

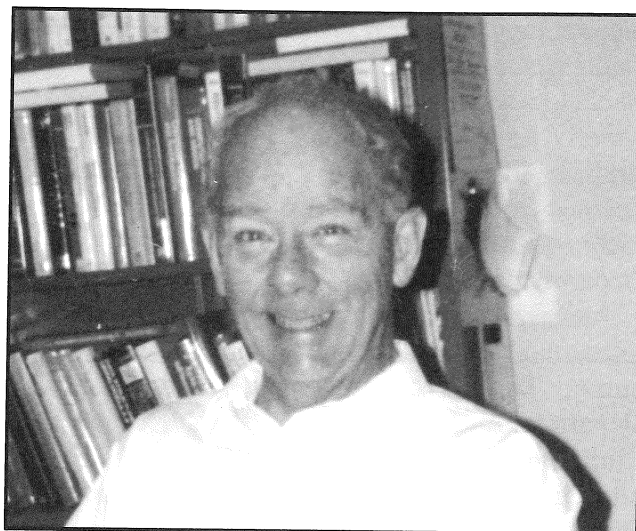
Faculty Profile: Maarten van Swaay

Maarten van Swaay joined the department sometime in 1981, gradually, first by walking over from his office in the Chemistry department to help teach the proverbial 'KIM' course, and then by formally moving from Chemistry to a series of makeshift offices in Fairchild Hall. Those were the days when the field of computer science was still new enough to lead to staffing by people who grew up before formal education in computer science had become available. Maarten did not come in 'through the back door', however; as the instrumentation expert in chemistry he had been responsible for bringing the first four computers into that department, for designing and constructing many interfaces for major instruments in the chemistry department, and for developing graduate courses in instrumentation and computer interfacing.

Further back in time Maarten received his undergraduate education in physical chemistry at the University of Leyden in the Netherlands, his native country. By now, he has spent a little more than half of his life in the U.S.A., three of those as a graduate student at Princeton University, and the remaining years in Manhattan, KS.

The switch from chemistry to computer science has not been the only major switch in interest: since 1985 Maarten has become increasingly involved with social and ethical aspects. That interest started in the early days of computer viruses, when even the word virus by itself was seen by many as good reason for suspicion. At that time any admission of curiosity about the anatomy of a computer virus might well be treated as heresy, especially in a department of computer science. Nevertheless Maarten remembers broadcasting a question within the department whether it would be appropriate to broach the subject of viruses. Not surprisingly, no answers came back ...

From the work of Fred Cohen it became quite obvious that viruses not only exist; Cohen also demonstrated that viruses are conceptually simple enough for even a first-year student to understand, and he argued persuasively that there cannot be a generic defense against viruses. Thus computer scientists were confronted by a dilemma: should viruses be discussed in the classroom in an attempt to develop a line of



resistance against them, or should discussion be suppressed in an attempt to limit the spread of potentially dangerous knowledge? Fortunately academic sanity prevailed, and the computer world developed a context in which viruses and other controversial topics can be properly discussed.

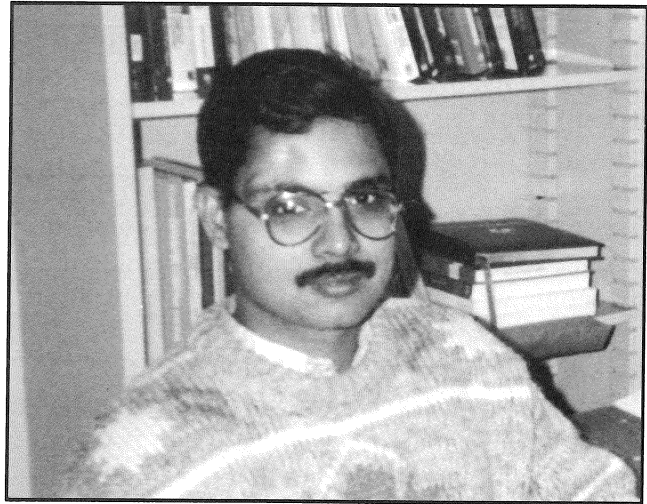
After this early exposure to modern dilemmas in the computer world Maarten has actively pursued such ethical issues, and now has a national reputation as speaker on such topics as the essential need for trust even in secure computer systems. He has introduced a computer ethics course into the curriculum; last summer that course became a required component for the bachelor's degree in computer science at KSU. With his contacts he was fortunate to entice Cliff Stoll of hacker-stalking fame to the campus in the spring of 1991 for a seminar that kept a large audience enthralled well beyond the customary one-hour presentation.

