



Fall 2001- Spring 2002

In this issue...

- Welcoming our new faculty
- Birth of two new departments
- New department secretary
- Graduate programs
- Departmental homepage
- Upper level elective courses
- Internship
- 2001 computer science graduates
- 2001 excellence award winners
- State of the Computer Science laboratories
- New computer science classroom
- New research platform
- Student chapter of the ACM
- New advising policy
- Alumni profile

Welcoming our New Faculty:

During the Spring semester, the department was very successful in recruiting computer science faculty. We had a total of four open positions and fortunately, we were able to fill all of the positions. Our new colleagues are Dr. Ruth Schwartz, Dr. David Surma, Dr. Michael Scheessele and Dr. James Wolfer. We eagerly anticipate the arrival of our new colleagues.

Below is a short biography of each of the new faculty members.

Dr. Ruth Bolotin Schwartz has taught in the computer and information systems areas for the last 27 years. Prior to joining the faculty at IUSB, Dr. Schwartz taught Information Systems for 10 years at Virginia State University in Petersburg. Her teaching and research interests are in the areas of curriculum development, database systems, enterprise resource planning, and programming languages. Dr. Schwartz is a member of the Association of Computing Machinery, Informs, and the Decision Science Institute.

Dr. Schwartz has a B.A. degree in mathematics from Northwestern University; an M.S. degree in Computer Science from the School of Engineering and Applied Science, University of California, Los Angeles; and a Ph.D. in Business Administration with a double major in Computer Information Systems and Operations Research

from Temple University. After finishing her undergraduate degree, Dr. Schwartz worked for 6 years as a systems programmer on IBM mainframes before returning to school and beginning a new career as a college professor.

Dr. David Surma received a B.S. degree in Electrical Engineering from Valparaiso University in 1985. He received the M.S.E.E. degree from the University of Arizona, Tucson in 1989 with a concentration in Computer Engineering. In 1998 he was awarded a Ph.D. degree from the University of Notre Dame where he studied in the Computer Science and Engineering department.

His research interests include parallel and distributed computing, multimedia applications, computer architectures, high-performance networks, and software tools for parallel and distributed computing systems. He also is interested in research on teaching methods.

He has published many research papers in refereed conferences and journals, and is active in several professional societies. He served on the Program Committee for the 2000 and 2001 ISCA International Conference on Parallel and Distributed Computing Systems.

Dr. Surma has been a part time associate faculty member at IUSB for the past 5 years, and some of you may have taken courses from him. However, prior to joining the department full-time, he has taught at the University of Illinois - Chicago, University of Notre Dame, and Valparaiso University.

Dr. Michael Sheessele received his B.S. in computer science specializing in information systems, from Purdue University in 1983. He worked in industry for a number of years as a software engineer, at the same time pursuing his M.S. in computer science, specializing in artificial intelligence, from DePaul University and completed that degree in 1994. While studying AI at DePaul, he became convinced that the best AI is that which is psychologically plausible. Thus, he returned to Purdue to pursue his Ph.D. in Quantitative and Mathematical Psychology. Dr. Sheessele expects to finish his doctorate in July 2001.

Dr. James Wolfer received his Ph.D. in Computer Science from Illinois Institute of Technology. Dr. Wolfer has over 15 years experience teaching computer science at Andrews University. He is joining us with the rank of associate professor. His research and professional interests would include harnessing the power of naturally inspired computation to solve real-world problems. Most of his recent work has involved visualization in science and medicine. Also he is active in cognitive science and computer science education.

The department would like to thank those students who involved themselves in the recruiting process. Your contributions and feedback have been most appreciated by the faculty and noted by the candidates during their visits.

Birth of Two New Departments:

The administration has approved our department's request to split along discipline lines. Starting July 2001, there will be two departments. The *Department of Mathematical Sciences* and the *Department of Computer and Information Sciences*.

New Department Secretary:

Marquette Hagenbuch is the new computer science secretary. Her office is NS 301A and she can be reached at (219) 237-6521 or via email at mhagenbu@iusb.edu between 8:30a.m. and 3:30 pm.



