IEEE P802.11  
Wireless LANs

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| WLAN Sensing TIG – November 2019 Plenary Meeting Minutes | | | | |
| Date: 2019-11-14 | | | | |
| Author(s): | | | | |
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Abstract

This document contains the meeting minutes of the 3 IEEE 802.11 Topic Interest Group on WLAN Sensing (SENS TIG) sessions held in the November 2019 plenary meeting.

**Monday, November 11, 2019, PM2 Session**

Attendance: Over 100 people

1. The IEEE 802.11 SENS TIG session was called to order at 4:00pm by the Chair (Tony Xiao Han, Huawei).
2. The agenda for the meeting can be found in IEEE 802.11-19/1727r3.
3. Meeting protocol, attendance, voting, and document status overview (slide 4) were reviewed.
4. Patent policy and participation guidelines (slides 6-11) were reviewed. No items noted.
5. Chair reviewed agenda items for the week, schedule, agenda setting for each session, and technical submissions received (slides 12-15).
6. The proposed agenda for the session (slide 17) was approved without objection.
7. Motion to approve meeting minutes of October 2019 teleconferences:

<https://mentor.ieee.org/802.11/dcn/19/11-19-1756-01-SENS-topic-interest-group-on-wlan-sensing-october-9th-2019-teleconference-meeting-minutes.docx>

<https://mentor.ieee.org/802.11/dcn/19/11-19-1813-00-SENS-wlan-sensing-tig-october-30th-2019-teleconference-meeting-minutes.docx>

Move: Assaf Kasher (Qualcomm)

Second: Alecs Eitan (Qualcomm)

Discussion: No discussion.

Result: Approved with unanimous consent.

1. Chair reviewed the scope of SENS TIG and called for contributions (slide 19).
2. Four technical presentations were made:
   1. Presentation by Michel Allegue (Aerial), Wi-Fi Sensing: Technical Feasibility, Standardization Gaps, Doc. IEEE 11-19/1850r0.
      1. Questions on sounding procedure and on the need for training/calibration.
   2. Presentation by Bahar Sadeghi (Intel), Overview of WBA Wi-Fi Sensing Whitepaper, Doc. IEEE 11-19/1994r0.
      1. Clarification on the scope of the effort that generated the white paper, question on whether conclusions/suggestions made in the white paper are based on experimentation/prototyping, question on overhead.
   3. Presentation by Solomon Trainin (Qualcomm), In car sensing - a 60GHz usage example, Doc. IEEE 11-19/1852r0.
      1. Questions on technical aspects of the demo showed (WiGig waveform, standard), on the need for CSI “extraction,” and on Doppler estimation.
   4. Presentation by Assaf Kasher (Qualcomm), WLAN-based radars in the 60GHz band, Doc. IEEE 11-19/1854r0.
      1. Questions on need for training/calibration, on the “distributed” radar concept, and on viabilility of supportingNLoS applications.
3. Meeting adjourned at 5:47pm.

**Tuesday, November 12, 2019, PM2 Session**

Attendance: Over 80 people

1. The IEEE 802.11 SENS TIG session was called to order at 4:00pm by the Chair (Tony Xiao Han, Huawei).
2. The agenda for the meeting can be found in IEEE 802.11-19/1727r4.
3. Meeting protocol, attendance, voting, and document status overview (slide 4) were reviewed.
4. Patent policy and participation guidelines (slides 6-11) were reviewed. No items noted.
5. Chair reviewed agenda items for the week, schedule, agenda setting for each session, and technical submissions received (slides 12-15).
6. Four technical presentations were made:
   1. Presentation by Chenchen Liu (Huawei), Passive radar: a potential solution for WLAN sensing, Doc. IEEE 11-19/1885r0.
      1. Discussions on the setup and configuration used to obtain presented results.
   2. Presentation by Alecsander Eitan (Qualcomm), Wi-Fi Sensing with Doppler measurement in 60GHz-band, Doc. IEEE 11-19/1897r0.
      1. Discussions on the setup, configuration, and parameters used in the presentation.
   3. Presentation by Chenchen Liu (Huawei), Indoor sensing with FMCW radar, Doc. IEEE 11-19/1886r0.
      1. Questions on coexistence between FMCW and Wi-Fi on 5 GHz.
   4. Presentation by Debashis Dash (Quantenna Communications), CSI-based context assisted indoor localization, Doc. IEEE 11-19/1987r0.
      1. Discussions on the setup and configuration used to obtain presented results. Discussions on the use of Machine Learning to support sensing applications.
7. Meeting adjourned at 5:46pm.

**Thursday, November 14, 2019, AM2 Session**

Attendance: Approximately 70 people

1. The IEEE 802.11 SENS TIG session was called to order at 10:30am by the Chair (Tony Xiao Han, Huawei).
2. The agenda for the meeting can be found in IEEE 802.11-19/1727r5.
3. Meeting protocol, attendance, voting, and document status overview (slide 4) were reviewed.
4. Patent policy and participation guidelines (slides 6-11) were reviewed. No items noted.
5. Chair reviewed agenda items for the week, schedule, agenda setting for each session, and technical submissions received (slides 12-15).
6. The proposed agenda for the session (slide 23) was approved without objection.
7. Two presentations were made:
   1. Presentation by Debashis Dash (Quantenna Communications), CSI profiles: Public database for WiFi sensing, Doc. IEEE 11-19/2052r0.
      1. Questions on the experiment setup and data labelling.
   2. Presentation by Claudio da Silva (Intel), WLAN sensing - Next steps, Doc. IEEE 11-19/1967r0.
      1. Floor was opened for discussion on presentation, including SP.
      2. SP found on slide 10 was run.
         1. November 2019: 44, future plenary: 9, Need more info: 10, Never: 0.
8. The chair went over a draft of the presentation to be made to the WG in its closing plenary, which was then later uploaded as document IEEE 802.11-19/2070r0.
   * + - 1. Chair stated that the use cases (Appendix II) and “technical direction”/”potential technologies” (Appendix III) are simply a summary of the presentations given to the TIG and are not biding (that is, not all use cases and “technical direction”/”potential technologies” will necessarily be covered in the PAR/CSD and be supported by the SG and eventually TG).
9. The chair ran the SP “Do you agree to terminate the TIG and form a SG to develp a PAR and CSD.” Result: Yes 51/No 0/Abstain 11.
10. Meeting adjourned at 11:30am.