IEEE P802.11  
Wireless LANs

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| Minutes of the IEEE P802.11 Full Working Group | | | | |
| Date: 2020-09-14 | | | | |
| Author(s): | | | | |
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Abstract

This document constitutes the minutes of the IEEE 802.11 full working group for the September 2020 meeting.

Please note that all affiliations at this meeting are shown in Annex A.

**IEEE 802.11 Interim Meeting – Session #183**

**September 14th – 18th, 2020**

**IEEE 802.11 Opening Plenary, Monday 14th September 2020**

Presiding chair: Dorothy Stanley (Hewlett Packard Enterprise) opened the meeting at 09:01 Eastern Daylight Time (EDT) and declared quorum for the session.

2nd Vice-chair (VC2): Robert Stacey Intel Corporation

1st Vice-chair (VC1): Jon Rosdahl Qualcomm

Secretary: Stephen McCann Self

There are 340 voting members and 11 Ex Officio voters of IEEE 802.11\*

There were 198 people present in the meeting.

\*who ask to be recognized as such in the 802.11 voters list.

1. **Notices** (11-20-1213r0 slide #3)
   1. No photographs at this meeting and please turn your mobiles to vibrate.
   2. Chair: Are there any members of the press present.
      1. None
   3. From the IEEE, Jonathan Goldberg is present as a member of staff.
2. **Approve/modify working group agenda** (11-20-1212r3)
   1. This is a summary of all the meetings for the week.
   2. Chair: I suggest we approve this agenda.
   3. Changes to agenda graphic:
      1. There have been a couple of small changes made since last week’s CAC.
   4. **Move to approve the agenda 11-20-1212r2**
      1. Moved: Jim Lansford, 2nd: Al Petrick
      2. No objection to approving by unanimous consent
3. **July 2020 WG Minutes**
   1. **Move to approve the July 2020 WG minutes document 11-20-1019r1**
   2. Moved: Stephen McCann, 2nd: Edward Au
   3. Following neither discussion nor dissent the minutes were approved by unanimous consent.
4. **Attendance**
   1. Welcome to the 15 new participants in this meeting.
   2. Chair: Please note that Stephen McCann (Secretary) will be holding a new members’ session at 09:00 ET on Tuesday September 15.
5. **Call for essential Patents** (11-20-1369r0)
   1. VC2: read out the current PatCom rules, and then called for essential patents information, as shown by:
   2. <https://development.standards.ieee.org/myproject/Public/mytools/mob/patut.pdf>
      1. There were no issues raised regarding the call for essential patents. There was no response to the call for essential patents.
   3. The slides about IEEE 802 meeting participation and IEEE SA copyright were also read.
   4. Expected participant behavior was also announced.
   5. VC2: Please note the slide about the valid abstain response in ballots and also all members’ obligations to respond to ballots.
   6. VC2: There is also some information about the current IEEE 802.11 email reflectors (slide #22)
6. **Voting Rights**
   1. Chair: I would like to highlight that this is a slightly unusual interim session and that there is no credit for attendance contributing towards participant credit. You do need to record your attendance as this an IEEE-SA requirement, but for this week, they do not count towards participant credit.
   2. Chair’s statement: “If we were face-to-face, the new members would have access to all of the drafts locally. So my intention is to provide the members area credentials to new attendees upon request, and reflector access to those who attend at least 6 meetings during the session. They will not achieve Aspirant status however. Unfortunately, this meeting does not count towards participation credit. Attendance is very important to record in IMAT, for accurate attendance at the session. I also periodically receive requests for granting or maintaining of voting rights due to exceptional circumstances. Having attendance at a session such as this one can make a stronger case.We look forward to your participation.”
   3. Chair: I will provide the new members’ area credentials to the new members on this call. In addition, if new members attend more than 6 sessions this week, I will also provide them with access to the email reflectors.
   4. Chair: This is to maintain access to IEEE 802.11 information.
7. **Announcements** (11-20-1213r0)
   1. **Liaisons** (slide #4)
      1. Chair: There are no liaisons for consideration this week.
   2. **EC and standard board decisions** (slides #5 & #6)
      1. Chair: The EC approved the following items on the slides.
8. **Logistics and Key events/activities**
   1. **Working group session documents** (11-20-1213r0 slide #8)
   2. **Joint meetings & reciprocal credit with IEEE 802 groups** (slides #9 & #10)
      1. Reminder that there are topics relevant to IEEE 802.11 to be covered in IEEE 802.18, IEEE 802.19 and some of the other IEEE 802 groups.
   3. **M3.3 Other WG meeting plans** (11-20-1374r0 slides #4 and slide #6)
      1. This slide shows information about other WG meetings, future meetings and logistics this week.
      2. Please use the online schedule at the IEEE 802 website for the online meeting times this week. It can be adjusted to show times in your own time zone.
      3. Please remember to record your attendance for each 2 hour slot during the week: <https://imat.ieee.org/802.11/attendance-log?p=3183700005&t=47200043>
      4. VC1: this slide deck shows information about other WG meetings, future meetings and logistics this week.
   4. **Online Calendar** (slide #9)
      1. An IEEE 802 EC calendar is available here: <http://www.ieee802.org/802tele_calendar.html>
   5. **M3.6 Recording attendance** (slide #10)
      1. Please note the rules about recording attendance at each IEEE 802.11 meeting this week.
   6. **M3.9 Next session reminder** (slide #11)
      1. The next IEEE 802 Plenary will be from 30th October to 13th November 2020. The various IEEE 802 1WG meetings will occur between these two dates.
      2. Question (Q): Will there be participation credit in November?
      3. Answer (A): Yes, it will be the usual plenary rules, so 75% attendance will be required for participation credit.
9. **Status of all groups** (11-20-1213r0)
   1. **Group summary** (slide #12)
      1. Chair: This is a review of the current IEEE 802.11 groups.
   2. **Sub-Group Officer Status** (slide #16)
      1. Chair: Please note the changes to sub-group officers for this week.
   3. **Summary of Ballots** (slide #19)
      1. There have been 2 comment collections, 1 completed SA ballot and 1 SA ballot still in progress between the July 2020 meeting and now.
10. **Group Summaries** (11-20-1368r1)
    1. Special notes were mentioned for the following groups:
    2. **Editors’ meeting and ANA**
       1. There is an editors’ meeting later this week, as per the online schedule. This will include the ANA status, style guides and numbering situation.
    3. **AANI**
       1. There is a meeting this week on Tuesday September 15th. There will be an online tutorial for the November 2020 plenary.
    4. **ARC**
       1. This group is currently discussing the TGbe multi-link architecture issues.
       2. Q: I think it should be TGaz for the fine timing measurement.
       3. A: Oh yes.
    5. **Co-ex**
       1. They will meet once this week to discuss various IEEE 802.11 co-existence issues.
    6. **PAR SC**
       1. Not meeting this week. The next meeting will be in November 2020.
    7. **WNG**
       1. They are not meeting this week, as there are no presentations.
    8. **JTC1**
       1. There will be a review of the current ISO/JTC1/SC6 status this week.
    9. **TGmd**
       1. The SA Ballot is now complete on draft 4.0 with 91% approval. There are 82 comments to be considered, which will be discussed in the 4 meetings this week.
    10. **TGax**
        1. TGax will meet for 1 slot this week, as there is an ongoing 11ax SA ballot this week.
    11. **TGay**
        1. The group will start a further SA re-circulation ballot on D6.0 possibly later this week. However, there is a meeting this week to vote for the TG officers.
        2. Chair: The final SA re-circulation ballot on an un-changed draft can be 10 days as opposed to the normal 15 days.
    12. **TGaz**
        1. The group is planning to meet 3 times this week to further consider many technical comments.
    13. **TGba**
        1. The group is also planning to start the 1st SA re-circulation ballot this week.
    14. **TGbb**
        1. TGbb will be working on various technical aspects this week, with 1 meeting.
    15. **TGbc**
        1. TGbc are currently working on comment resolutions from the initial comment collection. The goal is to create a D1.0 out of this week’s meeting.
    16. **TGbd**
        1. TGbd are addressing comment resolutions with the aim of creating a D1.0 this week.
    17. **TGbe**
        1. TGbe has had 23 teleconferences since the July 2020 meeting covering many different aspects of the project. About 60% of the uploaded submissions have been discussed so far. There are 4 meetings this week.
    18. **RCM (Random and Changing MAC address) study group**
        1. The group has been working on 2 PARs and 2 CSDs (RCM and privacy amendments). The plan is to complete these documents this week.
    19. **SENS study group**
        1. The IEEE 802 EC approved PAR and CSD have been submitted to NesCom and the group is awaiting feedback. There is 1 meeting this week.
    20. **ITU ad-hoc**
        1. This group will be meeting once this week to consider various issues with ITU-R groups.
11. **Liaisons (IEEE 802.18 and 802.19)**
    1. Chair: There is no specific IEEE 802.18 liaison report at this time, but the IEEE 802.18 meeting information for this week can be found at 1213r0 slide #10. Please do look at this material if you are interested in IEEE 802 regulatory issues.
    2. Similarly IEEE 802.19 are not having a meeting this week, so please review slide #11 for more information.
12. **Comment Ballot Resolution Resources** (11-20-1213r0 slide #21)
    1. Chair: please note that there are these resources to assist with comment ballot resolutions, which I encourage all members to review.
13. **IEEE 802.11 30th Anniversary** (11-20-1213r0 slide #23)
    1. Chair: IEEE 802.11 has been meeting for 30 years, as the 1st meeting was in September 1990 in Ottawa, Canada.
    2. Congratulations to everyone and especially all contributors.
    3. There will be short session on the Friday closing plenary for some past chairs to make some statements about this.
    4. 802.11a ex-chair: This was a very significant project which operated in parallel with 802.11b. 802.11a was one of the first OFDM wireless projects in the world.
    5. Comment (C): 11n was very interesting and encouraged many new members to join IEEE 802.11.
    6. C: I think the IEEE 802.11-2012 was crazy as it had the most amendments of any base-line roll-up.
    7. C: IEEE 802.11aq was interesting as it caused a lot of confusion at the IEEE 802 EC and levels above. It took nearly a year to unravel it all
    8. IEEE Staff: I would like to thank everyone for all their efforts in IEEE 802.11. I also look forward to seeing everyone against next year.
    9. Chair: IEEE 802.11aj was interesting, as it was necessary to hold interim meetings in China to allow experts in that country to attend and also allow other experienced experts to be involved. We discovered at the January 2016 interim meeting in Harbin, China (near North Korea and Russia) that it was very very cold.
14. **AoB**
    1. Chair: Please do your attendance before we adjourn.
    2. Chair: Bob Heile, the IEEE 802.15 chair, now has some serious health issues and has stood down from IEEE 802.15. Please think of him in your thoughts.
15. **Recess**
    1. Meeting recessed at 10:58 EDT

