Call for Papers

Computer Communications, Elsevier, Special Issue on

Ambient Intelligence in Communication, Computation and Networking for Future Internet of Things

Aims and Scope

Ambient Intelligence (AmI) will possibly represent one of the most significant advancements in the near future Internet of things (IoT). IoT is an emerging technology with rapid growth in various applications, such as enabling the shift of intelligence towards edge of the network, establishing smart environments, empowering the Industry 4.0, etc. Due to the increasing of these devices, it forms an extensive network with a vast amount of data exchanges and their computations. But, handling such vast communications and computations is challenging. There are several approaches in the literature to addressing these challenges, but they are address with human interventions and not on the fly. Hence, The AmI is intended to minimize the human intervention in the communication, computation, and networking issues on the fly by adopting the network properties. The features of AmI, such as sensitivity, adaptive, responsiveness, and intelligence, help address these challenges. The AmI relies on the data to adapt or respond to the environment. Since the IoT generates a vast amount of data, it can be analyzed on the fly and react accordingly to the network properties.

The proposed special issue aims to attract, collate, and archive high-quality original research works from academic researchers and industry practitioners in the novel area of AmI in communication, computation, and networking (C2N) for the Internet of things, in order to fully leverage the potential capabilities and opportunities brought by this area. The primary technical research direction is to contribute to the Internet of things with insignificant human intervention in architectures, algorithms, protocols, infrastructures, etc., concerning C2N. It also aims to provide worldwide researchers and practitioners with an ideal platform to innovate new solutions targeting vital challenges.

Relevant topics include, but are not limited to:

- Intelligent Communication Protocols of Internet of Things
- Dynamic Resource provisioning and management through Ambient Intelligence
- Energy-optimized communication, computing, and network architectures for Intelligent IoT
- Ambient Intelligence in Cross-layer optimizations for IoT
- Cache management in Internet of Things through Ambient Intelligence
- Mobility-aware Intelligent Internet of Things
- Ambient Intelligence for Interoperability-enabled Internet of Things
- Data aggregation and Analytics for Internet of Things in Ambient Environments
- Digital Twins using the data of Internet of Things
- Ambient Architecture designs between Cloud, Fog and Edge for IoT
- Distributed computing architectures, frameworks, models and algorithms
- Parallel or Distributed computations for IoT
- Containerization and serverless computing for Internet of things
- 6G-enabled Internet of things
- Intrusion, Threat and Risk Prediction in IoT
- Security, Privacy, and Trustworthiness in IoT
- Ambient Intelligence in Clustered edge intelligence
- Ambient Intelligence in IoT Testbeds, Simulations, Application and case studies (Industry 4.0, Renewable Energy, Domotics, Healthcare, Finance, etc.)

Submission Details

Each paper for submission shall strictly follow the instructions given in the "Guide for Authors" at https://www.elsevier.com/journals/computer-communications/0140-3664/guide-for-authors. Note that published papers and those currently under review by other journals or conferences are

prohibited. Each paper will be reviewed rigorously by three or more domain experts depending on the decision of assigned associate editor, and possibly in two rounds, i.e., minor/major revisions will undergo another round of review. Prospective authors are invited to submit their papers directly via the online submission system at https://www.editorialmanager.com/comcom/default.aspx. It is important that authors select **'VSI: AmI in CCN for futureIoT'** when you reach the "Article Type" step in the submission process. For more information, please contact the Guest Editors.

Important Dates

- Closing date for the submissions: **15th July 2022**
- Date for the sending all acceptance decisions for all papers: **31st October 2022**

Guest Editors:

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