**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] |
| Notice | This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. |
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**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.