

Discovery

We SHARE to inspire and ignite ideas for
Information Systems Technology & Design (ISTD) Pillar!

The titles featured here are to give you a peek into the wealth of resources we have. We hope, through this will encourage you to explore and read further. Share with us topics of importance to ISTD and we can introduce relevant titles from some [400,000 eBooks](#) we carry.

May 2016

PUBLICATIONS BY ISTD

Introducing Cyber Security at the Design Stage of Public Infrastructures: A Procedure and Case Study



Co-authored by Professor Aditya Mathur

Current methodologies for the design of complex public infrastructure help to form quality systems for water treatment, electric power grid, and transportation. But they fail to address cyber threats. Discover a methodology that considers cyber security in complex systems design in this [article](#). Such a design is expected to improve a system's resilience to cyber-threats.

Source: [Complex Systems Design & Management Asia](#) (January 2016)

Estimation of Virtual View Synthesis Distortion Toward Virtual View Position



Co-authored by Assistant Professor Ngai-Man Cheung

The authors propose an analytical model to estimate depth-error-induced virtual view synthesis distortion (VVSD) in 3D video. The model was shown to successfully estimate the relationship between VVSD and the distance between reference and virtual views. So it may be used as part of a set-up for capturing or distortion of data at particular virtual view positions, when depth information is compressed.

Source: [IEEE Transactions On Image Processing](#) (May 2016)

BIG DATA

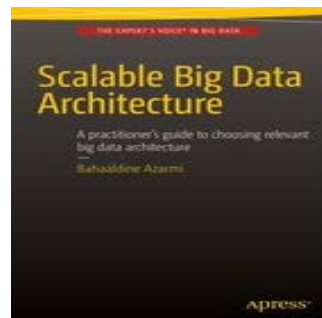
Role of big-data in classification and novel class detection in data streams



Data streams are sequences of digitally encoded coherent signals (packets of data) that are infinitely long. So, it is difficult to store and process data streams. You can read about an efficient string-based methodology [here](#), which can process data streams to address the processing challenges.

Source: [SpringerOpen](#) (March 2016)

Scalable Big Data Architecture: A Practitioner's Guide to Choosing Relevant Big Data Architecture



When Big Data becomes too complex, complex data processing jobs can be assigned to Hadoop-based big data architecture. This book helps you select a relevant combination of big data technologies available within the Hadoop ecosystem.

Source: [Safari.Tech](#) (2016)

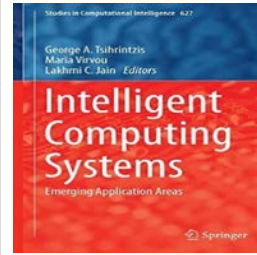
Computing reviews



Check out the 20th Annual Best Reviews and Notable Books & Articles in Computing. The Best Review discusses the book entitled 'Alan Turing: the enigma'. Read the 23 nominated reviews [here](#). You will also be able to view a list of 92 Notable Books and Articles in Computing published last year. The list is available [here](#).

Source: [Computing Reviews](#) (May 2016)

Intelligent Computing Systems-Emerging Application Areas



This book discusses emerging scientific and technological areas where Intelligent Computing Systems provides efficient solutions. Find out how Intelligent Computing Systems utilizes computational methodologies that deal with complicated real-life problems.

Source: [Studies in Computational Intelligence](#) (2016)

INTERNET OF THINGS (IoT)

A context-aware search system for Internet of Things based on hierarchical context model



Typical web search approaches miss the mark in IoT search requirements, as they lack awareness of the context relationships. To address these issues, the authors came up with a hierarchical context model that represents the IoT objects and their contextual relationships. This model paves the way for web searches that will be able to consider users' context.

Source: [Telecommunication Systems](#) (May 2016)

Management of Cyber Physical Objects in the Future Internet of Things



This book emphasizes new methods, architectures, and applications for the management of Cyber Physical Objects (CPOs). It covers topics linked to CPOs, such as resource management, hardware platforms, and control and estimation over networks. You will also learn about agent-oriented CPOs, communication support for CPOs, how CPOs are used in daily life, and CPOs in Complex Systems.

Source: [Internet of Things](#) (2016)