

The 9th International Conference on Big data, IoT, and Cloud Computing (BIC 2025)

August 13-15, 2025
Manila, Philippines

Organized by
KCIA

Conferences

The 18th International Conference on Computer Science and its Applications (CSA 2025)

- Dec 17-20, 2025, Phu Quoc, Vietnam
- <http://csa-conference.org/2025>

Message from the BIC 2025 General Chair

The 2025 International Conference on Big data, IoT, and Cloud Computing will be held in Manila, Philippines, August 13-15, 2025. The BIC 2025 will be the most comprehensive conference focused on Big data, IoT, and Cloud Computing (BIC). The BIC 2025 will provide an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of BIC such as model, algorithms, applications, services, performance and reliability for Big data, IoT, Cloud Computing. Also, the conference will publish high-quality papers which are closely related to the various theories and practical applications in Big data, IoT, and Cloud computing. Furthermore, we expect that the conference and its publications will be a trigger for further related research and technology improvements in those important subjects. Accepted and presented papers highlight new trends and challenges of Computer Science and its Applications. The presenters showed how new research could lead to novel and innovative applications. We hope you will find these results useful and inspiring for your future research.

We would like to express our sincere thanks to Young-Sik Jeong (Dongguk University, Korea) and James J. (Jong Hyuk) Park (SeoulTech, Korea). Our special thanks go to the Program Chairs, all Program Committee members and all the additional reviewers for their valuable efforts in the review process, which helped us to guarantee the highest quality of the selected papers for the conference. We cordially thank all the authors for their valuable contributions and the other participants of this conference. The conference would not have been possible without their support. Thanks are also due to the many experts who contributed to making the event a success.

BIC 2025 General Chair

Jungho Kang, Baewha Women's University, Korea
Han-Chieh Chao, National Ilan University, Taiwan
Qun Jin, Waseda University, Japan
Yi Pan, Georgia State University, USA

Message from the BIC 2025 Program Chairs

Welcome to the BIC 2025 which will be held in Manila, Philippines, August 13-15, 2025. The BIC 2025 provides an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of Computer Science. In addition, the conference contains high quality papers which are closely related to the various theories and practical applications in Computer Science. Furthermore, we expect that the conference and its publications will be a trigger for further related research and technology improvements in this important subject. The BIC 2025 contains high quality research papers submitted by researchers from all over the world. Each submitted paper was peer reviewed by reviewers who are experts in the subject area of the paper. Based on the review results, the Program Committee accepted papers.

For organizing an International Conference, the support and help of many people is needed. First, we would like to thank all authors for submitting their papers. We also appreciate the support from program committee members and reviewers who carried out the most difficult work of carefully evaluating the submitted papers. We would like to give my special thanks to Young-Sik Jeong (Dongguk University, Korea), James J. (Jong Hyuk) Park (SeoulTech, Korea), as the Steering Chairs of BIC for their strong encouragement and guidance to organize the conference. We would like to thank BIC 2025 General Chairs for their advices to make possible organization of The BIC 2025. We would like to express special thanks to execute members for their timely unlimited support

BIC 2022 Program Chairs

Ji Su Park, Jeonju University, Korea
Arun Kumar Sangaiah, VIT University, India
Jin Wang, Hunan University of Science and Technology, China

Organization

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Local Arrangement Chairs

Hyun-Woo Kim, Baewha Women's University, Korea
Min Choi, Chungbuk National University, Korea

Invited Speaker



CoAP based IoT System with Lightweight Encryption Algorithm

Prof. Ji Su Park

Department of Computer Science and Engineering,
Jeonju University, Korea

Abstract

As the Internet of Things (IoT) market has recently become more vibrant, security concerns such as information leaks, data falsification, cloning attacks, denial of service, and privacy violations that can occur in IoT communications have emerged. To address these security concerns, traditional Internet methods are too heavy to apply to IoT environments, which require very little power, have limited resources, and expect long service lifespans. Therefore, we propose an IoT system based on the Constrained Application Protocol (CoAP), which employs a lightweight encryption algorithm technique that is flexible and suitable for low-spec devices.

Biography:

He received his B.S., M.S. degrees in Computer Science from Korea National Open University, Korea, in 2003, 2005, respectively and Ph.D. degrees in Computer Science Education from Korea University, 2013.

He is currently a Professor in Dept. of Computer Science and Engineering from Jeonju University in Korea. He is employed as managing editor of Human-centric Computing and Information Sciences (HCIS, SCIE) by KCIA. He has received “best paper” awards from the CSA2018, BIC 2021, and CSA 2021 conferences and “outstanding service” awards from CUTE2019 and BIC2020. He has also served as the program chair, program committee or organizing committee at several international conferences including World IT Congress, MUE, FutureTech, CSA, CUTE, BIC and HCIS Workshop.

His research interests are in Cloud computing, Mobile cloud computing, Distributed system, Computer education, Bigdata, and Internet of Tings.

