Special Issue

Deep Learning Techniques for Semantic Web in Web of Things (WoT) and Internet of Everything (IoE)

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Aims and Scope

With the rise of the global economy and Electronic Commerce (EC), efficient inter-organizational planning and deployment for value chain processes have become important. Radio-frequency Identification (RFID), Near Field Communication (NFC), and related wireless technologies are evaluated to be some of the most significant technological innovations in the twenty-first century. In the past few years, wireless and context-awareness technology have led to much hope and optimism. The mainstream press hails these innovations as the avant-garde in technology and business. The Internet of Everything (IoE) goal is the intelligent connection of people, processes, data, and things. The IoE describes a world where billions of objects have sensors to detect, measure, and assess their status, all connected over public or private networks using standard and proprietary protocols. Hence, this special issue investigates the state-of-art AI and deep learning approaches for successful systems or applications in an IoE environment. In addition, this special issue also wants to understand the direct and indirect effects of using these smart technologies to build language information processing based on the Web of Things (WoT) around smart cities and societies.

Deep learning techniques (e.g., Neural Network (NN), Convolutional Neural Network (CNN), Recurrent Neural Network (RNN), Long Short-term Memory (LSTM), Gate Recurrent Unit (GRU), etc.) have been popularly applied to data analyses and management. For instance, CNN and auto-encoder can be used to analyze pattern recognition and extract the features of data in various applications (e.g., regression, classification, image recognition, etc.). Furthermore, the RNN, LSTM, and GRU network can be used to perform the time-series inference for time-series oriented data (e.g., speech, weather, transportation, stock market, etc.). For instance, the deep learning techniques can be applied to IoE and the WoT for collecting the sensing data and controlling the devices via different IoE and WoT specifications and semantic computing techniques in the applications of agriculture, energy, enterprise, finance, healthcare, industry, public services, residency, retail, and transportation.

Suggested Topics

Papers are welcomed on the following topics but not confined to:

- Deep learning techniques for semantic web and IoE
- Deep learning techniques for knowledge discovery
- Deep learning techniques for ontology
- Deep learning techniques for databases
- Deep learning techniques for information retrieval
- Deep learning techniques for language technology
- Deep learning techniques for human-computer interaction
- Deep learning techniques for Social Network Analysis (SNA)
- Deep learning techniques for IoE and cloud-edge computing
- Deep learning techniques for Internet of Vehicle and transportation systems
- Deep learning techniques for Smart City, Smart Factories, and smart home
- Deep learning techniques for medical systems and healthcare applications

Important Dates

30 June 2023
Paper Submission Deadline

15 September 2023
Notice of the first round review

15 October 2023
Revision due

Q4 2023
Final notice of acceptance / reject

2024 (month not yet defined)
Expected publication date

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