

## Smith Colloquium

---

Monday, March 27, 2017

4:00 pm

306 Snow Hall

Aronszajn Seminar Room

Refreshments will be served at 3:30 pm in 406 Snow Hall.

---

### Impact of Assistive Technology and Service Learning in Engineering Education

**Ramalatha Marimuthu**  
Kumaraguru College of Technology

Enhancing the quality of life through technology has become the tagline for industries' non-profit. With engineering students becoming more and more disassociated with society, it has been a struggle to sustain the interest on Engineering Education among the younger generation. Different teaching methodologies have been researched with mixed results but sustainability of the interest has not been achieved with any of the methodologies.

Society is viewed always with a friend-foe relationship, each with their own perception. But it has been well proved that "All to themselves" concept will not work because of the heavy dependency on each other. Bringing in a purpose to the education by connecting the students with the community and creating a mutually dependent relationship with each other is the heart of this presentation.

Technology Growth has always been based on the increased requirements of the society and the humanity. But this fact has only recently been acknowledged by the engineering researchers and the attention of the industries and governments also has turned in that direction now. Technologists have started embracing the interdisciplinary nature of the world bringing the engineers, medical practitioners and end users in close contact to solve the problems faced by human kind in their day to day life due to age, immobility, disability, environment and any number of other reasons. New and emerging areas of engineering and technology have been introduced to the students based on the interdisciplinary nature.

Assistive Technology is one such area which concerns the well-being of the society in its core and which expands into new technology development based on requirements of the community concerned. This presentation shows how introducing service learning curriculum and assistive technology based projects has enhanced the professional experience of the students and has a lasting impact throughout their career. The case study involves Indian engineering students as the objects but will produce similar results worldwide. Support to these projects were extended by professional bodies, Non Government Organizations,

---

Dr Ramalatha Marimuthu is a professor of information technology at Kumaraguru College of Technology, Coimbatore, India. She has been in teaching for thirty years and has published six technical books and more than fifteen research papers in international conferences and journals. She also guides the students in developing unique solutions for social problems like special needs and women empowerment. She has delivered lectures on assistive technology in universities and conferences all over the world and was invited to the Google Headquarters, Mountainview, California to deliver a speech on her research in assistive technology for people with special needs.

Dr Marimuthu is a senior member of IEEE and founding chair of Madras IEEE Women in Engineering Affinity group (2007 – 2014). She was R10 Women in Engineering (WIE) Coordinator for 2008-2010 and chair of the IEEE WIE Committee for 2011 and 2012. She launched an exclusive project "Sangamam" for the transfer of technology to rural areas. Based on her work to improve the quality of life for the rural society she was awarded the "IEEE MGA Achievement Award" (2008), the "Life Time Achiever Award" by the Lions Club International (2009), and the Mentor award by the Secretariate for the Disabled, the Government of Tamilnadu (2009). She has also received the IEEE MGA Leadership Award (2012) and ABI change agent award (2012). She was awarded the "Systers Pass it on Award 2014" by the Anita Borg Institute for Women and Technology. Recently, she won the "WIE Inspiring Member of the Year Award 2016" from IEEE WIE Committee.



**KU Student Chapter**

**AWM**

Association for Women  
in Mathematics

**This talk is held jointly with the KU student chapter of  
the Association for Women in Mathematics.**