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Rob Sinclair
2010 Arts & Sciences
Distinguished Alumni



New Addition to
Computer Science



Anita Borg award
Recipients

WELCOME TO A NEW ISSUE OF THE NMSU COMPUTER SCIENCE DEPARTMENTAL NEWSLETTER!



Greetings from the Department of Computer Science! As department head, I am excited to have been given the opportunity to serve this great department in my new capacity, and I look forward to sharing this new adventure with colleagues, students, friends and YOU, our alumni, our representatives in the world. The last few months have been exciting and challenging. Throughout the many changes happening at NMSU, our department holds strong and keeps growing. In the last few months we have witnessed outstanding research accomplishments, professional recognition, and a booming 9% increase in enrollment in our CS classes. Our department, too, is going through some profound changes: some new faces are with us, and some old friends have said “goodbye” and moved to their next chapters. I hope you will help us to move forward to our next chapter with your participation, suggestions, and departmental gifts!

GO AGGIES!
Enrico Pontelli

Rob Sinclair Receiving the NMSU Distinguished Alumni Award

The New Mexico State University Alumni Association will honor and recognize seven Distinguished Alumni and the recipient of the 2010 James F. Cole Memorial Award at a dinner during the Homecoming 2010 celebration.

The Distinguished Alumni award recognizes individuals who have distinguished themselves in their chosen fields and therefore brought honor and merit to their alma mater. The James F. Cole award is based on non-monetary support to NMSU, involvement with NMSU, civic and humanitarian service and professional service.

Sinclair earned both a bachelor's and a master's from NMSU in computer science in 1995 and 1997, respectively. Now he is responsible for Microsoft's worldwide strategy to develop software and services that make it easier for people to use their computers. He recently visited the NMSU campus and held a lecture for computer science majors and faculty. His other passion is wildlife photography and he spends as much time as he can in the field.

"Today, people are required to adapt themselves to the technology they encounter—whether on their desk, their phone, their car, or in home appliances," Sinclair says. "Our goal is to create a future in which technology adapts to the person so computers and other electronics can become fundamentally easier and more natural for people to use."



New Faculty Member: Huiping Cao

Huiping Cao is our new faculty member. Huiping joined the department on Aug 16, 2010. She has a Ph.D. in Computer Science from the University of Hong Kong and a master's and bachelor's degrees from the School of Information, Renmin University of China.



Huiping's research interests are in the areas of:

- Data mining: discovering patterns, association rules, clusters, etc. from general business data or special data (e.g., trajectories of moving objects, time series, etc.);
- Databases: table summarization, query processing over spatial data/XML data, location-aware search;
- Data integration of multiple heterogeneous data sources (e.g., taxonomies, ontologies, etc.).

Before joining NMSU, Huiping worked as a postdoctoral research associate in the SONET project at UCSB NCEAS, and as a research assistant in the Department of Computer Science and Engineering, School of Computing and Informatics at Arizona State University for the TDAR project.

Visit Huiping's home page to learn more about our new faculty member. <http://www.cs.nmsu.edu/~hcao/>

Dr. Ann Gates receives Anita Borg Award

The Anita Borg Social Impact Award honors an individual or team that has caused technology to have a positive impact on the lives of women and society or has caused women to have a significant impact on the design and use of technology. The 2010 award winner is Ann Quiroz Gates. Ann Quiroz Gates is the Associate Vice-President of Research and Sponsored Projects at the University of Texas at El Paso. As the founder of the Computing Alliance for Hispanic-Serving Institutions, Ann Gates' leadership is making a significant social impact by increasing the number of Latinos and Latinas graduating from college and seeking graduate studies in STEM fields. The Anita Borg Social Impact Award is underwritten by Microsoft.