Maarten's ambitions for the department are simple in concept, but extensive in scope: he hopes to shape our curriculum in such a way that our students will be encouraged to become valuable people rather than clever "technonoids". In Maarten's view, computers are exciting only to the extent to which they touch people. Thus he believes that computer science courses should not only deal with the developing technology, but should also be salted with a liberal sprinkling of its human and social consequences.

Faculty Profile: Gurdip Singh

Gurdip joined the Computer Science Department at the Indian Institute of Technology, New Delhi when it started in 1982 and earned a Bachelor of Technology degree in 1986. Subsequently, he came to the United States for further studies and earned an MS and PhD in Computer Science from SUNY at Stony Brook, NY in 1989 and 1991 respectively. He joined this Department in 1991.

Gurdip has been teaching courses and doing research in various aspects of distributed computing. The first course taught by him in this Department was on Concurrent and Distributed Computing in Fall 1991. In Spring 1992, he introduced a new course on Formal Methods in Distributed Computing in which he taught verification techniques for distributed programs. He would like to write a book based on the courses he is teaching at K-State. He is interested in developing algorithms for distributed system management. He is also interested in compositional methods for development of distributed algorithms. His aim is to develop distributed programming languages which enable large programs to be developed correctly and easily. He has published in several confer-



ences and journals.

He says that the Department has a broad research focus with several well-defined concentrations and is growing steadily. He would like the Department to hire more faculty. He likes to work closely with students on research problems and hopes that the Department will also be able to increase the number of PhD students.

Gurdip and his wife, Harleen (who is also studying at Kansas State), both like this place and enjoy living in Manhattan.

Thanks to Summer On Campus Students

CIS at KSU offers a Summer On Campus program for employees of AT&T who wish to pursue an MS in Computer Science. We have been running this program for 13 summers. It is a program where both students and faculty learn from one another. Typically, 60 students are enrolled each summer and we have produced more than 100 graduates with an M.S. in Computer Science from this program. It has become somewhat of a tradition for the students in the program to contribute their own resources to the

Department. This year was no different. Over the past five years, these AT&T student-employees have contributed more than \$7,200 to the Department. These funds are used to buy terminals, network connections, software, etc. to be used by both Summer On Campus students and by students on-campus the remainder of the year. We salute the AT&T Summer On Campus students for their commitment to quality education and their generosity to KSU students and faculty. Thank you.

Nichols Nugget: More History

The original structure was called Nichols Gymnasium, named after Ernest R. Nichols, president of Kansas State Agricultural College from 1899 to 1909. The building was gutted by fire on Friday, December 13, 1968. The actual renovation of Nichols began in 1983 after years of

conflict concerning its future. The cost of rebuilding the structure was \$5.58 million, or almost 56 times the cost of the original structure. The rededication was on Parent's Day, Friday, November 15, 1985.

Seminar Presentations in the Department

The Department Seminars continue to be a strong component of the educational opportunities. The past three semesters have been especially informative and varied. If any alumnus would like to give a seminar presentation, please contact Dr. Wallentine.

September 24: Dr. Gary Leaven, Iowa State University, "Reasoning about Object-Oriented Programs that use Subtypes".
October 1: Dr. Horst Zuse, Technische Universität of Berlin, Germany, "Measurement Theory and Software Metrics".
October 15: Dr. Jan Chomicki, Kansas State University, "History-less Checking of Dynamic Integrity Constraints".
November 15: Dr. Julia Lawall, Indiana University, "Back to Direct Style II: Adding first class continuations".
November 19: Dr. K. Ravindran, Kansas State University, "Casual Broadcasting and Its Applications in Distributed Systems".
November 21: Dr. Deryck Brown, University of Glasgow, Scotland, "Compiler Generation System 'Actress'".
December 3: Dr. Mitchell Neilsen, Kansas State University, "Quorum Structures in Distributed Systems".
January 30: Dr. Arthur Ramer, "Information Based Reasoning in Fuzzy and Dempster-Shafer Theories".
March 4: Mr. David MacQueen, AT&T, "The Programming Language Standard ML".
March 20: Dr. F. Kenneth Zadek, Brown University, "Optimization of Compilers".
March 23: Dr. Feliks Kluzniak, Warsaw University and University of California/Riverside, "Towards Practical Executable Specifications in Logic".
April 24: Dr. Amr El Abbadi, University of California, Santa Barbara, "Order Sharing: A New Lock Primitive for Database Systems".