**Friday, 18th September 2020**

**IEEE 802.11 Closing Plenary**

Call to order at 09:00 EDT by Dorothy Stanley (HPE).

141 people present in the meeting.

1. **Approve/modify working group agenda** (11-20-1212r4)
   1. Chair: There have been some minor changes to the agenda from earlier this week.
   2. **Approve the agenda for the Friday meeting as shown in 11-20-1212r4**
      1. Moved: Al Petrick, 2nd: Adrian Stephens
      2. No objection to approving by unanimous consent.
2. **Call for Essential Patents** (11-20-1226r0 slide #7)
   1. Call for Essential Patents
   2. No statements
   3. No questions
3. **Announcements** (11-20-1226r0)
   1. **Participation** (slide #4)
      1. Please can you remember to read this slide and understand that everyone is here as an individual subject matter expert.
   2. **Chair’s minutes, reports and web pages**
      1. Please can you ensure that the sub-group minutes are on the server within 30 days after the close of this meeting. Please can you also send web-page and timeline updates to the secretary.
      2. The next meeting of the IEEE 802.11 working group is in November 2020 as an online meeting.
      3. Please be aware of the chair’s committee meetings (CAC), which are on September 28th, October 12th and 26th at noon ET.
   3. **Letters of Assurance (LoA)** (slide #11)
      1. Chair: please remember about the LoA requirements.
      2. There is one LoA request open at the moment.
   4. **IEEE Store and ISO SC6** (slides #13)
      1. No questions
   5. **Press Releases** (slide #14)
      1. A press release for the formation of TGbf will be created shortly. IEEE Staff will work with TGbf subject matter experts to finalize the wording. The IEEE 802 EC will approve the final press release.
   6. **Public Visibility Standing Committee** (slide #16)
      1. This new group is to boost the visibility of IEEE 802.
4. **Upcoming Venues** (11-20-1374r1 slides #14)
   1. VC1: This slide shows the next plenary in November 2020 (although it starts on the 30th October).
   2. The hotel for the January 2021 meeting in Irvine, California is still closed, so it’s not possible to negotiate the contract at the moment. A decision will be made in October 2020 by the IEEE 802 Wireless Chairs Committee as to whether this meeting is face to face or not. If it goes ahead, health and social distancing will be the priority.
   3. Regarding the March 2021, Face-to-Face and the Denver hotel are working to hold the meeting prioritizing health and social distancing. A decision will be made in December 1st by the IEEE 802 EC as to whether this meeting is face to face or not.
   4. In May 2021, the plan is to meet in Panama.
   5. In general, meeting room space is being increased for all future venues to allow social distancing measure to be applied.
   6. No questions
5. **Treasury Report** (ec-20-0179-00)
   1. VC1: This show the treasurers’ report and is correct up to 31st August 2020:
   2. <https://mentor.ieee.org/802-ec/dcn/20/ec-20-0179-00-WCSG-wireless-treasurer-report-sept-2020-electronic-interim.pptx>
   3. No questions
6. **Timelines**
   1. There are changes to the TGaz, TGba and TGbc timelines this week. The timeline chart will be updated over the weekend.
7. **Documentation & Attendance** (11-20-1506r2 slide #8)
   1. VC2: This session report is a summary of sub-group activities this week. It includes the attendance statistics for this week.
8. **WG Committee Reports**
   1. There is no presentation today, but various sub-group closing reports can be seen in document 11-20-1506r1.
9. **Liaison Reports** (11-20-1506r1)
   1. **Wi-Fi Alliance** (slide #89)
      1. There has been no Wi-Fi Alliance member meeting since the IEEE 802.11 July meeting.
      2. No questions
   2. **IETF** (slide #93)
      1. No questions
   3. **IEEE 1609** (11-20-1670r0)
      1. 1609 develops the wave standard for vehicles for V2X communications, specifically the security and middleware protocols above 802.11bd
      2. 1609 will receive an update about 802.11bd at the 1609 meeting next week
      3. There have been some comments from 1609 regarding the 802.11bd D0.3 draft.
      4. No questions
10. **Working Group Motions (Old Business)** (11-20-1372r1)
    1. **Officer Confirmation** (slide #4)

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| **Cat** | **Group** | **Chair** | **Vice Chair** |
| **SC** | **AANI** | **Joseph LEVY** |  |
| **SC** | **ARC** | **Mark HAMILTON** | **Joseph LEVY** |
| **SC** | **Coex** | **Andrew MYLES** |  |
| **SC** | **PAR** | **Jon ROSDAHL** | **Michael MONTEMURRO** |
| **SC** | **WNG** | **Jim LANSFORD** | **Lei WANG** |
| **TG** | **MD** | **Dorothy STANLEY** | **Mark HAMILTON**  **Michael MONTEMURRO** |
| **TG** | **AX** | **Osama ABOUL-MAGD** | **Alfred ASTERJADHI**  **Ron PORAT** |
| **TG** | **AY** | **Edward AU** | **Sang KIM** |
| **TG** | **AZ** | **Jonathan SEGEV** | **Assaf KASHER** |
| **TG** | **BA** | **Minyoung PARK** | **Yunsong YANG** |
| **TG** | **BB** | **Nikola SERAFIMOVSKI** | **Tuncer BAYKAS** |
| **TG** | **BC** | **Marc EMMELMANN** | **Hitoshi MORIOKA**  **Stephen MCCANN** |
| **TG** | **BD** | **Bo SUN** | **Hongyuan ZHANG**  **Joseph LEVY** |
| **TG** | **BE** | **Alfred ASTERJADHI** | **Laurent CARIOU, Matthew FISCHER** |
| **SG** | **SENS** | **Tony HAN** |  |
| **SG** | **RCM** | **Carol ANSLEY** |  |

