



CHANNEL

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MIS Firm Night — Best Ever



Executives from 47 firms joined 140 GSM students to make the ASB-sponsored Management Information Systems/Technology Career Night, held on November 12, 1984, an outstanding success. The interests of these executives, spanning the fields of computer manufacturing, energy resources, banking, aerospace, entertainment, communications, software, banking, and "Big Eight" accounting, is a testament to the growing interest in MIS.

Following two open roundtable discussions, the distinguished speaker for the evening, **Dr. Ivan Selin**, CEO and founder of American Management Systems, spoke on "Software Trends and Career Implications" and the explosion of career opportunities in MIS. Using Citicorp as an example, Dr. Selin discussed the bank's choice of an MIS executive for CEO — an indication of how MIS has become more than just a technical specialty, but an excellent route to the executive suite. According to Dr. Selin, the number of jobs available in MIS doubled between 1972 and 1982 and is expected to double again by 1990. This rapid growth provides numerous opportunities at all career levels, and the prospects for joining a startup company in data processing are especially bright. One-sixth of GSM's 1984 graduating class entered the

electronic data processing (EDP) industry and another twelfth joined management consulting firms, many of which are rapidly expanding into EDP consulting.

Dr. Selin cautioned, however, not to equate "training with career" in the changing environment of MIS. The M.B.A. is not, he stressed, a "gilded document." The technical expertise necessary for a career in MIS can often be mastered on-the-job, even by those who do not have strong technical backgrounds. In order to keep abreast of this constantly changing field, Dr. Selin advised MIS aspirants to join organizations in which they can have regular contact with those already working in the area. The EDP industry, fraught with both risk and opportunity, is an excellent field for those with entrepreneurial inclinations. For example, data processing has emerged as one of the highest growth fields in management consulting.

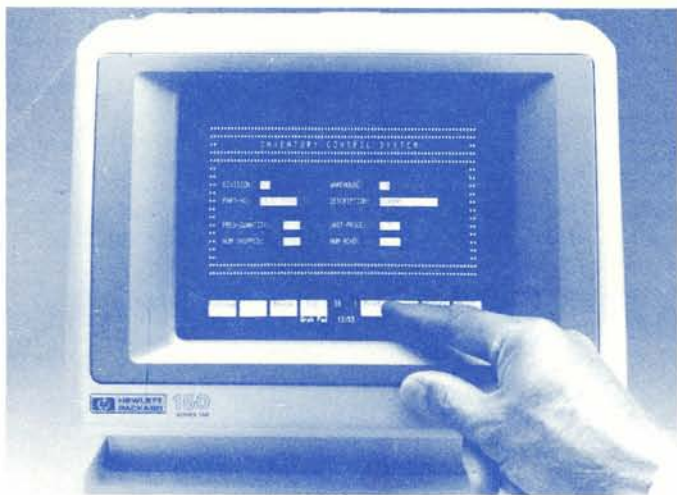
After the Firm Night, the C. & I. S. Associates were joined by selected students for their annual meeting and dinner at the Sunset Canyon Recreation Center. High praise must fall on **Ida Harding**, Firm Night Chairperson, and the MIS Club Committee for the excellent coordination of this event.

Hewlett Packard Donates Equipment

Following up on their earlier gift of an HP 3000 minicomputer and 15 HP 2622A terminals, the Hewlett Packard Company recently announced a significant expansion of their gift to the Graduate School of Management.

The present HP 3000 Series 44 computer is to be upgraded to a Series 68 and the main memory expanded to 5 million bytes. The auxiliary storage is similarly to be expanded from 360 million to 1.2 billion bytes of on-line storage. Also included are additional dot matrix printers, a laser printer, and graphics plotters. Accompanying this hardware are a number of software packages including word processing, spreadsheet analysis, business graphics, and data base management.

In the area of microcomputers, Hewlett Packard is donating 55 HP 150 minicomputers, complete with software, that can function either as standalone processors or as full screen terminals to the HP 3000. These micros are to be made available to faculty, to support their teaching and research, and to students, in a specifically prepared microcomputer lab. The total value of this gift is approximately \$750,000 and it should do much to enhance the computing capability of GSM.



