

**IEEE
COMMUNICATIONS
SOCIETY****E-LETTER****Vol. 3, No. 1, April 2006**

CONTENTS

FUTURE MMTC MEETINGS	1
MMTC OFFICERS	2
A WORD FROM THE E-LETTER E-I-C	2
COSPONSORING / RELATED CONFERENCES AND WORKSHOPS	3
CONFERENCE CALENDAR	3
MMTC INTEREST GROUPS	4
AWARDS	5
E-LETTER EDITORIAL BOARD	6
IEEE FELLOW NOMINATIONS SUBCOMMITTEE	6
COLUMN	7
CALL FOR CONTRIBUTIONS	9
CALL FOR PAPERS	12

The MultiMedia communications Technical Committee (MMTC) is a volunteer group that examines systems, applications, services and techniques in which two or more media are used in the same session. These media include, but are not restricted to, voice, video, image, music, data, and executable code. The scope of the committee includes conversational, presentational, and transactional applications and the underlying networking systems to support them.

**MULTIMEDIA
COMMUNICATIONS**

- JOIN US -

Joining MMTC is easy. Simply send an email to list@comsoc.org with the following string in the body of the message (NOT the subject line):

join multicommm

The mailing list, multicommm@comsoc.org is the communication channel with the MMTC. To post a message to the list, send e-mail to multicommm@comsoc.org.

You can also navigate through MMTC mailing list archive (since Feb. 2004).

<http://barbarian.comsoc.org/comsoc.org/multicommm/>

MMTC Election

ICC 2006, June 2006, Istanbul, Turkey

Future MMTC Meetings

ICC 2006, June 2006, Istanbul, Turkey

ICC 2006 MMTC Activities

(June 11 - 15, 2006)

Multimedia Communications Workshop: State of the Art and Future Directions**ICME 2006 MMTC Activities**

(July 9 - 12, 2006)

Peer-to-Peer Multimedia Special Session**GLOBECOM 2006 MMTC Activities**

(27 November - 1 December 2006)

Multimedia Communications Symposium

MMTC OFFICERS

CHAIR

Heather Yu
Panasonic Digital Networking Laboratory
2 Research Way, 08540
Princeton, NJ, USA
Phone: +1 609-734-7325
Fax: +1 609-987-8827
heathery@research.panasonic.com

PAST CHAIR

Stan Moyer
Telcordia Technologies
445 South Street
Morristown, NJ, USA 07960-6438
Phone: +1 973-829-4923
Fax: +1 973-829-5889
stanm@research.telcordia.com

VICE CHAIRS

Yucel Altunbasak
Georgia Institute of Technology
Atlanta, GA, USA 30332-0250
Phone: +1 404-385-1341
Fax: +1 404-894-8363
yucel@ece.gatech.edu

Pascal Frossard
École Polytechnique Fédérale de Lausanne
(EPFL)
1015 Lausanne, Switzerland
Phone: +41-21-693-5655
Fax: +41-21-693-7600
pascal.frossard@epfl.ch

Gary Chan
Department of Computer Science
Hong Kong University of Science and
Technology
Clear Water Bay, Kowloon
Hong Kong
Phone: +852-2358-6990
Fax: +852-2358-1477
gchan@cs.ust.hk

Nelson Fonseca
Instituto de Computação
Universidade Estadual de Campinas
(UNICAMP)
Caixa Postal 6176
13084-971 Campinas, SP
Brazil
Phone: +55 19-3788-5878,
Fax: +55 19-3788-5847
nfonseca@dcc.unicamp.br

SECRETARY

Giovanni Pau
Department of Computer Science
UCLA
3803A Boelter Hall
420 Westwood Plaza
Los Angeles, CA, USA 90095-1596
Phone: +1 310-206-3212
Fax: +1 310-825-7578
gpau@cs.ucla.edu

E-LETTER E-I-C

Marco Roccetti
Dipartimento di Scienze dell'Informazione
Università di Bologna
Mura Anteo Zamboni 7, 40127 Bologna,
Italy
Phone: +39 051-209-4503
Fax: +39 051-209-4510
roccetti@cs.unibo.it

A WORD FROM THE E-LETTER E-I-C

Marco Roccetti

The goal of the E-Letter is to disseminate issues that focus on opinions, initiatives, scientific achievements and perspectives of multimedia with an emphasis on the communication technologies.

