

**UNIVERSITI TEKNOLOGI MARA SEREMBAN 3**

**TECHNICAL REPORT**

**CLASSIFICATION SYMPTOMS OF MENTAL HEALTH PROBLEMS AMONG  
STUDENTS BY USING FUZZY INFERENCE SYSTEM**

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## **ABSTRACT**

This study investigate mental health to enhance understanding of anxiety, depression and stress, providing valuable insights into classifying symptoms of mental health problems and contributing to the existing body of knowledge in UiTM Seremban 3. Mental health problems are one of diseases that affect the lifestyle of students and they face difficulty to detect their mental health problems. Counselor of UiTM Seremban 3 have been using DASS-21 to detect and classify mental health problems. However, result from the DASS-21 is not precise. Therefore, a study was done to identify symptoms that affect a student's mental health problems and thus develop model of classifying mental health problems among students by using Fuzzy Inference System (FIS). The model of FIS have been develop by using 5 steps. The steps are define input and output variables, set the membership function, setup the rule base, fuzzification and defuzzification. The result from the developed model is found to be more plausible compared to result from the DASS-21 where the percentage error from all the symptoms is less than 7%. Comparison of the level of mental health problems among students from the three main faculties in UiTM Seremban 3 through this model show that student from Faculty of Sport Science Recreation (FSR) endure the highest level of all mental health problems covered in this study.