

## TC Recertification Questionnaire - 2009

### DEMOGRAPHICS

DATE:

1. TECHNICAL COMMITTEE (TC) NAME:

**Satellite and Space Communications Technical Committee**

2. TC CHAIR:

**Prof. Takaya Yamazato**

3. YEARS IN POSITION:

**1 years and 6 months (elected June 2008)**

4. YEAR OF NEXT ELECTION:

**June 2010**

5. REPORT AUTHOR: **Takaya Yamazato**

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6. NUMBER OF TC MEMBERS:

- 2007: **210**
- 2008: **220**
- 2009: **230**

7. AVERAGE (LAST 3 YEARS) NUMBER OF ATTENDEES TO TC MEETINGS:

**23**

8. TC URL:

**<http://www.comsoc.org/socstr/org/operation/techcom/ssc/index.html>**

9. HOW OFTEN IS WEBSITE UPDATED?

**It is updated on request and on the average of once every month. Minutes of the last TC meetings and newsletters are uploaded to the TC webserver immediately after the closure of the meetings. Since June 2006, the design of the webpage has been entirely changed to make to browse easier for the community members and other visitors in general. Information on newly joining/already existing members are added/updated upon request.**

10. TC E-MAIL EXPLODER:

**E-mail distribution is automatically managed through the web site: <http://lists.scnl.dist.unige.it/listinfo/ssc>**

**The mechanism is fully reported in SSC TC web site, whose URL is reported above**

11. IS THERE AN OFFICIAL MEMBERSHIP LIST? (if not, describe membership criteria): **Yes, there is. It is reported in the web site under "Membership" information.**
12. DO YOU HAVE A POLICY&PROCEDURES DOCUMENT ABOUT:
- Definition of elected and appointed officers, as well as nomination and election procedures; **Yes, there is. The rules and the officers' duties are also reported in the web site. (click on "About Us" from the site menu)**
  - Membership criteria; **Yes. Information in the web site.**
  - Planning, announcement and conduction of TC meetings; **Yes. Information in the web site. (click on "About Us" from the site menu)**
  - Budget and expenses; **500 \$ are provided by IEEE/COMSOC for each year. This budget is mostly (entirely during last and present year) used for the "Satellite Communications Distinguished Service Award" annually given by the committee to researchers with the most significant contribution and research work in the field of satellite and space communications. For more details about the award, see point 21.**
  - Support of COMSOC activities, such as publications, meetings and membership development; **Yes. The list of publications endorsed by SSC TC is reported in its website (see "About Us" from the menu of the site. SSC TC provides also an award each year. It is described in the remainder of the report.**
  - Information dissemination activities, such as newsletter and web pages; and other areas as appropriate; **Yes. As stated above, all minutes, newsletters, and other relevant documents are promptly uploaded to the webserver of the TC. Messages are then sent to the mailing list of the TC to notify the members of the update.**
  - When was your P&P document updated last time?  
(if these points are not included in your P&P document, it should be reformulated appropriately and approved): **it was revised in June 2004 concerning officers' duties.**

### DISCIPLINES

13. TC CHARTER (as it appears in your website):  
**The Committee facilitates technical interchange in the field of satellite and space communications. It explores the evolution of new satellite and space-based systems and the application of new and emerging technologies, at all layers of the network protocol suite. The Committee maintains a keen interest in the development and maintenance of standards in this area and facilitates nomination of suitable candidates for IEEE awards, distinguished lecturer program, and IEEE Fellow elevation among its members. Specific technologies of current interest include:**

- Satellite Air interfaces
- Advanced Modulation/Demodulation and On-board Signal Processing
- Advanced and Active Antennas
- Architectures, Protocols and Applications for Satellites
- Satellite IP
- Integration with Terrestrial and Wireless Networks
- LEO/MEO/GEO and HAPs Communications
- Deep Space Communications
- Broadcasting and High-definition television (HDTV)
- Advanced Global Navigation Satellite Systems
- Integration of Communication and Navigation Systems
- Satellite Network Control and Management

14. OTHER TCs WITH PARTIAL OVERLAP IN AREAS OF INTEREST: **No overlapping with other TCs.**

#### ACTIVITIES

15. CONFERENCES/WORKSHOPS/SYMPOSIA/PANELS YOUR TC IS ACTIVELY INVOLVED (specify for each your involvement, such as having members in TPC, having endorsed COMSOC co-sponsorship, and also a few statistics you deem useful, such as number of attendees, submissions, acceptance rate, etc.; please specify if the events are/are not cosponsored by COMSOC):

The main activity of the TC concerns the dissemination of the results produced by the Satellite and Space Communication community. To reach the aim, many conferences have been sponsored and co-sponsored. A list with the main conferences organized by SSC TC members/sponsored by the TC/heavily involving SSC TC Members in the TPC, has been reported.

