



**PROF. DR. GANPATI RAMANATH**

*John Tod Horton Professor of Materials Science & Engineering*  
Rensselaer Polytechnic Institute, Troy, NY, USA.

Google "Ramanath" or visit [www.rpi.edu/~ganapr](http://www.rpi.edu/~ganapr)

Professor Ramanath received his PhD from the University of Illinois, Urbana, in 1997. His PhD thesis work won him a Graduate Student Gold Award from the Materials Research Society. He joined Rensselaer in 1998 as an assistant professor and has been a full professor since 2006, and was named John Tod Horton Chaired Professor in 2013. His research focuses on developing a fundamental understanding of structure-processing-property relationships in molecularly-tailored inorganic thin film and bulk nanomaterials and heterointerfaces for energy and electronics applications. He has co-authored >170 journal articles (Google Scholar h-index 48, 8300 citations), one book chapter, and holds 9 US patents. He has delivered over 215 invited/plenary/keynote talks worldwide, and has organized several international symposia and workshops for MRS, AVS and TMS.

Ramanath is a co-founder and director of *ThermoAura Inc.*, which is commercializing a nanomaterials manufacturing technology developed in his laboratory. He was the Director of the NY State Center for Future Energy Systems (2008-10). He served as an Editor of IEEE Transactions on Nanotechnology (2003-15) and is an Editorial Advisory Board member for Journal of Experimental Nanoscience.

Ramanath is a Fellow of the Materials Research Society, the American Physical Society, and the American Vacuum Society. Awards include Friedrich Wilhelm Bessel Award (2013), Brahm Prakash Chaired Professorship at IISc, Bangalore, India, NSF CAREER Award, and Bergman Young Scientist Award from the US-Israel Binational Science Foundation. Visiting appointments include RWTH, Aachen University, Germany; Max-Planck-Institute for Solid State Research, Stuttgart, Germany; National Institute of Materials Science, Tsukuba, Japan; IISc, Bangalore, India; University of Wollongong, Australia; PSG Institute of Advanced Studies, Coimbatore, India.

Ramanath's hobbies include performing and teaching Indian classical music (live and TV performances in the US, Australia, Germany, and India), various aspects of Indic culture, philosophy, chants and devotional hymns, spoken Sanskrit, history, cricket, multilingual puns, and poetry in 5 different languages.

Awards (select)

- Fellow of the Materials Research Society (2018)
- Fellow of the American Physical Society (2017), Senior member IEEE (2017).
- Fellow of the American Vacuum Society (2013)
- Friedrich Wilhelm Bessel Award, Alexander von Humboldt Foundation, Germany (2013).
- Brahm Prakash Visiting Professorship, IISc Bangalore, India (2013).
- Rensselaer Team Excellence Award (2013); Rensselaer Research Excellence Award (2002, 2012).
- Alexander von Humboldt Fellow (2004)
- Professor Bergman Young Scientist Award US-Israel Binational Science Foundation (2003)
- National Science Foundation CAREER award (2000), IBM Research Partnership Award (2000-2013)
- Materials Research Society Graduate Student Award for Outstanding Research (1996).

Visiting/Guest Professorships

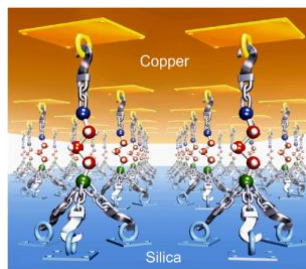
- RWTH, Materials Chemistry Department, Aachen University, Germany (2013-14)
- IISc, Bangalore, India—Brahm Prakash Chair Professorship (2013), Visiting Professor (2006)
- The Max-Planck-Institute for Solid State Research, Stuttgart, Germany (2004-5)
- NIMS-ICYS and WPI for Materials Nanoarchitectronics, Tsukuba, Japan (2004, 2010)
- University of Wollongong, Australia (2007)

**Prof. Ganpati Ramanath**  
**SYNOPSIS OF RECENT RESEARCH ACCOMPLISHMENTS**

- 2007—*Nanoglue Can Bond Nearly Anything Together*  
 Google “*Nanoglue Ramanath*”

Paper: [Nature \(2007\)](#)

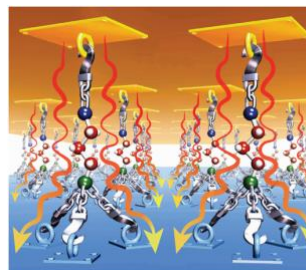
News: [Science Daily](#)  
[MIT Technology Review](#)  
[Reuters](#)  
[Spiderman and nanoglue, Computer World](#)  
[Nanomaterials News](#)  
[RPI Press Release](#)



- 2013—*Boosting Heat Transfer With Nanoglue*  
 Google “*Nanoglue Heat Transfer Boost Ramanath*”

Paper: [Nature Materials \(2013\)](#)

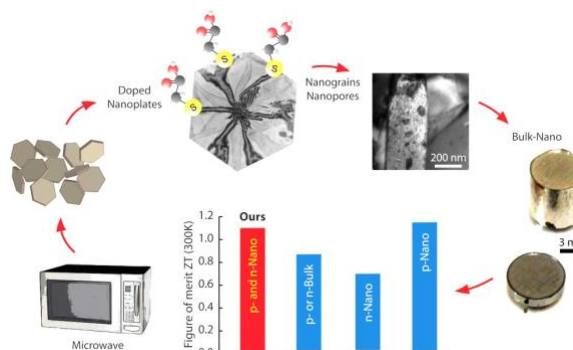
News: [Innovation Toronto](#)  
[New Energy and Fuel](#)  
[Silicon Investor](#)  
[RPI Press Release](#)



- 2012—*Cooking Nanomaterials in a \$40 Microwave Oven For Tomorrow’s Solid-State Refrigerators* (Google “*Ramanath thermoelectrics microwave*”)

Paper: [Nature Materials \(2012\)](#)

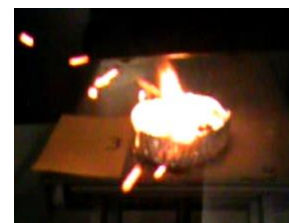
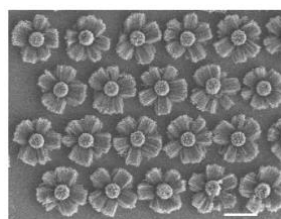
News: [CNET News with Video](#)  
[MIT Technology Review](#)  
[Science Business Tech News](#)  
[Innovations Report](#)  
[Nanotechnology News](#)  
[Nanotech Now](#)  
[RPI News Release](#)



- 2002—*Organized assemblies of aligned nanotubes for electronics*

Paper: [Nature \(2002\)](#)

News: [Eureka Alert](#)  
[EE Times](#)



- 2002—*Nanotube photoacoustic effect and burning*

Paper: [Science \(2002\)](#)

News: [Scientific American](#)  
[New Scientist](#)  
[Lawrence Livermore National Lab](#)  
[RPI News Release](#)

- 2011—*Ton-scale manufacturing of thermoelectric nanomaterials technology* (Google “*ThermoAura*”)

Web: [ThermoAuraInc](#)

News: [Times Union](#)  
[The Team](#)



**A New Materials Manufacturing Paradigm**

Nano-enhanced high-performance — Ton-scale — Low-cost