Touch Control on the new HP 150

PC Users Group Thriving

The UCLA PC Users Group, established in March 1983 for the UCLA Community, currently numbers 100 members and meets monthly at the Graduate School of Management. The purpose of the group is to share knowledge and information regarding the uses of the IBM PC and other IBM PC compatible microcomputers. The group also publishes a regular monthly newsletter and maintains an extensive public domain software (PDS) library which is made available to all members free of charge.

The group has sponsored several guest speakers during the year. During Fall term, the group sponsored a discussion led by **Peter Norton**, author and President of Peter Norton, Inc., on "The IBM PC and its Disk Operating System (DOS)." During January, **Robert Beyers**, Manager of Technology Development for the Space Flight Operations Center at the Jet Propulsion Laboratory, presented "Data Base for Microcomputers Using dBase

II." In February, **Chris Linnerooth**, Manager from Software Central, spoke on "Introduction to Lotus 1-2-3." In March, **Paul Hoffman**, Principal Programmer for the UCLA Office of Academic Computing, presented "ANSITERM: Using the IBM PC as a Full Screen Terminal to IBM 3033" and also "File Transfer Programs for PCs and Mainframes."

MIS Club Formed

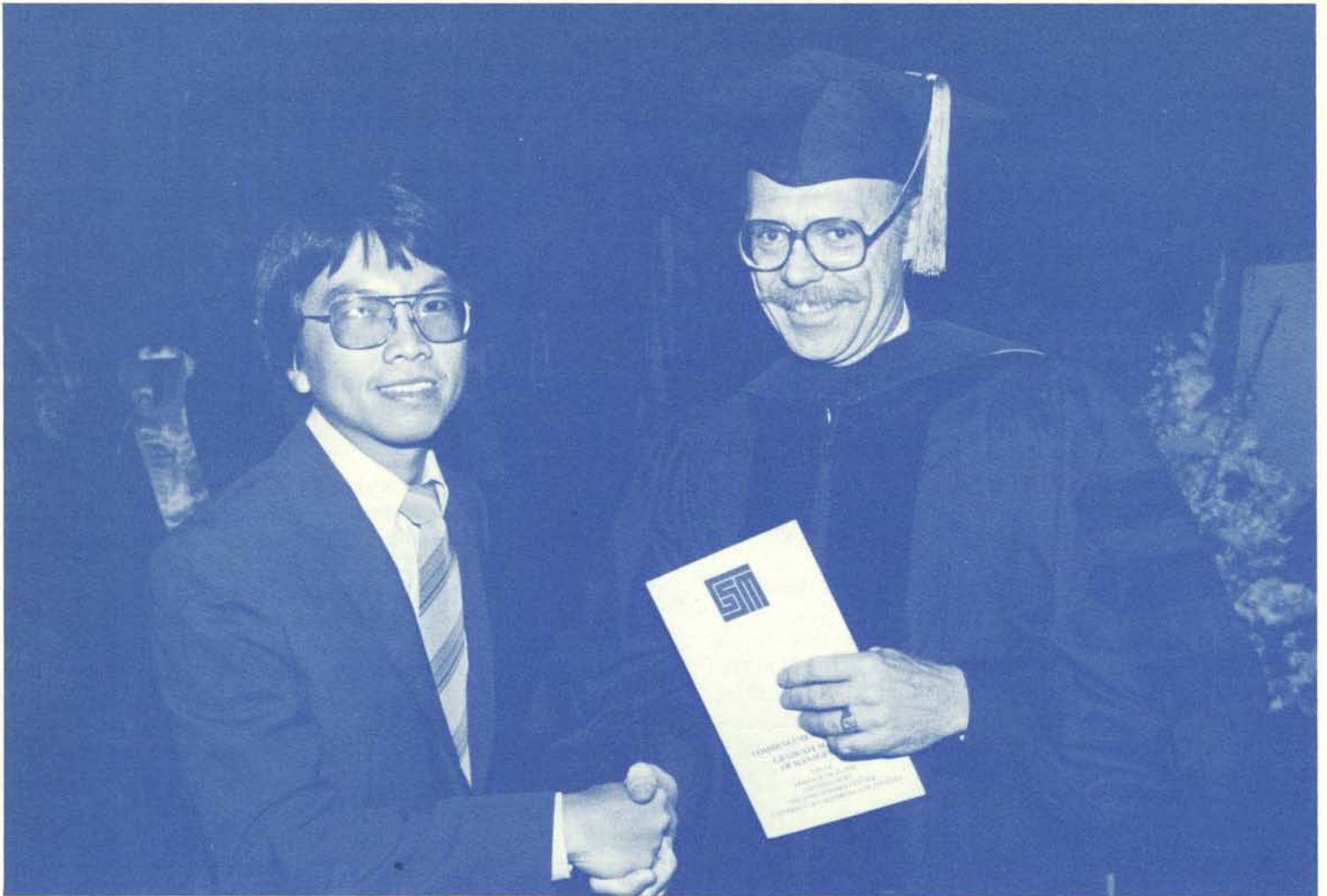
During 1984 Winter term, two M.B.A. students, **Jane Cordingley** and **Ida B. Harding** fulfilled a long-felt need at GSM by founding an MIS Club. The function of the club is to bring together all the students interested in MIS in order to share information and ideas. The club will also sponsor forums, noon presentations, and firm tours. **Professor Clay Sprowls** is the faculty advisory for the club.

