

Jan 1, 2003 - Dec 31, 2003

COMPUTER AND INFORMATION SCIENCES

Hossein Hakimzadeh, Chair

Chair's Remarks

The Department began the year by launching our new bachelor of science program in Informatics. Informatics, is a new interdisciplinary initiative at Indiana University and IU South Bend is the third IU campus which has begun its implementation. The Informatics program has brought over \$700,000 in new state funding to IUSB. This funding will allow the campus to hire five new faculty members in the core and cognate areas of Informatics. In addition the funding will be used to develop two state of the art Informatics laboratories in the coming years. The program started the year with approximately 6 students majoring in Informatics and Dr. Schwartz our interim director, reports that the interest in this program continues to grow. We look forward to working with various academic disciplines to implement a successful program.

The computer science faculty remain active in their research, teaching and service to our university. Here are a few of the activities undertaken by our faculty. Dr. Wolfer obtained a SBC Fellowship included a award (\$14,728) to enhance our computing curriculum by introducing robotics in our Assembly Language Programming course. Dr. Scheessele tirelessly mentored the student chapter of the Association of Computing Machinery, which resulted in a number of high quality and well attended public presentations for our students. Dr. Vrajitoru masterfully coached our IUSB Computer Science Programming Team, preparing them for participation in the regional ACM Collegiate Programming Competition. IUSB's team ranked 20th out of 128 teams, competing with teams from top rated computer science programs such as University of Waterloo, Carnegie Mellon University, University of Michigan, Ohio State University and Pennsylvania State University. Dr. Surma was awarded a \$100,000 grant from National Science Foundation to support his research in Communication Reduction Techniques to Improve Throughput in High Performance Networks. Dr. Rus was selected as the Co-Chair of the Knowledge Engineering and Management Section at International Conference on Information and Knowledge Sharing. He also received an \$8,000 Faculty Fellowship Grant to conduct research on Logic Form Identification.

The department continues to be active in its outreach mission. Examples of such activity include faculty and student volunteering efforts to provide expertise to our local and regional non-profit organizations; increased interaction with local and regional educational institutions; internships and professional practice; increased course offerings for non-majors and community members; increased departmental sponsorship of public presentations; development of stronger relationships with our alumni; and the creation of endowments and scholarships in computer science. Last year, in order to commemorate Professor John P. Russo's contributions to our department and our students at IUSB, the department established a scholarship for academic excellence in Professor Russo's name.

In addition, a number of faculty in our department prepared and submitted a NSF grant proposal (\$280,000) to establish 22 scholarships for talented students in computer science.

Research, Scholarship, and Professional Activities

Articles

Vasile Rus. “An Accurate Iterative Algorithm for Logic Form Identification.” Proceedings of *International Conference on Information and Knowledge Sharing* (November 2003): 126-131.

Scheessele, Michael, and T. Perez. “Effect of Region Information on Perception of Partially Occluded Figures.” *Journal of Vision*. 3:9 (2003): 244a.
<http://journalofvision.org/3/9/244/>

Scheessele, Michael. “A Vision of Interdisciplinary Research [Essay].” *APS Observer* 16:7 (2003): 19-22.

Surma, David. “Using Graph Theory to Reduce Communication Overhead in Parallel Systems.” *The Journal of Computing Sciences in Colleges* 19:1 (October 2003): 204-213.

_____. “Teaching Microprocessors Utilizing a Project-Based Approach.” *The Journal of Computing Sciences in Colleges* 19:1 (October 2003): 104-112.

_____. “Lab Exercises and Learning Activities for Courses in Computer Networks.” *Proceedings of The 33rd Frontiers in Education Conference*, Session T2C (November 2003): 21-25.

Vrajtoru, Dana. “Evolutionary Sentence Building for Chatterbots.” *Proceedings of Genetic and Evolutionary Computation Conference*. (July 2003): 315-321.

Service

Campus

Hakimzadeh, Hossein. Faculty advisor, New Student Orientation (May 17, June 20, July 18, and August 16).

Knight, William. Secretary of the Academic Senate; Academic Senate Executive Committee; CLAS Curriculum Committee; faculty advisor, New Student Orientation (May 17, July 18, August 16, and August 20).

Scheessele, Michael. CLAS Cognitive Science Committee, chair; CLAS Graduate Liberal Studies Committee; faculty advisor for the IUSB student chapter of the Association for Computing Machinery.

Schwartz, Ruth. Campus Directions Committee; Information Literacy Committee; CLAS Advising Committee; faculty advisor, New Student Orientation (May 17, June 20, and August 20).

Surma, David. IUSB Library Committee, chair; Library Subcommittee on the Patriot Act Forum; CLAS Budget Committee.

Vrajitoru, Dana. Cognitive Science Committee.

Wolfer, James. Cognitive Science Committee.

Local Community

Schwartz, Ruth. Women's Initiative Committee.

Surma, David. La Porte Little League Baseball, Interim League Supervisor; St. John's Lutheran Church, Elder.

National and International

Rus, Vasile. Co-chair of the Knowledge Engineering and Management Section of the International Conference on Information and Knowledge Sharing, Scottsdale, AZ.

Schwartz, Ruth. Textbook review of Using Information Technology by Sawyer and Williams.

Other

Honors and Awards

Surma, David. Finalist for the new faculty fellowship program sponsored by the 2003 Frontiers in Education Conference.

Wolfer, James. Appointed with full status to the Indiana University Graduate Faculty.

Grants

Hakimzadeh, Hossein. McGraw Hill/Irwin Publishing Software/Hardware Grant (\$3,400).

Surma, David. National Science Foundation Grant for "RUI: Using Communication Reduction Techniques to Improve Throughput in High Performance Networks" (\$100,000).

Wolfer, James. Indiana University SBC Fellowship Award for "Enhancing the Computing Curriculum with Hands-On, Real-World, Real-Time Robot Assembly" (\$14,728).

Grant Proposals

Hossein Hakimzadeh, William Knight, James Wolfer, Ruth Schwartz, Michael Scheessele. National Science Foundation proposal to provide scholarship funds to 22 computer science students for four years (\$280,000).