEE ..........$90.00
Student ...............$25.00

Check for $ ___ enclosed.
Charge $ ___ credit card ___ Visa ___ Mastercard ___
No. ______ Expiration Date ______
Please bill organization for $ ___ Institution P.O. #

Please Return Registration Forms to: Arts and Sciences Extension, 205 Life Sciences East, Stillwater, OK 74078 (405)744-5647

Location
The Workshop on Applied Computing '89 will be held in the Sunmark Hotel on State Highway 51 just west of Stillwater.
By Air: Stillwater is located approximately 60 miles west of the Tulsa International Airport, and approximately 70 miles northeast of the Will Rogers Airport in Oklahoma City. Discounts can be received from Delta flights by calling 1-800-221-1212, asking for Special Meetings Network, and referring to file reference number 118004. Emergency transportation is available only from the Tulsa International Airport.
By Car: Stillwater is located on U.S. highway 177 (north-south) and state highway 51 (east-west) and can be reached by car from the west through Oklahoma City via Interstates 40 and 35, from the south through Oklahoma City via Interstate 35, from the north via Interstate 35 and from the east through Tulsa on the Cimarron Turnpike. State Highway 51 connects Interstate 35 with Stillwater.

Hotel Accommodations
Reservations may be made at the Sunmark Hotel by calling (405)624-9490. Special room rates are available to workshop participants, so be sure to mention you are attending the Workshop on Applied Computing '89 when making your reservations.

WAC '89 Conference Registration
Advanced registration can be completed by mailing the registration form and payment fee before February 28, 1989. Reduced rate registration must be postmarked by February 28, 1989. Full registration payment must accompany the registration form. Otherwise it will be returned. Payment can be made by check, Mastercard, Visa or institutional purchase order. We will also be happy to bill you or your organization. Payments from foreign banks must be made in U.S. dollars. Please make all checks payable to: Arts and Sciences Extension, Oklahoma State University. All refund requests must be received in writing by the Arts and Sciences Extension office by March 1, 1989. Please send a copy of the registration form with refund request. Requests can be sent to: Arts and Sciences Extension, 205 Life Sciences East, Stillwater, OK 74078-0276.