The first activity sponsored by the club was an MIS Careers Forum on April 11. This event consisted of a panel of MIS professionals discussing different aspects of MIS careers. The panel included **Mark Barmann**, President and CEO of First Interstate Services Company; **Donald Jue**, a Systems Engineer at IBM; **Bradford Power**, a Senior Associate at Index Systems, Inc.; and **Alan Brittner**, from Corporate Computer Systems at ARCO. Their session attracted approximately forty students and faculty, an indication of the interest in such special MIS events at GSM. Messrs. Jue and Power are both recent M.B.A. graduates from UCLA and all four of the firms represented are members of the C. & I.S. Associates.

Individuals who are interested in speaking at a meeting of the MIS Club events are encouraged to contact **Ida Harding**, C. & I.S. Research Program, or call her at (213) 207-3981.

Frاند Receives IBM Grant

Three years ago, **Dr. Jason L. Frاند** wrote and circulated a C. & I.S. Working Paper on "Software Trends and Issues in Business School Computing," based on a small survey of business schools. In recognition of this work, the IBM Corporation in January of 1984 awarded him a grant to update this survey by surveying 35 selected business schools throughout North America. The purpose of this new survey was to determine in greater detail the scope of computing within a number of leading schools' business programs. Dr. Frاند's final report was completed in June and copies were mailed to a number of schools. Additional copies can be obtained by writing to the C. & I.S. Research Program, Graduate School of Management, University of California, Los Angeles, California, 90024, and asking for the "UCLA Computing Survey of North American Business Schools."



Professor Ephraim McLean congratulates Tom Siew Lim on winning the C. & I.S. Associates Award for 1984.

C. & I.S. Associates Award Presented

The C. & I.S. Associates Award for 1984 was won by **Theam Siew Lim**. This award is presented annually at the graduation ceremony to the student graduating from the M.B.A. program with the highest academic achievement in the C. & I.S. area. The name of each year's winner is engraved on a plaque which remains in the Graduate School of Management, and a check for \$250 given to the individual. This year's presentation was made by **Patrick McNally**, Chairman of the C. & I.S. Associates.

Born in Malaysia, Mr. Lim graduated from the University of New Castle in Australia, with a B.E. in Industrial Engineering and a B.A. in Economics. In the four intervening years before he came to GSM, he worked as a management consultant for the Department of Government in Singapore. While there, he undertook an intensive effort to integrate computers in both industry and government. This resulted in a United Nations Fellowship being awarded to Lim to obtain his masters in MIS. Lim chose UCLA for his fellowship based on the reputation and technological capabilities of the school. After graduation, he will be returning to Singapore in the Management Services Department to fulfill his government responsibilities for the next few years.

