Policies and Procedures of IEEE Technical Committee on Green Communications and Computing

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1 Introduction

This document introduces Policies and Procedures of Technical Committee on Green Communications and Computing (TCGCC), IEEE Communications Society. In December 2011, IEEE Technical Subcommittee on Green Communications and Computing (TSCGCC) was approved and established as the dedicated technical organization within IEEE Communications Society. In December 2013, TSCGCC was officially approved and elevated as TCGCC.

2 Charter and Scope

The goal of Technical Committee on Green Communications and Computing (TCGCC), IEEE Communications Society, is to provide a platform for its members, and the whole research, development, standardization, and service community of energy- and/or resource- efficient and/or environment-sustainable communications, computing, and relevant systems, to interact and exchange technical ideas, to identify major research and development challenges, and to collaborate and investigate solutions in the development of energy-sustainable, resource-saving, and environment-friendly green communications and computing technologies. The areas this committee addresses are quite inter-disciplinary due to the inherent nature of the relevant green topics. This committee not only addresses greening communications, computing, and relevant systems but also investigate using communications, computing, and relevant systems to achieve green objectives for the sustainable world.

The issues addressed by this technical committee include all aspects of green communications and computing related research and development issues, such as green fixed access communications and networking, green optical communications and networking, green wireless access networks, green cellular base stations, green circuits, devices and terminals, software for green communications, computing, and relevant systems. hierarchical and distributed techniques for energy distribution and management, energy harvesting, novel network concepts and architectures lowering the overall footprint of ICT (such as compressed sensing, network coding and interference alignment, and so on), green ad hoc and sensor networks, green cognitive communications and computing, energy-efficient smart home networking, green smart grid communications, green cloud computing and data centers, electromagnetic pollution mitigation, advanced signal processing techniques for energy-efficient transmission systems, resource-efficient cross-layer optimization methods, and opportunistic spectrum sharing without causing harmful interference pollution, and so on. This committee not only addresses technical issues for green communications and computing but also concerns relevant social and economic issues for green communications, computing, and relevant systems. This committee will also carry out assessment of the environment footprint of individual communication devices, measurements, monitoring, trials, prototype and test-beds implementations, standardization activities, green services, green businesses, and economic "greener" initiatives.

The committee sponsors and promotes technical publications, conferences, symposia, workshops, tutorials, student activities, standardizations, and other related activities in the areas of green communications, computing, and relevant systems. The committee also assumes proactive duty to nominate suitable candidates for the IEEE Communications Society (ComSoc) and IEEE awards, propose distinguished lecturer candidates, endorse deserving candidates for the election to IEEE Senior Member and Fellow grade, and make contributions to standards in an organized form.

3 Policies and Procedures

TCGCC adheres to all policies specified by the IEEE Communications Society for Technical Committees (IEEE Communications Society Policies and Procedures, Sec. 7.0 - Operating Procedures Template).

3.1 Membership Requirements

Anybody can be a member of the Technical Committee on Green Communications and Computing (TCGCC). An IEEE TCGCC membership does not require that the membership applicant owns an IEEE membership.

Normally, one should show his/her relevant interests or background on the areas that the TCGCC cover before his/her TCGCC membership is officially approved. To become a member it is necessary for the membership applicant to subscribe to and maintain in the TCGCC mailing list as specified on its website.

The definition of Active Member is the same as that of Voting Member defined in Section 3.3.

3.2 Definition of Elected and Appointed Officer Positions

The committee has three kinds of elected officers: Chair, Vice Chairs, and Secretary. The term of each position is for two years. The Chair reports directly to the Vice President of Technical Activities (VP-TA) of ComSoc, in accordance with the ComSoc Bylaws. The Chair represents TCGCC to the Technical Council (TAC), and to any ComSoc committee or board, and provides endorsement for technical conferences that require technical co-sponsorship to ComSoc. The Vice Chairs support the Chair and take responsibility of the Chair in his/her absence. The other responsibilities of Vice Chairs include participating in TCGCC meetings, supporting the Chair as required, Advising Chair on issues related to the TCGCC activities, and promote activities and identify opportunities in their regions. The Secretary may keep meeting documents and meeting minutes. If a TCGCC officer position becomes vacant before normal conclusion of his/her term, the remaining term shall be filled by special election within TCGCC. The positions filled shall be for completion of the interrupted term. At the discretion of TCGCC, there may be additional elected or appointed (officer) positions, such as standards, industry, regulation and research forum liaisons, advisors, award subcommittee members. In no case shall there be more than eight elected officers, but there may be as many appointed positions as necessary for proper operations of. The number and roles of Vice Chairs in the selection can be decided by the past Chair before the TCGCC selection of officers.