* + 1. Moved: Ian Sherlock, 2nd: Marc Emmelmann
    2. No objection to approving by unanimous consent
  1. **WG Liaison Officers** (slide #5)
     1. **Move to confirm the following liaison officers:**
     + **Ian Sherlock (Wi-Fi Alliance)**
     + **Peter Yee (IETF)**
     + **John Kenney (IEEE 1609)**
     + **Jay Holcomb (802.18)**
     + **Tuncer Baykas (802.19)**
     + **Tim Godfrey (802.24)**
     1. Moved: Mark Hamilton, 2nd: Allan Jones
     2. No objection to approving by unanimous consent
  2. **Coex SC Re-charter** (slide #6)
     1. **Approve the following revised charter for the Coex SC:**
     2. **The Coex SC:**
     3. **Shall promote, within the 802.11 WG and externally, an environment that enables IEEE 802.11 technologies to have equitable access to unlicensed spectrum globally**
     4. **Shall focus on coexistence of 802.11ax & 802.11be with LAA & NR-U in the 5 GHz & 6 GHz bands globally**
     5. **May consider coexistence with other technologies and in other bands as directed by the Chair of the 802.11 WG.**
     6. Moved: Andrew Myles, 2nd: Stuart Kerry
     7. C: The discussion about the re0chartering of the Coex SC was only for the last 4 minutes of the Coex SC meeting this week. I’d like a broader discussion please, especially as this specific motion has not been discussed. Can we have a discussion in the group.
     8. A: Yes, the discussion was brief. However, this topic has been mentioned several times since 2019. As the Coex SC Chair, I do prepare a lot of the discussion information and I will commit to asking for a wider diversity of views and material going forward.
     9. A: I agree that the same issues (e.g. 6 GHz co-existence) keep coming up, but I think this shows that these items are important.
     10. C: In Europe, the term is “equal access” as opposed to “equitable access”, which does therefore not match the motion text.
     11. For: 57, Against: 15, Abstain: 14 (Motion passes)
  3. **JTC1 Liaison to ISO on WUR** (slide #7)
     1. **Move that IEEE 802.11 WG approves sending a Liaison Statement based on the material 11-20-1358-02 to ISO/IEC JTC1/SC6 in relation to the PWI in SC6 on WUR, granting the chair editorial license.**
     2. Moved: Andrew Myles, 2nd: Minyoung Park
     3. Note: the JTC1 SC approved 11-20-1358-01 unanimously. 11-20-1358-02 contains some editorial corrections.
     4. For: 64, Against: 1, Abstain: 22 (Motion passes)
  4. **TGmd RevCom** (slide #8)
     1. **Approve document 11-20/1500r2 as the report to the IEEE 802 Executive Committee on the requirements for conditional approval to forward P802.11REVmd to RevCom, and**
     2. **Request the IEEE 802 Executive Committee to conditionally approve forwarding P802.11REVmd to RevCom.**
     3. Moved: Jon Rosdahl, 2nd: Emily Qi
     4. Q: What does conditional mean?
     5. Chair: There are two ways to move forward to RevCom. Unconditional means that all the balloting is complete. Conditional means that balloting is not finished, but the process is converging and a report showing this has to be produced.
     6. For: 88, Against: 0, Abstain: 6 (Motion passes)
     7. [TGmd result: Approved by unanimous consent. 27 voters present]
  5. **TGbd letter ballot** (slide #9)
     1. **Instruct the TGbd editor to prepare IEEE P802.11bd D1.0 by incorporating**
     2. **P802.11bd D0.3 and all accepted comment resolutions as contained in 11-20/0701r7, and the draft text documented in 11-20/0897r2 and 11-20/1236r1,**
     3. **and**
     4. **Approve a 30 day Working Group Technical Letter Ballot asking the question “Should P802.11bd D1.0 be forwarded to SA Ballot?”**
     5. Moved: Bo Sun, 2nd: Bahar Sadeghi
     6. No objection to approving by unanimous consent
  6. **RCM PAR** (slide #10)
     1. **Believing that the PAR contained in the document referenced below meets IEEE-SA guidelines:**
     2. **Request that the PAR contained in 802.11-20/0742r3 be posted to the IEEE 802 Executive Committee (EC) agenda for WG 802 preview and EC approval to submit to NesCom.**
     3. Moved: Carol Ansley on behalf of the RCM SG, 2nd: Stuart Kerry
     4. For: 55, Against: 0, Abstain: 19 (Motion passes)
     5. [RCM SG result: Approved by unanimous consent. 19 present]
  7. **RCM CSD** (slide #11)
  8. **Believing that the CSD contained in the document referenced below meets IEEE 802 guidelines:**
  9. **Request that the CSD contained in 802.11-20/1117r3 be posted to the IEEE 802 Executive Committee (EC) agenda for WG 802 preview and EC approval.**
     1. Moved: Carol Ansley on behalf of the RCM SG, 2nd: Stephen Palm
     2. For: 60, Against: 0, Abstain: 20 (Motion passes)
     3. [RCM SG result: Approved by unanimous consent. 17 present]
  10. **Privacy PAR** (slide #12)
      1. **Believing that the PAR contained in the document referenced below meets IEEE-SA guidelines:**
      2. **Request that the PAR contained in 802.11-20/0854r5 be posted to the IEEE 802 Executive Committee (EC) agenda for WG 802 preview and EC approval to submit to NesCom.**
      3. Moved: Carol Ansley on behalf of the RCM SG, 2nd: Jouni Malinen
      4. For: 62, Against: 0, Abstain: 20 (Motion passes)
      5. [RCM SG result: Approved by unanimous consent. 17 present]
      6. C: What will the new task group letters be?
      7. Chair: RCM PAR is 802.11bh and Privacy PAR is 802.11bi.
  11. **Privacy CSD** (slide #13)
      1. **Believing that the CSD contained in the document referenced below meets IEEE 802 guidelines:**
      2. **Request that the CSD contained in 802.11-20/1346r2 be posted to the IEEE 802 Executive Committee (EC) agenda for WG 802 preview and EC approval.**
      3. Moved: Carol Ansley on behalf of the RCM SG, 2nd: Jerome Henry
      4. For: 61, Against: 0, Abstain: 20 (Motion passes)
      5. [RCM SG result: Approved by unanimous consent. 17 present]

1. **SENS SG to TGbf** (11-20-1226r0 slide #17)
   1. This slide explains the process by which the SENS SG will transition to TGbf.
   2. Chair: I would like to open nominations for the TGbf chair. The positions of vice-chair, secretary and editor will be decided at the November plenary session
2. **IEEE 802.11 WG 30th anniversary** (11-20-1497r1)
   1. Chair: As this meeting is the 30th anniversary of the first IEEE 802.11 meeting, this is a chance of past chairs to make some statements.
   2. Vic Hayes (slide #3)
      1. No questions
   3. Stuart Kerry (slide #9)
      1. No questions
   4. Bruce Kraemer (slide #10, was unable to attend in person)
      1. No questions
   5. Adrian Stephens (slide #15)
      1. No questions
   6. Dorothy Stanley (slide #20)
   7. I would like to thank Vic, Stuart and Adrian for attending today.
   8. No questions
3. **Wireless Chairs Meeting** (11-20-1226r0 slide #18)
   1. Please note that this meeting will be on September 30th 2020 and everyone is welcome to attend.
4. **Next Meeting** (11-20-1226r0 slide #20)
   1. The proposed dates of the IEEE 802.11 November meeting are shown in Slide #20
   2. There will be a single tutorial on October 13th 2020 regarding 802.11 and 5G technologies.
5. **AoB**
   1. None
6. **Adjournment**
   1. Chair: Having completed the agenda, the chair announced that the meeting was adjourned at 10:58 EDT.

