IEEE ComSoc Technical Committee on Power Line Communications (TC-PLC)

Meeting November 21, 2022 (virtual)
16:30 (CET)

Agenda

1. Approval of the agenda
2. Approval of the previous meeting minutes
3. Report on TC-PLC recertification
4. Report on TC restructure
5. Report on webinars and student challenge organization
6. Conferences activities
   a. Status of ISPLC 2023
   b. Status of WSPLC 2023
7. Request for co-Chairs for Globecom 2024 Symposia and SAC tracks
8. Report on regulations and standardization activities
9. Publication activities
10. Any other business

Make sure to sign up for the meeting by typing your "FirstName, LastName, Affiliation, Email" in the zoom chat room

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2. Approval of the previous meeting minutes

Last TC-PLC meeting on May 4, 2022 (virtual)

IEEE ComSoc Technical Committee on Power Line Communications

Meeting, 4 May 2022

When: Meeting begins at 16:00 (CET).

Where: Google Meet (Virtual)

Attendance (10)

Gerd Bumiller (Chair)	Pascal Lorenz
Bamidele Adebissi (Vice-Chair)	Roberto Rojas-Cessa
José A. Cortés (Secretary)	Anil Mengi
Markus Rindchen	Ralf Lehnert
Scott Willy	
Gautham Prasad	

Meeting opened by Gerd Bumiller.

Agenda

1. Approval of the previous meeting minutes (attached)

Minutes of the last meeting approved.

2.Ratification of elected officers

Gerd Bumiller summarizes the election process and the results:

Chair: José Antonio Cortés Arrabal, University of Málaga (Spain),

Vice-Chair: Cédric Lavenu, EDF – R&D (France)

Secretary: Thokozani Shongwe, University of Johannesburg (South Africa)

Once the results have been approved by the Director of TC and the Vice-President of the Technical and Educational Activities (VP-TEA), they have to be ratified by the TC-PLC. A motion is passed to ratify the elected officers and is unanimously approved.

José A. Cortés thanks Gerd Bumiller for the work during these years as Chair of the TC-PLC.

3.Motion for Policies and Procedures (P&P) Update

José A. Cortés indicates that updating of the P&Ps is requested by the TEA Council and the Director of Technical Committees (TC). The process started in 2018. The main changes with respect to the P&Ps in force are summarized (see slides).

José A. Cortés highlights that there have been some last minute changes with respect to the version sent by e-mail last week (see text in red in the slides). These are made upon the answers given by the Director of TC and the VP-TEA to some doubts posed in the last days.

José A. Cortés indicates that the P&Ps approved by the TC-PLC have then to be approved by the TC Board. Since changes might be requested, and to avoid the need for approving it again at the

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3. Report on TC-PLC recertification

- Technical Committees have to be recertified every three years to show their continued relevance and effectiveness to ComSoc aims.
- A Questionnaire was sent on September 7, 2022:
  - Attendance to TC meetings
  - Activities: conferences, workshops, lectures, talks
  - Publication activities: TC members serving as editor, EiC, guest editors
  - Number of members advanced for IEEE/ComSoc awards/ComSoc distinguished lecturer/IEEE fellow in the last 3 years
  - Standardization committees and projects the TC is actively involved in
- **Recertification approved** on October 5, 2022. The following recommendations are made:
  - Please make more efforts to promote the attendance of TC meeting.
  - Please organise more activities to increase the exposure of the TC.
  - Please provide a six-month plan for improvement and provide status of progress before June 2023.

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4. Report on TC restructure

- TC restructure process began in 2020 but is been accelerated in 2022 (once meeting per month since May)

Why should we restructure TC?

