

CALL FOR PAPER

The 1st IEEE International Workshop on Distributed In-Network Computing Technologies for Realizing Metaverse Societies (D-NetComp)

Paper Submission Deadline **February 27, 2025**

WORKSHOP CO-CHAIRS

Daishi Kondo, Osaka Metropolitan University.

Yusaku Hayamizu, National Institute of Information and Communications Technology (NICT).

Junji Takemasa, Osaka University.

SCOPE & MOTIVATION

The evolution of metaverse applications (e.g., extended reality (XR), digital twins (DT), and cyber-physical systems (CPS)) imposes stringent network requirements, including high bandwidth, low latency, and stable jitter. In-network computing, which enables network nodes to perform computations in a distributed manner, is a key technology to meet these requirements. Addressing challenges such as deploying suitable network architectures for these applications can facilitate the practical and widespread adoption of in-network computing. This workshop invites submissions of in-network computing studies that explore advancements in information-centric networking (ICN), edge computing architectures, network softwarization technologies such as software-defined networking (SDN) and network functions virtualization (NFV), and Web3-related technologies. We also solicit studies on the applications of these networking technologies in emerging domains such as XR, DT, and CPS.

IMPORTANT DATES

1. FEB. 27, 2025
Workshop Paper Submission
2. MARCH 17, 2025
Paper Acceptance Notification
3. APRIL 15, 2025
Camera-ready Submission
4. MAY 20-22, 2025
Conference Date

Info & Submission

Webpage: <https://www-hasegawa.ist.osaka-u.ac.jp/dnetcomp2025>



Contact Us

D. Kondo: daishi.kondo@omu.ac.jp

Y. Hayamizu: hayamizu@nict.go.jp

J. Takemasa: j-takemasa@ist.osaka-u.ac.jp

TOPICS

Research topics include, but are not limited to, the following:

- ✓ Distributed computing and in-network computing
- ✓ Future internet (e.g., ICN, SDN/NFV, SCION, and others)
- ✓ Metaverse applications of in-network computing
- ✓ Network architectures for in-network computing
- ✓ Network management for in-network computing
- ✓ Security, privacy, and trust for in-network computing
- ✓ Switching and routing for in-network computing
- ✓ Programming models for in-network computing
- ✓ Programmable networking and dataplanes (e.g., P4, eBPF and others)
- ✓ Web3-related technologies (e.g., blockchain/DLT, IPFS) interacting with in-network computing

SUBMISSION INSTRUCTIONS

All paper submissions should follow the IEEE format specified also in the main HPSR conference. The page limit is SIX (6) printed pages (10-point font). Please check the below in detail.

– <https://hpsr2025.ieee-hpsr.org/authors/submission>

Submission link: <https://edas.info/N32839>

Scan me ! ->



BIOGRAPHIES OF CO-CHAIRS

Daishi Kondo received his BS degree in Engineering from Osaka University, Osaka, Japan, in 2013; his MAS degree in Interdisciplinary Information Studies from the University of Tokyo, Tokyo, Japan, in 2015; and his PhD degree in Computer Science from the University of Lorraine, LORIA (CNRS UMR 7503), Inria Nancy – Grand Est, Nancy, France, in 2018. From 2019 to 2022, he served as an assistant professor at Osaka Prefecture University, which later merged to become Osaka Metropolitan University. From 2022 to 2024, he continued as an assistant professor at Osaka Metropolitan University, and since 2024, he has held the position of associate professor there. He served as a TPC member for MSN in 2020, 2021, and 2022, as well as for IEEE ICC in 2024 and 2025. He is also scheduled to serve as a TPC Chair at IEEE ICCE 2025.

Yusaku Hayamizu received B.E., M.E., and Ph.D. degrees in engineering from Kansai University in 2014, 2016, and 2019, respectively. He is currently a researcher at the Network Architecture Laboratory in National Institute of Information and Communications Technology (NICT). His research interests include computer networks, information-centric networks, routing, congestion control, in-network computing, and network softwarization. He is the recipient of Best Paper Awards from several IEEE ComSoc conferences such as CQR2017 and LANMAN2018. He also received Best Tutorial Paper Award from IEICE Communications Society in 2024. He serves as a TPC member of IEEE ICC/GLOBECOM CQRM symposium since 2020 to present. He is a member of the ACM, the IEEE, and the IEICE.

Junji Takemasa received his master's and Ph.D. degrees in information science from Osaka University, Japan, in 2016 and 2019, respectively. He has worked on research topics including programmable networking, future internet and high-speed networked systems. He received the Best Paper Award from IEEE ICNP 2024 as well as the Best Tutorial Paper Award from IEICE Communications Society 2024. He has served on the organization committees for IEEE LANMAN 2022, ACM ICN 2022, ICNC 2024 and COMSNET 2025, and on the program committees for IEEE/ACM IWQoS 2022, IEEE/IFIP NOMS Workshop on AnNet 2024, IEEE ICC 2024 and 2025.