**Annex A: Attendance & Affiliation**

| **Name** | **Affiliation** | **Attended >= 6 sessions?** | **Status** |
| --- | --- | --- | --- |
| Abdelaal, Rana | Broadcom Corporation | No | Potential Voter |
| AbidRabbu, Shaima' | Istanbul Medipol University; Vestel | No | Aspirant |
| Abouelseoud, Mohamed | Sony Corporation | Yes | Voter |
| Aboulmagd, Osama | Huawei Technologies Co. Ltd | Yes | Voter |
| Abushattal, Abdelrahman | Istanbul Medipol university ;Vestel | No | Aspirant |
| Adachi, Tomoko | TOSHIBA Corporation | No | Voter |
| Adhikari, Shubhodeep | Broadcom Corporation | No | Voter |
| Agarwal, Peyush | Broadcom Corporation | No | Voter |
| Agrawal, abhishek | ON Semiconductor | No | Potential Voter |
| Agrawal, Sandeep | C-DOT/Centre for Development of Telematics | Yes | Potential Voter |
| Akhmetov, Dmitry | Intel Corporation | Yes | Voter |
| Aldana, Carlos | Facebook | No | Non Voter |
| An, Song-Haur | INDEPENDENT | Yes | Voter |
| Andersdotter, Amelia | None - Self-funded | Yes | Voter |
| Ansley, Carol | IEEE member / Self Employed | Yes | Voter |
| Anwyl, Gary | MediaTek Inc. | No | Aspirant |
| Asterjadhi, Alfred | Qualcomm Incorporated | Yes | Voter |
| Au, Kwok Shum | Huawei Technologies Co.,  Ltd | Yes | Voter |
| Au, Oscar | Origin Wireless | Yes | Voter |
| Auluck, Vijay | Self | No | Voter |
| Awater, Geert | Qualcomm Incorporated | Yes | Voter |
| Aygul, Mehmet | Istanbul Medipol University; Vestel | Yes | Aspirant |
| B, Hari Ram | NXP Semiconductors | No | Aspirant |
| Baek, SunHee | LG ELECTRONICS | No | Aspirant |
| Baik, Eugene | Qualcomm Incorporated | Yes | Voter |
| Banerjea, Raja | Qualcomm Incorporated | No | Aspirant |
| Bankov, Dmitry | IITP RAS | No | Aspirant |
| baron, stephane | Canon Research Centre France | Yes | Voter |
| Batra, Anuj | Apple, Inc. | No | Voter |
| Baykas, Tuncer | Istanbul Medipol University | No | Voter |
| BECHADERGUE, Bastien | OLEDCOMM | No | Potential Voter |
| Beg, Chris | Cognitive Systems Corp. | Yes | Aspirant |
| Bei, Jianwei | NXP Semiconductors | Yes | Voter |
| Ben Arie, Yaron | Toga networks (a huawei company) | No | Potential Voter |
| Berens, Friedbert | FBConsulting Sarl | No | Voter |
| Berger, Christian | NXP Semiconductors | No | Voter |
| Berkema, Alan | HP Inc. | Yes | Voter |
| Berner, Stephan | pureLiFi | Yes | Aspirant |
| Bhandaru, Nehru | Broadcom Corporation | No | Voter |
| Bims, Harry | Bims Laboratories, Inc. | Yes | Voter |
| Bluschke, Andreas | Signify | No | Aspirant |
| Bober, Lennert | Fraunhofer Heinrich Hertz Institute | No | Voter |
| Boldy, David | Broadcom Corporation | Yes | Voter |
| Bredewoud, Albert | Broadcom Corporation | Yes | Voter |
| Canpolat, Necati | Intel | No | Non Voter |
| Cao, Rui | NXP Semiconductors | Yes | Voter |
| Cariou, Laurent | Intel Corporation | No | Voter |
| Carney, William | Sony Corporation | Yes | Voter |
| Cavalcanti, Dave | Intel Corporation | No | Voter |
| Cepni, Gurkan | Apple, Inc. | Yes | Voter |
| CHAN, YEE | Facebook | No | Aspirant |
| Chayat, Naftali | Alvarion Ltd, Vayyar Imaging | Yes | Non Voter |
| Chen, Canfeng | Xiaomi Inc. | Yes | Non Voter |
| Chen, Cheng | Intel Corporation | Yes | Voter |
| Chen, Cheng-Ming | Qualcomm Incorporated | Yes | Aspirant |
| Chen, Evelyn | Ericsson AB | No | Voter |
| chen, jindou | Huawei Technologies Co. Ltd | No | Non Voter |
| Chen, Na | MaxLinear Corp | Yes | Voter |
| Chen, Xiaogang | Intel | No | Voter |
| Cheng, Paul | MediaTek Inc. | Yes | Voter |
| Cheng, Xilin | NXP Semiconductors | No | Aspirant |
| CHERIAN, GEORGE | Qualcomm Incorporated | Yes | Voter |
| Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. | Yes | Voter |
| Cho, Hanbyeog | ETRI | No | Non Voter |
| cho, shinho | allradio | No | Non Voter |
| Choi, Jinsoo | LG ELECTRONICS | No | Voter |
| Choo, Seungho | Senscomm Semiconductor Co., Ltd. | Yes | Aspirant |
| Chu, Liwen | NXP Semiconductors | Yes | Voter |
| CHUN, JINYOUNG | LG ELECTRONICS | No | Aspirant |
| Chung, Chulho | SAMSUNG | Yes | Aspirant |
| Ciochina, Dana | Sony Corporation | No | Voter |
| Coffey, John | Realtek Semiconductor Corp. | Yes | Voter |
| Costa, D.Nelson | Peraso Technologies Incorporated | No | Voter |
| da Silva, Claudio | Intel Corporation | Yes | Voter |
| Das, Dibakar | Intel | Yes | Voter |
| Das, Subir | Perspecta Labs Inc | Yes | ExOfficio |
| Dash, Debashis | Apple, Inc. | No | Voter |
| Davies, Robert | Signify | Yes | Aspirant |
| de Vegt, Rolf | Qualcomm Incorporated | Yes | Voter |
| DeLaOlivaDelgado, Antonio | InterDigital, Inc. | Yes | Voter |
| Derham, Thomas | Broadcom Corporation | Yes | Voter |
| Ding, Baokun | Huawei Technologies Co., Ltd | No | Aspirant |
| Ding, Yanyi | Panasonic corporation | Yes | Voter |
| DOAN, DUNG | Qualcomm Incorporated | Yes | Aspirant |
| Dogukan, Ali | Vestel | Yes | Non Voter |
| Dong, Xiandong | Xiaomi Inc. | Yes | Voter |
| Du, Rui | Huawei Technologies Co., Ltd | No | Voter |
| Duan, Ruchen | SAMSUNG | No | Voter |
| Ecclesine, Peter | Cisco Systems, Inc. | Yes | Voter |
| Edelmayer, Andras | Commsignia | No | Non Voter |
| Eitan, Alecsander | Qualcomm Incorporated | Yes | Voter |
| ElSherif, Ahmed | Qualcomm Incorporated | Yes | Voter |
| EMMELMANN, MARC | Self Employed / Koden-TI | Yes | Voter |
| Erceg, Vinko | Broadcom Corporation | No | Voter |
| Fang, Yonggang | ZTE TX Inc | Yes | Voter |
| feng, Shuling | MediaTek Inc. | Yes | Aspirant |
| Fischer, Matthew | Broadcom Corporation | Yes | Voter |
| Foland, Jeremy | Broadcom Corporation | No | Voter |
| Gan, Ming | Huawei Technologies Co. Ltd | No | Voter |
| Gardner, James | Qualcomm Incorporated | Yes | Voter |
| Garg, Lalit | Broadcom Corporation | No | Potential Voter |
| Ghaderipoor, Alireza | MediaTek Inc. | No | Non Voter |
