

In celebration of **Women's History Month**, the **Department of Electrical and Computer Engineering** is spotlighting our faculty and Advisory Board members. These women provide guidance and leadership in academia and industry. Their achievements are an inspiration to the department and our future women engineers.

Tanzeem Choudhury
Cornell, HealthRhythms, Inc



Tanzeem Choudhury is a Professor of Computing and Information Sciences at Cornell Tech where she holds the Roger and Joelle Burnell Chair in Integrated Health and Technology and a co-founder of HealthRhythms Inc, a company whose mission is to add the layer of behavioral health into all of healthcare. At Cornell, she directs the People-Aware Computing group, which works on creating the future of technology-assisted well-being. Tanzeem received her PhD from the

Media Laboratory at MIT. She has been awarded the MIT Technology Review TR35 award, NSF CAREER award, TED Fellowship, Kavli Fellowship, ACM Distinguished Membership, and Ubiquitous Computing 10-year Impact Award. For more information, please visit: <http://pbh.tech.cornell.edu>.

Wendi Heinzelman
Professor of Electrical and Computer Engineering
Dean, Hajim School of Engineering and Applied Sciences



Wendi Heinzelman is Dean of the Edmund A. Hajim School of Engineering and Applied Sciences at the University of Rochester, where she is also a full professor in the Departments of Electrical and Computer Engineering and Computer Science. She received a BS degree in Electrical Engineering from Cornell University and MS and PhD degrees in Electrical Engineering and Computer Science from MIT. Her research interests include wireless communications and networking, mobile-cloud computing and multimedia communication. She has contributed to 12 books and has published in more than 150 journals and conferences, with over 55,000 citations to her work. She is an elected Member-at-Large of the IEEE Communications Society (ComSoc), a

member of the Executive Committee of the American Society for Engineering Education (ASEE) Engineering Deans Council, co-founder and a steering committee member of N² Women, a Fellow of the ACM, and a Fellow of the IEEE.

Maria Helguera
Adjunct Professor of Electrical and Computer Engineering



María Helguera was born in Mexico City. She got a BsC in Physics from the National Autonomous University of Mexico, UNAM, where she also worked at the Institute of Astronomy developing instrumentation. In 1988 she was awarded a National Council for the Sciences and Technology (CONACYT) scholarship to attend the University of Rochester where she got a MsC in Electrical Engineering in 1990. She returned to Mexico to lead the Department of Electronics Engineering at the National Center for Research and Technological Development (CENIDET) in Cuernavaca, Morelos. In 1995 she enrolled in the PhD program in Imaging Science at RIT and was hired as an Assistant Professor at the Chester F. Carlson Center for Imaging Science, RIT in 2000. She was the principal investigator in the Biomedical Imaging Lab from its inception

until 2016 when she retired from RIT. During her time at RIT, she was the academic coordinator of the Imaging Science online Master's program, 2000 – 2008, and from 2012- 2016 she was the coordinator of the Imaging Science undergraduate program. She taught numerous courses at the undergraduate and graduate levels, she supervised 34 undergraduate students, 12 MsC students in Imaging Science and Mechanical Engineering and 4 PhD Imaging Science students. She has over 80 publications with her students in journals and conference proceedings.

In 2016, upon retirement, she returned to Mexico and joined the Institute of Technology Mario Molina in Lagos de Moreno, Jalisco where she was responsible to form a research department. She taught Physics, Calculus, Probability and Statistics, Research Practices and Artificial Intelligence for the Computer Engineering, Industrial Engineering, and Automotive Engineering departments. In 2021 she joined the Electrical and Computer Engineering Department at the University of Rochester as an adjunct professor.

In her spare time, she supports a small low-income semi-rural community facilitating drip-irrigation plots to cultivate corn, beans, tomatoes, cabbage, onions, squash, cilantro and hot peppers that the families use for their own consumption or to sell. She is the director of an NGO to protect the cultural heritage of Lagos de Moreno, which has been recognized by UNESCO as a world heritage city. She is the mother to Emilio and his wife, Fernanda, and soon to be a grandmother.