C. & I.S. Awarded IBM Planning Grant

UCLA has been awarded a \$12,000 grant by IBM to expand its preliminary proposal to the **Support for Education in the Management of Information Systems** program which IBM announced last Spring. Twelve business schools across the country will receive grants of \$2 million — \$1 million worth of IBM equipment, and \$1 million in faculty, student, and staff support — to develop innovative proposals in the management of information systems. Co-Principal Investigators **Prof. Ephraim McLean**, **GSM Chairman Michael Granfield**, and **Dr. Jason Frand** are currently preparing the final draft of GSM's proposal, due to IBM on January 15, 1985. IBM has indicated that they will announce their selection by the end of April.

Winter and Spring Colloquia

Nine colloquium presentations were held during Winter and Spring quarters 1984. The first colloquium, held on January 12, featured **Barry W. Boehm** of TRW speaking on "Improving Software Productivity." According to Dr. Boehm, an effective productivity program involves much more than adopting structured programming techniques. Software cost estimation models, Dr. Boehm posited, provide powerful insights into software productivity improvement and can increase productivity by a factor of two in four years, and by a factor of four in eight years.

The second colloquium, on February 9, was presented by **Walt Scacchi**, from the Computer Science Department at the University of Southern California. Dr. Scacchi's presentation, "Managing Software Engineering Projects: A Social Analysis," emphasized that managing software engineering projects is as much a job of social interaction as it is one of technical direction; social analysis of software engineering practices is a cornerstone in understanding what it takes to manage software projects productively.

On March 1, **M. Lynne Markus**, of Arthur D. Little, Inc., presented "The Bugs and Features of System Building: The Role of the Computing World." Her talk explored the role which the computing world — that is, the relationships between suppliers and users of computing equipment and services — plays in the effectiveness of systems. Her thesis was that though this group exerts a strong influence on the design features of the systems implemented in organizations they receive little attention from MIS researchers.

On March 8, **E. Sue Weber**, a doctoral student from the University of Texas at Austin presented "User and Analyst Mental Models as Predictors of Success in the Implementation of MIS." This presentation was an overview of a field study which explores the mental models of analysts and users to determine 1) whether the congruence of the analyst's and user's mental models of the information system are related to successful implementation and 2) whether the particular process model of the analyst affects the relationship of model congruence and successful implementation.

On March 15, the fifth colloquium was presented by **William C. Sasso**, a doctoral student from the Graduate School of Business Administration at the University of Michigan. Mr. Sasso spoke on "A Comparison of Frameworks for Office Analysis," outlining a plan for a research project which will compare the utility of two different frameworks for office analysis: one which focuses on the function performed and one which considers functions within a particular organizational unit.

The first colloquium of the Spring quarter was presented by **David K. Goldstein**, a doctoral student at the Sloan School of Management, Massachusetts Institute of Technology. This presentation, entitled "An Examination of Work-Related Correlates of Job Satisfaction in Programmer/Analysts" presented the results of a questionnaire administered to 118 programmer/analysts and which examined the relationship between job satisfaction and role conflict, role ambiguity, and quality of leadership provided by supervisors and peers.

On April 5, **Terry F. Mellon**, a doctoral student from the University of California, Irvine, presented a "Report on a Study of Problem Handling in a Computer-Based Production Environment." Describing a five-year study of problem handling, he briefly described the methodology he used, presented the results of his study, and defined his next research steps.

On May 3, **Gail Salaway**, who is finishing her doctoral studies here at the UCLA Graduate School of Management, presented "An Organizational Learning Approach to Generating Information for Information Systems Development." Her talk presented research on the effectiveness of user/analyst interactions from the perspective of the Argyris and Schon Organizational Learning Theory.

The final colloquium was presented by **Lynne G. Zucker** from the Department of Sociology, UCLA. In her presentation, "Microcomputing as Institution Building," she discussed how cultural structures affect rates and patterns of diffusion of technological innovation, and how the type of computer network affects diffusion of both technological change and the related cultural change.

Courses for I.S. Managers

The C. & I.S. area, in conjunction with two of the leading M.I.S. consulting firms in the country, offers three week-long programs for I.S. managers.

During 1983-84, the program "Managing the Information Resource," was offered twice in association with the firm of Nolan, Norton & Company. Now in its fifth year, this course enjoys a wide following, with well over 100 companies worldwide sending their I.S. executives to this campus-based seminar. The next offerings are scheduled for November 4-9, 1984, and March 17-22, 1985. It is described in greater detail on the next page.