#### Activities at ICC and Globecom

(organizing activities are mentioned first, scientific activities where members of SSC TC had a role (speakers, session chairs) and, simply, deep interest are reported after organizing activities; all these activities were reported within SSC TC Newsletter, distributed at ICC and GC to stimulate the participation of all SSC TC Members)

- ICC 2007 (24-28 June 2007, Glasgow, Scotland) - SSC TC has been a co-sponsor of the Symposium on Communications QoS, Reliability and Performance Modeling. TC Representative (Symposium Chair) Mario Marchese (SSC Past Chair).

- Globecom 2007 (26-30 Nov. 2007 Washington DC, USA) - SSC endorsed Wireless Networking Symposium. TC Representative (Symposium Chair) Mario Marchese (SSC Past Chair).

- ICC 2008 (19-23 May, Beijing, China) - SSC endorsed the General Symposium. TC Representative Mario Marchese (SSC Past Chair). [SSC related Paper Submitted 28, Accepted 17]
- Globecom 2008 (1-4 Dec. 2008, New Orleans, LA, USA) - SSC endorsed the General Symposium (Selected Areas of Communications). TC Representative (Symposium Chair) Mario Marchese (SSC Past Chair). [SSC related Paper Submitted 24, Accepted 12]
- ICC 2009 (14-18 June 2009, Dresden, Germany) - SSC endorsed two Symposia: Wireless Communications Symposium, Wireless Networking Symposium. TC Representatives (Symposium Chairs) Takaya Yamazato (SSC Chair), Mario Marchese (SSC Past Chair). [SSC related Paper Submitted 20, Accepted 11]
- Globecom 2009 (30 Nov - 4 Dec 2009, Honolulu, Hawaii) - SSC endorsed two Symposia: Wireless Communications Symposium, Wireless Networking Symposium. TC Representatives (Symposium Chairs) Tarik Taleb (SSC Vice Chair), Claudio Sacchi (SSC member). [SSC related Paper Submitted 41, Accepted 12]

### Newsletters

TC Newsletter is published twice per year, distributed at ICC and Globecom, e-mailed to TC members and posted permanently on SSC TC website.

SSC TC Newsletter is edited by SSC Vice-Chair and it is structured as follows:

- 8 pages
- How to join SSC Committee and mailing list
- Message from the Chair, which is the message of the Chair to the Members at each ICC and Globecom.
- Scanning the World, written by the Vice-Chair, contains the recent novelties and activities of interest for the satellite community
- Conference Calendar, which contains the main conferences of interest for the satellite community
- Perspective Article, which is structured in 3 double columns pages, formatted as IEEE Communications Letters; it reports a contribution of one or more SSC Members concerning topics of interest for the community. It can be either a research or a tutorial contribution.

16. PUBLICATIONS YOUR TC IS ACTIVELY INVOLVED (such as having members as Editor in Chief, associate editors, etc.; please specify the kind of involvement and whether the publications are IEEE or not):

### **Magazine:**

- IEEE Wireless Communications
  - Associate Editor, Prof. Mario Marchese (Chair of SSC TC).
  - "Scanning the Literature" columnist, Dr. Tarik Taleb (Vice Chair of SSC TC)

- International Journal of Communications Systems (Wiley)
  - o Editor in chief, Prof. Mohammed Obaidat.
  - o Associate Editor, Prof. Mario Marchese (Chair of SSC TC).
  - o Many others SSC TC Members are Associate Editors (Franco Davoli, Erina Ferro, Romano Fantacci, ...)
- Many SSC Members have an active role as Associate Editors in important IEEE and non-IEEE international scientific journals and magazines, as well as Journal of Communications and Networks (JCN), the International Journal of Sensor Networks, and the International Journal of Business Data, Communications and Networking

