

**The International Conference on
Future Information Technology,
applications and services
(IFIT 2023 Seoul)**

December 29-30, 2023
Seoul, Korea

Organized by

KIPS CSWRG

2024 International Conferences
(Sponsored / Technically Sponsored by KIPS / KIPS CSWRG)

**The 10th World Congress on Information Technology Applications and Services
(World IT Congress 2024)**

- February 14-16, 2024 (Jeju, Korea)
- <http://www.worlditcongress.org/2024/>

**The 18th International Conference on Multimedia and Ubiquitous Engineering
(MUE 2024)**

- April 23-25 2024 (Chongqing, China)
- <http://www.mue-conference.org/2024/>

**The 19th International Conference on Future Information Technology
(FutureTech 2024)**

- April 23-25 2024 (Chongqing, China)
- <http://www.futuretech-conference.org/2024/>

The International Conference on Big data, IoT, and Cloud computing (BIC 2024)

- August 12-14, 2024 (unconfirmed)
- <http://www.bic-conference.org/2024/> (Unopened)

**The 16h International Conference on Computer Science and its Applications
(CSA 2024)**

- Dec 18-20, 2024 (Pattaya, Thailand, *unconfirmed)
- <http://www.csa-conference.org/2024/> (Unopened)

Message from the IFIT 2023 General Chairs

IFIT 2023 is the first event of the series of international scientific conference. This conference takes place on December 29-30, 2023 in Seoul, Korea. The aim of the IFIT 2023 is to provide an international forum for scientific research in the technologies and application of information technology.

The conference papers included in the proceedings cover the following topics: Internet of Things and Sensors, Embedded system and Middle ware, Security and Trust Computing, Multimedia Computing, Networking and Communications, Bigdata and Data mining, Cloud Computing, Web and Internet Computing, Grid and Cloud computing, Green IT and Sustainable Computing, Copmutational Intelligent Computing, Human-centric Computing. Accepted and presented papers highlight new trends and challenges of future information technologies. We hope readers will find these results useful and inspiring for their future research.

We would like to express our sincere thanks to Program Chairs: Ji Su Park(Jeonju University, Korea), Jin Wang(Nanjing University of Information Science & Technology, China), Neil Yen(University of Aizu, Japan), all Program Committee members, and all reviewers for their valuable efforts in the review process that 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.

IFIT 2023 General Chairs

Jungho Kang, Baewha Woman University, Korea

Message from the IFIT 2023 Program Chairs

Welcome to the 2023 International Conference on Future Information Technology, applications and services (IFIT 2023), which will be held in Seoul, Korea on December 29-30, 2023. IFIT 2023 will be the most comprehensive conference focused on the various aspects of information technologies. It will provide an opportunity for academic and industry professionals to discuss recent progress in the area of future information technologies. In addition, the conference will publish high quality papers which are closely related to the various theories and practical applications in multimedia and ubiquitous engineering. Furthermore, we expect that the conference and its publications will be a trigger for further related research and technology improvements in these important subjects.

For IFIT 2023, we received many paper submissions, after a rigorous peer review process, we accepted only articles with high quality for the IFIT 2023 proceedings, published by the Springer. All submitted papers have undergone blind reviews by at least two reviewers from the technical program committee, which consists of leading researchers around the globe. Without their hard work, achieving such a high-quality proceeding would not have been possible. We take this opportunity to thank them for their great support and cooperation. Finally, we would like to thank all of you for your participation in our conference, and also thank all the authors, reviewers, and organizing committee members. Thank you and enjoy the conference!

IFIT 2023 Program Chairs

Ji Su Park, Jeonju University, Korea
Jin Wang, Nanjing University of Information Science & Technology, China
Neil Yen, University of Aizu, Japan

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PROGRAM SCHEDULE FOR IFIT 2023

Day 1, December 29, 2023		
Time	Min	HALL A
09:30-10:00	30	Registration for Workshop
10:00-12:30	150	Session A-1 FutureITC 2023 Chair: Joon-Min Gil
12:30-13:30	60	Lunch
13:30-14:00	30	Registration for IFIT 2023
14:00-15:50	110	Session A-2 IFIT 2023 Chair: Yan Li
15:50-16:00	10	Coffee Break
16:00-17:30	90	Session A-3 IFIT 2023 Chair: Min Choi
17:30-18:00	30	Break
18:00-20:00	120	Banquet (Only for Invited Members)

Day 2, December 30, 2023		
Time	Min	HALL A
10:00-12:00	120	Organizing Committee Meeting (Only for Invited Members)
12:00-13:00	60	Lunch
13:00-15:00	120	Executive Meeting - Organized by IFIT 2023 & FutureITC 2023 (Only for Invited Members)

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

DETAILED SCHEDULE FOR THE INTERNATIONAL CONFERENCE ON FUTURE INFORMATION TECHNOLOGY, APPLICATION AND SERVICES (IFIT 2023)

Day 1, December 29, 2023 (Friday)

