**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **<TG7a July 2021 Electronic Plenary Meeting Minutes>** | |
| Date Submitted | [2021-08-24] | |
| 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 July 2021 Electronic Plenary Meeting Minutes] | |
| Abstract | [This document contains the TG7a Higher Rate, Longer Range Optical Camera Communications (OCC) meeting minutes for the July 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. | |

**Tuesday, July 13, 2021, 11:00 AM ~ 01:00 PM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Rani Keren (Huawei)
* Huy Nguyen (Kookmin University)
* Jonghoe Koo (Samsung)
* Yoshio Kashiwagi (Nissin Systems)
* Harry Bims (Bims Laboratories)
* Iwao Hosako (NICT)
* Around 25 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Motion on May meeting minutes doc (15-21-0322-01-007a)

Result: Approved unanimously

1. Agenda document 15-21-0370-00-007a presented by Chair and discussion on agenda.
2. Call for Proposals and Agenda Approval (doc 15-21-0370-01-007a)

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Rolling Shutter OFDM Scheme for Optical Camera Communication System (doc 15-21-353-00-007a) by Huy Nguyen.
3. Meeting recessed.

**Wednesday, July 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)
* Rani Keren (Huawei)
* Huy Nguyen (Kookmin University)
* Yoshio Kashiwagi (Nissin Systems)
* Boris Danev (3db)
* Around 10 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0370-01-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0370-01-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Hybrid Waveform for High-speed RoI Signaling Optical Camera Communication (doc 15-21-355-00-007a) by Huy Nguyen.
3. MIMO C-OOK scheme in Optical Camera Communication System (doc 15-21-354-01-007a) by Huy Nguyen.
4. Meeting recessed.

**Thursday, July 15, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Rani Keren (Huawei)
* Huy Nguyen (Kookmin University)
* Hyunseob Oh (Samsung)
* Yoshio Kashiwagi (Nissin Systems)
* Harry Bims (Bims Laboratories)
* Around 17 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0370-01-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0370-01-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Design of a Power-domain Optical Non-Orthogonal Multiple Access (PDO-NOMA) Mechanism with Ultra-massive-link Setup for the OCC System (doc 15-21-358-00-007a) by Md. Shahjalal.
3. Optical Non-Orthogonal Multiple Access (O-NOMA) Scheme for OCC System (359-00) (doc 15-21-259-00-007a) by Md. Shahjalal.
4. Meeting recessed.

**Friday, July 16, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Srivathsa (NXP)
* Huy Nguyen (Kookmin University)
* Hyunseob Oh (Samsung)
* Yoshio Kashiwagi (Nissin Systems)
* Stephen McCann (Huawei)
* Around 22 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0370-01-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0370-01-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Pothole Detection from the Rear LED Shapes of the Forwarding Vehicle using Optical Camera Communication (OCC) (doc 15-21-360-00-007a) by Md. Osman Ali.
3. Bi-level Pulse Position Modulation (BPPM) for Single Camera-based Optical Vehicular Communication (doc 15-21-352-00-007a) by Md. Osman Ali.
4. Meeting recessed.

**Monday, July 19, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Seong-Soon Joo (ETRI)
* Srivathsa (NXP)
* Huy Nguyen (Kookmin University)
* Jonghoe Koo (Samsung)
* Yoshio Kashiwagi (Nissin Systems)
* Stephen McCann (Huawei)
* Around 35 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0370-01-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0370-01-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. Performance Enhancement of Vehicular Communication using Neural Network (doc 15-21-361-00-007a) by Md Faisal Ahmed.
3. Accurate Data Transmitting LED Detection Scheme Employing Support Vector Machine(SVM) Classifier (doc 15-21-362-00-007a) by Md. Habibur Rahman.
4. Meeting recessed.

**Tuesday, July 20, 2021, 9:00 AM ~ 11:00 AM (EST)**

**Attendees:**

* Yeong Min Jang (Kookmin University)
* Vinayagam Mariappan (SMR Automotive Modules Korea)
* Sang-Kyu Lim (ETRI)
* Huy Nguyen (Kookmin University)
* Mingyu Lee (Samsung)
* Yoshio Kashiwagi (Nissin Systems)
* Rani Keren (Huawei)
* Around 13 Members.

**Meeting Activities:**

1. Meeting called to order by Chair.
2. Welcome \ Patent Policy presented by Chair.
3. Agenda document 15-21-0370-01-007a presented by Chair and Discussion on Agenda.
4. Call for Proposals and Agenda Approval (doc 15-21-0370-01-007a).

Result: Approved unanimously

1. Proposal Contribution Presentations:
2. MIMO-OOK based RoI Signaling for Optical IoT System (doc 15-21-357-00-007a) by Huy Nguyen.
3. Hybrid Rolling Shutter Signal for Optical Camera Communication (doc 15-21-356-00-007a) by Huy Nguyen.
4. Discussion on Affirm Officers and appointed Officers for IEEE802.15.7a TG.

* Chairman: Yeong Min Jang (Kookmin University)
* Vice Chairman: Sangsung Choi (Kookmin University), Sangkyu Lim(ETRI)
* Technical Editor: Vinayagam Mariappan (SMR Automotive Modules Korea), Huy Nguyen (Kookmin University)
* Secretaries: Vinayagam Mariappan (SMR Automotive Modules Korea), Md. Faisal Ahmed (Kookmin University)

1. Discussion on TG7a Web Page Update and unanimously approved on updating TG7a Web Page.
2. Discussion for September 2021 Meeting.

* 6 slots for September 2021 Meeting (9:00 AM~11:00 AM (EST).
* Start proposal mergers
* Start preparation of revision baseline D0.

1. Meeting adjourned by Chair.