Special Issues:

- Special Issue on "RECENT ADVANCES IN SATELLITE AND SPACE COMMUNICATIONS" has been organized on the Journal on Communications and Networking. Guest Editors: Dr. Igor Bisio (SSC Secretary), Dr. Riccardo De Gaudenzi, Dr. Hung Henry Nguyen, Prof. Fotini-Niovi Pavlidou, Dr. Takaya Yamazato (SSC Chair). Submission Deadline: April 15, 2010.
- Special Issue on "Recent Trends in Interplanetary Communications Systems" has been organized on the IEEE Aerospace and Electronic Systems Magazine. Guest Editors: Dr. Giuseppe Araniti, Dr. Igor Bisio (SSC Secretary), Prof. Scott Burleigh, Dr. Mauro De Sanctis, Prof. Ruhai Wang. Submission Deadline: February 28, 2010.

17. DOES YOUR TC USUALLY ADVANCE CANDIDACIES FOR IEEE/COMSOC AWARDS (such as best paper awards, career awards, international research awards, etc.)?

18. STANDARDIZATION COMMITTEES YOUR TC IS ACTIVELY INVOLVED:

- ITU-T: Sastri Kota and other Members
- ETSI: Mario Marchese and Other Members (Matteo Berioli is also part of the ETSI SES BSM Special Task Force)

Liaisons with other committees also reported in the web site:

- IEEE ComSoc Fellow Evaluation Committee: Desmond Taylor
- IEEE Communications Magazine Editorial Board: Abbas Jamalipour
- IEEE Electronic Magazine, Regional Editor for radio and satellite communications: Walter Ciesluk
- IEEE Journal on Selected Areas in Communications (JSAC): Desmond Taylor
- International Journal on Satellite Communication: Michel Bousquet
- IEEE ComSoc Technical Committees
- AIAA Technical Committee on Communications Systems (TCCS): Ron Smith

19. IDENTIFY THE NUMBER OF MEMBERS YOUR TC HAS SUCCESSFULLY ADVANCED FOR IEEE COMSOC DISTINGUISHED LECTURER POSITIONS IN THE LAST 2 YEARS:
- A. Jamalipour (SSC Chair 2004-2006)**
- **Broadband Wireless IP**
  - **Next Generation Mobile Network Architectures**
  - **Heterogeneous Mobile Cellular Networks**
  - **EAME Tour**
20. IDENTIFY THE MEMBERS YOUR TC HAS SUCCESSFULLY ADVANCED FOR CONSIDERATION AS IEEE SENIOR MEMBERS OR FELLOWS IN THE LAST 2 YEARS: **at least 3**
21. LIST THE AWARDS YOUR TC IS CURRENTLY ASSIGNING (best paper, career, etc.): **SSC TC promotes the Satellite Communications Distinguished Service Award. This award aims to promote research and development activities in the area of satellite communications within the industry and academia research community. The award is established as part of the Satellite and Space Communications Technical Committee activities in involvement in the new and revolutionary developments taking place in the field. The SSC TC is governed by the constitution and bylaws of the IEEE and the IEEE Communications Society. The award also aims to motivate the increase in the number of research publications in the field as well as number of researchers in this field and the TC membership. One award is given in each calendar year. If no suitable candidate is proposed in a given year, the award is not presented for that year. The award is announced and given during the IEEE GLOBECOM conference.**

**Eligibility criterion:**

1. an individual researcher or a team of researchers, who has met the following criteria, may be nominated or may apply for receiving the award:
  1. Must be an IEEE Communications Society Member at the time of application.
  2. Must have research related to the field of satellite and space communications; including research involving any layer of the network stack.
  3. Must have a good track of record in research in the field of telecommunications but not necessarily in the satellite field.
  4. Must have significant contribution in the field in the form of one or both of the followings: publication of one book, or one book chapter, or one journal paper, or one international conference paper, or a significant patent received in the field of the satellite communications during the year immediately prior to the award year. The journal paper and the international conference paper must be peer reviewed based on full paper submission. The publications are not required to be within the IEEE journals and conferences but must be published in high-level publications, as defined by the award selection committee.