PROGRAM SCHEDULE FOR BIC 2025

Day 1, August 13, 2025		
Time	Min	HALL A
10:00-12:00	120	Local Arrangement Committee Meeting I
12:00-13:30	90	Lunch
13:30-16:30	180	Industry-Academic Cooperation Workshop (Private)
16:30-18:00	90	Break
18:00-20:00	120	Welcome Reception (Only for Invited Member)

Day 2, August 14, 2025		
Time	Min	HALL A
09:30-10:00	30	Registration
10:00-11:40	100	Session A-1
11:40-13:00	80	Lunch
13:00-14:00	60	Keynote Speech: Prof. Ji Su Park “CoAP based IoT System with Lightweight Encryption Algorithm”
14:00-14:20	20	Coffee Break
14:20-16:00	100	Session A-2

16:00-16:20	20	Coffee Break
16:20-18:00	100	Session A-3
18:00-18:30	30	Break
18:30-20:30	120	Banquet (Only for Invited Members)

Day 3, August 15, 2025		
Time	Min	HALL A
10:00-12:00	120	Organizing Committee Meeting
12:00-13:00	60	Lunch
13:00-15:00	120	Local Arrangement Committee Meeting II

1. A paper presentation should be made by one of authors of the paper for 2~30 minutes (20~25 minutes for the presentation itself and 5~10 minutes for Q/A).
2. All speakers of each session should meet the session chair at their room 15 minutes before the session begins.
3. Windows 11 laptops running the Adobe Reader and Microsoft Office for paper presentations will be prepared. Please prepare for your presentation.

DETAILED SCHEDULE FOR THE 5TH INTERNATIONAL CONFERENCE ON BIG DATA, IOT, AND CLOUD COMPUTING (BIC 2025)

Day 1, August 13, 2025(Wednesday)

- 10:00-12:00 Local Arrangement Committee Meeting I
- 12:00-13:30 Lunch
- 13:30-16:30 Industry-Academic Cooperation Workshop
- Private Workshop
- 16:30-18:00 Break
- 18:00-20:00 Welcome Reception

Day 2, August 14, 2025 (Thursday)

- 09:30-10:00 Registration
- 10:00-11:40 Session A-1
(HALL A)
1. **Privacy-Preserving Real-Time Face De-Identification with Same-Subject Tracking for CCTV Analytics**
Azhar Abbas, Jong Hyuk Park
 2. **Real-time Face De-Identification Technology in CCTV Security Environment: Latest Trends and Challenges for Identical Target Connection Analysis**
Minji Kim, Tae hwan Lee, Jong Hyuk Park
 3. **Face De-Identification in CCTV Footage: Recent Advances Using Objects Relative-Position Estimation**
Sekione Reward Jeremiah, Jong Hyuk Park

4. **Blinded by the Lens: Privacy-Preserving Techniques for Modern CCTV Systems**
Nguyễn Thị Mai, Trần Văn Nam, Lê Minh Tuấn
5. **Exploiting CCTV Vulnerabilities through Optical Attacks**
Maria Angelica Cruz Reyes, Juan Carlos Mendoza Garcia

11:40-13:00 Lunch

13: 00-14:00 Keynote Speech

Keynote Speech:

Prof. Ji Su Park

“CoAP based IoT System with Lightweight Encryption Algorithm”

14:00-14:20 Coffee Break

14:20-16: 00 Session A-2
(HALL A)

1. **A Survey of Virtual Reality**
Zhigan Lie
2. **Current status of ICT Education for Philippines University**
Maria Santos, Jose Reyes
3. **Authentication on IoT Devices using Decentralized identifier**
Eru Choi and Min Choi
4. **A Study on ID-Based RBAC for Cross-Domain Environments**
SeongCheol Yoon, DeokGyu Lee, Im-Yeong Lee
5. **Development of a YOLO-Based Algorithm for Detecting Abnormal Behavior in Industrial Environments**
Jaebin Lim, Jin Hyun Kim, Ji Su Park, Byung Guk Park, Jin Woo Ahn, Byeongjun Ko, Wan Kyung Kim
6. **DNN-Enhanced Automated Machine Learning Framework for Anomaly Detection in OT Systems**
Byung Hyun Jo, Jong Hyuk Park

16: 00-16:20 Coffee Break

16:20-18:00 Invited Industry Session
(HALL A)

- 1. Market Trends in Multi/Hybrid Cloud**
Sung Chul Yu (ITCEN ENTEC Corp)
- 2. Empowering AI, Business & Tomorrow together with Global Cranberry**
Eun Hye Lee (Cranberry Corp)
- 3. Leveraging Serverless Architecture in Full-Stack Platform Development**
Mark Allan Gonzales (Kalibrr Corp)

18:00-18:30 Break

18:30-20:30 Banquet

Day 3, August 15, 2025 (Friday)

10:00-12:00 Organizing Committee Meeting

12:00-13:30 Lunch

13:30-16:00 Local Arrangement Committee Meeting II

Conference Venue



Holiday Inn & Suites Manila Galleria by IHG

- Address: One Asian Development Bank Avenue Ortigas Center Pasig City, 1655 Philippines
- Hotel TEL: + 63-2-87909400
- Web: <https://www.ihg.com/holidayinn/hotels/us/en/pasig-city/mnlgl/hoteldetail/>