| Ghosh, Chittabrata | Intel Corporation | Yes | Voter |
| Godbole, sachin | Broadcom Corporation | No | Voter |
| Goldberg, Jonathan | IEEE | No | Non-Voter |
| Gong, Bo | Huawei Technologies Co. Ltd | No | Non Voter |
| Goodall, David | Morse Micro | No | Non Voter |
| Goto, Fumihide | Self | Yes | Voter |
| Grandhe, Niranjan | NXP Semiconductors | No | Voter |
| Grigat, Michael | Deutsche Telekom AG | No | Voter |
| Guo, Yuchen | Huawei Technologies Co., Ltd | No | Voter |
| Gupta, Binita | Intel Corporation | No | Non Voter |
| Haider, Muhammad Kumail | Facebook | Yes | Aspirant |
| Hamilton, Mark | Ruckus Wireless, Ruckus/CommScope | Yes | Voter |
| HAN, CHONG | pureLiFi | Yes | Aspirant |
| Han, Jonghun | SAMSUNG | Yes | Potential Voter |
| han, oh | 101 Consulting Corporation | No | Non Voter |
| HAN, Xiao | Huawei Technologies Co. Ltd | No | Voter |
| Han, Zhiqiang | ZTE Corporation | Yes | Aspirant |
| Handte, Thomas | Sony Corporation | No | Voter |
| Hansen, Christopher | Covariant Corporation | No | Voter |
| Harkins, Daniel | Aruba Networks, Inc. | No | Voter |
| Hart, Brian | Cisco Systems, Inc. | Yes | Voter |
| Haskou, Abdullah | InterDigital, Inc. | No | Aspirant |
| Henry, Jerome | Cisco Systems, Inc. | No | Voter |
| Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) | No | Voter |
| Hiertz, Guido | Ericsson&nbsp;GmbH | No | Voter |
| Ho, Duncan | Qualcomm Incorporated | No | Voter |
| Hong, Hanseul | WILUS Inc, Yonsei University | Yes | Voter |
| Hsiao, Ching-Wen | MediaTek Inc. | Yes | Potential Voter |
| Hsieh, Hung-Tao | MediaTek Inc. | Yes | Voter |
| Hsu, Chien-Fang | MediaTek Inc. | No | Voter |
| Hu, Chunyu | Facebook | Yes | Voter |
| Hu, Glenn | Tencent | No | Voter |
| Hu, Mengshi | HUAWEI | No | Aspirant |
| Huang, Guogang | HUAWEI | No | Voter |
| Huang, Lei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd | No | Voter |
| Huang, Po-Kai | Intel Corporation | Yes | Voter |
| Hurtarte, Jeorge | Teradyne, Inc. | No | Voter |
| Hwang, Sung Hyun | Electronics and Telecommunications Research Institute (ETRI) | No | Voter |
| Ikegami, Tetsushi | Meiji University | Yes | Voter |
| Inohiza, Hirohiko | Canon | No | Aspirant |
| Inoue, Yasuhiko | Nippon Telegraph and Telephone Corporation (NTT) | Yes | Voter |
| Jang, Insun | LG ELECTRONICS | Yes | Voter |
| Jeffries, Timothy | Huawei R&D USA | No | Voter |
| Jeon, Eunsung | SAMSUNG ELECTRONICS | No | Aspirant |
| Jeong, Yangseok | KT Corp. | No | Voter |
| Ji, Chenhe | Huawei Technologies Co. Ltd | Yes | Voter |
| jiang, feng | Apple Inc. | No | Voter |
| Jiang, Jeng-Shiann | Vertexcom Technologies | No | Non Voter |
| Jiang, Jinjing | Apple, Inc. | No | Voter |
| Jones, Allan | Activision | Yes | Voter |
| JONES, JEFFRUM | Qorvo | Yes | Voter |
| Jones, Vincent Knowles IV | Qualcomm Incorporated | Yes | Voter |
| JUNG, MYUNG CHEUL | Pantech Inc. | Yes | Potential Voter |
| Jungnickel, Volker | Fraunhofer Heinrich Hertz Institute | Yes | Voter |
| Kadampot, Ishaque Ashar | Qualcomm Incorporated | Yes | Aspirant |
| Kain, Carl | Noblis, Inc, USDoT | Yes | Voter |
| Kakani, Naveen | Qualcomm Incorporated | Yes | Voter |
| Kamel, Mahmoud | InterDigital, Inc. | Yes | Aspirant |
| Kandala, Srinivas | SAMSUNG | Yes | Voter |
| Kang, Sugbong | Apple, Inc. | Yes | Non Voter |
| Kasher, Assaf | Qualcomm Incorporated | Yes | Voter |
| Kedem, Oren | Huawei Technologies Co. Ltd | Yes | Aspirant |
| Kenney, John | TOYOTA InfoTechnology Center U.S.A. | No | Voter |
| Kerpez, Kenneth | Applied Signal and Spectrum Alignment (ASSIA) | No | Non Voter |
| Kerry, Stuart | OK-Brit; Self | Yes | Voter |
| Khan, Naseem | Leidos Engineering. LLC | No | Potential Voter |
| Khorov, Evgeny | IITP RAS | No | Voter |
| Kim, Jeongki | LG ELECTRONICS | Yes | Voter |
| Kim, Myeong-Jin | SAMSUNG | Yes | Voter |
| kim, namyeong | LG ELECTRONICS | Yes | Aspirant |
| Kim, Sang Gook | LG ELECTRONICS | Yes | Voter |
| Kim, Sanghyun | WILUS Inc | No | Voter |
| Kim, Yongho | Korea National University of Transportation | Yes | Voter |
| Kim, Youhan | Qualcomm Incorporated | Yes | Voter |
| KIM, Youngjae | Telecommunications Technology Association (TTA) | No | Aspirant |
| Kim, Youn-Kwan | The Catholic University of Korea | No | Voter |
| Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) | Yes | Voter |
| Kitazawa, Shoichi | Muroran IT | Yes | Aspirant |
| Klein, Arik | Huawei Technologies Co. Ltd | No | Voter |
| Klimakov, Andrey | Huawei Technologies Co., Ltd | Yes | Aspirant |
| Kneckt, Jarkko | Apple, Inc. | No | Voter |
| Ko, Geonjung | WILUS Inc. | No | Potential Voter |
| Kondo, Yoshihisa | Advanced Telecommunications Research Institute International (ATR) | No | Voter |
| Kondylis, George | Broadcom Corporation | No | Non Voter |
| Krieger, Ann | US Department of Defense | No | Non Voter |
| Kumar, Manish | Marvell Semiconductor, Inc. | No | Voter |
| Kureev, Aleksey | IITP RAS | No | Aspirant |
| Kwon, Young Hoon | NXP Semiconductors | Yes | Voter |
| Lalam, Massinissa | SAGEMCOM BROADBAND SAS | Yes | Voter |
| Lan, Zhou | Broadcom Corporation | No | Voter |
| Lansford, James | Qualcomm Incorporated | Yes | Voter |
| Le Houerou, Brice | Canon Research Centre France | No | Aspirant |
| Lee, Hyeong Ho | Netvision Telecom Inc. | No | Voter |
| Lee, Il-Gu | Sungshin University | Yes | Aspirant |
| Lee, Jae Seung | ETRI | No | Voter |
| Lee, Nancy | Signify | Yes | Aspirant |
| Lee, Wookbong | SAMSUNG | No | Voter |
| Lepp, James | BlackBerry | No | Voter |
| Levitsky, Ilya | IITP RAS | Yes | Voter |
| Levy, Joseph | InterDigital, Inc. | Yes | Voter |
| Li, Jialing | Qualcomm Incorporated | No | Aspirant |
| Li, Nan | ZTE Corporation | Yes | Voter |
| Li, Qinghua | Intel Corporation | Yes | Voter |