5. Must be ready to attend the GLOBECOM conference in the year of award. In case the selected person for the award cannot attend the conference, a representative must be nominated to receive the award at least four weeks before the conference date or the award will be given to the second person who has been selected by the award committee as the reserved. All applications must be sent to the SSC TC Secretary by the closing date of July 15th of the year of prize. The applications could be from individual researchers or a team of researchers on a self-nomination basis, or nomination by other people. The application must include a letter of application (or nomination) and any document showing that the application has met the award eligibility criteria and any other support. A selection committee consisting of SSC TC officers (Chair, Vice-Chair, Secretary) and two other SSC TC members, nominated by the SSC TC Chair, decide about the applications in mid-October of each year. If an application is received from one member of the committee, the SSC TC Chair allocates a replacement. The committee selects two applications, one as the main and the second as the reserved. The selected main application will be informed soon after that by the SSC Secretary together with a letter of award offer. The selected application must accept the offer (including condition 5 of eligibility) or the offer will be sent to the reserved application.
22. IDENTIFY THE TCs WITH WHICH YOUR TC IS (OR SHOULD BE) COLLABORATING? (please provide specific instances): **Common interests may exist with: Radio Communications, Ad Hoc & Sensor Communications & Networks, Communications Switching & Routing, Computer Communications, High-Speed Networking, Communications Quality and Reliability, Personal Communications, Tactical Communications, Internet TCs.**
23. LIST THE MAIN ACTIVITIES OF YOUR TC IN THE LAST 2 YEARS (2006 and 2007, with specific informations like titles, locations, TC involvement, etc.): **the main activities have been described in the previous points.**

#### GENERALITIES

24. HOW FREQUENTLY (AND IN WHAT OCCASIONS) DOES YOUR TC MEMBERS MEET? **The TC meeting is organized twice per year, at ICC and Globecom.**
25. MENTION WHAT YOU CONSIDER THE MAJOR ACHIEVEMENT OF YOUR TC IN THE LAST 2 YEARS: **Major achievements of the TC consist in its recent intensive activities in ICC/GC and the great scientific push given by the TC concerning publications about satellite communications (see above). As a result of**

this hard work, the TC could secure a track exclusively devoted for research works in the area of satellite and space communications at ICC and GC.

26. LIST THE MAIN PROBLEMS YOUR TC HAD IN THE RECENT PAST (relationship with conferences TPC, with COMSOC officers, etc.)

Despite the significant research work in the field of satellite and space communications, the TC officers see that there is lack of special symposia at ICC/GC devoted for researches on satellites. The committee members and officers are willing to push for more recognition of the importance of satellite activities from the COMSOC community both in COMSOC conferences and in COMSOC journals.

27. WHAT COULD COMSOC DO TO HELP YOUR TC IN ITS OPERATIONS? **Satellite Communications were seen as part of Wireless. We pushed hard to distinguish our community that deserves a special attention, in particular from the scientific viewpoint. COMSOC could help the SSC TC Officers to go to this direction by fostering satellite communications tracks/symposia at GC/ICC and issues on satellite and space comms in COMSOC journals.**

28. WHAT ARE YOUR PLANS TO INCREASE YOUR GLOBAL MEMBERSHIP (AND, IN PARTICULAR, YOUR INDUSTRY MEMBERSHIP)? **We would like to promote further the presence of satellite communications in IEEE main conferences, issues of journal and magazines. The SSC Newsletter has an important role to widespread recent advances, ideas and problems of the satellite community, in particular of the industry. Industry membership is very relevant and its presence may be still increased through conferences, tutorials and presentations.**

29. HOW OFTEN WOULD YOU ROTATE TC CHAIRS (present Bylaws rule is every two years)? **Every 2 years.**

#### NEW AREAS

30. LIST ANY TECHNICAL AREAS YOU CONSIDER WORTH OF BEING INCUBATED IN THE EMERGING TECHNOLOGY COMMITTEE TO POSSIBLY BECOME A NEW TC:

#### ADDITIONAL COMMENTS

31. PLEASE ADD ANY ADDITIONAL INFORMATION PERTINENT TO RECERTIFICATION AND/OR COMMENT ON ANY ASPECT OF THIS SURVEY:



We do hope that COMSOC appreciates the activities developed by our Committee, in particular in the last few years, both from organization and from scientific viewpoints.

THANK YOU!