Enjoy this issue!

Marco Roccetti
Editor-in-Chief E-Letter

The current issue of the E-Letter features a column on multiplayer online games.

It was provided by Abdennour El Rhalibi and Madjid Merabti from the School of Computing and Mathematical Sciences, Liverpool John Moores University, England.. In their column, titled "Multiplayer Networked Games Future Trends", the authors discuss different areas which could profile multiplayer networked gaming in the future.

We renew the invitation to everyone to become regular contributor by submitting proposals for columns, perspective articles and annotated bibliographies. Information for submissions can be found at the MMTC website:
<http://www.comsoc.org/~mmc>.

COSPONSORING / RELATED CONFERENCES AND WORKSHOPS

ICC 2006

June 11 - 15, 2006
Istanbul, Turkey

ICC 2006 will consist of a general topic symposium, eight specific symposia, Business Applications and Executive Sessions, Tutorials, and Workshops. ICC 2006 program committee is soliciting original papers describing state-of-the-art research and development in all areas of communications and networking. Prospective authors are invited to submit original technical papers. Proposals for Tutorials and Workshops are also invited.

ICME 2006

July 9 - 12, 2006
Toronto, Ontario, Canada

ICME 2006 is a major conference organized with the objective of bringing together researchers, developers, and practitioners from academia and industry working in all areas in multimedia. ICME is co-sponsored by four IEEE

societies (the Circuits and Systems Society, the Communications Society, the Computer Society, and the Signal Processing Society).

GLOBECOM 2006

27 November - 1 December 2006
San Francisco, California, USA

The objective of this conference is to provide a platform for researchers and technologists to present new ideas and contributions in the form of technical papers, panel discussions, as well as, test-bed implementations and real-world evaluation of many ideas in wireless communications. IEEE Globecom 2006 will feature also a Multimedia Communications Symposium.

CONFERENCE CALENDAR

CONFERENCE	LOCATION	INFORMATION
WCNC 06 IEEE Wireless Communications & Networking Conference	April, 3-5, 2006 Las Vegas, Nevada, USA	http://www.ieee-wcnc.org/2006/
ICC 06 International Conference on Communications	June 11 - 15, 2006, Istanbul, Turkey	http://www.icc2006.org/
ICME 06 IEEE International Conference on Multimedia & Expo	July 9 - 12, 2006 Toronto, Ontario, Canada	http://www.icme2006.org/
EntNet 06 International Conference on Enterprise Networking & Services	September 11-13, 2006 Vancouver, British Columbia, Canada	http://www.ieee-entnet.org/2006/
PIMRC 06 IEEE Symposium on Personal, Indoor, and Mobile Radio Communications	September 11-14, 2006 Helsinki, Finland	http://www.pimrc2006.org/
MobiMedia 06 Mobile Multimedia Communications Conference	September 18-20, 2006 Alghero, Sardinia, Italy	http://www.mobimedia.org/
MILCOM 06 IEEE/AFCEA Military Communications Conference	October 23-25 Washington, DC, USA	http://www.milcom.org/
GLOBECOM 06 IEEE Global Telecommunications Conference	27 November - 1 December 2006 San Francisco, CA USA	http://www.ieee-globecom.org/2006/

MMTC INTEREST GROUPS

Based on the research interests of MMTC members, several IGs have been initiated led by experts and active researchers in each area. Detailed info about the IG charters, focus areas of each IG, and their activities are announced at

<http://www.comsoc.org/~mmc/>

and through the reflector. The IGs are:

