1975 INTERNATIONAL SYMPOSIUM ON COMPUTER HARDWARE DESCRIPTION LANGUAGES AND THEIR APPLICATIONS

September 3-5, 1975
Graduate Center
City University of New York
33 West 42nd Street
New York City

S. Y. H. Su
Symposium Chairman

D. L. Dietmeyer
Program Chairman

Co-sponsored by CUNY, the IEEE Computer Society Technical Committee on Computer Architecture, ACM SIGDA, and ACM SIGARCH, in cooperation with Utah State University, this symposium will bring together experts in CHDL (computer hardware description languages) and people who are interested in using CHDL for describing, documenting, simulating, and synthesizing digital systems with the aid of a computer. The program contains tutorial and research papers with each paper reviewed by at least two referees. There are also two sessions for presenting the most recent results and new concepts which are not fully developed.

**Tuesday, September 2**
7:00-9:00 p.m. Registration and Get-Acquainted Hour

Wednesday, September 3
8:20-8:30 a.m. Introduction: S. Y. H. Su, Chairman
Welcome: R. E. Marshak, President of CCNY
Keynote Address: K. E. Iverson, IBM Fellow

**Session I:** STRUCTURED DIGITAL SYSTEMS (tutorial)
Chairman: R. E. Miller, IBM Watson Research Center, IEEE Fellow
10:10-10:50 “A Directed Graph Model for Hardware/Software Design,” F. T. Brashaw, Case Western Reserve University
10:50-11:30 a.m. “Comparison of Graph Models for Parallel Computation and their Extension,” S. Y. Fou and G. Musgrave, Brunel University, England

**Session II:** DESIGN LANGUAGE (tutorial)
Chairman: H. Ofek, IBM Watson Research Center
1:00-1:30 p.m. “Updated AHPL (A Hardware Programming Language),” F. J. Hill, U. of Arizona

**Session III:** RECENT RESULTS
Chairman: J. G. Linders, U. of Waterloo, Canada
1:30-2:30

**Session IV:** WHERE DO WE GO FROM HERE? (Panel)
Chairman: Y. Chu, U. of Maryland
Planning Session for Future Symposium (Submit proposals to Dr. S. Su, indicating financial support, if any. Proposals should be received by September 1.)
Social Hour and Informal Discussions

**Thursday, September 4**

**Session V:** NEW COMPUTER HARDWARE DESCRIPTION LANGUAGES
Chairman: S. Y. H. Su, Utah State University
8:00-8:30 a.m.
8:30-9:00
9:00-9:30

Chairman: E. W. Vogel, Generaldirektion PTT, Bern, Switzerland
“Digitest II: An Integrated Structural and Behavioral Language,” F. J. Rammig, Universität Dortmund, Germany
“APL*DS: A Hardware Description Language for Design and Simulation,” W. R. Franta and W. K. Gilot, University of Minnesota
Session VI:
CHDLs IN DESIGN AUTOMATION SYSTEMS
Chairman: J. P. Hayes, USC
10:00-10:30 "The Model/Linda Design Automation System," I. Lewis and A. M. Peskin, Brookhaven National Laboratory
10:30-11:00 "A Hardware Compiler for Interactive Realization of Logical Systems Described in Cassandre," Y. Bressy, B. David, Y. Fantino, J. Mermet, Universite Scientifique et Medicale de Grenoble
11:00-11:30 "Applications of an ISP Compiler in a Design Automation Laboratory," M. R. Barbacci and D. Siewiorek, Carnegie-Mellon University
1:00-1:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
2:00-2:30 "Fault Test Generation Using a Design Language," B. M. Huey and F. J. Hill, University of Arizona

Session VII:
NEW APPLICATIONS OF CHDLs
Chairman: J. L. Houle, University of Montreal
1:00-1:30 p.m. "The Use of Two CHDL Systems, PMS and DIDL, in the Design of a Fourier Transform Processor," A. M. Despain, Utah State University
2:00-2:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
3:00-3:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
3:30-4:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
4:00-4:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
4:30-5:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
5:00-5:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
5:30-6:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
6:00-6:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
7:00-7:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
8:00-8:30 "A CDL Compiler for Designing and Simulating Digital Systems at the Register Level," J. Bara and R. Born, Michigan Technological University
8:30-9:00 "A Position Paper on Extensions to the Computer Design Language," L. R. Stine and F. J. Mowle, Purdue University
9:00-9:30 "Segmentation Constructs for RTS III, a Computer Hardware Description Language Based on CDL," R. Piloto, Technische Hochschule Darmstadt