| Li, Yiqing | Huawei Technologies Co. Ltd | No | Potential Voter |
| Li, Yunbo | Huawei Technologies Co. Ltd | Yes | Voter |
| Lim, Dong Guk | LG ELECTRONICS | Yes | Voter |
| Lin, Wei | Huawei Technologies Co. Ltd | No | Voter |
| Lindskog, Erik | SAMSUNG | Yes | Voter |
| LIU, CHENCHEN | Huawei Technologies Co. Ltd | No | Voter |
| Liu, Der-Zheng | Realtek Semiconductor Corp. | Yes | Voter |
| Liu, Jeff | Broadcom Corporation | No | Voter |
| Liu, Jianfei | HUAWEI | No | Voter |
| Liu, Jianhan | MediaTek Inc. | No | Voter |
| Liu, Yong | Apple, Inc. | No | Voter |
| Loginov, Vyacheslav | IITP RAS | No | Aspirant |
| Lopez, Miguel | Ericsson AB | Yes | Voter |
| Lorgeoux, Mikael | Canon Research Centre France | No | Non Voter |
| Lou, Hanqing | InterDigital, Inc. | Yes | Aspirant |
| Lu, Liuming | ZTE Corporation | No | Voter |
| Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. | No | Aspirant |
| Lv, kaiying | MediaTek Inc. | Yes | Voter |
| Lv, Lily | Huawei Technologies Co. Ltd | No | Voter |
| Ma, Li | MediaTek Inc. | Yes | Aspirant |
| Ma, Mengyao | HUAWEI | No | Voter |
| Madpuwar, Girish | Broadcom Corporation | No | Voter |
| Malinen, Jouni | Qualcomm Incorporated | Yes | Voter |
| Mano, Hiroshi | Koden Techno Info K.K. | No | Voter |
| Martinez Vazquez, Marcos | MaxLinear Corp | No | Aspirant |
| Mathew, Jeen | Representing myself | No | Non Voter |
| Max, Sebastian | Ericsson AB | No | Voter |
| McCann, Stephen | Self | Yes | Voter |
| McGuire, Colin | The MathWorks, Inc. | Yes | Non Voter |
| Mehrnoush, Morteza | Facebook | Yes | Aspirant |
| MELZER, Ezer | Toga Networks, a Huawei company | No | Potential Voter |
| Memisoglu, Ebubekir | Istanbul Medipol University; Vestel | Yes | Aspirant |
| Merlin, Simone | Qualcomm Incorporated | Yes | Voter |
| Minotani, Jun | Panasonic corporation | No | Potential Voter |
| Mirfakhraei, Khashayar | Cisco Systems, Inc. | No | Potential Voter |
| Monajemi, Pooya | Cisco Systems, Inc. | No | Voter |
| Montemurro, Michael | Self | Yes | Voter |
| Montreuil, Leo | Broadcom Corporation | Yes | Aspirant |
| Moon, Juseong | Korea National University of Transportation | Yes | Non Voter |
| Morioka, Hitoshi | SRC Software | Yes | Voter |
| Motozuka, Hiroyuki | Panasonic corporation | Yes | Voter |
| Murti, Wisnu | SeoulTech | Yes | Voter |
| Myles, Andrew | Cisco Systems, Inc. | No | Voter |
| Nakano, Hiroki | CAHI Corporation | No | Aspirant |
| Nakano, Takayuki | Panasonic corporation | No | Voter |
| Nam, Junyoung | Qualcomm Incorporated | Yes | Aspirant |
| NANDAGOPALAN, SAI SHANKAR | Cypress Semiconductor Corporation | Yes | Voter |
| Naribole, Sharan | SAMSUNG | Yes | Voter |
| Nezou, Patrice | Canon Research Centre France | No | Voter |
| Nguyen, An | DHS/CISA/ECD, U.S. Department of Homeland Security | Yes | Voter |
| noh, yujin | Newracom Inc. | Yes | Voter |
| Oh, Chang Han | allRadio | No | Non Voter |
| Oh, Hyun Seo | Electronics and Telecommunications Research Institute (ETRI) | No | Voter |
| Okada, Hiraku | Nagoya University | No | Aspirant |
| Ouchi, Masatomo | Canon | No | Aspirant |
| Oyama, Satoshi | Association of Radio Industries and Businesses (ARIB) | Yes | Aspirant |
| Ozbakis, Basak | Vestel | No | Aspirant |
| Palm, Stephen | Broadcom Corporation | Yes | Voter |
| Pare, Thomas | MediaTek Inc. | Yes | Voter |
| Park, Eunsung | LG ELECTRONICS | Yes | Voter |
| Park, Minyoung | Intel | Yes | Voter |
| Patil, Abhishek | Qualcomm Incorporated | Yes | Voter |
| Patwardhan, Gaurav | Hewlett Packard Enterprise | Yes | Voter |
| Perkins, Richard | Qorvo | Yes | Potential Voter |
| Petrick, Albert | InterDigital, Inc, Jones-Petrick and Associates, LLC | Yes | Voter |
| Petry, Brian | Broadcom Corporation | No | Voter |
| Pettersson, Charlie | Ericsson AB | Yes | Potential Voter |
| Pirhonen, Riku | NXP Semiconductors, Self Employed | Yes | Aspirant |
| porat, ron | Broadcom Corporation | No | Voter |
| Puducheri, Srinath | Broadcom Corporation | No | Voter |
| Pulikkoonattu, Rethnakaran | Broadcom Corporation | No | Voter |
| Purwita, Ardimas | University of Edinburgh | No | Aspirant |
| Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. | No | Aspirant |
| Qi, Emily | Intel Corporation | Yes | Voter |
| QIU, WEI | Huawei Technologies Co., Ltd | Yes | Aspirant |
| Rafique, Saira | Istanbul Medipol University ; VESTEL | Yes | Aspirant |
| Rai, Kapil | Qualcomm Incorporated | Yes | Aspirant |
| Raissinia, Alireza | Qualcomm Incorporated | Yes | Voter |
| Ramesh, Sridhar | Maxlinear Inc. | No | Non-Voter |
| Rantala, Enrico-Henrik | Nokia | Yes | Voter |
| Redlich, Oded | HUAWEI | No | Voter |
| Rege, Kiran | Perspecta Labs | No | Non Voter |
| Regev, Dror | Toga networks (a huawei company) | No | Potential Voter |
| REICH, MOR | Togan Networks, a Huawei Company | No | Aspirant |
| Reshef, Ehud | Intel Corporation | No | Non Voter |
| Rezk, Meriam | Qualcomm Incorporated | Yes | Aspirant |
| RISON, Mark | Samsung Cambridge Solution Centre | Yes | Voter |
| Robert, Joerg | University of Erlangen-Nuremberg | No | Aspirant |
| Rosdahl, Jon | Qualcomm Technologies, Inc. | Yes | Voter |
| Sadeghi, Bahareh | Intel Corporation | Yes | Voter |
| Sakamoto, Takenori | Panasonic corporation | Yes | Voter |
| Sakoda, Kazuyuki | Sony Corporation | Yes | Voter |
| Salman, Hanadi | Istanbul Medipol University; Vestel | No | Aspirant |
| Sambasivan, Sam | AT&T | No | Voter |
| Sand, Stephan | German Aerospace Center (DLR) | Yes | Voter |
| Sandhu, Shivraj | Qualcomm Incorporated | Yes | Aspirant |
| Sarris, Ioannis | u-blox | Yes | Voter |
| Sato, Naotaka | Sony Corporation | No | Voter |
| Schelstraete, Sigurd | Quantenna Communications, Inc. | No | Voter |
| Schiessl, Sebastian | u-blox | No | Potential Voter |
