Sandra Mercado Pérez et al. propose a simulation of human behavior elements in a virtual world using decision trees. They present the development of the simulation of five possible human reactions within a virtual world, as well as the steps needed to create a decision tree that supports the selection of any of these reactions. For that creation it proposes three types of attributes, those are the personality, the environment and the level of reaction. The virtual world Second Life was selected because of its internal programming language LSL (Linden Scripting Language) which allows the execution of predefined animation sequences or creates your own.

Natarajan Meghanathan and Ilin Dasari present a comparison Study of Connected Dominating Set Algorithms for Mobile Ad hoc Networks under Different Mobility Models. Simulations are conducted under a diverse set of conditions representing low, moderate and high network density, coupled with low, moderate and high node mobility scenarios. For each CDS, the paper identifies the mobility model that can be employed to simultaneously maximize the lifetime and minimize the node size with minimal tradeoff. For the two VANET mobility models, the impact of the grid block length on the CDS lifetime and node size is also evaluated.

A. gandhimathi, Dr. T. Meenambal present a Spatial Prediction of Heavy Metal Pollution for Soils in Coimbatore, India based on universal kriging. The aim of this analysis is to investigate the level, causes of heavy metal contamination in soil and prediction of heavy metal at various locations in the vicinity of industries and around Coimbatore city.

Elias David Nino Ruiz et al. present an Evolutionary Algorithm based on simulated annealing for the multi-objective optimization of combinatorial problems. The paper states a novel hybrid-metaheuristic based on the Theory of Deterministic Swapping, Theory of Evolution and Simulated Annealing Metaheuristic for the multi-objective optimization of combinatorial problems (Bi-Objective Traveling Salesman Problem). The proposed algorithm is named EMSA. Its results were compared with MODS Metaheuristic (its predecessor). The comparison was made using metrics from the specialized literature such as Spacing, Generational Distance, Inverse Generational Distance and Non-Dominated Generation Vectors. In every case, the EMSA results on the metrics were always better and in some of those cases, the superiority was 100%.

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