

# Cross-Layer Optimized Wireless Networks Symposium

International Conference on Wireless Communications and Mobile Computing,  
June 28 - July 2, 2010,  
Caen, France,  
<http://iwcmc.com/>

## Symposium Background

The explosive increasing in wireless packet-data applications, such as wireless web browsing, real-time mobile multimedia streaming, and interactive applications motivates the rapid development of the next-generation mobile wireless networks. The associated communication channels and traffic patterns in mobile wireless networks are more unpredictable than the traditional wire-line networks. On the other hand, the future multimedia applications impose stringent and diverse Quality of Service (QoS) requirements, which cannot be satisfactorily addressed through the traditional layering network-protocol architecture. Correspondingly, a cross-layer design paradigm would be needed to achieve transmission protocol stack performance while meeting these new challenges in QoS requirements. The cross-layer designs and protocols tend to be very essential approaches for the mobile wireless and ad hoc networks where unpredictable variables such as node mobility, node density, network dimensions make the diverse and stringent wireless QoS requirements even harder to satisfy. Cross-layer designs and protocols are the emerging research areas where some early results have recently been reported in the literatures, but the upcoming new applications and more stringent/diverse wireless QoS requirements open even more new opportunities for many interesting and comprehensive research topics targeting at concepts, methodologies, and techniques to support the future advanced mobile wireless applications. Clearly, the developments of the new schemes, mechanisms, and systems associated with the cross-layer designs and protocols will have a significant impact on the next generation of mobile wireless communications and networks.

## Scope of Contributions

The focuses of the papers to be published in the Cross-Layer Optimized Wireless Networks Symposium of IWCMC 2010 will concentrate on state-of-the-art research in various aspects of cross-layer designs and protocols for next-generation mobile wireless communications networks. We solicit the original papers covering various topics of interest that include, but are not limited to:

- Methodologies for cross-layer protocol design in mobile wireless networks
- Cross-layer error and delay control
- Cross-Layer optimization for energy, network lifetime, and capacity
- Complexity and scalability issues in cross-layer design
- Physical layer information for medium access control and radio link control
- Signaling for cross-layer protocol interaction
- QoS and radio resource management in layered networks
- Channel access algorithms for cross-layered wireless communication networks
- Performance optimization for cross-layer design of wireless network
- Cross-Layer optimized routing wireless networks
- Cognitive radio and dynamic wireless networks
- Architectures issues for cross-layer protocol design in mobile wireless networks

- Cross-Layer design issues for quality of service provisioning in wireless networks
- Signal processing for cross-layer design
- Cross-layer strategies in wireless sensor and actuator networks
- Interactions between routing/mobility management and congestion control
- Application layer adaptation based on cross-layer notifications
- Design, implementation and test-bed/experimental results
- Overview/survey of the special undergoing/planned projects
- Standardization issues and status reports from various standards organizations

## Submission Guidelines

The International Cross-Layer Optimized Wireless Networks Symposium within IWCMC 2010 is soliciting original and high-quality papers describing state-of-the art research and development in the areas of cross-layer designs and protocols over mobile wireless networks. Prospective authors are invited to submit original technical papers in 5 pages standard IEEE proceedings, two-column, 10 pt font, Microsoft Word or LaTeX formats.

Accepted papers will be included in ACM/IEEE Digital Library (pending approval) and selected papers will be further considered for publication in one of two special issues of the Wiley Journal of “Wireless Communications and Mobile Computing (WCMC),” and International Journal of Autonomous and Adaptive Communications Systems (IJAACS).” There will also be best paper and best symposium awards. <http://www3.interscience.wiley.com/journal/76507157/home> & [www.inderscience.com/ijaacs](http://www.inderscience.com/ijaacs)

Submission of a paper should be regarded as an undertaking that, should the paper be accepted, at least one of the authors will register for the conference and present the work. Submissions will be conducted electronically on the conference website: <http://edas.info/newPaper.php?c=6827&>.

## Important Dates

Paper Submission Deadline:	15 Dec. 2009
Paper Acceptance Notification:	15 Mar. 2010
Camera-ready Paper Submissions:	1 Apr. 2010
Registration Deadline for Authors:	1 Apr. 2010
Symposium Date:	28 Jun. - 2 Jul. 2010

## Symposium Co-Chairs

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