(MSIG) Media Streaming

Chair: Pascal Frossard

Vice-chair: Juan Carlos de Martin

(HNIG) Home Networking

Chair: Prof. Madjid Merabti

Vice-chair: Heather Yu

(MobIG) Mobile and Wireless Multimedia

Chair: Prof. R. Chandramouli

Vice-chair: Oliver Wu

(SecIG) Multimedia Security

Chair: Suba Subbalakshmi

Vice-chair: Deepa Kundur

(QoSIG) Quality of Service

Chair: Qian Zhang

Vice-chair: Apostolis Salkintzis

(ACIG) Interest Group on Autonomic Communications

Chair: Xiaoyuan Gu

Vice-chair: Jiang (Linda) Xie

IG Membership: Membership is free. Information about how to join each IG will also be available at each IG will be available at the MMTC Web site. Please stay tuned.

Interest Group on Autonomic Communications

A new IG has been approved, named ACIG, i.e., Autonomic Communications Interest Group.

IEEE ACIG Membership gives you the opportunity

- to network with technical experts in Autonomic Communications,
- to contribute to the technical activities in Autonomic Communications.

Joining IEEE ACIG is free and easy. Simply go to the membership subscription page at:

<https://www.ibr.cs.tu-bs.de/cgi-bin/mailman/listinfo/ieeeacig>

The mailing list, ieeeacig@ibr.cs.tu-bs.de is the communication channel with the ACIG. To post a message to the list, send e-mail to ieeeacig@ibr.cs.tu-bs.de.

The mail archives are located at:

<http://www.ibr.cs.tu-bs.de/pipermail/ieeeacig>

Related News and Events:

- *Call for Papers:* IEEE CCNC'06 Special Session on Autonomic Communications, Las Vegas, NV (7-10 January 2006).
- *Upcoming Conferences:* IEEE ICC 2006 General Symposium, Istanbul, Turkey (June 11-15, 2006).

AWARDS

MMTC Distinguished Service Award – Given to a MMTC member with exemplary service to MMTC over a sustained period of time.

Prize

Certificate and plaque.

Basis for judging

Exemplary service to MMTC over a sustained period of time.

Eligibility

- The nominee must be a MMTC member at the time of nomination.
- The nominee must have been a MMTC member for a sustained period of time.

Winner of the Multimedia Communications Technical Committee Distinguished Service Award 2005 will be announced at our MMTC meeting during ICC2006.

MMTC Best Paper Award – Given to an outstanding paper in the area of multimedia communications published in any ComSoc magazine, journal, or ComSoc sponsored conference in the previous two calendar years.

Call for Nominations

IEEE Comsoc Multimedia Communications Technical Committee will give a yearly award to the Best Paper in the multimedia communications area.

Prize

IEEE plaque signed by the ComSoc President.

Basis for judging

Any paper published in an IEEE Comsoc journal/magazine or in the proceedings of an IEEE Comsoc-sponsored conference/workshop/symposium, in the two years preceding the election.

Paper nominations have to be sent by email to MMTCawdcommittee@netscape.net, with subject line 'MMTC-BPA Nomination'.

The nomination should include the complete reference of the paper, author information, a brief supporting statement (maximum one page), the name of the nominator, and an electronic copy of the paper when possible. The hard deadline for paper nomination is February 15th, 2006. Additional information, and election by-laws are available on the MMTC website.

Winner of the MMTC best paper award 2004

A Cross-Layer Quality-of-Service Mapping Architecture for Video Delivery in Wireless Networks, by Wuttipong Kumwilaisak, Y. Thomas Hou, Qian Zhang, Wenwu Zhu, C.-C. Jay Kuo, and Ya-Qin Zhang, published in *IEEE JSAC*, December 2003.

To all MMTC members: If your postal address, telephone or fax numbers have changed, please update them with the committee secretary. You can review our current records on our web page at <http://www.comsoc.org/~mmc/>.