Session VIII:
USING CHDL AS AN INPUT TO DESIGN AUTOMATION SYSTEMS (panel)
Chairman: J. F. Lund, Honeywell, Phoenix, Arizona
Panelists: M. Barbacci, M. D. Breuer, N. Garaffa, R. L. Hasterlik, D. P. Siewiorek
3:00-3:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
3:30-4:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
4:00-4:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
4:30-5:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
5:00-5:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
5:30-6:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
6:00-6:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
7:00-10:00 10-course Chinese Banquet. Speaker: H. Fleisher, IBM Fellow and IEEE Fellow, "Science and Technology in the Academic and Industrial Worlds."

Session IX:
EXTENSIONS OF CDL
Chairman: R. W. Hartenstein, University of Karlsruhe
Friday, September 5
10:00-10:30 "CHDLs as a Language for Specifying Hardware," R. W. Hartenstein, University of Karlsruhe
10:30-11:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
11:00-11:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
1:00-1:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
1:30-2:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
2:00-2:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
3:00-3:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
3:30-4:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
4:00-4:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
4:30-5:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
5:00-5:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
5:30-6:00 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
6:00-6:30 "A2 \( \) Symbolism in Design Automation," J. A. Harris, Stanford University
7:00-10:00 10-course Chinese Banquet. Speaker: H. Fleisher, IBM Fellow and IEEE Fellow, "Science and Technology in the Academic and Industrial Worlds."

---

HOTEL RESERVATION FORM

NAME ____________________________________________
ADDRESS ________________________________________

☐ $20 single room
☐ $24 double room

Rates do not include local taxes. If a double room is chosen, both names must be given.

Session X:
CHDL DRIVEN SIMULATION
Chairman: D. L. Dietmeyer, University of Wisconsin
10:00-10:30 "Simulation of Switching Circuits by SSM—a New Hardware Simulation Language," W. Goerke and H. J. Hoffmann, Universitat Karlsruhe
10:30-11:00 "The Hilal Logic Simulation Language," P. L. Flake, G. Musgrave and M. Shorland, Brunel University
11:00-11:30 "LASCAR: A Language for Simulation of Computer Architecture," D. Borrione, ENSIMAG, Grenoble Cedex

Session XI:
STRUCTURE DESCRIPTION
Chairman: B. J. Smith, University of Colorado
1:00-1:30 "Computer Structure Language (CSL)," J. A. Harris and D. R. Smith, SUNY, Stony Brook
2:00-2:30 "OSM-Microprogrammed Hardware Structure Description Language," R. W. Marczyński, W. T. Pulczyn, J. M. Sockacki, Polish Academy of Sciences, Warsaw

Session XII:
SHORT PAPERS
Chairman: G. J. Lipowsk, University of Florida
3:00-6:00 "*S. Su will be in Taiwan during July 10-August 31. Information about the Symposium can be obtained from A. A. Sarris, 351 W. 53rd St., New York, NY 10019. Telephone: (212) 743-2404 or 245-6359.

---

CHDL SYMPOSIUM REGISTRATION FORM

NAME (first) (last)
ADDRESS ________________________________________

☐ Member of ACM
☐ Member of IEEE or IEEE Computer Society

Number of people attending Spouses' Program ________.

Advanced Registration (Register before August 15th and save $15).

Rates do not include local taxes. If a double room is chosen, both names must be given.

Please make reservations two weeks prior to arrival. Rooms cannot be guaranteed at the above rate if reservation is not received by August 20th. Reservations will be held only until 6:00 P.M. unless later hour is specified. Send reservation form to:

Commodore Hotel
Park Ave. at 42nd St.
New York, NY 10017
Attention: Gene Beaver

Members (ACM or IEEE): $55.00* = $________
Non-members: $65.00* = $________
Students: $10.00** = $________
No. of Additional Banquet tickets ____ @ $15 each = $________
Total $________

*Includes symposium proceedings, 10-course Chinese banquet, coffee.
**Includes proceedings and coffee.

Make check payable to: "1975 International Symposium on CHDL" and mail to: A. A. Sarris
Symposium Treasurer
351 West 53rd St.
New York, NY 10019

---