

Empirical Study of Fuzzy Quantification Models for Linguistic Descriptions of Meteorological Data

Título Empirical Study of Fuzzy Quantification Models for Linguistic Descriptions of Meteorological Data

Autores Carlos Heble Lahera, [Andrea Cascallar Fuentes](#), [Alejandro Ramos Soto](#), [Alberto Bugarín Diz](#)

Tipo Comunicación para congreso

Fonte  [2020 IEEE International Conference on Fuzzy Systems](#), Glasgow (Reino Unido), 2020.

ISBN 978-1-7281-6932-3

Abstract In this work we present an experimental comparison of six widely used quantification methods (Zadeh's scalar and fuzzy cardinality, Yager's OWA, Delgado's GD, Sugeno integral and Vila's VQ) when evaluating Type-1 and Type-2 linguistic descriptions of data generated from meteorological data provided by the Galician Meteorological Agency MeteoGalicia. The objective of this study is to evaluate if there are significant differences among these models. We ranked the generated descriptions based on their fulfilment degree for each quantification model and we analysed those results calculating the Pearson correlation coefficient. Results show that there are not significant differences in the models when evaluating Type-1 descriptions. However, in Type-2 evaluation the methods can be grouped in three clusters with a significantly different behaviour among them: i) Zadeh's scalar cardinality, Delgado's GD and Zadeh's fuzzy cardinality, ii) Yager's method and iii) Vila's VQ.

Palabras clave fuzzy quantification, linguistic descriptions of data, natural language generation

DESCARGAS

 Referencia BibTex

 Descargar versión do editor

PROXECTOS DE INVESTIGACIÓN

BIGBISC: Aportando Intelixencia aos procesos de negocio mediante soft computing en escenarios Big Data

PROGRAMAS CIENTÍFICOS

Tecnoloxías da Linguaxe Natural