

# Welcome

## Message from the General Chairs

Welcome to the 2012 Mediterranean Ad Hoc Networking Workshop in Ayia Napa, Cyprus. We are excited to host Med-Hoc-Net. As a major annual international workshop, following recent successful workshops in Sicily (2006), Corfu (2007), Palma de Mallorca (2008), Haifa (2009), Juan-les-pins (2010), and Favignana Island (2011), the 11th Med-Hoc-Net (2012) aims to serve as a platform for researchers and visionaries from the academia, the research laboratories, and the industry to present their latest work. We are pleased that many researchers will be challenged by this workshop, which focuses on communication networking research, especially on new issues in Wireless Ad-Hoc Networks.

This year, we are honoured to have two distinguished keynote speakers: Leandros Tassiulas who will talk about 'Content Proliferation and Caching in Future Internet Architectures', focusing on flat network architectures motivated by ad-hoc networks; and Carla-Fabiana Chiasserini, whose talk on 'A Path Toward Mobile Services in Vehicular Networks' will provide thoughts on how wireless mesh networks and vehicular networks can be combined and exploited to support Internet-based services to mobile users. We look forward to our esteemed keynote speakers, giving us their visionary views in these new networking paradigms.

Beyond the keynotes, the workshop is honoured to have so many individual researchers from industry and academia who will be challenged by the theme of this workshop, which is "on a pervasive, connected world, where distances shrink and (virtual) presence is everywhere". Researchers, spanning the globe are honouring us with their attendance to the workshop, and they will discuss and share their own views and contributions in the exciting fields of ad-hoc and sensor networks, wireless mesh networks, vehicular networks, delay tolerant and opportunistic networks, and the opportunities provided or stemming from the social networks paradigm. Also, security, as well greening enhancements are becoming indisputable components of today's everpresent technologies, in a world that relies totally on them. Med-Hoc-Net participants will reflect on such trends, listen to each other's talks, discuss and interact, establish links and friendships; after all this is what takes a workshop beyond mere presentations and creates communities, as witnessed by the past 10 years of Med-Hoc-Net.

The distinguished co-chairs of the technical program committee have managed the thorough reviews of 33 submissions by coordinating the activities of a large number of Technical Program Committee members to ensure that each and every paper received a fair review, and that the Med-Hoc-Net standards were maintained, and after this rigorous process, selected 15 papers to form a technically strong and well-balanced program.

The workshop could not have been organised with such great success if it was not for the effort of many colleagues, who have volunteered their time and effort to organise this world class event, skilfully handling the many organisational and technical issues. The entire organising committee has worked diligently over the last year, or so. A very big thank you to all for making another Med-Hoc-Net a success.

As always, a few individuals have gone beyond expectation, and we would like to express our special thanks to them: the Technical Program Committee Chairs, Vasos Vassiliou, Geert Heijenk and Jaudelice Cavalcante, in making sure that we have a very strong technical program; George Pallis the local organising committee chair; George Samaras our finance and sponsorship chair; the registration co-chair Dimosthenis Georgiadis, who is also the web master with Christiana Ioannou, for handling all web related issues with great enthusiasm and professionalism; Chris Panayiotou, the registration co-chair, who also assisted in general organisational issues; Habib M. Ammari and Jaime Lloret Mauri, the publicity chairs; Tommaso Melodia the tutorial chair; and Chrysostomos Chrysostomou and Josephina Antoniou, our publication chairs, for organising and ensuring that our publications meet IEEE Xplore requirements by

processing each and every pdf file, and communicating with us to correct any possible publication problems.

We are enormously grateful to our Sponsors ComSoc, the IEEE Communications Society (Technical), and the University of Cyprus. The support of these sponsors is invaluable to the organisation of the workshop. Also, we thank Grecian Bay Hotel for the excellent organisation and hosting of the workshop in this relaxing Mediterranean coast setting, in particular Mr. Marinos Elia, the hotel manager, and Ms Elena Ioannou, the Guest Relations manager.

Of course, this workshop is a continuation of ten earlier Med-Hoc-Net workshops, and the masterful steering of these workshops by Ian F. Akyildiz, Khaldoun Al Agha, Luigi Fratta, Mario Gerla, Farouk Kamoun, Giovanni Pau, and Guy Pujolle are recognised for this continuing success.

