

Guest Editorial Preface

Special Issue on Semantic Analysis in Web-Based Learning and Teaching Platform

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Semantic analysis in Web-Based Learning and Teaching Platform addresses the derivation, description, integration, and use of semantics for all types of resource including data, document, tool, device, process, and people. Since the COVID -19 pandemic has disrupted the normal lifestyle of people across the globe, the virtual world has come to the rescue. Almost all the academic institutes have also shifted their base to virtual platforms to conduct classes online. In this scenario, Web-Based Learning takes major role in online teaching which gives a lot of opportunities to the researchers to come with several Semantic analytics. The scope of Semantic analysis includes, but is not limited to, analytics, semantics description languages and integration, interfaces, and applications including biomed, IoT, deep learning, cloud computing, SDN, wearable computing, context awareness, mobile computing, search engines, question answering, big data, multimedia, and services.

The six papers in this special issue cover a range of aspects of Semantic analysis in Web-Based Learning and Teaching Platform. Each of these papers has undergone full double blind peer review, prior to being selected for this special issue.

With the article, “Novel Methodology for Cloud of Things-Based Secure Higher Education Framework Using Zero Knowledge Proof System,” the authors address the challenges of Cloud of Things (CoT) which has shaped the existing business process into a new orientation in terms of performance, usability, and reliability.

In “Meta-Analysis of EMF-Induced Pollution by COVID-19 in Virtual Teaching and Learning With an Artificial Intelligence Perspective,” Sanjita Das, Shilpa Srivastava, Aprna Tripathi and Saumya Das presents a study that is targeted to detrimental effects of EMF radiation on various biological systems mainly due to online teaching and learning process by suppressing the immune system.

In “Possibilities and Challenges of Online Education in India During the COVID-19 Pandemic,” Souvik Sengupta compares different features and facilities available in some widely used online platforms and analyze their suitability from the perspective of socio-economic constraints of students in India.

Suplab Kanti Podder and Debabrata Samanta explore how learning theories enhance and better support existing learning practices in their paper “Green Computing Practice in ICT-Based Method: Innovation in Web-Based Learning and Teaching Technologies.” ICT experts and entrepreneurs believe in initiating the virtual classroom operations for the betterment of future and protecting from the faster growing technology era in education and research industry.

In “A Novel Approach for Semantic Web Application in Online Education Based on Steganography,” the Steganography requirement for the Semantic web is discussed.

Anushree Sah, Saurabh Rawat, Tanupriya Choudhury and Bhupesh Kumar Dewangan compares and reviews different layout model for the discovery of services, selection of services and composition of services in Cloud computing in “An Extensive Review of Web-Based Multi-Granularity Service Composition: ARWBSC.”

May these contributions pave the way for the broad and open waters ahead with all the new developments Web-Based Learning and Teaching Platform.

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