09:30-10:00 Registration for FutureITC 2023

10:00-10:50 Session A-1 FutureITC 2023
(HALL A)
(Chair: Joon-Min Gil)

1. AI를 활용한 사이버 보안기술
조홍연 (씨티아이랩 대표)
2. AI튜터 기반 지능형 사이버보안 모의훈련
박영선 (두두아이티 대표)

10:50-11:00 Coffee Break

11:00-11:50 Session A-1 FutureITC 2023
(HALL A)
(Chair: Joon-Min Gil)

1. 양자정보통신 기술 및 산업-정책 현황
문서연(강원테크노파크 선임연구원)
2. 국가행정망 장애 원인 분석 및 제발 방지 기술
오병구(쌍용정보통신(주) 이사, 수석피엠)

11:50-12:00 Coffee Break

12:00-12:30 **Session A-1** FutureITC 2023
(HALL A)
(Chair: Joon-Min Gil)

1. Exploring the Quantum Realm: An Introduction to Quantum Computing and its Transformative Algorithms

Abir El Azzaoui(서울과학기술대학교 글로벌양자시보안연구소, 선임연구원)

12:30-13:30 **Lunch**

13:30-14:00 **Registration for IFIT 2023**

14:00-15:50 **Session A-2** IFIT 2023
(HALL A)
(Chair: Yan Li)

1. Novelty Detection Based on Deep Neural Network Random Weight Averaging Approach

Zongjing Cao, Yan Li, Byeong-Seok Shin

2. Enhanced Cybersecurity for IoT Networks: Leveraging Digital Twin and Federated Learning for Threat Detection

Jong Hyuk Park

3. Integrating Digital Twins for Advanced Secure Auditing in IIoT: Enhancing Cyber Threat Intelligence

Abir EL Azzaoui, Jong Hyuk Park

4. Fusion of Quantum Machine Learning and Blockchain Technology for ChatGPT-generated Online Misinformation

Heeji Park, JongHo Kang

5. Optimizing Offloading and Resource Allocation in Digital Twin-Enhanced IIoT Environment

Jimin Ha, Jong Hyuk Park

6. AI based Blockchain for Smart and Secure Digital Twins in Cloud Computing Environments

ByeonHyun Jo, Ji Su Park

15:50-16:00 **Coffee Break**

16:00-17:30 **Session A-3 IFIT 2023**

(HALL B)

(Chair: Min Choi)

- 1. Design and Implementation of Data Continuity Improvement of Sensor Data Acquisition Using Publish/Subscribe Messaging**
Jaekyung Nam, Min Choi
- 2. A Quantum Homomorphic Cryptography based Framework for Privacy Protection in IIoT Environment**
JungHo Kang
- 3. Cognitive computation and Quantum based Reversible Chaotic Masking Method for User Privacy Protection in CCTV Environment**
Ji Su Park
- 4. Secure and Efficient Federated Blockchain Framework for Privacy in Healthcare 4.0**
Mikail Mohammad Salim, Jong Hyuk Park
- 5. Application Permissions for Android Ransomware Detection: A Deep Reinforcement Learning Strategy**
Jeremiah Sekione Reward, Jong Hyuk Park

17:30-18:00 **Break**

18:00-20:00 **Banquet (Only for Invited Members)**

Day 2, December 30, 2023 (Saturday)

10:00-12:00 **Organizing Committee Meeting**

12:00-13:00 **Break**

13:00-15:00 **Executive Meeting - Organized by IFIT 2023 & FutureITC 2023**

Future ITC 2023 Workshop



The 2023 Future ICT and National Defense IT Workshop (Future ITC 2023)

2023 미래 ICT 및 국방 IT 기술 워크숍(Future ITC 2023)


December 29, 2023, Seoul, Korea
<http://futureitc.org/>

"2023 미래 ICT 및 국방 IT 기술 워크숍(Future ITC 2023)"은 혁신적인 정보통신기술과 국방 IT 분야의 미래 동향을 탐험하고 선도적인 기술과 전략을 공유하는 특별한 자리입니다. 급변하는 디지털 환경에서의 도전과 기회에 대응하기 위해 세계적인 전문가들이 모여 최신 기술 동향 및 산업 동향을 논의합니다. 이 워크숍은 미래 국방 및 ICT 분야에서의 혁신과 발전을 촉진하며, 새로운 아이디어 및 협력 기회를 모색하는 플랫폼으로 소셜 네트워킹, 사이버 보안, 인공지능, 빅데이터 등 다양한 주제에 초점을 맞춥니다. Future ITC 2023은 글로벌 전문가들이 모여 미래를 모색하는 중요한 자리로 자리잡고 있습니다.

Programs

- AI를 활용한 사이버 보안기술
- AI튜터 기반 지능형 사이버보안 모의훈련
- 양자정보통신 기술 및 산업-정책 현황
- 국가행정망 장애 원인 분석 및 제발 방지 기술

Contact:

Conference Community: futureitc.sec@gmail.com 



CONFERENCE VENUE

Dongguk University



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