



**Program of the 8th
International Symposium on
Advanced Technologies and
Applications in the Internet of Things**

ATAIT 2026



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The 8th International Symposium on Advanced Technologies and Applications in the Internet of Things (ATAIT 2026) will be held in Kusatsu, Shiga, Japan, Sept. 9-10, 2026. This conference is sponsored by the VLSI center of Ritsumeikan University and supported by IEEE CEDA All Japan Joint Chapter. The conference provides an international forum for professionals, academics, and researchers to present latest developments in IoT technologies and applications, including the network, security, processor architecture, high performance computing, image processing, computational acoustics, FPGAs and GPUs, etc. It particularly welcomes those emerging methodologies and techniques which bridge theoretical studies and applications in the Internet of Things. Novel quantitative engineering and science studies may be considered as well.

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Wednesday, September 9 (Rohm Plaza, 5th Floor)

13:00-17:00 Registration

Thursday, September 10 (Rohm Plaza, 5th Floor)

12:30-12:50 Registration (Rohm Plaza, 5th Floor)

12:50-13:00 Opening Remarks (Conference Room, Rohm Plaza, 5th Floor)

13:00-13:40 Plenary Talk (Conference Room, Rohm Plaza, 5th Floor)

Chair: Takeshi Kumaki / Ritsumeikan University

Title: IoT Past Present and Future: Origins, Challenges, and Possibilities

Speaker: *James Cusick, PMP*

IEEE Senior Member & Distinguished Contributor

Independent IT Consultant

Visiting Associate Researcher, Ritsumeikan University

Board Trustee, Henry George School of Social Science

13:40-14:00, Coffee break

14:00-15:40 Session 1 (Conference Room, Rohm Plaza, 5th Floor)

Chair: Kyosuke Kageyama / *Kindai university*

1. [14:00] **Adaptive Sub-Slot Attention for Image Exposure Correction,**
Haruki Asakawa and Lin Meng
2. [14:20] **A Preliminary Evaluation of Commercial LED Lighting and Surface Bioelectric-Potential Monitoring in Indoor Saffron Cultivation,**
Koutarou Minami, Muhammad Zharfan Zulkifli and Kumaki Takeshi
3. [15:40] **Automatic Deep Learning Model Generation for Medium-Sized Fruit Detection in Harvesting Application,**
Takumi Yamamoto and Lin Meng
4. [15:00] **Mathematical Analysis of Kalman Filter Using Position and Velocity Observations in Radar Tracking,**
Rinnosuke Takemoto, Hiroaki Okinaka and Kenshi Saho
5. [15:20] **Species-Agnostic Weed-Candidate Extraction by Differencing Plant and Crop Masks,**
Sota Ono and Lin Meng

15:40-16:00, Coffee break

16:00-17:20 Session 3 (Conference Room, Rohm Plaza, 5th Floor)

Chair: Ahmad Akmal Aminuddin / *Ritsumeikan university*.

1. [16:00] **Pedestrian Dart-Out Behavior Prediction Using Radar Signal Images Generated from a 24 GHz FMCW Radar,**
Kota Okamoto, Yuki Nakaoka and Kenshi Saho
2. [16:20] **Classification and Prediction of Cycling Behaviors Using DOA Estimation and Machine Learning,**
Zeshi Lu, Sota Suzuki and Kenshi Saho
3. [16:40] **Implementation of Firefighter Walking Condition Monitoring System for Real-Time Hazardous Condition Detection,**
Takuto Torigai, Takeshi Kumaki and Kyosuke Kageyama
4. [17:00] **Performance Evaluation of Pedestrian Dart-Out Risk Classification in Building-Induced Blind Areas Using a 24-GHz FMCW Radar,**
Yuki Nakaoka and Kenshi Saho

17:20-17:30 Closing Remarks (Conference Room, Rohm Plaza, 5th Floor)

18:00-20:00, Banquet Award Ceremony