# Topic: Intelligent xxxxxxxxxxx

# Area: Big Data Analytics Systems

by

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A topic proposal submitted to the School of Computing

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# Subject Area: Big Data Analytics Systems

We are living in a digital era where thousands of connected devices are continuously generating massive amount of data, and we face a critical challenge in storing and processing the massive data to extract usable knowledge. According to P. Russom [47], “big data analytics is where advanced analytic techniques operate on big data”. Adding to this problem, data constantly changes over time, and therefore, analyzing big data involves dealing with a number of challenges such as frequency, dimensionality, irregularity, outliers, and noise apart from the 6V challenges of big data namely volume, velocity, variety, veracity, variability and value [1]. Developers of big data analytics systems have to not only deal with the above mentioned issues, but also have to consider computation time, security, privacy, fault-tolerance, and the quality of end results [48].

# Proposed Research Topic: Intelligent xxxxxxxxxxxxx

[Description]

[System Diagram / Concept Diagram ]

**Figure 1. xxxxxxxxxxxxxx**

## Motivation

[…..]

## Research challenges

[description….]

* **[ Key Points ]**
* [ Sub points ]
* **[ Key Points ]**
* [Sub points]

# Literature Study

We present a literature study on the research challenges as listed in Section 2.2 which we intend to address in our research.

## [ Use the Key Points as the title from Section 2]

[General introduction / description ]

### [ Sub point from Section 2]

[Literature study…]

## Research Proposal

The next phase of research proposal will be composed of 70% literature review and 30% proposed research.

# References

1. M. Mohammadi, A. Al-Fuqaha, S. Sorour and M. Guizani. 2018. Deep Learning for IoT Big Data and Streaming Analytics: A Survey. *IEEE Communications Surveys & Tutorials*.
2. L. Wan, and T. Ge. 2016. Event regularity and irregularity in a time unit. 2016. *IEEE 32nd International Conference on Data Engineering (ICDE)*, Helsinki. pp. 930-941.
3. "Falls". [online accessed January, 2018]: <http://www.who.int/en/news-room/fact-sheets/detail/falls>.
4. in data streams. *Artificial Intelligence Review*, 45: 235.