- Lack of industry participation
- Lack of diversity in YP & Students members
- Lack of coordination to form SIGs
- Lack of support for local chapters globally
- Lack of support for standard development
- Lack of educational services to members
- Lack of guidelines in creating TC awards
- Significant overlapping areas among some TCs

Appointed TC Officers (NEW)

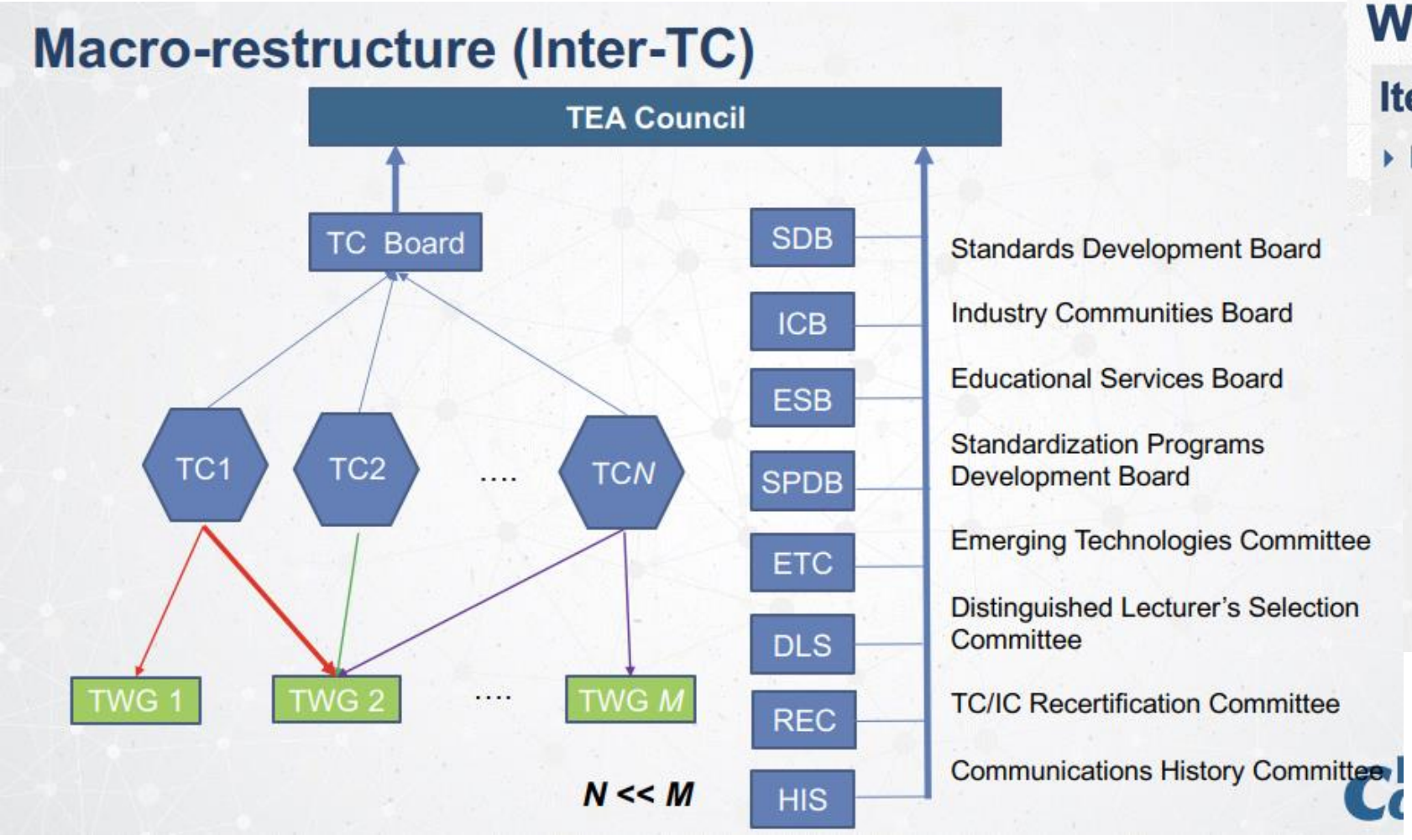
- TC Standardization Programs Development Coordinator (appointed)
- TC Industry Communities Coordinator (appointed)
- TC Educational Services Coordinator (appointed)
- TC WICE/YP/Student Services Coordinator (appointed)
- TC Local Chapters Coordinator (appointed)
- TC Newsletter Editor (appointed)

Thokozani Shongwe (Secretary of the TC-PLC) appointed on 27/06/2022

IEEE ComSoc Technical Committee on Power Line Communications (TC-PLC)

4. Report on TC restructure

- Proposal for new TC structure



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5. Report on webinars and student challenge organization

