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INVENTION AND INNOVATION EXHIBITION (I-JaMCSIIIX) 2023

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Assessment Marks Management System: A Excel VBA Approach

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Abstract— The administration of course grades within higher education institutions has seen significant improvements thanks to the introduction of Teaching and Learning (T&L) technology. Integrated platforms like UiTM's e-Result Exam System (eRES) have been instrumental in storing, analyzing, and producing accurate results swiftly, reducing the time and effort compared to traditional methods that often led to inconsistencies. Consequently, instructors, who were traditionally responsible for this task, can now benefit from this convenience and focus on more impactful academic pursuits within their institutions and for their career advancement. However, the emergence of Outcome Based Education (OBE) and specific accreditation requirements have necessitated a precise alignment of systems to be truly beneficial. This alignment can sometimes make the data input appear more abstract or derived, requiring manual preprocessing of raw marks before they can be entered into such systems. This manual step introduces the potential for inaccuracies and inconsistencies, even in an otherwise excellent implementation. To address this challenge, this innovation has introduced an Excel VBA-based program capable of transforming raw marks from various assessments, questions, labels, performance indicators, and weightings into a format better suited for the system or any potential future variations, as long as they adhere to the label descriptors. Additionally, this tool offers flexibility in handling multiple contributors, multiple assessments, question breakdowns or combinations thereof, label string descriptions, marks or grade proximity, and more. In summary, this tool complements the existing system's functionality, resulting in improved computational accuracy and the resolution of complexities at a fraction of the time and cost.

Keywords— *Excel VBA tool, marks processing, academic, computation*



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