3.3 Nomination and Election Policies and Procedures

● Term: The nominal term for Chair, Vice Chair and Secretary shall be two years. Any officer can be elected to the same position for one additional, contiguous term (i.e., continuously serve in any particular officer position for a maximum of four years). TCGCC officers can be elected to a different officer position, but in no case shall one person continuously serve as a TCGCC officer within the same committee for more than eight consecutive years. Student Members are not permitted to serve as elected TC officers. The exact number of elected officers shall be decided by the current TCGCC chair. At the discretion of the TC Chair, there may be additional appointed positions.

● Nomination and Election (N&E) Subcommittee:
The N&E Subcommittee will typically consist of past chairs and TCGCC Steering Subcommittee Members but may include any other active TCGCC members appointed to the committee by the current TCGCC chair. The number of the N&E Subcommittee members should be not less than 3. . The N&E Subcommittee will be given a task of identifying candidates for the vacant officer position(s). TC members are able to submit nominations via email by communicating to the current N&E Subcommittee Chair or directly to the N&E committee. The N&E Subcommittee shall come into existence first preceding the actual election and shall be dissolved after the election and installation of officers.

- Chair: The current TCGCC Chair shall also chair the N&E Subcommittee if not being considered for re-election. Otherwise, the current TCGCC chair can appoint some other active member as the N&E Subcommittee Chair.
- Members: Past chairs, TCGCC Steering Subcommittee Members, and TCGCC member representatives, who are appointed by the current TCGCC chair.

- Eligible candidates for officer positions:
  - Eligible candidates for an officer position are those
    - who have already been Voting Members of the TCGCC (the definition of Voting Member is given in another paragraph below.)
    - who have indicated willingness to serve if elected.
    - who have actively supported the mission of TCGCC and substantially contributed their efforts to TCGCC activities.
  - Eligible candidates for Chair position are those
    - who have already previously experienced one position of TCGCC officers (Chairs, Vice-Chairs,
      Secretaries) if there are such available candidates
  - The eligible candidates or the nominators of the eligible candidates should send the biographies and position statements of the candidates to N&E Subcommittee.
- Nomination: To facilitate the election of the new officers (Chair, Vice Chairs and Secretary) in every two years. At the second year of their nominal term, the N&E Subcommittee Chair or N&E Subcommittee members are responsible to announce the calls for nominations via email list or TCGCC meetings. The N&E Subcommittee shall collect nominations of individuals for the officer positions who are active (voting) members of the TCGCC and who have indicated willingness to serve if elected. The N&E Subcommittee shall discuss (either by teleconference, or through email, or in person) and possibly vote to select a slate of candidates for the officer positions. In the case of more candidates for one or all the positions, then the candidates who are not selected to be listed on the official slate will be listed as eligible contender(s) for specified position(s). The slate of candidates and other possible candidates shall be then announced to TCGCC voting members before the election. It is desirable that biographies and position statements of candidates be available to TCGCC members. Candidates shall be permitted to "advertise" their candidacy on the TCGCC email distribution list.

- Election:

  - The election of new officers is to be administered by the N&E Subcommittee Chair and is to take place either at a TCGCC semi-annual meeting or via electronic ways, such as emails.
  - In the case that a position has only one candidate, then the election process is basically an approving process by the voting members. In the case that a position has more than one candidate, then the one received the largest number of votes from the voting members wins the election for the position. In the event of a tie, votes shall again be cast until the tie is broken. If that is not possible, the elected officers and the N&E Subcommittee shall cast a tie-breaking vote.
  - A candidate can be a candidate for more than one officer position. If a candidate has been elected for some position, the candidate is removed from consideration for all other officer positions. If a candidate has been elected for more than one position at the same time, which may occur in electronic voting, the highest level elected position will be the election result.
  - There is no quorum for the election.