If you like to join MMTC Mailing List, the indications how to subscribe/unsubscribe are reported at <http://www.comsoc.org/~mmc/membership.html>.

E-LETTER EDITORIAL BOARD

EDITOR IN CHIEF

Prof. Marco Rocchetti
Dipartimento di Scienze dell'Informazione
Università di Bologna
Mura Anteo Zamboni 7,
40127 Bologna, Italy
Phone: +39 051-209-4503
Fax: +39 051-209-4510
roccetti@cs.unibo.it

ASSISTANT EDITOR

Dr. Juan Carlos De Martin
IEIIT-CNR
Politecnico di Torino
C.so Duca degli Abruzzi 24,
10129 Torino, Italy
Phone: +39 011-564-5421
Fax: +39 011-564-5429
demartin@polito.it

ASSISTANT EDITOR

Dr. Giovanni Pau,
Department of Computer Science
UCLA
3803A Boelter Hall
420 Westwood Plaza
Los Angeles, CA, USA 90095-1596
Phone: +1 310-206-3212
Fax: +1 310-825-7578
gpau@cs.ucla.edu

EDITORIAL STAFF

Dr. Stefano Ferretti
Dipartimento di Scienze dell'Informazione
Università di Bologna
Mura Anteo Zamboni 7,
40127 Bologna, Italy
Phone: +39 0547-338-827
Fax: +39 0547-338-889
sferretti@cs.unibo.it

IEEE Fellow Nominations Subcommittee

MMC TC has established a new subcommittee for IEEE Fellow nominations.

Chair

Prof. Chang Wen Chen

Committee Members

Prof. Charlie Judice
Prof. Homer Chen

Guidelines

1. Working with ComSoc Fellow Committee to identify and evaluate worthy candidates.
2. Promote worthy MMC members to enhance their profiles within ComSoc as well as IEEE institute wide to get ready for Fellow nomination. These will include nominating worthy candidates to society level offices and society level conference organizations.
3. Help with individual MMC members in their Fellow nomination process with advices on how to prepare a strong nomination.
4. Prepare endorsement letters for MMC members when they are nominated for Fellow election.

Multiplayer Networked Games Future Trends

Abdennour El Rhalibi, Madjid Merabti

School of Computing and Mathematical Sciences
Liverpool John Moores University
a.elrhalibi@ljmu.ac.uk, m.merabti@ljmu.ac.uk

The divergence between multiplayer games of the past and the present is a clear sign of how games have changed with the increased capabilities offered by technological progress in the field of networking. The key events in the history of networked games were the dawn of LANs and the Internet. Such advances saw the development from play by email games to MUD and MUSH game genres and eventually to Massively Multiplayer Online Games (MMOG) including MMOFPS, MMORTS, MMORPG and BBMMORPG. It seems that with MMOG played in real time over the Internet with thousands of opponents located anywhere in the world, we have reached the acme of multiplayer gaming. However this is not the case. Multiplayer gaming has always kept pace with technological developments, in the fields of CPU, graphics, sound etc..., and most importantly, network technology.

So what are the latest technological developments in the field of networking? What ongoing research could at some point have an important influence on gaming? There are a number of different areas which could profile multiplayer networked gaming in the future. This column will be exploring few of these.

By far the most noticeable way in which gaming could develop is in line with recent developments in mobile communications. Already, attempts have been made to produce games using this new technology. These attempts revolve around two approaches, wireless ad-hoc networks, and 3G mobile phones.

