Guest Editorial:
Special Issue from ISCA Fall--2017 SEDE Conference

This Special Issue of IJCA is a collection of five refereed papers selected from the SEDE 2017: 27th International Conference on Software Engineering on Data Engineering, held during October 2--4, 2017, in San Diego, CA, USA.

Each paper submitted to the conference was reviewed by at least two members of the International Program Committee, as well as by additional reviewers, judging the originality, technical contribution, significance and quality of presentation. After the conferences, five best papers were recommended by the Program Committee members to be considered for publication in this Special Issue of IJCA. The authors were invited to submit a revised version of their papers. After extensive revisions and a second round of review, the five papers were accepted for publication in this issue of the journal.

The papers in this special issue cover a broad range of research interests in the community of computers and their applications. The topics and main contributions of the papers are briefly summarized below.

PETER J. GRAZAITIS of the U.S. Army Research Laboratory, Aberdeen Proving Ground, MD   and MARK R. CAMMARERE of Technology Service Corporation Trumbull, CT, USA presented in their paper "Visualization of Dynamic Fluid Characteristics for Hose and Pipeline Systems in Army Operational Environments" the challenges that the Army must deal with when building out the supply chain from theater entry point to the forward operating bases and resupply points. In addition to security and concealment factors, Army warfighters must factor in equipment availability, terrain elevation changes that impact the hydraulic pressures in the line, and limited lift resources to haul the equipment to the field. All of these factors drive the selection of the route that will be used to meet the desired flow rates and demands of deployed forces.

ESTEBAN SEGARRA and BRADFORD TOWLE JR. of Florida Polytechnic University, in Lakeland Florida, USA, proposed and evaluated in their paper "Application of an Augmented Reality Device as a Rangefinder and Odometry Source" that the technology used in augmented devices can be harnessed as a viable sensor for a robotic platform. With this in mind, several test results were presented demonstrating the feasibility of using Augmented Reality (AR) sensors. Experimentation with the HoloLens concluded that the device is capable of sustaining odometry, localization, and acquiring distance measurements while under movement.

CONNOR SCULLY-ALLISON, HANNAH MUÑOZ, VINH LE, SCOTTY STRACHAN, ERIC FRITZINGER, FREDERICK C. HARRIS, JR. and SERGIU DASCALU of University of Nevada Reno, USA, introduced in their paper "Advancing Quality Assurance Through Metadata Management: Design and Development of a Mobile Application for the NRDC" the design, implementation, and impacts of a cross-platform mobile application that facilitates the collection of metadata for in-situ sensor networks and provides tools assisting Quality Assurance processes on remote deployment sites. Specifically, the proposed application allows for the near-real time update and centralized storage of contextual metadata.

MARCO X. BORNSCHLEGL, KEVIN BERWIND, and MATTHIAS L. HEMMJE of the University of Hagen, Hagen, Germany described in their paper "Modeling End User Empowerment in Big Data Analysis and Information Visualization Applications" how handling the complexity of data requires new techniques with regard to data access, visualization, perception, and interaction for supporting innovative and successful information, informed decision making, and business strategies. After deriving and qualitatively evaluating the conceptual IVIS4BigData model, a set of conceptual end user empowering use cases for each IVIS4BigData processing stage were modeled in their paper

TIMOTHY OLADUNNI and SHARAD SHARMA of Bowie State University, Bowie, MD, USA presented in their paper "Deep Learning and Hedonic Pricing" an overview of deep learning and hedonic pricing (which suggests that the price of a differentiated commodity is a function of the implicit prices of its composite attributes). They then developed a predictive algorithm based on this concept and compared the performance of deep learning with a ridge regression and came up with an improvement of prediction by 27%.

As guest editors we would like to express our deepest appreciation to the authors and the program committee members of the conference these papers were selected from.

We hope you will enjoy this special issue of the IJCA and we look forward to seeing you at a future ISCA conference. More information about ISCA society can be found at http://www.isca-hq.org.

Guest Editors:

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