Sanghamithra Korukonda – Advisory Board
Nanostring Technologies, Senior Scientist



Mithra Korukonda specializes in the area of medical image analysis, creating computational tools for diagnosis and treatment. Currently, she is a senior scientist at Nanostring Technologies, working to decode gene expression from fluorescent microscopy data. Prior to that, she held research staff positions at GE Global Research and Philips Research North America developing algorithms and technologies for diverse imaging modalities.

She obtained an undergraduate degree in Electrical Engineering from the Indian Institute of Technology at Bombay, India and holds a PhD in biomedical ultrasound from the ECE Dept at the University of Rochester. While not working, she loves to travel and hike, a pursuit she honed-in the Adirondacks while at graduate school."

Linda Marchese – Advisory Board
Senior Terahertz Architect for RaySecur



Linda Marchese is Senior Terahertz Architect for RaySecur, a startup company headquartered in Boston. She led the development of and is first author of the patent for RaySecur’s flagship product, MailSecur. MailSecur is a real-time non-invasive see-through mail scanner that has received a 2019 R&D 100 Award and a 2021 SPIE Prism Award and had been adopted by numerous Fortune 100 companies. Before moving to RaySecur, she was an Expert Researcher at the National Optics Institute (INO) in Quebec City where she was the technical lead for Terahertz and Millimeter-Wave Imaging Systems.

Born in Philadelphia, she earned her BS in Physics in 1991 and her MS and PhD in Electrical Engineering in 1993 and 1997, respectively, all from the University of Rochester.

Theophano Mitsa - Advisory Board
Aretisoft, LLC



Dr. Mitsa holds a Ph.D. degree in Electrical Engineering from the University of Rochester, is the author of 47 publications and the book “Temporal Data Mining”, and inventor for 11 US patents. She has diverse academic and industrial experience, having served as a faculty member at the Universities of Iowa and Massachusetts and a Senior Software Engineer at GE HealthCare and Abiomed. Dr. Mitsa has received research awards from the National Science Foundation, the Whitaker Foundation, and HP. She is also a Fulbright scholar and the winner of the University of Rochester Eastman Medal. She is currently Managing Member at Aretisoft, LLC, and a frequent Medium writer and blogger in the areas of data science/mining.

Inna Partin-Vaisband – Advisory Board
University of Illinois at Chicago



Inna P.-Vaisband is an Assistant Professor of Electrical and Computer Engineering at the University of Illinois in Chicago. She received the B.Sc. in computer science and M.Sc. in electrical engineering from the Technion-Israel Institute of Technology, Haifa, Israel, in, respectively, 2006 and 2009, and the Ph.D. degree in electrical engineering from the University of Rochester, Rochester, New York, in 2015. Between 2003 and 2009, Dr. P.-Vaisband held a variety of software and hardware R&D positions at Tower Semiconductor Ltd., G-Connect Ltd., and IBM Ltd., all in Israel. Dr. P.-Vaisband is an Associate Editor of the Microelectronics Journal. Her research is focused on innovation in the area of distributed power delivery and locally intelligent power management that facilitates performance scalability of heterogeneous ultra-large scale integrated systems. Special emphasis is placed on

hardware security and emerging technologies such as wireless power transfer, simultaneous wireless information and power transfer, and photonic networks. A method for distributed power delivery and management in heterogeneous ICs has been proposed and patented by Dr. P.-Vaisband in 2017. Her

research into heterogeneous power delivery and management has been published in her book *On-Chip Power Delivery and Management*, 4th Edition. A distributed system of ultra-small high-efficiency on-chip power supplies previously designed, fabricated, and tested by her was in mass production within the Galaxy S5 android smart phones as part of the Qualcomm Snapdragon product line.

Sarah Smith

Assistant Professor of Electrical and Computer Engineering



Sarah Smith received her PhD in Electrical Engineering from the University of Rochester in 2019 with a dissertation on instantaneous frequency analysis of reverberant audio. She also holds a BA from Cornell University with a double major in Physics and Music and a MA in Music, Science, and Technology from Stanford University's Center for Computer Research in Music and Acoustics (CCRMA). Her research combines musical acoustics and audio signal processing to study the properties of musical sounds, particularly instrumental vibrato. In her role on the instructional faculty, Sarah teaches an introductory course sequence in Audio and Music Engineering and an upper-level project-based course in musical acoustics.



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