The most motivating technology is the wireless ad-hoc network. A technology, which due to recent developments in wireless communications and increased bandwidth, is up to the standard required for such games. A wireless ad-hoc network consists of a collection of mobile nodes forming a temporary network without the support of any centralised administration service, or standard support services. Experiments using this type of network for gaming

have been carried out by a number of research groups. Some extreme examples of these studies aim to put the player of say, Quake III, into a game. The player has a radio transmitter and wearable computer along with location sensing equipment (e.g. GPS, Inertial sensors, Infrared sensors, etc...). The player runs around some location, which is mapped to a virtual map in the game. Often, game information can be overloaded onto the real world, a player can pick up med kits for example, graphical information may be presented to the player via a wearable computer screen or retinal projection device. The possibilities offered by ad-hoc network to multiplayer games are important enough to generate possibly new game genres. Also the use of an augmented reality environment, augmenting the physical environment with the sounds, images and game play created by the game engine is an idea which makes the future of networked gaming very exciting.

Mobile phones based wireless networked MMOG are fast becoming a reality. At the moment, the technology available for mobile phones is somewhat smaller scale than for the wireless ad-hoc network. The processing power and bandwidth available in mobile phones is significantly lower than what is available in the expensive ad-hoc structure. As such, mobile phone games of the moment are in one sense following along the path that Internet gaming took, when technology was on a similar scale.

The real advances, however, will come along with 3G wireless networks. Companies are already working on systems which will run on the more advanced platforms and take advantage of increased bandwidth for some real time multiplayer game play. So, when the time comes, it will be reasonable to assume that mobile phone based games will be close to the standard of current wire-based networked games. In future, also, it is predicted that mobile phones will also begin to incorporate players'

physical location into games. At this stage it is not known to what degree this could be implemented or how. The research being done into wireless ad-hoc networks however will yield the answers, when the more commercially viable option of mobile phone based gaming takes off.

"Traditional" Network gaming should not be disregarded however. Although wireless networks offer many new concepts in terms of Networked gaming. Desktop computers and Wire based networks, are, for the foreseeable future at least, always going to be one step ahead in terms of performance, and, as such, at the top of networked gaming. As network speed and bandwidth increases, the volume of information, which can be distributed from a server to individual players, is growing. Massively multiplayer games are taking off, with servers running very large distributed applications and capable of supporting thousands of users online at the same time. So many different infrastructures (client/server, peer-to-peer, mirrored servers, cluster servers, etc...) supports MMOG including recently the use of grid computing.

It is clear that traditional multiplayer gaming will take on new forms, with the advent of new and improved networking technology. Wireless communication will mean that at any time, in any place users can indulge in multiplayer gaming. At the same time, the games we play now will evolve as the boundaries imposed on them by technology are extended. Networking Technology is the driving force behind the direction that modern computer games are taking.

Biographies

Abdenour El Rhalibi is a Lecturer in Computing and Research Fellow at the School of Computing and Mathematical Sciences of Liverpool John Moores University. In 1990 he concurrently received a BA in Economy from the CNAM of Montpellier in France, and a BSc (Hons) in Computer Studies from the University of Science and Technology of Montpellier in France. He graduated with an MPhil in Applied Artificial Intelligence in 1991 from the University of Science and Technology of Montpellier where he became researcher and lecturer until 1998. His research areas cover different aspect of Applied Artificial Intelligence: - Constraint Based approaches, Petri Nets, Genetic Algorithms, and Representations for Scheduling problems. He also worked for the industry in game programming and in CAD for two years.

Professor Madjid Merabti is Director and Head of Research at the School of Computing & Mathematical Sciences, Liverpool John Moores University (JMU). He is a graduate of Lancaster University. He has over 15 years experience in conducting research and teaching in Distributed Multimedia Systems (Networks, Operating Systems, Computer Security). Madjid has over 90 publications in these areas and he leads the Distributed Multimedia Systems Group which has a number of government and industry supported research projects in the areas of: Multimedia Networking, Differential Services Networking, Mobile Networks, Networked Appliances, Sensor Networks, Intrusion Detection and Network Security Architectures. He is collaborating with a number of international colleagues in the above areas.

CALL FOR CONTRIBUTIONS

Call for Contributions per Annotated Bibliographies for *The Multimedia Communications Technical Committee* *E-Letter*

Editor in Chief: Marco Rocchetti
IEEE Communications Society

The E-letter of the Multimedia Communications Technical Committee of the IEEE Communications Society is an electronic publication that welcomes submissions of annotated bibliographies.