Graduate Programs:

In the last four years, we have worked hard to develop two new graduate programs. These programs are the Master of Science in Management of Information Technology (MS-MIT) and Master of Science in Applied Mathematics and Computer Science (MS-AMCS). The MS-MIT is a joint program with the School of Business and Economics and the MS-AMCS will be a joint program with the Department of Mathematical Sciences. The department hopes to begin admitting students to the MS-AMCS program starting Fall 2002. More information about our graduate programs can be obtained online at www.cs.iusb.edu/graduate_programs.html.

Departmental Homepage:

In 1994, our department was one of the first at IUSB to publish its documents on the World Wide Web. This year, we felt it was time to develop a new look for our web pages. The URL for our homepage remains the same at www.cs.iusb.edu. We invite you

to browse the new homepage and hope that you enjoy its content. (As usual, we welcome your feedback.)

Upper Level Elective Courses:

The department has scheduled the following four courses as upper level electives. Please consult the CS booklet or your advisor to make sure you have the proper prerequisites.

Fall Offering: *B483 Computer Networks* will be taught by Dr. Surma and *C490 Object Oriented Programming in Java* will be offered by Dr. Hakimzadeh.

Spring Offering: *C463 Artificial Intelligence* will be taught by Dr. Scheessele and *B424 Parallel and Distributed Programming* will be taught by Dr. Vrajitoru.

A short description of each course is given below:

B438 - Computer Networks (3 cr.) P: C243, C335. Theory and practice of data communication between computing devices. Topics include network architecture and topology, wide-area networks, local-area networks, and ISO network layers.

C490 - Object Oriented Programming in Java (3cr.) P:243. Study of the fundamentals of the Java programming language and some of the important class libraries, particularly the Abstract Window Toolkit. Understanding of the higher level concepts supported by Java such as Threads, multitasking, networking and distributed application development.

C463 - Artificial Intelligence (3 cr.) P: C251. R: C311. Techniques and principles of artificial intelligence and implementations of some of these techniques. Various formalisms for representing knowledge, and relationships of this to such tasks as inference, game playing, and machine learning.

B424 - Parallel and Distributed Programming (3cr.) P: C243, M301. Overview of parallel computers, shared memory, message passing, MIMD and SIMD classifications. Understanding and use of message passing and synchronization facilities such as MPI. Study of parallel programming models such as master-slave, client-server, task-farming, divide-and-conquer and pipelining. Performance analysis of parallel systems, execution time, time complexity, load balancing and scalability.

Internship:

Y398 Internship/Professional Practice is offered on a limited basis. Students who take this course earn both a salary and 3 credits toward their CS degree while working 15 to 20 hours/week. Prerequisites include C308, C335, and one more

course above the level of C243. Interested students can contact Hossein Hakimzadeh (237-4517, hhakimza@iusb.edu) or John Russo (237-4297, Northside 319, jrusso@iusb.edu).

2001 Computer Science Graduates:

This past year we had a number of graduates with bachelors or associate degrees in computer science. The faculty congratulate the following students for their hard work and dedication in achieving this important milestone in their lives.

| Bachelor of Science | Associate of Science |
|--|---|
| August 2000 Adam R. Barker Jiang Ping Chai Qing Chen Rahema Kamau Todd Schavee Almir Tucek | August 2000 Ryan Knowlton Kain Lentine |
| December 2000 Bruce T. Moore | December 2000 Jennifer McGuire |
| May 2001 Barajas (Garibay) Federico Casey A. Buczkowski Matthew J. Byers Amrita Das Joseph S. Henrich Kevin P. Harris Ryan E. Knowlton Jon Shoberg | May 2001 Christopher D. Fodness Gregory E. Fulce Michael L. Harding John J. Kreighbaum Jr. Christopher D. Laware Daniel Munoz |

2001 Excellence Award Winners:

Each year the computer science faculty has the pleasure of selecting the excellence award winners in our program. Academic achievement is primary, but not the only criterion for selection. Our award winners this year are seniors with excellent computer science as well as overall academic achievements. During their studies at IUSB, much has been expected of these students, and they have been consistent in their efforts to excel.

The computer science faculty congratulates our 2001 Excellence Award Winners.

