



# NA EAST RCCC– North Jersey Section Communications Society Chapter Report

Globecom 2014, Hilton, Austin, Texas

December 7-8, 2014



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# Current Officers and Media Presence

- ▶ Chair - Amit Patel
- ▶ Vice Chair - Pitipatana Sakarindr
- ▶ Vice Chair - Nirwan Ansari
- ▶ Secretary - Adriaan Van Wijngaarden
- ▶ Treasurer - Michael Newell
  
- ▶ Chapter Website URL
- ▶ <http://sites.ieee.org/northjersey/chapter/com/>
- ▶ All meetings published (archived and searchable) via IEEE vtools website.
- ▶ [https://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/#####](https://meetings.vtools.ieee.org/meeting_view/list_meeting/#####)



# Chapter Mission

- The chapter mission is to carry out local activities under the umbrella mission of the parent Communications Society. The local mission covers a number of different activity areas.
- Primary focus is to provide:
  - Near monthly technical seminars on existing and emerging topics for member and student audiences.
  - Networking opportunities for participants at different activities.
  - Educational opportunities in fundamental topics and applications.
  - Collaborate with other local section chapters and out-of-section chapters on co-sponsoring meetings/events to foster increased interactions and share cost burden.
- Openly communicate with local membership via:
  - IEEE e-notice for mass email (done very infrequently) to members.
  - Chapter Website.
  - Articles of interest and meeting notices published in section monthly newsletter.
  - Social media channels (Facebook, Twitter, LinkedIn are not specific to the chapter but use the local section parent's media channels.)

# Event Summary 2014

- ▶ Tactile Internet – Technology Challenges for Next Generation Mobile Services, Rolf Schuster, January 30, 2014/ 5:00-6:00PM, meeting 23347
- ▶ Robust Uplink Communications with Variable Backhaul Connectivity, Shlomo Shamai, February 6, 2014/ 2:00-3:00PM, meeting 23371
- ▶ Fiber optic network for next generation multi-tenant data centers, Peter Feldman, February 20, 2014/ 5:00-6:00PM, meeting 23725
- ▶ Audio Considerations for Mobile DTV, Tim Carroll, May 6, 2014/ 6:00-9:00PM, meeting 25223
- ▶ Advanced Video Compression: Standards and Applications, Ofer Hadar, April 15, 2014/ 11:30AM-1:00PM, meeting 25003
- ▶ Fronthaul Compression for Cloud Radio Access Networks: an Information Theoretic View, Shlomo Shamai, July 10, 2014/ 2:00AM-3:00PM, meeting 27093
- ▶ Software Defined Radio and Prototyping Platforms for Next-Generation Wireless Systems, Tristan Martin and Martin Turgeon, Nutaq, QC, Canada and Moti Ahmed, AgileAccess, Flemington, NJ, September 23, 2014/ 6:00AM-8:30PM, meeting 27907
- ▶ Technologies for Future Broadband Wireless Evolution/Revolution, Doru Calin, October 6, 2014/ 4:00AM-5:30PM, meeting 28949
- ▶ Secure Broadcasting of a Common Message with Independent Secret Keys, Rafael Schaefer, November 20, 2014/ 2:00-3:00PM, meeting 27467

# New Initiatives for 2013 and 2014

- A new one-day technical seminars and research poster symposium was held in 2013 and 2014 to increase multi-section activities for Communications Society chapters and co-sponsoring technical chapters.
- This was done to allow working professionals and students in the six sections of the IEEE Region 1 Southern Area (NY/NJ/CT metro-area) to network, gain professional development, showcase research, and learn about upcoming technologies in different subject areas from renowned seminar speakers.
- KEY POINTS:
  - One-day event only with mostly technical speakers on different themes.
  - Parallel track of Post-Doc and Graduate Student poster presenters to showcase related theme research and compete for cash prizes by judges.
  - Supplemented by IEEE-USA PACE co-sponsoring a professional development speaker or activity for participants to gain soft-skills.
  - Hosted at Babbio Center, Stevens Institute of Technology, Hoboken, NJ
  - Centrally located, urban location (NYC adjacent) with public transport and highway access for participants travelling from wider geography.
  - Coffee breaks plus long lunch break for poster viewing and networking.

