ABSTRAK

PERBANDINGAN KINERJA ALGORITMA FUZZY TSUKAMOTO DAN DEMPSTER SHAFER DALAM SISTEM *SCREENING* *POST-TRAUMATIC STRESS DISORDER* (PTSD)

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Post-Traumatic Stress Disorder (PTSD) merupakan gangguan psikologis yang dapat terjadi pada seseorang yang pernah mengalami atau menyaksikan kejadian traumatis. Salah satu akibat yang dapat ditimbulkan apabila gejala PTSD tidak ditangani dengan baik adalah terganggunya kehidupan pengidap, baik kehidupan sosial, pribadi, akademis, dan lain-lain. Dalam penelitian ini dilakukan perbandingan kinerja dua algoritma, yaitu Fuzzy Tsukamoto dan Dempster Shafer yang diimplementasikan ke dalam sistem *screening* gejala PTSD. Dari hasil penelitian, Dempster Shafer memiliki performa rata-rata waktu yang lebih cepat yaitu 1095.27 Ms dan Fuzzy Tsukamoto sebesar 1118.82 Ms. Sedangkan untuk selisih perbandingan antara persentase hasil *screening* algoritma dengan Pakar, Fuzzy Tsukamoto memiliki tingkat akurasi yang lebih tinggi dengan selisih 13.77% dan Dempster Shafer sebesar 47.49%.

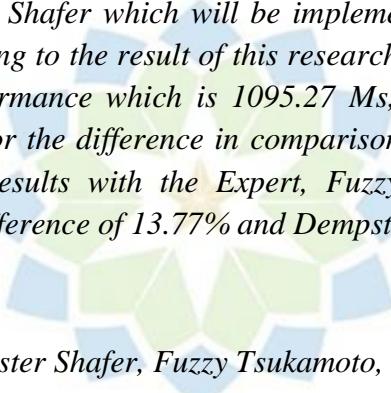**Kata Kunci :** PTSD, Dempster Shafer, Fuzzy Tsukamoto, Sistem Pakar.

ABSTRACT

PERFORMANCE COMPARISON BETWEEN FUZZY TSUKAMOTO AND DEMPSTER SHAFER ALGORITHM ON POST-TRAUMATIC STRESS DISORDER (PTSD) SCREENING SYSTEM

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Post-Traumatic Stress Disorder (PTSD) is a psychological disorder which could occur to someone who has experienced or witnessed traumatic events. One of the results that can be caused by PTSD symptoms if not well handled is disruption to the sufferer's life, which it can be social, personal, academic life, etc. This research aims to do performance comparison between two algorithms, Fuzzy Tsukamoto and Dempster Shafer which will be implemented to PTSD symptoms screening system. According to the result of this research, Dempster Shafer shows faster average time performance which is 1095.27 Ms, while Fuzzy Tsukamoto goes to 1118.82 Ms. As for the difference in comparison between the percentage of algorithm screening results with the Expert, Fuzzy Tsukamoto has higher accuracy level with the difference of 13.77% and Dempster Shafer by 47.49%.

Key Words : PTSD, Dempster Shafer, Fuzzy Tsukamoto, Expert System.