**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title |  | |
| Date Submitted | [2021-11-25] | |
| Source | [Vinayagam Mariappan] [SMR Automotive Modules Korea Ltd.] | Voice: [+82 32 6507 785 ] Fax: [+82 32 6507 871 ] E-mail: [vinayagam@ieee org] |
| Re: | [TG7a November 2021 Electronic Plenary Meeting Minutes] | |
| Abstract | [This document contains the TG7a Higher Rate, Longer Range Optical Camera Communications (OCC) meeting minutes for the November 2021 Electronic Plenary Session] | |
| Purpose | [To provide minutes of the meeting for TG7a] | |
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| Release | The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15. | |

**Wednesday, November 10, 2021, 9:00 AM ~ 11:00 AM (EST): AM1**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Sangsung Choi (Kookmin University)
* Rani Keren (Huawei)
* Yoshio Kashiwagi (Nissin Systems)
* Pooria Pakrooh (Qualcomm)
* Huy Nguyen (Kookmin University)
* Stefan Lemsitzer (NXP)
* Jonghoe Koo (Samsung)
* Around 16 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Motion on September meeting minutes’ doc (15-21-0535-00-007a)

Result: Approved unanimously

1. Agenda document 15-21-0564-02-007a presented by Chair and discussion on agenda.
2. Call for Proposals and Agenda Approval (doc 15-21-0564-03-007a)

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Draft D1-PHY Layer Operating Modes and Specifications of Rolling Shutter OFDM scheme (doc 15-21-0571-00-007a) by Huy Nguyen.
3. Draft D1-PHY Layer Operating Modes and Specifications of MIMO C-OOK scheme (doc 15-21-0572-00-007a) by Huy Nguyen.
4. Meeting recessed.

**Thursday, November 11, 2021, 7:00 PM ~ 9:00 PM (EST): PM3**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sangsung Choi (Kookmin University)
* Rani Keren (Huawei)
* Yoshio Kashiwagi (Nissin Systems)
* Jerome Henry (Cisco)
* Huy Nguyen (Kookmin University)
* Jinjing Jiang (Apple)
* Taeyoung Ha (Samsung)
* Larry Zakaib (Spark Microsystems)
* Around 25 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0564-03-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0564-03-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Draft D1-PHY Layer Operating Modes and Specifications of Hybrid OFDM-S2-PSK scheme (OCC) (doc 15-21-0573-00-007a) by Huy Nguyen.
3. Draft D1-PHY Layer Operating Modes and Specifications of Hybrid OOK-OFDM scheme (doc 15-21-0574-00-007a) by Huy Nguyen.
4. Draft D1-PHY Layer Operating Modes and Specifications of MIMO-OOK scheme (doc 15-21-0575-00-007a) by Huy Nguyen.
5. Meeting recessed.

**Monday, November 15, 2021, 9:00 AM ~ 11:00 AM (EST): AM1**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Sangsung Choi (Kookmin University)
* Rani Keren (Huawei)
* Md. Osman Ali (Kookmin University)
* Md Faisal Ahmed (Kookmin University)
* Aniruddh Rao (Samsung)
* Taeyoung Ha (Samsung)
* Lochan Verma (Apple)
* Around 24 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0564-03-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0564-03-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Draft D1 of mono camera-based OCC system in V2X environment (doc 15-21-0602-00-007a) by Md. Osman Ali.
3. Draft D1 of road irregularity detection from the rear LED shapes of the forwarding vehicle using OCC (doc 15-21-0603-00-007a) by Md. Osman Ali.
4. Draft D1 Performance Enhancement and Interference Cancellation Using Neural Network in Vehicular Communication System (doc 15-21-0489-00-007a) by Md Faisal Ahmed.
5. Meeting recessed.

**Tuesday, November 16, 2021, 7:00 PM ~ 9:00 PM (EST): PM3**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sangsung Choi (Kookmin University)
* Md. Habibur Rahman (Kookmin University)
* Md. Shahjalal (Kookmin University)
* Lochan Verma (Apple)
* Joe Polland
* Thomas Almholt
* Around 18 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0564-03-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0564-03-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Efficient OCC data communication in Multi User System (doc 15-21-0612-01-007a) by Md. Habibur Rahman.
3. Draft D1-Optical Non-Orthogonal Multiple Access (O-NOMA) Scheme for Indoor OCC (doc 15-21-0613-00-007a) by Md. Shahjalal.
4. Draft D1-Design of a Power-domain Optical Non-Orthogonal Multiple Access (PDO-NOMA) Mechanism for the vehicular OCC System (doc 15-21-0614-00-007a) by Md. Shahjalal.
5. Discussed and finalized the schedule for December Tele Conference Call and required slots (4 slots: AM1 on Wednesday, Thursday, Monday, Tuesday) for January’2022 Meeting.
6. Meeting adjourned by Chair.