We look forward towards your continued involvement with Med-Hoc-Net 2012 and encourage your active participation in future Med-Hoc-Net events.

Additional information on the workshop, as well as the technical program structure and on how to participate in the social activities is available at the web site <http://medhocnet2012.cs.ucy.ac.cy>

Thank you very much,

Christos and Andreas

The Med-Hoc-Net 2012 General Chairs:

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## Message from the Technical Program Committee Chairs

Dear participants of the 11th Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2012), it is our great pleasure to welcome you all to what promises to be an interesting workshop.

As in previous years, the workshop continues the tradition of bringing together researchers and practitioners in mobile and wireless networking, with a special interest in ad-hoc, vehicular, and sensor networks. The endurance of this workshop in these turbulent times for the information and communications technology industry, and the world economy in general, is a testament to its importance and necessity.

This year we have 43 academics and researchers serving as TPC members, all of them established scientists in their respective fields, from all over the world (Europe, US, Middle East and Asia). The workshop received a total of 33 initial submissions, and the cooperation of the program chairs with the rest of the TPC has led to having a current, and of high scientific value, technical program. We made every possible effort to provide thorough reviews to the papers, so that authors of both accepted and rejected papers benefit from this process. All papers received, at least, three reviews and based on this evaluation we have selected 15 papers to become part of the final program. We hope that these proceedings will serve as a valuable reference point for the latest results in our field of research.

Med-Hoc-Net 2012 will provide four days of exciting talks, presentations and discussions. The Technical program starts with a Tutorial on Inter-Vehicular Communication, focusing on recent standards in IVC,

providing guidelines on protocol design, and outline issues and solution on security in the IVC domain. The workshop officially opens with a Keynote talk on “Content Proliferation and Caching in Future Internet Architectures”, in which issues of information replication in relation to content popularity and spatial distribution of demand will be examined, especially as they apply in ad-hoc networks. The second keynote speech during the same day will be on “A Path Toward Mobile Services in Vehicular Networks”, in which the ideas of combining wireless mesh networks and vehicular ad-hoc networks to tackle congestion and efficient delivery of data in a vehicle-to-vehicle and vehicle-to-infrastructure communication will be addressed. The five technical sessions of the workshop will examine issues and research challenges spanning all the layers of the protocols stack from Physical layer modelling, MAC layer enhancements, Routing Protocols, Performance-enhancing Algorithms, and Mobile Applications and Security.

In addition to the above, we are happy to note that two other events are organized in conjunction with Med-Hoc-Net this year:

The first co-located event is the 1st International Workshop on Vehicular Communications and Applications (VCA 2012), jointly organized with the NETLab research group at the Interdisciplinary Center for Security, Reliability and Trust (SnT) at the University of Luxembourg.

The second co-located event is the WiNeMO Summer Training School, jointly organized with the COST Action IC0906 on Wireless Networking for Moving Objects (WiNeMO). The aim of the school is to give an overview of the research and technology trends in the field of Vehicular Ad-hoc Networks (VANETs) and their potential in supporting the future of Intelligent Transportation Systems (ITS).

Our efforts have been supported by the Technical Co-Sponsorship of the IEEE Communications Society. In particular, we would like to acknowledge the support of the following four Technical Committees (TCs) and thank their chairs: Ad-Hoc and Sensor Networks (AHSN TC), Internet (ITC), Cognitive Networks (CN TC), and Information Infrastructure & Networking (IIN TC).

Several people contributed to the successful organization of Med-Hoc-Net 2012. First, we thank the authors for submitting their work for evaluation and eventually providing the content of the program. We owe our sincere gratitude to the members of the Technical Program Committee and external reviewers for their excellent work in reviewing the papers and providing valuable feedback under a tight deadline.

The Publications chairs, and especially Dr. Chrysostomos Chrysostomou, have provided invaluable services and many hours of double-checking, to ensure our program meets the criteria of our indexing service, IEEE Xplore.

The whole endeavor would not have been successful if we did not have the full support and cooperation of the General Chairs, Prof. Andreas Pitsillides and Prof. Christos Douligeris, and of the Steering Committee.

We believe that all the participants will end up having the best experience possible not only in terms of academic excellence and vibrant discussions, but also in collegiality and enjoyment of this most beautiful place – Cyprus.

We are looking forward to meeting all of you personally in Ayia Napa.

The TPC Co-Chairs

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