A considerable barrier to entry into a new field of research is to become aware of the existing literature on the topic. The Internet and search engines -such as IEEEExplore and, more recently, Google Scholar- have made access conference proceedings and journals immensely easier than it used to be.

However, speed and ease of access, by themselves, do not solve the problem of understanding the state of the art in a given field. Some form of intelligence is needed to filter the raw data represented by the very large number of available publications. Such intelligence may be acquired, in due time, by reading and attending conferences - or it may come from experts already working in the field.

To help fellow engineers and researchers to gain easier access to new fields of activities, the E-Letter of the Multimedia Communications Technical Committee (MMTC) invites multimedia experts to submit annotated bibliographies on topics of their choosing.

It is expected that the annotated bibliographies could be of various kinds - from tutorial level bibliographies on the general field of multimedia communications to bibliographies on very specialized subtopics.

If technically feasible, we will adopt an open approach to bibliographies development. Instruments such as wiki are, in fact, making very easy to build knowledge repositories in a collaborative fashion, as shown, for instance, by the astounding success of wikipedia.org. Initial contributions could, therefore, if the original author agrees, be placed on a MMTC wiki to be integrated by comments and modifications made by the community at large. The E-letter will

periodically publish selected annotated bibliographies.

Possible topics for annotated bibliographies include, but are not limited to:

- Hardware and Software for Multimedia
- Home Networking for Multimedia
- Implemented Prototypes
- Mathematical Modeling and Simulation for Multimedia
- Mobile and Wireless multimedia
- Multimedia Communication Systems
- Multimedia Security
- Multimedia Design
- Multimedia Development Tools
- Multimedia Networking and Quality of Service
- Networked Multimedia Entertainment
- Quantitative and Qualitative Studies for Multimedia
- Streaming Multimedia
- Theoretical/Ergonomic Issues Regarding Multimedia Communications

Annotated bibliographies will be subject to peer review and, upon acceptance, published in an upcoming issue of the E-Letter. All authors should consider the general nature of the E-Letter's readers. Annotated bibliographies should not have been previously published and must not be submitted for publication as well.

Submission guidelines are as follows: length should be no more than 3000 words (four double column pages).

Annotated bibliographies should be submitted in pdf format by e-mail to the E-Letter Assistant Editor J.C. De Martin at demartin@polito.it.

Deadlines:

The next issue of the E-Letter will appear on August 2006. Our deadline for receiving annotated bibliographies articles is 60 days prior to the cover date.

CALL FOR CONTRIBUTIONS

Call for Perspective Articles for

The Multimedia Communications Technical Committee

E-Letter

Editor in Chief: Marco Rocchetti
IEEE Communications Society

Multimedia technology, networks and services are making productive use of important innovations in technical parallel fields: from signal processing and compression to storage and switching devices; from satellite and fiber -based communications to computer graphics and animation; from mobile and wireless systems to information security. A beneficial aspect of this phenomenon is that it is pulling together an extremely diverse group of experts specializing in technical converging areas. Even though such an ever-evolving environment promotes interdisciplinary fusion, however, teachers, researchers and professionals of the discipline need access to the most current information about the concepts, issues, trends and technologies in this emerging field. The **E-Letter** of the **Multimedia Communications Technical Committee** wishes to become a fast medium that provides a comprehensive coverage of the most important definitions, concepts, issues, trends and technologies in the field of multimedia communications technology. To this aim, the **E-Letter** of the Multimedia Communications Technical Committee welcomes submissions of Perspective Articles. Perspectives are articles written from the point of view of an expert in the multimedia technology field. They should focus on a particular technology or technology-related issue and how that technology or technology-related issue is being implemented and is impacting the multimedia arena. The E-Letter is seeking perspective articles on the subject of multimedia as it applies to the broad spectrum of multimedia communications. Also manuscripts for short essays and opinions may be considered.