- Post Election: The N&E Subcommittee Chair shall keep a list of the voting members who have submitted their votes. The N&E Subcommittee Chair shall report the results of the election to the TCGC

C membership, the VP-TA. The new officers will take office on the first date of the following month after the election. A record of votes cast must be retained for post-election audit purposes by the N&E Subcommittee.

- Voting:

  - Voting Member: A TCGCC Voting Member shall be any individual who either 1) has attended (physically present or by teleconference or via electronic means for virtual TC meetings) two or more official TCGCC meetings over the prior five regularly scheduled TC meetings or 2) has contributed substantially to the TCGCC activities. The Voting Members of the second category should be approved by the current TCGCC Chair.
  - Proxy voting shall be permitted. Each Voting Member asking another to vote on her/his behalf shall inform a N&E Subcommittee of this arrangement prior to the election. An actual voter shall represent no more than three proxies.

3.4 Conducting TCGCC Meetings

The TCGCC meetings are usually scheduled during ICC and GLOBECOM, twice a year. The meetings are open to any conference attendees. The meetings are usually announced via the TCGCC email list shortly before the incoming ICC or GLOBECOM.

The TCGCC Chair or a designated substitute, typically another TCGCC officer, will chair the meetings. Any TCGCC member can suggest items for the agenda. The TCGCC Secretary will take the minutes. These minutes should be made available within one month of the meeting. Their availability is announced on the TCGCC mailing list. Minutes are posted on the TCGCC website and are open to public.

Should voting other than the TCGCC officers election occur at the TCGCC meeting, only members physically present or attending by teleconference have voting rights, and simple majority rules applies. If voting involves changes to the Policies and Procedures (P&P), a two-thirds majority of TCGCC members physically present or attending through teleconference is required.

3.5 Maintaining Membership List

The TCGCC would maintain the membership list. Entries in the list are usually generated from two primary sources: 1) the attendance sign-in list at the TCGCC meetings at ICC and GLOBECOM conferences, 2) application emails.

3.6 Sub-committees

3.6.1 Operation Subcommittees

TCGCC may establish several operation subcommittees which may support TCGCC activities. Each sub-committee may have a chair appointed by the current TCGCC Chair. Subcommittee members are also appointed jointly by the Subcommittee Chair and the current TCGCC Chair. The Committee may have several optional sub-committees:
- Membership and Publicity
- Publications
- Conference

- Awards
- Standards
- Advisory

Goals of each sub-committee are sketched as follows.

3.6.1.1 Membership and Publicity
- Attract and invite active researchers in the relevant green topics to join TCGCC □
- Increase the visibility of TCGCC □
- Suggest candidates in member elevation to the Fellow and to the Senior grades

3.6.1.2 Publications

- Promote relevant journal and magazine special issues and new journals
- Advise the Chair in the appointment of committee liaisons to publications sponsored by the Committee

3.6.1.3 Conferences
- Promote relevant conferences, symposia and workshops in emerging topics
- Promote relevant tutorials and panels in emerging topics
- Advise the Chair in the appointment of Committee members to conference positions
- Advise and support the Chair on the Committee sponsorship to conferences, symposia and workshops

3.6.1.4 Standards
- Promote participations of the Committee in relevant standardizations
- Advise the Chair in the appointment of standardizations liaisons in different standardization bodies