| Schmidhammer, Martin | German Aerospace Center (DLR) | No | Non Voter |
| Sedin, Jonas | Ericsson AB | Yes | Voter |
| Segev, Jonathan | Intel Corporation | Yes | Voter |
| Seok, Joseph | Self | No | Non Voter |
| Seok, Yongho | MediaTek Inc. | No | Voter |
| Serafimovski, Nikola | pureLiFi | Yes | Voter |
| Sethi, Ankit | NXP Semiconductors | No | Aspirant |
| Sevin, Julien | Canon Research Centre France | No | Aspirant |
| Shah, Kunal | Itron Inc. | No | Voter |
| Shellhammer, Stephen | Qualcomm Incorporated | Yes | ExOfficio |
| Sherlock, Ian | Texas Instruments Incorporated | Yes | Voter |
| Shilo, Shimi | HUAWEI | No | Voter |
| Shreeraman | Qualcomm | No | Non Voter |
| Slykhouse, Dawn | Face To Face Events | No | Non Voter |
| Smely, Di Dieter | Kapsch TrafficCom AG | Yes | Non Voter |
| Smith, Graham | SR Technologies | Yes | Voter |
| Solaija, Muhammad Sohaib | Istanbul Medipol University; Vestel | Yes | Aspirant |
| Son, Ju-Hyung | WILUS Inc. | No | Voter |
| Sosack, Robert | Molex Incorporated | Yes | Aspirant |
| Srinivasan, Shree Raman | Qualcomm Incorporated | Yes | Non Voter |
| Stacey, Robert | Intel Corporation | Yes | Voter |
| Stanley, Dorothy | Hewlett Packard Enterprise | Yes | Voter |
| Startsev, Ivan | IITP RAS | No | Aspirant |
| Stavridis, Athanasios | Ericsson AB | Yes | Voter |
| Stephens, Adrian | Self | No | Voter |
| Stott, Noel | Keysight Technologies | Yes | Voter |
| Strauch, Paul | Qualcomm Incorporated | Yes | Aspirant |
| Su, Hang | Broadcom Corporation | No | Aspirant |
| SU, HONGJIA | Huawei Technologies Co.,  Ltd | No | Voter |
| SUH, JUNG HOON | Huawei Technologies Co. Ltd | Yes | Voter |
| Sun, Bo | ZTE Corporation | Yes | Voter |
| Sun, Li-Hsiang | InterDigital, Inc. | Yes | Voter |
| Sun, Sheng | Huawei Technologies Co. Ltd | No | Voter |
| Sun, Yanjun | Qualcomm Incorporated | No | Voter |
| Sun, Yingxiang | Huawei Technologies Co. Ltd | No | Aspirant |
| Sundman, Dennis | Ericsson AB | No | Voter |
| SURACI, FRANK | U.S. Department of Homeland Security | Yes | Aspirant |
| Takai, Mineo | Space-Time Engineering | No | Voter |
| Tan, Danny | Huawei Technologies Co., Ltd | No | Potential Voter |
| Tanaka, Yusuke | Sony Corporation | No | Voter |
| THOUMY, Francois | Canon Research Centre France | No | Non Voter |
| Tian, Bin | Qualcomm Incorporated | Yes | Voter |
| Tian, Tao | Unisoc Comm. | Yes | Voter |
| Torab Jahromi, Payam | Facebook | Yes | Voter |
| Trainin, Solomon | Qualcomm Incorporated | No | Voter |
| Tsai, Tsung-Han | MediaTek Inc. | No | Non Voter |
| Tsodik, Genadiy | Huawei Technologies Co. Ltd | No | Voter |
| Turkmen, Halise | Istanbul Medipol University; Vestel | Yes | Aspirant |
| Urabe, Yoshio | Panasonic corporation | Yes | Voter |
| van Wageningen, Andries | Signify | No | Potential Voter |
| Van Zelst, Allert | Qualcomm Incorporated | No | Voter |
| Varshney, Prabodh | Nokia | Yes | Voter |
| Venkatesan, Ganesh | Intel Corporation | No | Voter |
| Verma, Sindhu | Broadcom Corporation | No | Voter |
| Vermani, Sameer | Qualcomm Incorporated | Yes | Voter |
| VIGER, Pascal | Canon Research Centre France | No | Voter |
| Wang, Chao Chun | MediaTek Inc. | Yes | Voter |
| Wang, Hao | Tencent | Yes | Voter |
| Wang, Huizhao | Quantenna Communications, Inc. | Yes | Voter |
| Wang, Lei | Huawei R&D USA | Yes | Voter |
| Wang, Pu | Mitsubishi Electric Research Labs (MERL) | Yes | Aspirant |
| Wang, Qi | Apple, Inc. | Yes | Voter |
| Wang, Xiaofei | InterDigital, Inc. | Yes | Voter |
| Wang, Yi-Hsiu | Zeku | No | Aspirant |
| Want, Roy | Google | Yes | Voter |
| Ward, Lisa | Rohde & Schwarz | No | Voter |
| Wendt, Matthias | Signify | No | Voter |
| Wentink, Menzo | Qualcomm | Yes | Voter |
| Wilhelmsson, Leif | Ericsson AB | Yes | Voter |
| Wu, Kanke | Qualcomm Incorporated | Yes | Aspirant |
| Wu, Tianyu | Apple, Inc. | No | Voter |
| Wullert, John | Perspecta Labs | Yes | Aspirant |
| Xin, Liangxiao | Sony Corporation | Yes | Voter |
| Xin, Yan | Huawei Technologies Co. Ltd | Yes | Voter |
| Xue, Qi | Qualcomm Incorporated | Yes | Voter |
| Xue, Ruifeng | Cisco Systems, Inc. | Yes | Potential Voter |
| YAGHOOBI, HASSAN | Intel Corporation | No | Voter |
| Yan, Aiguo | Oppo | No | Aspirant |
| Yang, Bo | Huawei Technologies Co. Ltd | No | Voter |
| Yang, Jay | Nokia | Yes | Aspirant |
| Yang, Lin | Qualcomm Incorporated | No | Aspirant |
| Yang, Mao | Northwestern Polytechnical University | No | Aspirant |
| YANG, RUI | InterDigital, Inc. | Yes | Voter |
| Yang, Steve TS | MediaTek Inc. | No | Voter |
| Yang, Yunsong | Futurewei Technologies | Yes | Voter |
| Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) | Yes | Voter |
| Yee, James | MediaTek Inc. | Yes | Voter |
| Yee, Peter | NSA-CSD | Yes | Voter |
| yi, yongjiang | Futurewei Technologies | Yes | Voter |
| yim, choon sik | RCN | No | Non Voter |
| Yona, Yair | Qualcomm Incorporated | Yes | Aspirant |
| Young, Christopher | Broadcom Corporation | Yes | Voter |
| Yu, Heejung | Korea University, Yeungnam University | Yes | Aspirant |
| Yu, Jian | Huawei Technologies Co. Ltd | No | Voter |
| Yu, Mao | NXP Semiconductors | Yes | Voter |
| Yukawa, Mitsuyoshi | Canon, Inc. | No | Aspirant |
| ZEGRAR, Salah Eddine | Istanbul Medipol University; Vestel | No | Aspirant |
| Zein, Nader | NEC Laboratories Europe | No | Non Voter |
| Zeng, Ruochen | NXP Semiconductors | Yes | Aspirant |
| Zeng, Yan | Huawei Technologies Co.,  Ltd | No | Aspirant |
| ZHANG, JIAYIN | HUAWEI | No | Voter |
| Zhang, Meihong | Huawei Technologies Co., Ltd | No | Aspirant |
| Zhang, Yan | NXP Semiconductors | No | Voter |
| Zhou, Yifan | Huawei Technologies Co., Ltd | No | Voter |
| Zhu, Xiaoqing | Cisco | No | Non Voter |
| Zou, Tristan | Qualcomm Incorporated | No | Aspirant |
| Zuo, Xin | Tencent | No | Voter |