# New Initiatives Additional Details

- For full program agenda, speakers, topics, abstracts, and poster prize winners see the following URLs
  - IEEE North Jersey Advanced Communications Symposium, September 21, 2013 8:00AM-5:45PM, <http://sites.ieee.org/northjersey/events/2013-njacs/>
  - IEEE North Jersey Advanced Communications Symposium, September 20, 2014 8:15AM-5:15PM, <http://sites.ieee.org/northjersey/events/2014-njacs/>
- NJACS 2013 event details covered in the Global Communications Newsletter, July 2014.
- NJACS 2014 event covered by IEEE ComSoc Beats with recorded interviews of speakers and participants on YouTube:
  - Peter Kinget <https://www.youtube.com/watch?v=5-4pVOcG8o4>
  - Russ Pepe <https://www.youtube.com/watch?v=rTwDzy6Hlw8>

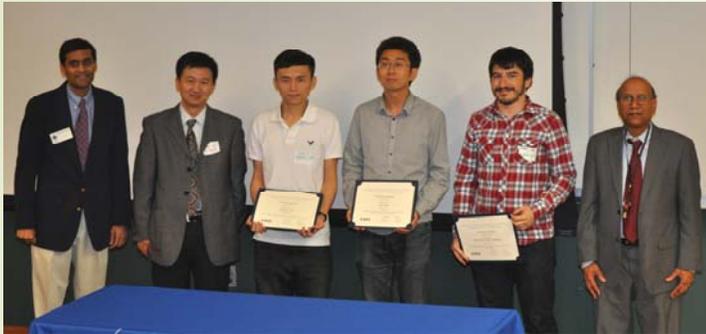
# Symposium - Additional Details

## 2013 Topics

- ▶ Beyond 4G: Millimeter Wave Picocellular Wireless Networks, Sundeep Rangan
- ▶ Localization of Packet-Based Radio Transmitters in Space, Time and Frequency, Predrag Spasojevic
- ▶ Low Complexity Doped Wireless Broadcast for Multimedia Applications, Silvija Kokalj-Filipovic
- ▶ Throughput-Optimal Communication Strategy for the Wireless Random Access Channel, Howard Huang
- ▶ Securing Large-Scale Consumer Vehicle Networks, Tao Zhang
- ▶ WIFI Security, Geoff Smith
- ▶ Cellular Security, Krishna Raghunandan
- ▶ Your Career – Don't Let It Manage You – A Few Tips to Manage Career Security, Bala Prasanna

## 2014 Topics

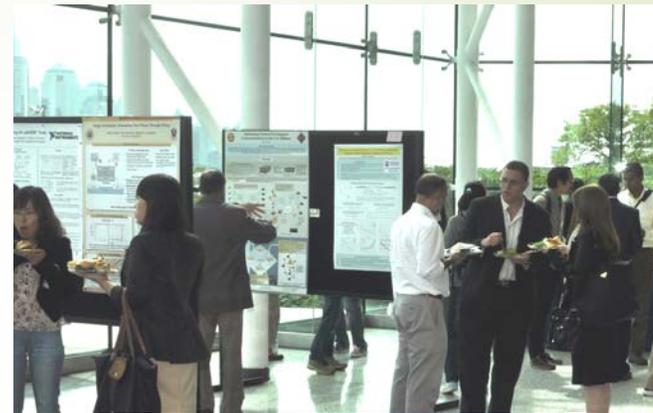
- ▶ Ultra Low Power, Short Range Wireless Communications: From Using RF Pulses to Ultrasound Clicks, Peter Kinget
- ▶ Small Cells – Big Impacts: Performance Improvements and Deployment Challenges, Amit Mukhopadhyay
- ▶ The Exponential Growth of the Internet-of-Things, Joe Jesson
- ▶ Backhauling in TV White Spaces, Narayan Mandayam
- ▶ Role of Software Defined Networking in Mobile Networks, Colin Kahn
- ▶ Self-Organizing Networks, Rudra Kumar Shivalingaiah



2013 Graduate Student Poster Winners



2013 Speakers and Volunteers



2013 Participants Viewing Posters

2014 Participants Viewing Posters



2014 Volunteers



2014 Speakers

# Lessons Learned

## ■ Technical Seminars

- Hold some in conjunction with university venue to increase student participants.
- Hold some at different times of the day, but evenings works best, serve pizza !
- Local society chapter cosponsors to share costs, increase attendance, get help.

## ■ Symposium

- Find easily accessible, centrally located venue at lowest cost.
- Restrict to one day to allow for local travel and eliminate lodging expense.
- Find local volunteer speakers to eliminate expensive travel/hosting costs.
- Co-sponsor with neighboring section chapters to share volunteers, funding.
- Encourage student participation with cash prizes for posters (need judges).
- Attempt to raise funds by finding corporate and society sponsors if possible.

# Future Planning

- In the process of conducting a membership interest survey:
  - Want to find out what the local membership is truly interested in.
  - Will help determine which types of events are working, which are not, and what new things members want to see.
  - Also attempts to solicit new volunteers interested in helping the chapter and become new future officers.
  - Need to concentrate very limited volunteer time and very limited funds on those events there is maximum interest and can be achieved within a year.
  
- Chapter Mission Achievement
  - Recent technical seminar activities are working very well by the number and diversity of members being served.
  - Recent new symposia have achieved local and cross-section collaborations to produce high quality technical events at low cost.
  - Networking opportunities are being provided at events and symposia, but might need more frequent contact to reinforce membership cohesion.
  - Educational opportunity related events need to be additionally explored.