Dr. Patty Lopez selected for HENAAC Award

Dr. Patty Lopez, Component Design Engineer, Intel Corporation, was selected as the 2010 HENAAC Community Service Award Winner by the HENAAC Selection Committee and Selection Committee Chairs. The award has been presented to Dr. Lopez at the HENAAC Awards Breakfast on Friday, October 8, 2010 at 8:00 am at Disney's Coronado Springs Resort in Lake Buena Vista, FL. All Award Winners will have full articles in TECHNICA Magazine as well.



Dr. Ann Gates



Dr. Patty Lopez

NMSU student receives Google Scholarship

The Young Women in Computing Program of the New Mexico State University Computer Science department is ecstatic to announce that Natasha Nesiba has been selected for the prestigious and competitive 2010 Google Anita Borg Memorial Scholarship for First Years. Dr. Anita Borg devoted her adult life to dismantling barriers that keep women and minorities from entering computing and technology fields. Nesiba, currently a high school student at Las Cruces High School, was chosen from a selection of high school students based on her academic background, passion for computer science, community service, and leadership. Although still in high school, she is a student researcher for the Young Women in Computing program, funded by the National Science Foundation to gain the interest of young women in the various fields of computer science. Not only did Nesiba receive a \$10,000 award for the 2010-2011 academic years, but she has been invited to represent New Mexico State University and the Computer Science department at the Annual Google FUSE networking retreat in Summer 2011.

Additional Degree in Computer Science: Bachelors of Arts in

The Bachelor of Arts in Computer Science is an open, flexible degree plan that offers the student both a rigorous undergraduate degree program in Computer Science and an extensive open credit hour allotment to pursue knowledge in other domains. It is an excellent choice to combine into a double major program, and is an option for the student who has interest in learning both domain knowledge in some area outside of Computer Science, and in acquiring a Computer Science background sufficient to pursue a strong technology career.

Students planning to undertake graduate work in computer science are encouraged to pursue the Bachelor of Science degree rather than the Bachelor of Arts degree. Students interested in graduate work should consult with their advisor regarding the possibility of taking other computer science electives to satisfy their departmental requirements.



Natasha Nesiba

New Degree
for the
Computer
Science

Bachelors of
Arts in
Computer
Science

NSF awards GK-12 grant to NMSU

The New Mexico State University Department of Computer Science is pleased to announce the awarding of the GK-12 DISSECT (Discover Science through Computational Thinking) grant. This exciting new program puts graduate students in K-12 science, technology, engineering and mathematics classrooms in an effort to educate a new generation in ways of computational thinking.

DISSECT aims to revitalize interest and preparation in STEM subjects in general, and computer science in particular, by infusing computational thinking and computational methods in traditional STEM classes at the middle/high school levels, and increasing teachers' effectiveness in STEM coursework. Interest and success in STEM among K-12 minority students remains low, and among the general student population, interest in computer science has plummeted since 2000. The DISSECT approach to reversing this trend is innovative in that the use of computational concepts is not presented as an independent (and "dry") discipline, but as a dynamic instrument of scientific reasoning and problem solving in STEM disciplines, such as biology, mathematics, and engineering.





DISSECT proposes to address these issues by placing computer science graduate students in K-12 classrooms to investigate the relevance of their research in the broader scientific arena, and to develop communication, leadership, and team working skills to operate outside the computer science discipline. At the same time, traditional approaches to exposing young students to computing rely on introducing computing as a separate discipline, using high-level languages, with their idiosyncrasies; real world applications are introduced as illustration of computing concepts, often as an afterthought. DISSECT proposes to proceed in the opposite direction, by introducing computational thinking as a problem-solving methodology in the context of existing STEM courses. From this experience, these graduate students will become trained in maintaining a broader vision of CS research, learning how their research can be transformative in other domains, and become equipped with the skills to communicate their research ideas to different audiences, including students, teachers, and researchers, which are vital skills necessary in academia.

