

IMPLEMENTATION OF FUZZY TSUKAMOTO IN DETERMINING THE READINESS OF TAEKWONDO ATHLETES FOR COMPETITION

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ABSTRACT

Taekwondo is a martial arts sport originating from Korea. Taekwondo comes from three words, namely tae which means foot, kwon which means hand and do which means art. Taekwondo can be interpreted as the art of using empty foot and hand techniques. Taekwondo has two competition categories, namely Poomsae and Kyorugi. Kyorugi is a competition that shows a person's skills in fighting and applying taekwondo techniques. To take part in a match requires good physical ability and technical mastery. Taekwondo athletes will be declared ready to compete if they fulfill these requirements. This research aims to determine whether taekwondo athletes are ready or not to take part in a competition. This research uses the Tsukamoto fuzzy method to determine the athlete's level of readiness using physical endurance test scores, speed in launching kicks, reaction and technique as parameters. The research results show that the system can determine whether an athlete is ready or not to take part in a competition by comparing the membership value to the Decision output variable. The calculation results obtained from the system and calculations carried out manually provide the same results, indicating that the system has been able to provide accurate and consistent decisions with the manual calculation evaluation process.

Keywords: Scoring System, Fuzzy Tsukamoto, Taekwondo