Malaysia Technology Expo2022 (MTE 2023)

MathBoard

**Synopsis**

In this modern age of technology, online classes and paperless documentation have overtaken handwriting. The digital representation of text story was started by the invention of the American Standard Code for Information Interchange (ASCII). This invention made it possible to represent some letters and characters in computer. However, it was limited to 127 characters (capital letters, small letters, digits, and punctuation marks). Languages that do not use the Latin (English) alphabet could only be typed in after the invention of Unicode. Unicode is a universal character encoding standard can represent more than 65000 unique characters including emojis, math characters and non-Latin characters on any device.

Typing text in different languages is possible now as keyboards support multiple languages. However, when it comes to math, there are a lot of symbols such as integration, square root, pi, phi, and fractions which are tedious to type. They might be available, but require multiple steps to be typed in. Some methods require juggling between different menus or tabs to obtain the right symbol. Some others require pressing different keys on keyboard or inserting a complicated code to do so.

This proposed keyboard provides a way to type any symbol by pressing only one key. This would save time and ease the process of typing mathematical scripts especially for mathematicians and scientists who need to carry out long and complex calculations. This keyboard would obviate the need to insert a complex code or to juggle between menus allowing the user to focus more on their calculations. We hope this invention will prove useful and help further the progress of science and technology.