Possible topics include, but are not limited to:

- Hardware and Software for Multimedia
- Home Networking for Multimedia
- Implemented Prototypes
- Mathematical Modeling and Simulation for Multimedia
- Mobile and Wireless multimedia
- Multimedia Communication Systems

- Multimedia Security
- Multimedia Design
- Multimedia Development Tools
- Multimedia Networking and Quality of Service
- Networked Multimedia Entertainment
- Quantitative and Qualitative Studies for Multimedia
- Streaming Multimedia
- Theoretical/Ergonomic Issues Regarding Multimedia Communications

Selected articles will be peer-reviewed and, upon acceptance, published in an upcoming issue of the E-Letter. All authors should consider the general nature of *E-Letter's* readership. Manuscripts should not have been previously published and must not be submitted for publication elsewhere. The **basic format to follow** is:

- Introduce the technology or issue being discussed.
- Discuss the technology's current or future impact on multimedia communications.
- Discuss pros and cons of the technology/issue.
- Discuss what the author is doing regarding this technology/issue.

Other Guidelines are as follows:

- Length should be no more than 2,000 words (three double-column pages).
- Articles should contain no more than 3 Figures. Figures and tables count for 300 words.
- Articles must contain no more than six references.
- Articles should be submitted in a .pdf format by e-mail to rocchetti@cs.unibo.it.

Deadlines:

The next issue of the E-Letter will appear on August 2006. Perspectives are generally scheduled far in advance. Our deadline for receiving completed articles is 60 days prior to the cover date. We may accept some material later than that, but special arrangements must be made in advance with the Editor.

CALL FOR CONTRIBUTIONS

Call for Columns for

The Multimedia Communications Technical Committee

E-Letter

Editor in Chief: Marco Rocchetti
IEEE Communications Society

The **E-Letter** of the **Multimedia Communications Technical Committee** features columns written by recognized experts in all the technological fields related to multimedia communications. Columns should give to all the multimedia community partners a possibility to voice their views on the issues, challenges, and opportunities facing industry and academia in connection with the field of multimedia communications. Columns featured by the E-Letter of the Multimedia Communications Technical Committee are intended to become a fast medium that provides a comprehensive coverage of the most important issues, concepts, definitions, trends and techniques in the field. To this aim, the E-Letter is looking for a group of insightful and diligent volunteers to serve as regular (or sporadic) columnists on the 2004-2005 term. Columns will be considered on all the aspects of multimedia communications. The E-Letter offers an unparalleled opportunity for potential columnists to express thoughts and opinions to a community-wide audience provided that the following instructions are followed.

What does it mean to be a columnist for the E-Letter?

It means keeping informed about multimedia issues, as well as news and scientific headlines. It means thinking about the issues that matter to readers in the context of the multimedia communications community. It means undertaking substantial research. It means writing clearly and effectively (perhaps provocatively) to demonstrate an opinion piece that can be easily followed.

What is a column for the E-Letter?

Columns are very brief articles in form of opinions, short essays, or news written from the point of view of an expert. Even though a column is, in essence, a timely and relevant piece of opinion writing, each good E-Letter column should relate an opinion to the most relevant topics of the multimedia community. Also controversial issues can make for a great

column, but only if they sound interesting for the multimedia community.

Who can be a columnist for the E-Letter?

Well known experts, skilled practitioners, professionals and researchers are welcome to submit ideas for E-Letter columns. Also contributions from Chairs or members of the various Interest Groups of the Multimedia Communications Technical Committee, as well as from any member of ComSoc, discussing issues related to the activities of their groups, are greatly appreciated. The real and final qualification is having something interesting to say about multimedia communications and its surrounding community, and a willingness to put in the necessary time and effort.

