

UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

**INTEGRATED MODIFIED MEREC WITH TOPSIS MULTI-
CRITERIA DECISION MAKING**

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IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

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ABSTRACT

Method based on the Removal Effects of Criteria (MEREC) is a method for determining the objective weight of criteria. This technique involves a new concept for weighting criteria. Even though this method suitable to be implement for determining the weight of criteria, it also had problem which is this method unable to gain final decision. So, in this study we will implement MCDM to see different angle of MEREC by using different normalization method and distance method. Then, we integrated the proposed method with TOPSIS by using secondary data from previous study. TOPSIS helps decision makers organize problems to be solved, analyze, compare and rank alternatives. The result from modified MEREC will be integrated with TOPSIS to apply in an incremental analysis of robot. The modified MEREC integrated with TOPSIS is used to compare with previous method. The result for this study slightly different with previous study in ranking order of robots but the result still consistent and acceptable which is Robot 2 is the best robot that fulfil all criteria stated.