April 28: Dr. Ouri Wolfson, University of Illinois, "Active Databases for Network Management".
May 4: Dr. Jens Palsberg, University of Aarhus, "Safety Analysis Versus Type Inference".
May 14: Dr. Pramod Chandra Bhatt, Indian Institute of Technology, "Black-board Systems".
June 22: Dr. Wlodek Drabent, University of California-Riverside/Polish Academy of Sciences/Linköping University, "What is Failure? Or: Constructive Negation by Fail Answers".
September 2: Mr. Steve Hagen, NCR Peripheral Products Division, "Disk Array Controller Software Development: Process Improvements with Supporting Metrics".
September 8: Dr. Allen Stoughton, University of Sussex, "Definability of Functions in the Programming Language PCF".
September 10: Dr. Damian Niwinski, University of Warsaw, "An Alternation Hierarchy in the Mu-calculus".
October 9: Dr. Xiaoie Qian, Computer Science Laboratory-SRI International, "Integrity Maintenance in Object-Oriented Databases".
October 9: Dr. Pierre Cregut, Lients and AT&T, "Higher Order Functors in SML: Use and Implementation".
October 26: Dr. Jean-Francois Perrot's, Université de Paris 6, "Objects and Production Rules".
October 27: Dr. Ken Shultis, Kansas State University, "Computational Diversions in Nuclear Engineering".
November 4: Dr. K. Ravindran, Kansas State University, "Distributed Shared Memory Mechanisms for Distributed Applications".

Faculty Farewells

Dr. Austin Melton accepted the Computer Science Department Head position at Michigan Technological University, Houghton, effective September 1992.

Dr. Olivier Danvy has accepted a research position at Carnegie Mellon University, effective January 1993.

Staff Profile: Sandy Randel

Sandy began working for the Department in 1987 as a Keyboard Operator. In 1989, she was promoted to Office Specialist and Head Secretary. She currently manages the office staff of the department.

Sandy is formerly of Winfield, Kansas. She received an AAS degree from Cowley County Community College in 1984. She is currently seeking a BA degree in Business from Kansas State on a part-time basis.

Sandy is married to Clay Randel, also formerly of Winfield. She and her husband relocated to Manhattan in 1987 because of his desire to obtain a college degree. He received a BS in Biology from Kansas State in 1992.

This past year has been an extremely busy one for Sandy. In addition to all of her regular duties, she also serves the department in the capacity of the AT&T Summer On Campus coordinator and the National Technology University (NTU) administrative contact. She also supervised the collection and categorizing of data for our accreditation, and has had to solve the many administrative problems involved with our move to Engineering.

Sandy has been an extremely dedicated, hard working staff member for the department. She was nominated by the department faculty for



Kansas State Employee of the Year in 1992. She was named as one of three finalists by the Kansas State Classified Senate. Sandy has been nominated again in 1993 for the same honor. This time the nomination came from the staff who work for Sandy in the office. That is certainly a testimony to her supervisory skills. We have just heard that Sandy is one of the three finalists again this year.

Sandy's future hopes for the department include expansion of the AT&T Summer On Campus and NTU programs.

Undergraduate Scholarship News

This has been another successful year for awarding undergraduate scholarships. We want to ac-

knowledge the continued excellent support from our various friends in industry.

General Scholarship Winners

We hope these funds will increase next year because of our move to the College of Engineering. This should be possible through our increased involvement in the Telefund. We will have about 35 students taking part in that effort this year, about 25 more than we have ever had.

Freshmen:

Heather Theis, Overland Park, KS: Dean's Scholarship. Heather is an advanced placement student who continues to do very well in the program.

Sophomore:

Sharon Davern, Manhattan, KS: Dean's Scholarship. Sharon is a so-called "Older Student", which is defined as a student 25 or older and entering school for the first time, or returning to school.

Senior:

Eric Runquist, Great Bend, KS Dean's Scholarship. Eric graduated in December and has accepted a position with the Soil Conservation

Undergraduate Scholarship News (continued)

Conoco Scholarship Winners

This is the third year we have been able to award scholarships from funds received from Conoco. We want to thank Tom Tucker and all his fine people in Ponca City for their help in attracting and retaining quality students.

Sophomore:

Michael Svoboda, Lincolnville, KS. Michael has been on the Dean's Honor Roll since arriving at K-State.

