

Hraiz R., Khader M., Awajan A., Al-Kouz A. (2017) Semantic Elements Extraction based on Syntactic Structure of Arabic Sentences. Proceedings of the International Arab Conference on Information Technology. December 22-24, 2017. Yasmine Hammamet Tunisia.

## **Abstract**

Huge amount of data is uploaded to the Internet daily, most of this data are a user-generated data. User-generated data impose challenges in processing by machines because of its unstructured nature. This paper proposes a new approach for extracting semantic relations from Arabic sentences. The proposed approach analyzes the syntactic structure of Arabic sentences and recognizes its semantic elements. The proposed approach consists of three stages: syntactic analysis, segmentation and semantic relation extraction phase. The extracted elements from the text are organized in XML format. The proposed approach has been evaluated using a dataset of 15 sentences from AL-Jazeera website. The results have shown that the proposed method is reliable and promising in extracting semantic elements.