Selected columns will be evaluated by the E-Letter Editor and, upon approval, published in an upcoming issue of the E-Letter. The basic format to follow is:

- Length should be no more than 700 words in length (one double-column page).
- Columns should contain no Figures.
- Columns should contain no References.
- Columns should be submitted as plain text (ASCII) by e-mail to roccetti@cs.unibo.it.

Deadlines:

The issue of the E-Letter will appear on August 2006. Our deadline for receiving columns is 15 days prior to the cover date. We may accept some material later than that, but special arrangements must be made in advance with the Editor.

CALL FOR PAPERS

CALL FOR PAPERS IEEE Journal on Selected Areas in Communications CROSS-LAYER OPTIMIZED WIRELESS MULTIMEDIA COMMUNICATIONS

Recent advances in wireless and mobile communications provide ample opportunities for introducing new services. Supporting multimedia applications and services over wireless networks is challenging due to constraints and heterogeneities such as limited battery power, limited bandwidth, random time-varying fading effect, different protocols and standards, stringent quality of service (QoS) requirements. Cross-layer design methodologies hold great promise for addressing these challenges and providing reliable and high-quality end-to-end performance in wireless multimedia communications.

This issue solicits the state-of-the-art approaches and technical solutions in the area of cross-layer optimized wireless multimedia communications and networking. The issue will provide a compelling forum for researchers and practitioners to present their results. Original contributions, previously unpublished and not currently under review by another journal, are solicited in relevant areas including (but not limited to) the following:

- Architectures for wireless multimedia communications
- Multimedia delivery over various types of wireless networks (3G, 4G, ad hoc networks, WLAN, WMAN, or hybrid networks)
- End-to-end QoS support for wireless networks
- Multimedia delivery to energy-constrained embedded devices
- Caching and content management in WLANs and WMANs
- Interaction among medium access control (MAC), radio link control (RLC), and routing protocols for media delivery over multi-hop wireless networks
- Wireless video sensor networks
- Multimedia delivery for broadband vehicular networks
- Secure multimedia communications
- System prototypes and experiences with broadband wireless multimedia delivery

Please note that submitted papers must explicitly address cross-layer design issues.

Prospective authors should follow the IEEE J-SAC manuscript format described in the Information for Authors. Authors **MUST** submit their manuscripts through the Microsoft Conference Management Toolkit (CMT) at

<https://msrcmt.research.microsoft.com/COWMC2006/CallForPapers.aspx>,

together with a short abstract (approximately 150 words) in the CMT website form. In addition, the mandatory cover page is not included in the page count. The cover page should include paper title, abstract, list of keywords indicating the paper's topic area, authors' full names, affiliations with complete addresses, telephone numbers, and email addresses. Please note potential authors should create their own accounts through the CMT peer review website before submitting manuscript(s). CMT will accept manuscripts in PDF format only. There will be one round of reviewers and acceptance will be limited to those papers requiring only moderate revisions. The following timetable will apply:

Manuscript submission: **MAY 15, 2006**
Acceptance notification: November 1, 2006
Final manuscript due: December 1, 2006
Publication: 2nd Quarter 2007

Technical Program Committee:

Chang Wen Chen
Dept Elect & Comp Engr
Florida Inst of Technology
Melbourne, FL 32901
cchen@fit.edu

Pascal Frossard
Ecole Polytechnique
Fédérale de Lausanne (EPFL)
Lausanne - 1015, Switzerland
pascal.frossard@epfl.ch

MMTC E-Letter

Cormac Sreenan
Dept of Comp Science
Univ College Cork
Cork, Ireland
cjs@cs.ucc.ie

K. P. Subbalakshmi
Dept of Elect & Comp Engr
Stevens Inst of Technology
Hoboken, NJ 07733
ksubbala@stevens.edu

Dapeng Oliver Wu
Dept of Elect & Comp Engr
Univ of Florida
Gainesville, FL 32611
wu@ece.ufl.edu

Qian Zhang
Dept of Comp Science
Hong Kong Univ of Science & Tech
Hong Kong
qianzh@cs.ust.hk