Graduate students involved in this program will be given the opportunity to work as part of a dynamic team and participate in the discovery of new educational tools and methodologies, as well as impact the lives of the K-12 students, by helping them in gaining confidence and mature problem solving skills. The graduate students will also receive a two-year \$30,000 stipends, as well as funds for additional educational expenses. The participating K-12 teachers also benefit from opportunities from training in using computational methods in their classrooms as well as the opportunity to work side by side with domain experts from different areas of computer science. Teachers will receive a one or two-year \$5,000 stipend from participating in the program.

YWIC Program Coordinator 2011 Summer Camps



Young Women in Computing began in 2006 as a summer camp for local high school females at New Mexico State University, in Las Cruces, New Mexico. Each year, the camp is a five-week program during the second session of summer school at NMSU. The camp is specifically for high school females who have excelled in their academic studies and who have an interest in computing and technology. The students are required to turn in an application packet, which entails of an application, their academic transcript, an essay, and two recommendations from previous teachers. YWIC participants receive a weekly stipend to attend camp, and are provided with their books and other supplies. During the five week session, the students take part in different teambuilding activities that are offered on campus. These include Rockwall climbing, a challenge course, self-defense training, financial aid information, and other similar activities. There are also optional Thursday night activities, with intention of establishing and strengthening comradeships between the staff and camp participants. These events are meant to be fun, with agendas such as movie nights, game nights, mystery solving scavenger hunts, and more. The students are not only required to attend every day of the five week camp, but they are also required to attend monthly seminars. At the seminars, prominent women in technological professions are brought as guest speakers to give the students a presentation on their research, as well as a synopsis of how they got where they are now.

The Young Women in Computing program will host its annual high school and middle school summer camps in 2011. These programs are for students in the Las Cruces Public School District and the Gadsden Independent School District.

The five-week high school camp is specifically for females who have excelled in their academic studies and have a high aptitude for math and science. YWiC participants receive a weekly stipend to attend camp, and are provided with their books and other supplies. Camp curriculum includes: Learning to Program with Alice (for which they earn college credit), bioinformatics, robotics, LilyPad Arduino (merges programming with crafts), and web design. Students also participate in fun team building activities and gain knowledge about the college experience.

The middle school camp is a one week program that focuses on PicoCricket robotics and Scratch animation. Students are given the opportunity to present their projects to parents and Computer Science faculty at the end of the camp. Similar to the high school program, all books and supplies are provided.

If you would like information about the YWiC summer programs please contact Rachel Jensen or Rebecca Galves at ywic@cs.nmsu.edu or 575-646-4451.

CONTACT US!

If you are an alumni of the CS Department, we want to hear from you!

Let us know what you are doing and allow us to share your successes with the rest of the NMSU Computer Science family.

Send your contact information, news, and suggestions to:

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FUNDS:

- YOUNGWOMEN IN COMPUTING
- RICHARD H. STARK SCHOLARSHIP
- FOUNDERS' ENDOWMENT FUND
- GENERAL SCHOLARSHIPS
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- SOFTWARE AND EDUCATIONAL MATERIALS
- OTHER (PLEASE SPECIFY)

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Please consider requesting the next issue of the newsletter to be sent electronically to your email. To request this send an email to: epontell@cs.nmsu.edu

WOULD YOU LIKE TO GIVE BACK TO OUR DEPARTMENT?

There are many different ways to give back to the department. The simplest way is to make a donation. Your donation will support the students pursuing their educational dreams, through scholarships, renovation of equipment and acquisition of materials and supplies. In particular, we are launching a new campaign at creating new opportunities to help young women interested in pursuing studies in Computer Science. Your donation is tax deductible and even a small contribution will make a big difference!

Please join our Facebook page and help us develop a community of NMSU CS Alumni. If you are in the neighborhood come by and visit! Or simply send us your ideas: your experience is valuable to assist with development to help our students connect with alumni and potential employers, and to grow into a bigger and stronger department. You may contact department head Enrico Pontelli (epontell@cs.nmsu.edu) or Elaine Stachera (elainek@nmsu.edu) in development and philanthropic gifts or you have any questions or suggestions.

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