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In Collaboration with

University of Westminster, UK.

**An Ontology based approach to an Air Traffic
Controller communication simulator**

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Submitted in partial fulfilment of the requirements for the

B.Eng. (Hons) Software Engineering Degree

Department of Computing

May 2019

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Abstract

Radiotelephony is the means how vital information related to flight and aircraft is exchanged between an ATC controller and a pilot. This information exchange is governed by a special set of language rules and standards called ATC communication phraseology. This phraseology is different from standard English language syntax and grammar therefore any aviator needs a special training on this. Existing phraseology training systems requires the assistance of another party and also phraseology accuracy is not guaranteed since it depends on the reliability of the other party involved. This research proposes a novel approach to an ATC communication simulator based on ontologies which eliminates the requirement of another party involvement during the training process. The proposed research based solution will fully automate the ATC communication training process for pilots while maintaining phraseology accuracy at the maximum.

Subject Descriptors :

- Knowledge modeling
- Ontology Construction
- Natural Language Processing
- Information extraction

Key Words: , Knowledge model construction, RDF reasoning, RDF schema