3.6.1.5 Services
- Provide services to TCGCC members

3.6.1.6 Advisory
- Provide advices in TCGCC operations

3.6.2 Special Interest Groups
Special Interest Groups (SIGs) are technical sub-committees proposed and established by some TCGCC members and approved by the TCGCC Chair to foster and develop activities in specific areas of interest to the Committee. Active Special Groups of Interest are announced through the TCGCC mailing list and published on the website. A typical SIG officers normally include one Chair, one or more Vice-Chairs and one or more Advisors. The Advisors are usually senior experts in the relevant areas. Members of any SIGs are also members of TCGCC. SIG officers (usually SIG Chairs) reports to the TCGCC Chair about the activities conducted annually. The serving term of SIG officers are two years, and the SIG officers are appointed by TCGCC Chair after the establishments of the SIGs. The TCGCC Chair may terminate some SIG or change the officers of the SIG in case the SIG or some SIG officer does not fulfill the goal of the SIG. SIG officers are appointed by the Chair after the establishment of the SIG. The termination of some SIG should be approved by members in a committee meeting.

3.6.3 Steering Subcommittee
The committee shall have a steering subcommittee composed of past TC chairs who will act as a consulting board to ensure continuity of the committee identity. Members of the Steering Subcommittee are appointed by

the chair. Steering Committee members may be assigned various tasks, under coordination by the TCGCC Chair, Vice- Chair or Secretary. The TCGCC steering subcommittee includes the current officers (chair, vice-chair and secretary) and past chairs who are still active members. Other TCGCC members with outstanding record in supporting TCGCC activities may be also included.

3.6.4 Other subcommittees

Other subcommittees, such as award sub-committees and Nominations & Elections (N&E) subcommittee, have been described in other section of the P&P.

3.7 Supporting Activities

As appropriate, TCGCC will be active in all of ComSoc's activities. This will include ComSoc conferences (such as ICC, GLOBECOM, INFOCOM, PIMRC, Online GreenComm and WCNC, etc.) by providing representatives to their respective Technical Program Committees, by providing for professional review of submitted papers (by soliciting such assistance from among its membership) and by organizing symposia, workshops, panels, short courses, tutorials, and so on, as deemed appropriate by ComSoc and TCGCC.

Furthermore, TCGCC can individually organize conferences, workshops and summer/winter schools. Also, because of the broad nature of committee activities, collaborative sessions with other committees will be sponsored and strongly encouraged. As new technologies and application areas emerge, TCGCC will seek to address aspects of these topics relative to its charter, and work with both the Strategic Planning Committee and Emerging Technologies Committee.

TCGCC will further support ComSoc's journals, magazines, and standards activities by soliciting volunteers as authors and editors, submitting proposals, and identifying committee members from its membership. The committee will seek ways to increase active participation of its members in information exchange related to the charter of TCGCC, such as: stimulating Feature Topics and Special Issues of ComSoc journals and magazines; and sponsoring workshops, tutorials, short courses, panel sessions, and so on.

TCGCC shall also be actively involved with various IEEE standard activities. All members are encouraged to participate the IEEE standard activities. If a TCGCC member needs any further information about the IEEE standard activities, he/she could contact the officers of TCGCC.

The recognition and proposal of candidates for ComSoc and IEEE Best Paper and Career Awards nominations, as well as distinguished lecturer candidates, and candidates for the election to Senior Member and Fellow degrees is also part of the TCGCC activities.

3.8 Budget and Expenses

The annual budget awarded by the IEEE Communications Society (ComSoc) may be spent on:
● dissemination activities (e.g., maintenance of website, newsletter,
● awards,
● showing appreciation for volunteer support,
● other tasks deemed useful to TCGCC activities.

3.9 Membership and Mailing List
Membership:
■ TCGCC membership gives you the opportunities

- ■ To network with technical experts in related fields
- ■ To contribute to the technical activities in TCGCC
- ■ To post messages to the TCGCC mailing list
- ■ Anyone can be a member of the Technical Committee on Green Communications and Computing (TCGCC), even if one is not an IEEE member. The membership fee is free for an official TCGCC membership. To obain the TCGCC membership, you may send a message about your membership application to TCGCC Membership Board with email address tcgcc-membership@googlegroups.com. In your message about your membership application, the membership applicant should show
  - ■ relevant interests or backgrounds
  - ■ affiliation with the located country
  - ■ email address to be used for subscription to the official mailing list
- ■ To maintain your TCGCC membership, the official TCGCC member must subscribe to and maintain in the official TCGCC mailing list