- Need to carry out activities aimed at increasing the visibility of PLC technology, to increase participation and to engage the community
- **Webinar** aimed at disseminating the potential of PLC (free event)
  - Jointly organized with the TCSGC (chair Andrea M. Tonello)
  - Tentative title: PLC for the Smart Grid
  - Duration: 1h/1.5h: introduction to PLC (likely by Academia person) + 2 industry presentations focused on standardization, applications and challenges + Q&A
  - Date: end of 2022 / beginning 2023
- **Student challenge** aimed at attracting M.Sc./Ph.D. students to ISPLC/WSPLC and engage the PLC community
  - Firstly carried out in WSPLC 2016 (org. Cédric Lavenu) but with no continuity in successive events
  - Theoretically oriented for ISPLC and practically oriented for WSPLC.
  - Help requested to Academia/Industry members to define the challenge

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6. Conferences activities. b. Status of WSPLC 2023

- WSPLC 2023 was originally scheduled for September 2020. Organized by PPC. Successively delayed because of COVID and collision with ISPLC.
- PPC is standing by its commitment to host the event and so does the TPC.
- Timing: rescheduled to Q4 2023 (as ISPLC is in March) with September preferred.
- Estimated registration fees: €200- 250.
- Venue: initially planned in PPC premises but they are no longer available. It will be made in an external venue, which will incur upfront costs.
- Organizers are concerned about the number of attendees.

WSPLC 2023 web site: https://wsplc2022.com/

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7. Request for co-Chairs for Globecom 2024 Symposia and SAC tracks

- No nominations received
- Last co-chair for Globecom/ICC from the TC-PLC in 2019
- Reduced visibility of PLC technology & community

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8. Report on regulations and standardization activities

NB-PLC

- G3-PLC Alliance : 2022 spec has been released in March (beta version) and a final version is expected end of 2022. The next version of the certification program is under preparation and is expected early 2023. Main new features are:
  - Enhanced broadcast for data packets and LOADng routing protocol “RREQs” (enhanced flooding)
  - New extensions of the hybrid profile : new RF frequencies, frequency hopping to comply with worldwide RF regulation, last gasp feature
  - New PLC bandplans : FCC sub-banding (possibility to split the FCC bandplan 154-487 kHz into two sub-bands)
- ITU-T SG15 : G.9903 and G.9901 are under revision (Last Call comment resolution stage) to reflect the latest changes agreed within the G3-PLC Alliance.
- IEC CISPR/H & SC77A JWG6 : CDV stage reached for IEC 61000-6-3 which intends to limit non intentional emissions in the range 9-150 kHz of general electrical devices connected to LV in residential areas. Next step is the revision of IEC 61000-6-8 which covers commercial and light-industrial environments.
- CENELEC TC219/WG9 works on revision of EN 50065-1 with an attempt to extend the NB-PLC frequency range up to 500 kHz (or more; up to 1,6 or even 3,7 MHz) in Europe for both AC (typically distribution grid and LV installations) and DC (typically PLC over DC bus between different components of a photovoltaic plants) networks. Measurements are being conducted to make sure radio services are not disturbed, in close cooperation with CENELEC TC210/WG11.

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Report on PLC DocSearch status

TC-PLC meeting november 2022

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- Remember that the database is **available** at

  www.plcdocsearch.uma.es/

  (at a server hosted and maintained by Universidad de Málaga)

- A recent **significant update** has been carried out
- **453 new papers** included (not all of them are brand-new)
  - 182 are docs 2021-2022, at IEEEXplore
  - 122 are since 2001, at Springer database
  - 100 are since 2008, at MDPI database
  - 49 are since 1981, at Elsevier database

9. Publication activities

Report on PLC DocSearch status

TC-PLC meeting november 2022

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- Currently, the **database** contains **5026 total entries**, all documents devoted to PLC corresponding to:
  - papers in **IEEE Xplore** up to now, 2022
  - All papers of **ISPLC** (1997-2021)
  - Papers of **WSPLC** (2009-2012)
  - Some other papers published outside IEEE: **Springer, Elsevier, MDPI** (in a more or less manual way)
- Likely there are omissions and errors (it is not always easy to identify PLC-devoted papers)
- If you want to include publications, from these or any other sources, you can send me the papers; or
- If you missed any paper,

contact to francis@ic.uma.es

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