



## **New linguistic data summarization approach in predictions problems in a project management application**

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In the proposal, multilayer networks are built where the layers represent the different elements that make up the linguistic summaries and systems with single-value triangular neutrosophic numbers are combined for the computation of the inference. In the validation, the new inference model was applied in the scenario of making-decision in project management and the “Arithmetic mean of the error in the prediction” was applied as a metric. Comparisons are made by evaluating the inference model with different abstract parameters. In addition, the linguistic summaries are combined with the fuzzy cognitive maps and the extension NCM\_LDS is generated. The new proposed extension is compared with other map extensions, it is shown that the proposed inference mode-lo reports better results than the rest of the maps in the diagnostic stage, but that it does not have significantly better results than the m-FCM in the decision and prognosis stages.

The NCM\_Indeterminacy map is shown to be the one with the worst results.