Nancy Myers
Tamara Orr

State of the CS Laboratories:

During the Spring and Summer of 2001, the department was able to significantly improve its computing resources. First and

foremost, the College of Liberal Arts and Sciences funded our proposal to replace 15 of our oldest computers. In addition our lab manager Jerry DeKeyser has replaced the mother boards on 18 other computers. We hope that these improvements will create a better working and learning environment for our students.

We thank the college administrators, Dean Miriam Shillingsburg and Associate Dean Lynn Williams, for their continuing support of our program. We also thank the members of the laboratory committee, Mr. Jerry DeKeyser (lab manager), Dr. John Russo and Dr. William Knight for their work in planning and implementing the hardware upgrades. Further, we would like to thank our students, especially the ACM officers, for becoming involved in this process and providing much needed feedback to the department.

New Computer Science Classroom:

Thanks to Chancellor Perrin's efforts, funds were made available to begin the first phase of the renovation for the second floor of Northside Hall. Starting Fall semester, computer science will have access to a new classroom on the second floor. This room is designed specially for computer science instruction. Some of its features are: permanent overhead projection device, permanent and secured computer for presentations, network access, and significant amount of white boards for maintaining design diagrams and supporting project oriented courses.

New Research Platform:

We are planning to develop an inexpensive multipurpose research laboratory at IUSB. Currently our plan calls for 16 Pentium or AMD based computers, which will be used to develop a *Beowulf* class "super cluster". This experimental platform will allow our faculty and students to conduct research in parallel processing and high speed networking. You may obtain more information about this platform at www.cs.iusb.edu/beowulf.html.

Student Chapter of the ACM:

I would like to encourage all computer science students to join the Student Chapter of the ACM. The ACM is the premier computing organization in United States. Membership in the Student Chapter costs only \$5 per year and has many benefits. Among which are: social events (Pizza Parties), lectures, tutorials and camaraderie with other CS students. Membership and participation in the ACM can be a plus when you go for that first job interview as well. You can obtain more information about the ACM and its activities from their web site at www.iusb.edu/~acm/.

New Advising Policy:

Starting Fall 2001, the University will switch to a *Direct Admit* policy. Direct Admit allows students to apply directly to a given college instead of starting in the Freshman Division. Our department welcomes this policy, since we expect that new students will benefit from being advised by faculty in specific departments rather than the Freshman Division. However, due to the popularity of our discipline, we expect a large increase in our advising load. Therefore, in anticipation of this event, the department has prepared a new *advising homepage*. Students should consult the advising homepage prior to making an appointment with their advisor. Consulting this new web site provides you with a wealth of information and ensures that you have the proper documentation prior to meeting with your advisor. The new advising homepage can be found at www.cs.iusb.edu/advising.html.

If you have questions or need advising for the Fall 2001, or Spring 2002 semesters, feel free to contact me. My office hours are listed on my home page given below, during which time I would be happy to provide academic advising. I also am available by appointment or drop-in.

Sincerely,

Hossein Hakimzadeh, Ph.D.
Department of Computer and Information Sciences
Northside 335
(219) 237-4517
hhakimza@iusb.edu
<http://cosmos.iusb.edu/hossein>

You may obtain additional information about the computer science programs, courses, laboratories and faculty at <http://www.cs.iusb.edu>

Alumni Profile:

In this issue we will profile Mr. Timothy Wright.

Mr. Wright attended IUSB from 1987 to 1994, obtaining a Bachelor of Arts in Philosophy and a Bachelor of Science in Computer Science. While a student at IUSB, Tim was awarded both the Philosophy Alumni Scholarship and the Computer Science Excellence Award. Shortly after graduation, Tim started working as a Senior Programmer/Analyst at Teachers Credit Union in South Bend. Later Tim moved to Charlotte, North Carolina where he worked for First Union National Bank as the Lead Developer on their Internet Home Banking project and then as a Computer Crime Investigator. In 2000 Tim completed his Master of Science in Computer Science at the University of North Carolina at Charlotte; his thesis for this degree was the development of a method and software for the investigation of computer crime.

This year, Tim has returned to Teachers Credit Union as the Director of Internet Technology and Information Security Officer. In these roles, he oversees network infrastructure and software engineering as they pertain to the credit union's intranet and Internet usage, and provides leadership for the credit union's Information Security Program.