Junior:

Matthew I. Jones, Wichita, KS. Matthew attended Pittsburg State and Wichita State before transferring to K-State.

Christopher K. Luedders, Bremen, KS. Chris is a dual major in Computer Science and Mechanical Engineering, maintaining a 4.0 GPA.

Senior:

Derek Stutzman, Manhattan, KS. Derek attended Hutchinson Community College and Hesston College before transferring to K-State. He will graduate this summer.

IBM Employees Scholarship Fund

This is our endowed scholarship fund and provides a substantial scholarship to two outstanding students each year. We are extremely proud and grateful that the IBM employees show their concern for our program by donating to this fund.

Seniors:

Teresa L. Detter, Concordia, KS. Teresa will graduate in Spring 1993 with a dual degree in Mathematics and Computer Science.

Greg Haynes, Colorado Springs, CO. Greg will graduate in Spring 1993 and is considering returning for graduate studies.

Mutual of Omaha

After several years of close cooperation with Mutual of Omaha's recruiting efforts, the company wanted us to have the means to continue attracting the "best and brightest". Our sincere thanks to Mutual of Omaha.

Sophomore:

Joanna Reading, Humboldt, KS. Besides an excellent student, Joanna was one of the team captains for Telefund this year.

Phillips Petroleum

Phillips provides this scholarship to help under-represented populations continue their education at a university.

Sophomore:

Nichole Lark, Kansas City, KS. Nichole was also awarded this scholarship in her first year.

Nichols Nugget: Fire Aftermath

Nichols was not the only building which burned in 1968, the old auditorium was also destroyed. When those buildings burned, the lack of sufficient fire mains became evident. Whether or not

Nichols could have been saved with more water pressure will never be known. But in the two years following the fire, most of the fire mains on campus were replaced and enlarged.

Alumni: Where Are They Now?

We always enjoy having our alums drop in for a visit, recruiting trip, lecture, or any reason to visit the old stomping grounds. Let us hear from you!

Bob and Kathy Buser

Bob Buser graduated from Kansas State University in 1972 with a BA in Political Science. Over the next four years Bob worked in the insurance industry in Manhattan, Kansas. During this time he met his wife, Kathy, who was managing a Sirloin of America franchise. Bob returned to Kansas State in 1976 to pursue his MS in Computer Science.

Upon graduation in December of 1977, Bob and Kathy both accepted jobs with Southwestern Bell telephone and moved to Kansas City. Bob's first job at SWBT was developing training programs for management and non-management employees in the Kansas City Data Center. He later took on additional responsibilities as the data center support for systems software and hardware. In 1982, Bob was moved to St. Louis, the corporate headquarters, where he managed the procurement of computer hardware for the Corporate Data Center.

In 1986, Bob was promoted to Systems Manager in the Disbursement District in Information Services. In this capacity, he had responsibilities

for managing a group which developed and maintained systems to handle accounts payable, fixed asset taxes, and cost distribution of Information Services expense.

In 1987, Bob completed his MBA at Washington University in St. Louis. Currently, he is managing a group in the Marketing Information Decision Support District supporting applications that assist product managers in targeting prospective customers and tracking the results of various sales campaigns. His group also provides information to forecasters to assist in the planning of central office upgrades. On recent projects, his group has concentrated on moving the access to information directly to the client using client/server architecture and GUI tools such as EXCEL and Visual BASIC.

However, the part of his job which he likes the best is his role as Southwestern Bell Corporation's Ambassador to Kansas State. You will find him at Career Fairs, the annual KSU Open House, or just visiting with students and faculty.

Jeanie Gay

It sure is pleasant when one of your own makes good. Jeanie is not only "one of our own" because she graduated with a BS in Information Systems in 1986 and went on to earn an MS in Computer Science in 1987. Not only did she do an excellent job in the classroom, she also supported herself and her family by working long hours for the department - in the front office, in the departmental laboratories, and as an instructor in our classrooms. Thus, she is truly one of the CIS Department family.

Presently, Jeanie is with Black and Veatch Engineers in Kansas City. Jeanie is Project Manager in the Professional Services Depart-

ment in the Power Division. The Power Division is responsible for designing and developing power plants. Jeanie's group, the Information Management Section (IMS) develops tools for the engineers to use during the design and development process. POWERTRAK, an innovative project management system which consists of several integrated applications areas, is one example.

Jeanie's first assignment was to direct a feasibility study for the alternative data base solutions for Black and Veatch. This study involved the comparison of several relational data base products including Oracle, Ingres, RdB, Share-