



CANDIDATE NAME: Ashutosh Dutta, Ph.D.
IEEE Number: 21491340, Senior Member

Summary BIOGRAPHY: Ashutosh Dutta is currently Director of Technology Security at AT&T's Chief Security Office where he leads a group responsible for the design and architecture of security for next generation mobility networks. His more than 25 years of career includes CTO of Wireless at a Cybersecurity company NIKSUN, Senior Scientist in Telcordia Research, Director of Central Research Facility at Columbia University, and Computer Engineer with TATA Motors. He

has more than 80 conference and journal publications, four book chapters, 30 issued patents, and has given tutorials at various conferences and online tutorials. Ashutosh's research interests include wireless Internet, multimedia signaling, mobility management, 4G networks, IMS (IP Multimedia Subsystems), VoIP and session control protocols. Ashutosh is co-author of the book, titled, "Mobility Protocols and Handover Optimization: Design, Evaluation and Application," published by IEEE and John & Wiley. He serves as the editor-in-chief for the Journal of Cybersecurity and Mobility published by River Publishers. Ashutosh is a senior member of IEEE and ACM. As an active IEEE and ComSoc volunteer, Ashutosh has contributed significantly to serve the humanity through technology and innovation.

Proposed Category for Fellow Nomination:

Significant Academic Achievement:

Degree - Ph.D. in Electrical Engineering Columbia University, New York
Advisor Prof. Henning Schulzrinne

Thesis Topic: Systems Optimization for Mobility Management

Thesis Synopsis: This thesis proposes a formal systems model and framework for mobility management and develops generic optimization methodologies that can be applied to any kind of IP-based handover including handover across different kinds of access technologies (e.g., WiFi, CDMA, LTE). Furthermore, the thesis focuses on both theoretical modeling and practical testbeds to demonstrate these techniques using various use cases and experimental results.

Publications/Editorship:

- Published more than 80 conference, magazine and journal papers. About 60 of these are related to Mobility Management.
- Co-author of a book titled, "Mobility Protocols and Handover Optimization," published by Wiley and IEEE in 2014
- Co-author of four book chapters on Mobility Management
- Editor-In-Chief for Journal of Cybersecurity and Mobility since 2011
- Associated Technical Editor – IEEE Communications Magazine
- Guest Editor for IEEE Communications Magazine – Special Topics on Social Networking

Teaching:

Adjunct Faculty at New Jersey Institute of Technology (NJIT) ECE department and Computer Science Department.

Significant Professional Achievement:

- As the director Computing Facilities of Columbia University Computer Science Department, led a team that built of the state-of-the-art computing facilities to support research and development in the department

- As Senior Scientist at Telcordia Applied Research (Formerly Bellcore) developed innovative mobility related technologies, built new mobility systems, designed next generation mobility architecture for the operators, DoD, US Army and Enterprise Networks.
- As the project manager and PI/Co-PI, successfully applied for funding and managed many government and commercial projects to successful completion.
- As the Chief Technology Officer (CTO) of a cybersecurity company NIKSUN led the Innovation Center and a team of 25 people in building security monitoring product for mobility networks (LTE networks). Led the whole life cycle including design, prototype, quality assurance and product development. and then helped to implement these in operators network
- As the Lead Member of Technical Staff and Director of Technology Security at AT&T led the design, deployment strategy, and implementation of various security function virtualization in AT&T's mobility network. Led the security virtualization standardization efforts within ETSI/NFV and IEEE standards organization.

Patents:

- Inventor of 30 patents (issued), 25 of those patents are mobility related – Complete list of patents are listed in the CV.

Mobility Tutorials/Speaking Engagement

- Frequent speaker in trade shows on mobility management
- Presented mobility related tutorials on "ComSoc Tutorials Now" and "ComSoc Training"
- Presented Mobility Management Tutorials in various conferences including IEEE WCNC, ICC and Globecom

Awards/Distinction

IEEE 2009 MGA (Membership Geographic Activities) Leadership Award

IEEE 2010 Professional Leadership Award, IEEE-USA

IEEE Region 1 award for outstanding section leadership for Princeton/Central Jersey

Section

2005 Leadership Award from IEEE-PCJ Section

CEO awards from Telcordia Technologies (2000 and 2002)