**Annex B : Working Group Officers**

**Working Group**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Dorothy Stanley (HP Enterprise) | IEEE 802.11 Working Group Chair | +1( 630) 363-1389  [dstanley@ieee.org](mailto:dstanley@ieee.org) |
| Jon Rosdahl (Qualcomm) | 1st Vice Chair (Venues and meeting planning) Treasurer | +1 (801) 492-4023 [jrosdahl@ieee.org](mailto:jrosdahl@ieee.org) |
| Robert Stacey (Intel Corporation) | 2nd Vice Chair (Rules and reflectors) IEEE 802 (LMSC) EC delegate | +1 (503) 712 4447 [robert.stacey@intel.com](mailto:robert.stacey@intel.com) |
| Stephen McCann (Self) | Secretary | +44 1753 667099 [stephen.mccann@ieee.org](mailto:stephen.mccann@ieee.org) |
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| Robert Stacey (Intel Corporation) | Co-Technical Editor 802.11 Assigned Numbers Authority | +1 (503) 712 4447 [robert.stacey@intel.com](mailto:robert.stacey@intel.com) |

**Standing Committees**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
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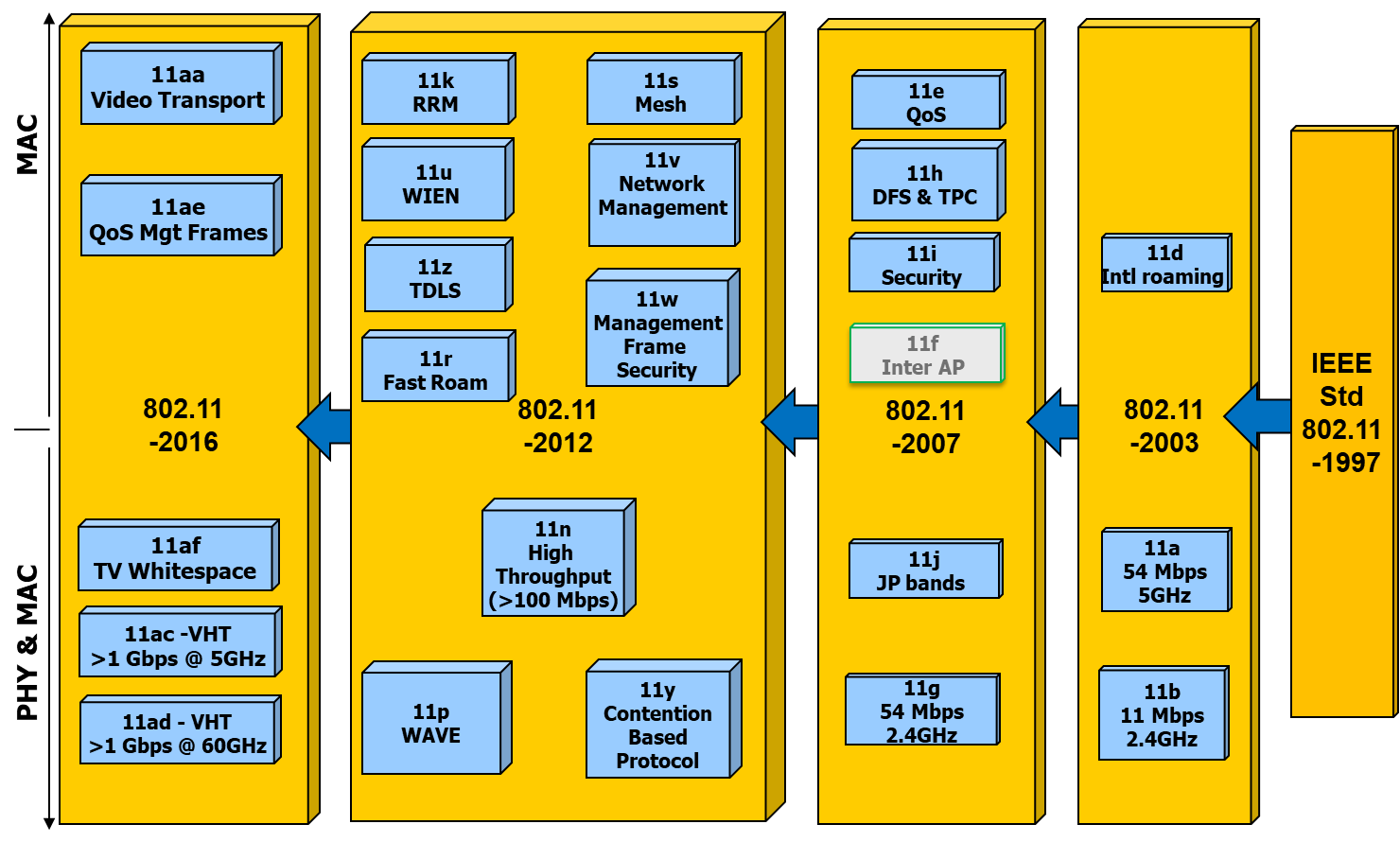
|  |  |  |
| --- | --- | --- |
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**Annex C : Minutes**

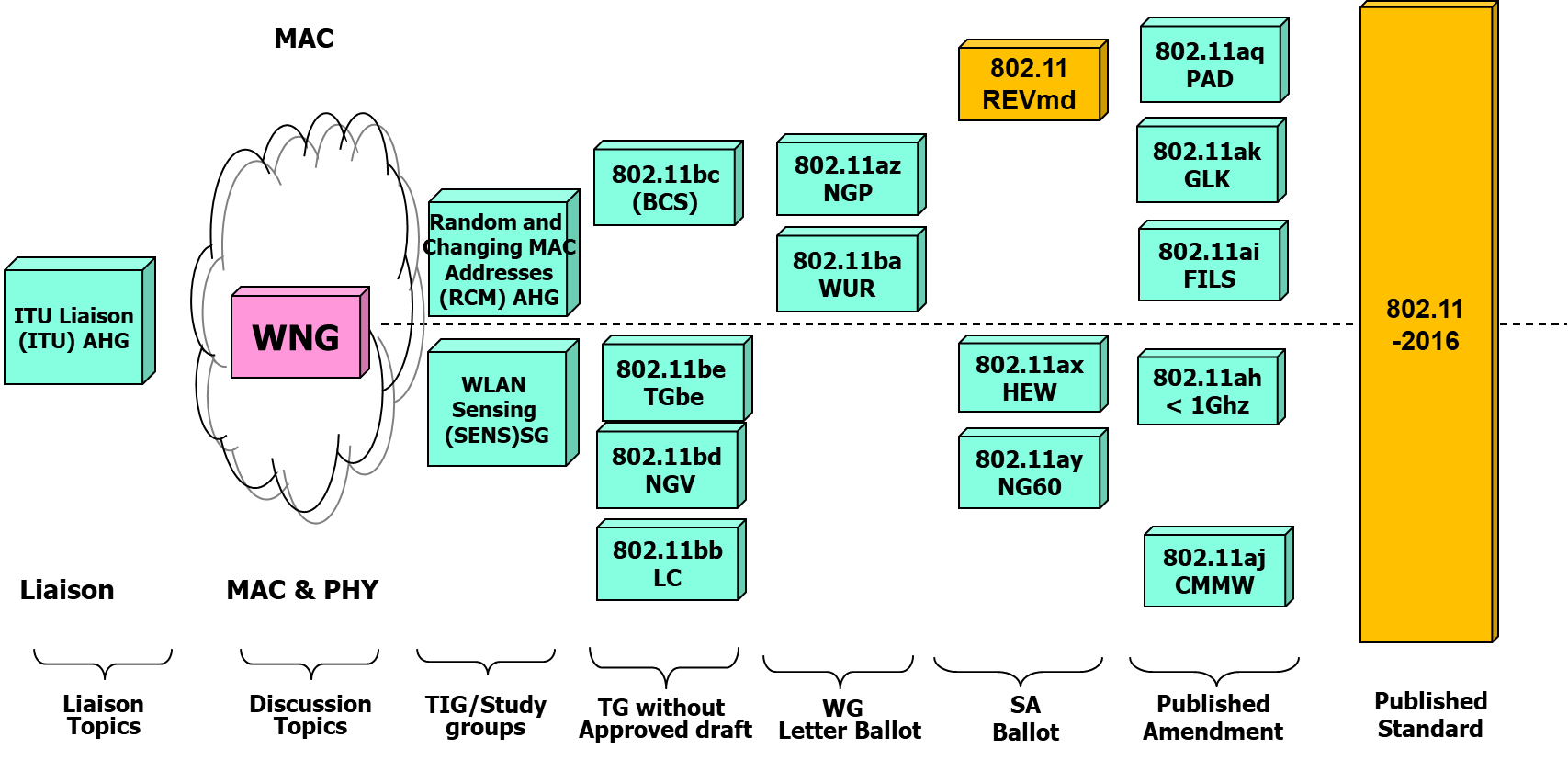
This Annex contains references to all IEEE 802.11 SC/TG/SG & Ad Hoc Committee (AHC) minutes from this meeting. Please note that they are NOT subject to the approval of these minutes, but are confirmed and approved by their individual group in the opening meeting at their next session.

|  |  |  |
| --- | --- | --- |
| WG | TE | 20-1458r1 |
| TGmd | TG | 20-1468r3 |
| TGax | TG | 20-1522r0 |
| TGay | TG | 20-1478r0 |
| TGaz | TG | 20-1482r0 |
| TGba | TG | 20-1481r0 |
| TGbb | TG | 20-1509r0 |
| TGbc | TG | 20-1460r0 |
| TGbd | TG | 20-1489r1 |
| TGbe | TG | 20-xxxxr0 |
| AANI | SC | 20-1512r1 |
| COEX | SC | 20-1507r0 |
| WNG | SC | Did not meet |
| JTC 802 | SC | 20-1527r0 |
| ARC | SC | 20-xxxxr0 |
| SENS | SG | 20-1465r0 |
| RCM | SG | 20-xxxxr0 |
| ITU | AH | 20-1537r0 |

**Annex D : Revisions and Standards Pipeline**

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**IEEE 802.11 Revisions**

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**IEEE 802.11 Standards Pipeline**

End.