IEEE COMMUNICATIONS SOCIETY

European Chapter Chairs Congress

June 2013

Joint VT06/COM19 Chapter Italy Section REPORT

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Italy Chapter Volunteers

- **Chapter Chair**
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- **Chapter Treasurer**
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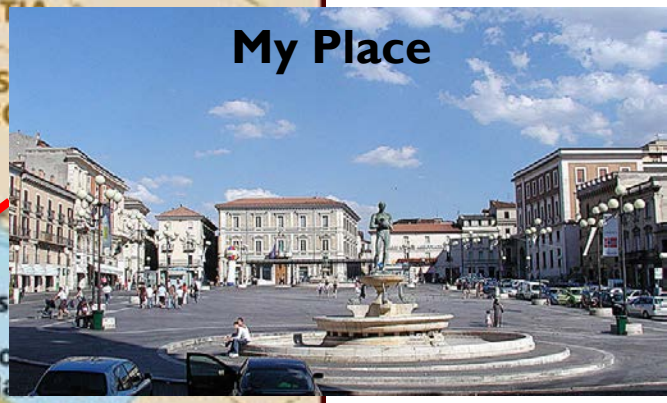
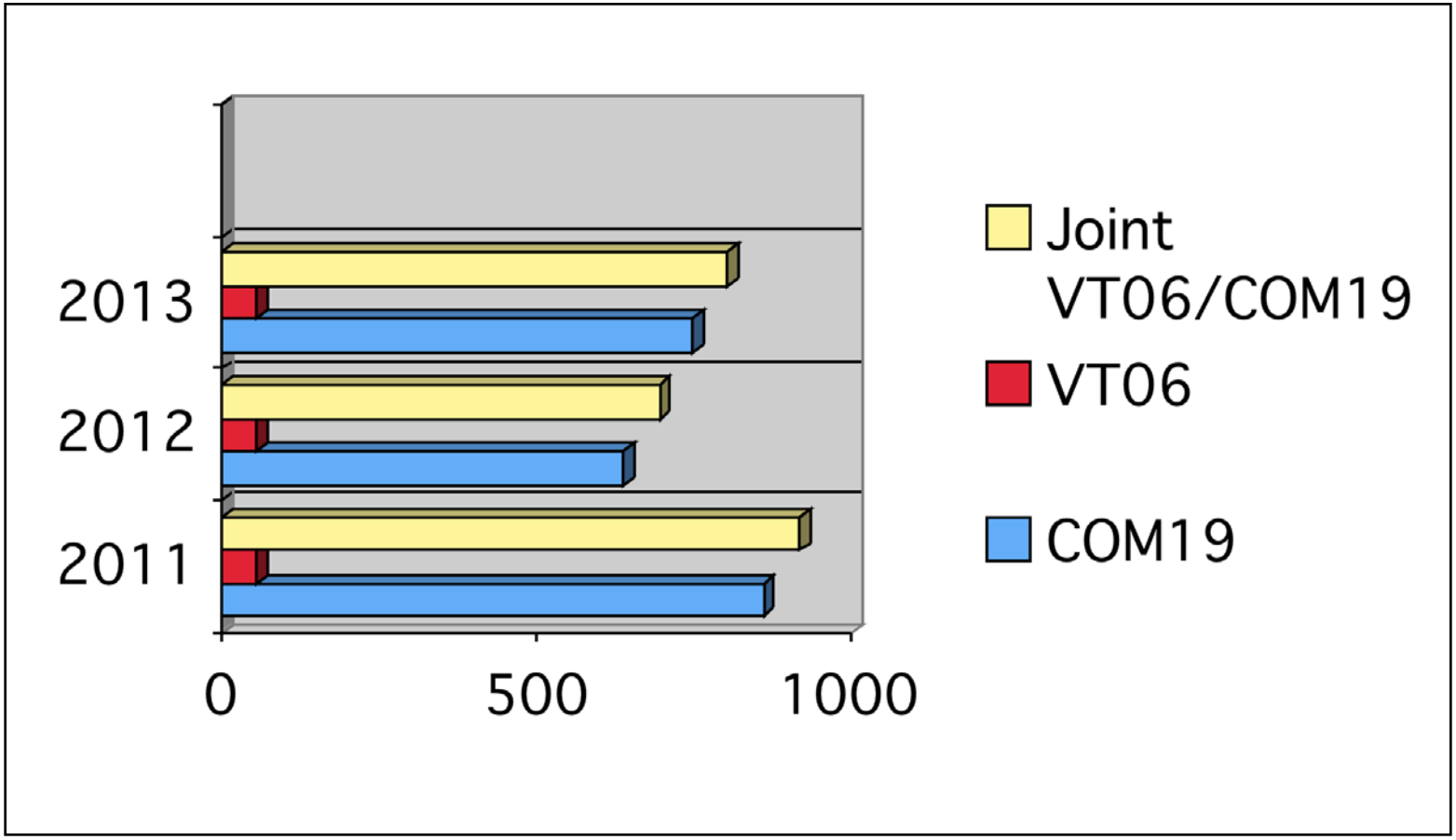
A bit of Geography …



