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## Proposition de Sujet de Mastère - 2017-2018

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### A graph-based approach for Tweets Credibility assessment

**Laboratories/research groups:** LISI Computing Laboratory for Industrial Systems, INSAT, JARIR: Joint group for Artificial Reasoning and Information Retrieval (www.jarir.tn).

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**Description :**

Twitter evolved from a basic social networking platform containing only personal chat to a news media (Kwak et al. 2010). Through its trending topics feature, twitter provides its users with instant insights about events all around the globe. However, since tweets are written by ordinary users and no audit is performed on them, their credibility may be in jeopardy. Since credibility is a major criterion in information quality, numerous solutions were proposed to evaluate tweets credibility. By analyzing previous solutions, we noticed that there were some shortcomings in tweets credibility assessment mainly, the omission of the quote tweet and the immature use of the retweet tree. In this project we intend to enhance existing propagation-based approaches and derive a property graph from CredBank Corpus (Mitra et al. 2015). Mainly, this project aims to:

- 1- Enhance propagation-based solution for tweets credibility assessment by analyzing user credibility through both his topical expertise and social affiliations.
- 2- Use CredBank, which is an annotated corpus containing 60 million tweets along with their credibility labels.
- 3- Apply measures like eigenvector centrality and betweenness on the property graph to derive their impact and relevance to credibility assessment.

**Key-words :** Twitter credibility evaluation; credibility corpus; graph theory.

**Technologies& Languages :** Python, JSON, NetworkX, SNAP.

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**References :**

- [1] Kwak H, Lee C, Park H, Moon S (2010) What is Twitter, a Social Network or a News Media? In: Proceedings of the 19th International Conference on World WideWeb, WWW '10, pp 591-600
- [2] Mitra T, Gilbert E (2015) CREDBANK: A Large-Scale Social Media Corpus With Associated Credibility Annotations. In: Ninth International AAAI Conference on Web and Social Media