Engineers have problems too

Abstract

This informal presentation will try to take you on a quick ride through different problems faced while working on hardware development. The 6 to 7 problems picked for this presentation just showcase challenges that would benefit from your talent. Some of them already take advantage of solutions provided by other (famous) mathematicians. The problems will be quickly sketched, without going into engineering (or Math) details. The presentation is intended to give you a broader view rather than a deep dive. The goal is to introduce a new world of problems to you and to help you discover if you would enjoy working on this type of (more practical) challenges. The subjects will touch areas like logic, SAT solvers, constraints, linear equations, randomness and distributions, data mining, etc. The presenter will use this opportunity to share with you her personal experience as a woman with a Ph.D. in computer architecture working in this field.

A mentoring lunch for female students will follow the talk. Apply to participate at: http://womendoingmath.wp.txstate.edu/

Speaker’s bio

Monica Farkash is an EDA (Electronic Design Automation) scientist working in research and development at NXP. She earned a Ph.D. in Electrical Engineering at The University of Texas - Austin with a dissertation on data mining solutions for hardware development. Her previous education includes a Master of Science in Computer Science (Warwick, UK), and a Master of Science in Electrical Engineering (UT Cluj, Romania). She has extensive experience in researching, designing and developing EDA methodologies, solutions and tools, accumulated while working for IBM Research/EDA, Freescale R&D, and now NXP R&D. Her articles and patents cover formal functional verification, test generation, coverage analysis, power optimizations, and hardware security validation.

This event is part of the program Women Doing Math funded by the Mathematical Association of America – Tensor Program for Women and Mathematics.

Thursday November 10, 11am – 12pm • ELA 312

Women Doing Math

A program to encourage women to participate in creating Mathematics
http://womendoingmath.wp.txstate.edu/