Mailing List:
Note: You must be an official member of TCGCC to be able to send or post messages to this mailing list: tcgcc@comsoc.org
To add yourself to or remove yourself from the TCGCC mailing list, please go to https://cm-listserv.ieee.org/cgi-bin/wa?SUBED1=tcgcc&A=1.
You can also change the your subscriber settings from the above link

3.10 Procedures for TCGCC Awards

As a part of the TCGCC activities, Recognition Award and Publication Award are established to recognize those ComSoc members who have distinguished record of service to TCGCC and/or have made their significant contributions to the technological advancement in the areas of green communications and computing. Each award will be announced and given during the IEEE ICC, GLOBECOM, INFOCOM, and other conferences.

Awardees will be selected by TCGCC Award Subcommittees whose chair(s) are appointed by the TCGCC Chair. Each Award Subcommittee will be composed of total of no less than 3 active TCGCC members, including the current Awards Subcommittee Chair. The Subcommittee may be established for other awards which should be approved by the Steering Subcommittee.

The TCGCC Chair appoints the Chair(s) of the Award Subcommittee (s). The Awards Subcommittee Chair may serve a term of up to two years, but no more. The TCGCC Chair appoints two of the Awards Subcommittee members including the Chair, and the Awards Committee Chair appoints other serving Subcommittee members in consultation with the TCGCC Chair. The Awards Committee Chair and members are reappointed or changed at the same time as the TCGCC Chair.

The current serving TCGCC Chair, Vice-Chairs (if any) and Secretary are not eligible for any TCGCC award. The current serving TCGCC Chair, Vice-Chairs (if any) and Secretary, as well as any sitting ComSoc officer (President and VPs) cannot nominate and/or endorse candidates for the award. Any member of the Award Subcommittee nominated for an award shall not participate in the selection process. Further, all Award Subcommittee members must formally declare any conflict of interest with a nomination and recuse themselves. If due to this rule the number of voting members in the Awards Subcommittee (s) is not less than three (3), the TCGCC Chair and Awards Subcommittee Chair shall seek replacement members for the Subcommittee.
Members of the IEEE Communications Society or any of ComSoc's sister societies are eligible for the award. The TCGCC Award Subcommittee(s) are responsible for indicating the individuals selected to receive the

awards to the TCGCC Chair. All final decisions shall be made by the Award Subcommittee(s) and approved by the TCGCC Chair.

Any amendments to selection criteria and the process shall be established by the TCGCC Award Subcommittee Chair(s) in consultation with the respective Subcommittee. Each award will have its own nomination and selection procedure. If the Award Subcommittee considers that no candidate fulfils the established criteria, no award will be issued regardless of the call for nomination.

The reviews, voting and any deliberations of the Award Subcommittee will be strictly confidential. Most Subcommittee business will be conducted electronically and the Award Subcommittee Chair will be the sole point of contact for all external communications. No correspondence will be sent to nominated or nominating persons or entertained during the process from any other parties. All questions, suggestions and complaints pertaining to the award selection process should be sent to the Award Subcommittee Chair(s); the TCGCC Chair will act as an Ombudsman for all matters that require the chair(s) to be excused and oversee any resolution process.

The selected award recipient(s) will be informed via email of the selection. In case the selected award recipient(s) declines the award for any reason, the award will not be given that year. If the recipient(s) cannot attend in person to accept the award at the designated TCGCC sponsored conference, or cannot nominate someone to receive the award on their behalf, the award will be mailed to them.

3.11 Information Dissemination Activities

TCGCC will maintain an Internet website. The Chair would assign designated member to maintain the web site. Announcements distributed to the TCGCC's membership, notably meeting agendas and meeting minutes, opportunities for membership participation in TCGCC sponsored activities, as well as election-related issues, will be made available on the TCGCC website. TCGCC will also provide at least one email exploder as an alternative for timely dissemination of information, and to welcome useful information from others. Normally, only TCGCC members are allowed to post messages in the TCGCC mailing list. Non-TCGCC members posting messages in the TCGCC mailing list should be approved by the TCGCC Chair.