



Women in Engineering

April 2015

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Our Mission

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Our goal is to promote, mentor, and enable the participation of women students and faculty in engineering studies and the workplace. WIE provides activities that bring together female and male engineering students, faculty, and administrators - as well as external representatives from industry, government agencies, and other academic institutions - with the goal of promoting a healthy institutional climate for all members of the engineering community at UD.

Upcoming Events

Women in STEM Wine Tasting Night

WIE and the Association of Women in Mathematics will be hosting the first “Women in Stem Wine Tasting Night” at the Speakeasy. All women in STEM (graduate students, post docs and faculty) are welcome to join us on Friday, April 17th at 7 pm in the Speakeasy. Tickets can be bought from your WIE or AWM representatives before the event for \$10 or at the door for \$12.

ABCs of Sexuality Training

WIE and Prism (UD's Graduate LBGTQ Organization) will be providing a training session on ABC's of Sexuality. The session will cover terminology, differences between sex and gender, transgender, heteronormativity and UD resources.

The training session is being held on [Wednesday, April 29th at 3:15pm-5:15pm in ISE Lab 322.](#)

WIE & the Honors Program Graduate School Panel

WIE and the University of Delaware Honors Program are hosting a Graduate School Panel to answer questions about Graduate School; the application process; which program to choose; graduate student life and other questions related to graduate school. The Graduate Student Panel is well represented by students at different stages of their degrees from all seven faculties of engineering offered at UD.

This year the Panel is being held on [Wednesday, May 6th at 5:30 pm in ISE Lab 322.](#)

WIE Steering Committee

WIE Faculty Advisors



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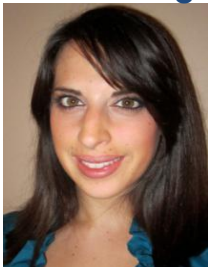






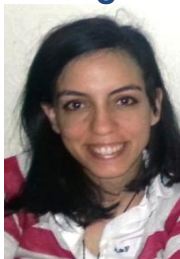






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WIE Graduate Student Steering Committee

Biomedical Engineering  Jilian Melemed  Rachel Edelstein	Civil and Environmental Engineering  Mengyin Yao  Keira Zhang
Computer Science  Irene Manotas  Vallary Singh	Electrical and Computer Engineering  Anagha Kulkarni  Elpiniki Apostolou
Mechanical Engineering  Anahid Ebrahimi  Diana Haidar	Material Sciences and Engineering  Shuyu Xu  Theresa Gin

WIE can! Nominations, achievements and awards.

Chemical & Biomolecular Engineering



Bahar Ipek
(Chair)



Maura Koehle



Dr Michela Taufer, the David and Beverly J. C Mills Career Development Chair of Computer and Information Sciences, has been elected to a three-year term on the steering committee for the SC Conference Series.

The University of Delaware's Michela Taufer, the David and Beverly J.C. Mills Career Development Chair of Computer and Information Sciences, has been elected to a three-year term on the steering committee for the SC Conference Series.

This premier international conference on high-performance computing, networking, storage and analysis hosts more than 10,000 people each year. A specialist in high performance computing and scientific applications, Taufer administers several National Science Foundation-funded projects, and is an advocate for computing education and interdisciplinary

collaboration. Taufer previously served as co-chair of the SC Technical Program.

She joins other prominent researchers from major universities and national laboratories selected for their active leadership in the supercomputing community.

“I am honored and humbled to serve on this committee and represent the University of Delaware,” she says.

This article was adapted from the UDaily announcement (Photos by Evan Krape) on December 12, 2015. For the full article please visit: <http://www.udel.edu/udaily/2015/dec/taufer-elected-121214.html>



Emily Day's research group has published an invited perspective in ACS Nano that overviews the nanoparticle-mediated photothermal therapy (PTT) and discusses recent insights into the mechanisms of cell death induced by this technique. Day recently received an ACCEL grant for breast cancer therapy using nanotechnology.



Dr. Hagit Shatkay and Dr. Chandra Kambhamettu have received a grant from NLM and National Institute of General Health to apply text & image mining tools to biomedical data and to track drug interaction through data .

Shatkay and Chandra Kambhamettu, professor of computer and information sciences and image analysis expert, have received a grant from the National Library of Medicine (NLM) to apply the principle of “computational glancing” to biomedical research.

A two-year, \$560,000 grant from the NLM and the National Institute of General Medical Sciences (under the NIH R56 grant program) will allow Shatkay and Kambhamettu and their associates to investigate methods of integrating text and image information to obtain relevant information in three very specific areas.

Shatkay and her associates will collaborate with the CYRENE project at Brown University ,with the Jackson Laboratory; and with the Protein Information Resource, run by Cathy H. Wu, the Unidel Edward G. Jefferson Chair of Bioinformatics and Computational Biology at UD who also has an appointment at Georgetown University, to uncover information on protein-protein interactions. Cecilia Arighi, research associate professor at the Center for Bioinformatics and Computational Biology, and several graduate students will also collaborate on the work.

Although the techniques developed will be project-specific, showing that it is possible to combine text and image mining for biomedical information will be a big step. Knowing how to combine the two, and what weight to give each type of information, has proven very tricky for the few people who have attempted it, so the team is not doing a full analysis of the images.

Tracking drug interactions through data

Shatkay has also received another, longer-term grant from the NLM as part of a team looking for information on drug-drug interactions (DDIs). When patients take more than one drug at a time, the different drugs can interact in dangerous ways, sometimes resulting in adverse reactions and hospitalization.

The information on DDIs is hard to sort out, however, because what happens when two drugs are combined in a test tube may differ from the outcome when they come together in a patient's body. Even when it is known from clinical studies that two drugs taken together may cause adverse reactions, researchers often don't know how and why the interaction happens, especially for older drugs, because newer information from cell biologists, chemistry labs, and hospitals may not all get put together.

Shatkay is co-principal investigator on the grant, along with Luis Rocha and Lang Li from Indiana University.

The team will use text mining to identify evidence of and reasons for drug interactions, combining studies from across various fields. The project will be text-based -- no images yet -- but will be looking for a lot more detail.

This article was adapted from the UDaily announcement on January 15, 2015. For the full article please visit:<http://www.udel.edu/udaily/2015/jan/biomedical-data-011515.html>