In June of this year, the other course, "Information Services: Strategies for Managing the New Information Technologies," was offered with the consulting firm of Index Systems, Inc. This program is designed to complement the other program and is aimed at I.S. and user managers who are concerned about harnessing the computer to provide new opportunities for both their organizations and competitive environments in which those organizations compete. The next program is scheduled for June 9-14, 1985.

For further information on either of these programs, contact Catherine Boyle, Office of Executive Education, Graduate School of Management, University of California, Los Angeles, CA 90024 or telephone her at (213) 825-1560.

MIS Executive Seminar

The Challenge of Information Services Management

In the last few years, the use of computer-based technologies has had a profound impact on the way organizations are being managed. Companies are now seeing a deluge of these technologies being hurled at them. For many organizations, the explosive growth in office automation, personal computers, robotics, CAD/CAM, decision support systems, and telecommunications, among others, will produce no more than marginally productive results. For other companies, these developments will strategically reposition them for the decade ahead. How these information resources are to be managed is no longer a concern of the DP manager alone.

Today, senior information services management is being called upon by top management to provide functional executive leadership. Called variously, "Information Resource Manager," "Director of Information Services," or "Chief Information Officer," these computer functional executives and their staffs recognize that they must "rechart" DP's mission and role to provide the needed leadership to their organizations. "Recharting" involves learning how to manage the four major issues which information services organizations now face.

1. **Managing the Existing Applications Portfolio as an Asset.** Often 90 percent of the information services resources of a business are already committed to supporting existing systems, each in various stages of their life cycles.
2. **Managing the Diversifying Technologies.** Conventional management approaches for the emerging technologies often lead to confusion and frustration; new approaches and fresh insights are needed.
3. **Building the Computer Architectural Bridge.** Linkages among the technological "Towers of Babel" which are emerging must be established in order to provide a well-defined blueprint for growth.
4. **Providing Executive Leadership.** Organizational and procedural mechanisms to link the business and computer strategies are essential.

None of these issues have clear, precise answers. It is estimated that many organizations will expand their use of computer-based technologies *seven-fold* in the coming decade. Therefore, they must begin *now* to rechart DP in order to handle these new opportunities and responsibilities. This program is aimed at helping information services managers prepare themselves for the environment of the 1980s.

Program Overview

In recognition of the growing importance of the information services function, the UCLA Graduate School of Management joins with the firm of Nolan, Norton, & Co., in announcing the program, **Managing the Information Resource**. It will be offered twice during the coming year on November 4-9, 1984, and March 17-22, 1985.

As with previous offerings, this program will be an intensive five-and-one-half-day residential conference designed to prepare managers for successfully dealing with information services challenge of the '80s. It combines discussion of leading-edge techniques for DP management with problem-solving analyses of real company situations. In addition, specially prepared microcomputer-based programs will be used to allow the attendees to examine strategic case alternatives. Active classroom discussion is also stressed, with the exchange of professional experiences by participants and faculty a vital aspect of the course.

All classes will be held in the Executive Classroom of the Graduate School of Management. The program headquarters will be the elegant Westwood Plaza Hotel, located within walking distance of the UCLA campus. A block of rooms will be reserved at the hotel for those attendees who require accommodations. The cost of the program, including all materials, lunches, breaks, and a reception at the end of each day of classes, is \$1950.

The program will be led by **Dr. Richard Nolan**, whose successful *Stage Approach to EDP Growth* provides a powerful and comprehensive perspective for understanding and managing the information resource. Joining Dr. Nolan as co-leader will be **Dr. Ephraim McLean**, a member of the Computers and Information Systems faculty at UCLA's Graduate School of Management and a long-time consultant in the information systems field. They will be assisted by other members of the UCLA faculty and by members of the consulting staff of Nolan, Norton & Co. Taken together, these experts represent well over half a center of experience in the computer field.

For further information or application forms, contact Catherine Boyle, Office of Executive Education, UCLA Graduate School of Management, Los Angeles, CA 90024, or telephone (213) 825-1560.

