

Special Session

« Visual Analytics and Interactive Visualization on Big Data »

For

IEEE IEMCON 2018 - The 9th IEEE Annual Information Technology, Electronics & Mobile Communication Conference 1-3 November, 2018 - Vancouver, BC <http://iee-iemcon.org/>

Coordinator and Chair:

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Scope:

The rapidly growing expansion of available raw data has provided many new opportunities to both academics and industry regarding research and business opportunities. Numerous public and private organizations have been collecting and storing big data for the purpose of data-driven decision-making and policy-making. Recently, the Internet of Things (IoT), electronic health record systems, social media, data management systems, and other devices and systems enabled rapid accumulation of various data. Data science uses diverse methods, algorithms, and systems to extract information, knowledge, and insights from these big data. Data analytics is to detect, understand, and communicate useful/valuable pattern in data by the extensive and systematic use of data, statistical/quantitative analysis, and various models, which leads to intelligent decisions and actions. When traditional data analytics techniques are applied to big data, there are many challenges due to the rapid growth in the volume, variety, and velocity of big data. To handle and extract knowledge and insights from big data, visual analytics (VA) has received considerable attention recently as a solution to such challenges. VA utilizes interactive visualization to enhance human analytical reasoning. VA leverages human perception to intuitively discover patterns, trends, clusters, outliers, and frequencies, which provides knowledge and insights into the big data.

This special session focuses on the utilization of existing VA techniques on various big data as well as the development of novel visualization and VA techniques. Advances in hardware and software of computer graphics and animation open new ways of visualizing big data including virtual reality, augmented reality, and web-based visualization. VA can provide solutions to the analyses of homogeneous/ heterogeneous, contradictory, incomplete, and/or multimodal big data in the areas of cybersecurity, healthcare, social media, business intelligence, IoT, education, management, and others.

Topics of interest include, but are not limited to:

- Utilization of existing VA techniques on big data
- Novel visualization and VA techniques on big data
- Interactive visualization of social networks of big data
- VA on high-dimensional, multimodal, multimedia, and/or heterogeneous big data
- VA on IoT big data
- VA on big data using virtual reality and augmented reality technologies
- Three-dimensional visualization on big data
- VA on big data with other human senses to enhance human analytic abilities
- Novel interaction devices and techniques of VA
- Evaluation/usability tests of VA on big data with practitioners
- Surveys of VA on big data
- Efficient combination of VA and big data analytics

Paper Categories:

Regular Paper – 7 pages maximum (3 additional pages allowed but at an extra charge)

Short Paper (Work-in-Progress) – 6 pages maximum (2 additional pages allowed but at an extra charge)

Poster – 5 pages maximum

Regular papers should present novel perspectives within the general scope of the conference.

Short papers (Work-in-Progress) are an opportunity to present preliminary or interim results.

Posters are intended for ongoing research projects, concrete realizations, or industrial applications/projects presentations.

Paper Submission Info:

IEEE IEMCON uses EDAS for submission.

Authors need to:

1. Create an account (if not already registered) with EDAS at <http://edas.info>
2. Submission link: <https://edas.info/newPaper.php?c=24576&track=92168>

Important Dates:

Full Paper Submission: 2nd September 2018

Acceptance Notification: 17th September 2018

Final Paper Submission: 25th September 2018

Presentation Submission: 20th October 2018

Conference: 1st- 3rd November 2018

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