Best Paper Award from ESTC (SAIC), IEEE, EIT 2005, IEEE IMSAA 2009

6 times recipient of DARPA Merit Award for Technical Excellence for Integrated

Mobility Management in the Air-Borne Communication Node project

Several Recognition awards from the Vice-President of Telcordia Research Labs

Recognition award for serving as a Publicity Co-Chair in Mobicom 2000, Boston

AT&T CSO Security Team Award, 2013

IEEE ACTIVITIES: (IEEE positions with dates of service)

COMMITTEES/BOARDS:

- Director of Marketing and Industry Relations, IEEE Communications 2014-2015
- Director of Industry Outreach 2016 – Present
- Member of BOG IEEE Communications Society BOG (2014 - Present)
- IEEE MGA Industry Relation Chair 2009-2012
- IEEE MGA Pre-University Coordinator 2012-2013
- IEEE MGA Liaison to History Committee (2014)

- Member of Adhoc Public Visibility Committee (2009)

REGIONS:

- IEEE Region 1 Industry Relation Coordinator (2008-2011)
- IEEE Region 1 ECS Representative to IEEE-USA (2014-2015)

SECTIONS/CHAPTERS:

Chair, IEEE Princeton / Central Jersey Section (2008-2009)
Vice-Chair, IEEE Princeton / Central Jersey Section (2006-2007)
Treasurer, IEEE Princeton / Central Jersey Section (2004 – 2005)
Secretary, IEEE Princeton / Central Jersey Section (2003)
Vice Chair/Acting Chair, IEEE Education Society, Princeton / Central Jersey Section (2010 - Present)
Vice Chair, IEEE Communication Society, Princeton / Central Jersey Section (2010-2014)
Chair, IEEE Communication Society Chapter of Princeton/ Central Jersey Section (2015 - Current)

SOCIETY(IES):

Director of Marketing and Industry Relations, IEEE Communications Society
Chair IEEE ComSoc AdHoc Public Visibility Committee (2010-2011)
Associate Technical Editor – IEEE Communication Magazine (2012- 2013), 2016 - Present

CONFERENCES:

General Chair, IEEE 5G Summits 2015 (Princeton, Toronto, Santa Clara)
IEEE STEM (Science Technology Engineering Math) General Co-Chair 2011-2016
TPC Co-Chair IEEE Global Wireless Summit 2013
Tutorial Co-Chair for Global Wireless Summit 2015
Patron Chair IEEE NFV-SDN Conference (2015)
IEEE Sarnoff Symposium 2005 – General Chair
IEEE Sarnoff Symposium 2004 – Exhibits Chair
IEEE IMSAA 2009 – TPC Co-Chair
IEEE IMSAA 2010 – General Chair
IEEE SDN/NFV 2015 – Patron Chair
IEEE Sarnoff Symposium 2015 - Steering Committee Member
ACM Mobicom 2000 – Publicity Co-Chair
ACM Multimedia 2004 – Finance Chair
IEEE World Wide Security and Mobility Conference – TPC Co-chair (2011- 2012)
TPC Member of several IEEE and ACM Conferences/Workshops (e.g., ICC, Globecom, Infocom, Mobicom, WoWMoM, MobiSec, Mobisys, MILCOM, Soft5G etc.)

MAJOR IEEE ACCOMPLISHMENTS

Major IEEE accomplishments

1. During my tenure as the Section Chair for IEEE Princeton / Central Jersey Section I led establish four new chapters, namely, Education Society, Women in Engineering, Signaling and Circuits Society, and Broadcasting Technology Society Chapters and

contributed to the growth of IEEE Sarnoff Symposium. Section got an honorable mention in Large Section Award category in 2008.

2. During my Section Chair tenure, I helped establish the sister section agreement between Princeton / Central Jersey Section and Bangalore Section that strengthened the cooperation and collaboration between Region 1 and Region 10.
3. As part of my involvement at the Region and Board Level, as the Industry Relation Chair for Region 1 and MGA, I helped lead the efforts in strengthening the relationship between IEEE and Industry by organizing Industry Days (www.ieee-industry.org) at different parts of Region 1 and Region 10.
4. As the Vice-Chair of Education Society Chapter of IEEE Princeton / Central Jersey Section, I helped establish 7 STEM clubs in various high schools and served as the General co-chair for IEEE Integrated STEM conference (<http://ewh.ieee.org/conf/stem/>) for 6 years after helping to co-establish the conference in 2011.
5. As the Director of Industry Relations for IEEE Communications Society, I created a framework for industry engagement and led a series of highly successful high impact 5G Summits (www.5gsummit.org) in USA and Canada. In the coming years, these series of one day summits will continue to take place in other areas such as Cyber Security, SDN/NFV all over the world.