**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 | [2021-05-25] | |
| 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 May 2021 Meeting Minutes] | |
| Abstract | [This document contains the TG7a Higher Rate, Longer Range Optical Camera Communications (OCC) meeting minutes for the May 2021 Electronic Interim Session] | |
| Purpose | [To provide minutes of the meeting for TG7a] | |
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**Wednesday, May 12, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Clint Powell (FB)
* Huy Nguyen (Kookmin University)
* Jerome Henry (Cisco)
* Yoshio Kashiwagi (Nissin Systems)
* Jarek Niewczas (Qorvo)
* Kiran Thimme Gowda (NXP)
* Around 11 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Motion on March plenary meeting minutes doc (15-21-0201-00-007a)

Moved: Vinayagam Mariappan

Second: Sang-Kyu Lim

Result: Approved unanimously

1. Motion on 23rd April Conf. call meeting minutes doc (15-21-0219-00-007a)

Moved: Vinayagam Mariappan

Second: Sang-Kyu Lim

Result: Approved unanimously

1. Agenda document 15-21-0271-00-007a presented by Chair and Discussion on Agenda.
2. Call for Proposals and Agenda Approval (doc 15-21-0271-01-007a)

Approved unanimously

1. Finalized the Technical Considerations Document (doc 15-21-065-08-007a).
2. Pre-Proposal Contribution Presentations:
3. Rolling Shutter OFDM Scheme for Optical Camera Communication System (doc 15-21-224-00-007a) by Huy Nguyen.
4. MIMO C-OOK scheme in Optical Camera Communication System (doc 15-21-225-00-007a) by Huy Nguyen.
5. Meeting recessed.

**Thursday, May 13, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Jeng Shiann Jiang (Vertexcom)
* Huy Nguyen (Kookmin University)
* Jerome Henry (Cisco)
* Yoshio Kashiwagi (Nissin Systems)
* Tuncer Baykas (Kadir Has University)
* Around 11 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0271-01-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0271-02-007a).

Approved unanimously

1. Pre-Proposal Contribution Presentations:
2. Hybrid Waveform for High-speed RoI Signaling Optical Camera Communication (doc 15-21-226-00-007a) by Huy Nguyen.
3. Hybrid Rolling Shutter Signal for Optical Camera Communication (doc 15-21-228-00-007a) by Huy Nguyen.
4. MIMO-OOK based RoI Signaling for Optical IoT System (doc 15-21-229-00-007a) by Huy Nguyen.
5. Meeting recessed.

**Friday, May 14, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Jerome Henry (Cisco)
* Huy Nguyen (Kookmin University)
* Md. Osman Ali (Kookmin University)
* Yoshio Kashiwagi (Nissin Systems)
* Tuncer Baykas (Kadir Has University)
* Around 10 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0271-02-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0271-03-007a).

Approved unanimously

1. Pre-Proposal Contribution Presentations:
2. Optical Non-Orthogonal Multiple Access (O-NOMA) Scheme for OCC System (doc 15-21-230-00-007a) by Md. Shahjalal.
3. Design of a Power-domain Optical Non-Orthogonal Multiple Access (PDO-NOMA) Mechanism with Ultra-massive-link Setup for the OCC System (doc 15-21-231-00-007a) by Md. Shahjalal.
4. Bi-level Pulse Position Modulation (BPPM) for Single Camera-based Optical Vehicular Communication (doc 15-21-232-00-007a) by Md. Osman Ali.
5. Meeting recessed.

**Monday, May 17, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Jerome Henry (Cisco)
* Huy Nguyen (Kookmin University)
* Md. Osman Ali (Kookmin University)
* Yoshio Kashiwagi (Nissin Systems)
* Around 17 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0271-03-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0271-04-007a).

Approved unanimously.

1. Pre-Proposal Contribution Presentations:
2. Pothole Detection from the Rear LED Shapes of the Forwarding Vehicle using Optical Camera Communication (OCC) (doc 15-21-233-00-007a) by Md. Osman Ali.
3. Performance Enhancement of Vehicular Communication using Neural Network (doc 15-21-234-00-007a) by Md Faisal Ahmed.
4. Accurate Data Transmitting LED Detection Scheme Employing Support Vector Machine (SVM) Classifier (doc 15-21-235-00-007a) by Md. Habibur Rahman.
5. Discussion on Affirm Officer and decided to finalize in July’2021 meeting.
6. Discussion on TG7a Web Page Update and unanimously approved on updating TG7a Web Page.
7. Discussion for July 2021 Meeting.

* 6 slots for July 2021 Meeting (9:00 AM~11:00 AM (EST) on Monday, Tuesday, Wednesday, Thursday, and Friday).
* Call for Proposals (proposals with implementation or simulation results) and Deadline: July 10, 2021.

1. Meeting adjourned by Chair.