



Computing with words is a computational method where the objects of computation are words and propositions drawn from a natural language rather than the ones and zeroes of binary. Computing with words is perhaps what makes humanity a unique animals species in many regards allowing us to communicate detailed abstract concepts, to reason, to make predictions based on experience and observation. Moreover, we can do those things even with a lack of empirical data, with imprecise, or fuzzy, information, and other deficits.

Now, Arindam Dey of the Department of Computer Science and Engineering, at Saroj Mohan Institute of Technology, Hooghly, working alongside Anita Pal of the Department of Mathematics, National Institute of Technology, Durgapur, India, have proposed a generalized algorithm, a generalized Diskrtra's algorithm, specifically, that might allow a computer to do some of what the [human brain](#) can do in the context of solving decision-making problems using information extracted from [natural language](#).

They have devised a [computer model](#) that can determine the rank of the shortest path which is a collection of words. In everyday language we would colloquially describe the shortest path between points in a space, the nodes, using fuzzy terms – adjectives – rather than numbers. The new model could allow a computer to describe paths in such fuzzy terms too without the need for raw numerical data.

Such a computer tool could utilise words to make decisions based on information that lacks numerical data and be of real-world applications in designing and running [transport systems](#), in logistics management, and many areas where nodes within a network and the connections between them need to be formulated and considered in an abstract rather than conventionally computational sense.

**More information:** Arindam Dey et al. Computing the shortest path

with words, *International Journal of Advanced Intelligence Paradigms* (2019). [DOI: 10.1504/IJAIP.2019.098577](https://doi.org/10.1504/IJAIP.2019.098577)

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