

An efficient and effective case classification method based on slicing

ABSTRACT

One of the most important tasks that we have to face in real world applications is the task of classifying particular situations and /or events as belonging to a certain class. In order to solve the classification problem, accurate classifier systems or models must be built. Several computational intelligence methodologies have been applied to construct such a classifier from particular cases or data. This paper introduces a new classification method based on slicing techniques that was proposed for procedural programming languages. The paper also discusses two of common classification algorithms that are used either in data mining or in general AI. The algorithms are: Induction of Decision Tree Algorithm (ID3) and Base Learning Algorithm (C4.5). The paper also studies the comparison between the proposed method and the two selected classification algorithms using several domains.

Keyword: Data mining; Classification problem; Classification algorithms; Slicing techniques; Case slicing; ID3; C4.5