Faculty Happenings

On February 4, 1984, **Professor Martin Greenberger**, IBM Professor of Computers and Information Systems, gave a banquet speech to the Congressional Copyright and Technology Symposium in Fort Lauderdale, Florida. His topic was "The Long Range Future of Computer and Communications Technology." In attendance were the Senate Judiciary Committee on Patents, Copyrights, and Trademarks, chaired by Senator **Charles Mathias**, and the House Judiciary Subcommittee on Courts, Civil Liberties, and the Administration of Justice, chaired by Representative **Robert M. Kastenmeier**. Dr. Greenberger's talk dealt with the use of computers and communications as an environment for publishing in the twenty-first century. Shortly after this, on February 19, Professor Greenberger ran the Olympic marathon course in the Los Angeles International Marathon. His time was 3 hours, 2 minutes, and 39 seconds, his best marathon time since 1979.

At the Office Automation Conference held in Los Angeles on February 21, 1984, **Clay Sprowls** was a panelist. The session was "Case Studies of Automation: Views from the Top," chaired by **Patti D. Immell** of TRW Defense Systems Group. **Professor Bennet P. Lientz** participated in a session at the same conference, presenting "Case Studies of Implementations of Technologies."

During this same week, **Professor Ephraim R. McLean** made a presentation to a class at IBM's Manufacturing Technology Institute in New York on the subject of "Information Systems Planning." Because of the interest in the topic, he was asked to come back and repeat his talk to the next class at the Institute. This second presentation was made on May 31-June 1, 1984.

On March 1 and 2, **Dr. Jason L. Frand** and GSM Chairman **Michael Granfield** attended a strategy planning and information session at the Hewlett Packard corporate headquarters in Palo Alto. GSM, the recent recipient of a generous grant of HP computer equipment, was invited along with five other universities to assist HP in understanding the problems and needs of the university and, in turn, to help universities to become acquainted with HP's long-term strategies and commitment to higher education.

The Western Educational Computing Workshop was held at the Claremont Colleges on March 15-16, 1984, and **Jason L. Frand** and **Ephraim R. McLean** attended. Dr. Frand presented an all-day session on office automation, touching on the topics of technology, LANs, productivity, and organizational and implementational issues.

Enduring a 15-hour nonstop flight to Australia, **Professor Ephraim McLean** gave a presentation to the International Symposium of Information Systems in Sydney on April 10th on "Designers and Users of Information Systems: A study in Differing Profiles." This conference, sponsored by IFIP and the Australian Computer Society, had a truly international flavor, with speakers from most of the European countries as well as Australia and the U.S.

On April 11, **Professor Martin Greenberger** presented the Dr. Dorothea Hellman Memorial Lecture in Tucson on "Computer/Communications as an Environment for Information Distribution in the Post-Gutenberg Era." On May 10 and 11, Greenberger conducted a special forum on "Electronic Publishing Plus" at the Washington Program of the Annenberg Schools of Communication. The forum reviewed the current state of affairs in videotex and electronic publishing — from early commercial ventures to regulatory issues and copyright matters — and assessed future prospects and potential areas of public policy concern.

The theme of the annual meeting of the American Assembly of Collegiate Schools of Business (AACSB) in Phoenix this year was "Management in the Computer Era." **Professor Ephraim McLean** attended the meeting and gave a talk on May 3, 1984, on "Organizing an MIS Research Center," describing the experience of the C. & I. S. area in establishing its C. & I. S. Research Program.

Professor Clay Sprowls participated in the NATO Advanced Studies Institute program on "Relational Database Systems: Design and Implementation." This meeting was held in Bad Windsheim, Germany, on June 17-30, 1984. Professor Sprowls developed the application case study that was the basis for a "hands-on" experience at the conference. This experience used several different micro database systems running on a variety of different micro computers. Participants included data processing and computer science technologists as well as professionals in other fields. They came from various NATO countries to engage in this tutorial on the state-of-the-art in relational database systems.

This newsletter represents our continuing efforts to disseminate information about Computers and Information Systems (C. & I.S.) activities within the Graduate School of Management to interested individuals and organizations. As before, comments and suggestions will be welcomed.

Ephraim R. McLean, Director, Computers and Information Systems Research Program; Michael Sachs, Newsletter Editor.

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