Membership statistics



Past Activities

Technical Meeting	Location	Date
The network access between technology and regulation	L'AQUILA	Jan 2011
Analyse and segment the "high-tech" market	ROMA	Jun 2011
Cost model for the optical fiber access network	ROMA	Sep 2011
4th International Workshop on Multiple Access Communications (MACOM 2011) • Designing smarter networks: modeling communications in the era of service awareness, social networks and the smart grid • Iterative joint detection toward a universal multiuser receiver	TRENTO	Sep 2011
Network-Coded Cooperative Wireless Networks: A Communication-Theoretic View	L'AQUILA	Sep 2011
Exact Analytical Solution for End-to-End SNR of Multihop AF Relaying Systems	L'AQUILA	Sep 2011

ComSoc DLT

Towards Next Generation Heterogeneous Networks

Dr. George Chrisikos - *Qualcomm Inc.*, USA

Abstract: Future wireless networks are experiencing exponential growth in traffic due to the proliferation of data-intensive applications. To support this growth, wireless networks are increasingly employing heterogeneous radio access technologies and different types of deployment methodologies. These methodologies include macro, micro, pico, and femtocells, as well as ad-hoc, device-to-device, peer-to-peer, and cognitive radio networks in licensed and unlicensed bands. Traffic optimization and spectrum allocation techniques such as WiFi offload and carrier aggregation are also in development for capacity and data rate enhancements. In addition, multiple-input multiple-output (MIMO) techniques are a key technology component for these current and future wireless networks. Besides its substantial gain in point-to-point communications, MIMO technology has a greater potential in multi-user networks by exploiting spatial and multi-user diversity. In this talk, we will discuss recent advances in network and terminal solutions to address these challenges.

ROMA, FLORENCE and BOLOGNA

July 2012

IEEE COMMUNICATIONS SOCIETY

IEEE

ComSoc DSP

Power Line Communications v2.0 - Past, Present, Future, Myths -

Prof. Lutz Lampe - *University of British Columbia*, Vancouver, Canada,

within the 6th WorkShop on Power Line Communications

Abstract. The (re)use of existing power lines for data communications at frequencies (far) beyond the 50 Hz (or 60 Hz) mains frequency goes back to the early 1900s. The main advantage of this power line communications (PLC) over other wired communications solutions was back then and still is today that the wire infrastructure is already in place. On the downside, power lines and power line grids have not been designed for data communications, which gives rise to the notion of a 'horrible channel'. Since its inception more than 100 years ago, PLC has experienced two main waves of innovations. These waves have been driven by new and 'renewed' applications for PLC, most recently in the context of Smart Grid. On the technology side, modern PLC system development has been influenced significantly by concepts successful in wireless communications. In this seminar, we will review some aspects of the development of PLC from its early days until the present, also highlighting the use of PLC to support Smart Grid applications. We will point out relations between PLC and wireless communications technology, including some misconceptions that have been adopted in the PLC community. We will end with some remarks on efforts needed for meaningful academic research moving PLC forward.

ROME September 2012

Currently Planned Activities

Technical Meeting	Location	Date
Ultrawideband Localization and Radar (**VTS DLT**)	ROMA	Jun 2013
MIMO systems and propagation channels (**VTS DLT**)	PADOVA	Jun 2013
Cooperative Communications for Cellular and Ad-hoc Networks (**VTS DLT**)	FIRENZE	Jun 2013
Misha Dolher	REGGIO CALABRIA	Jul 2013
Pantograph Catenary Interaction Framework for Intelligent Control (PACIFIC 2013)	PISA	Sep 2013

As per the request of R8 Coordinator, the Joint Italy Chapter opened its Facebook page: https://it-it.facebook.com/IEEE.VT.ComSoc.Italy.Chapter

Conclusion and Discussion

- The Italy Chapter counts 700+ members
- We organize interesting technical meetings
- Mostly I receive requests from DLT or DSP or Members to give a talk somewhere in Italy
- It would be nice to reach the members in order to understand what they need and what they would like to do
- **How?**
- How can I "recruit" more volunteers?