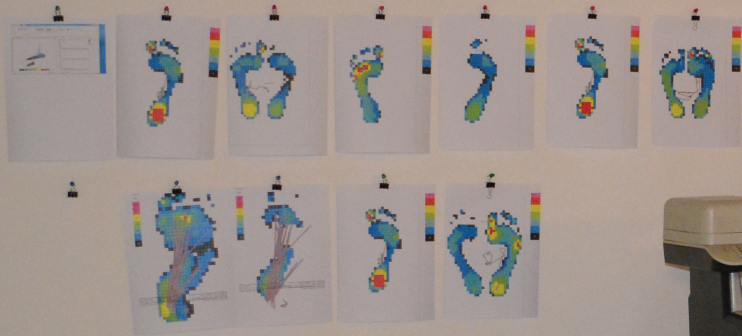


## **Can Your Foot Function As A Brain?**

Wan Zuha Wan Hasan, Omar Hussien, Ali Sabry and Aina Mardhiyah Mohd Ghazali

Data from WHO shows that about 300 million of the world's population had diabetes in year 2010, of which 3.4 million was from Malaysia. Often, people with diabetes are more likely to experience foot problem because of nerve damage resulting from poor blood circulation. Delay in detection and treatment will lead to other complications that lead to amputation of lower limbs.

However, with technology advancement, there are commercial devices that are able to diagnose ulcer development of diabetic foot due to nerve system damage. Since all nerve systems are connected to all parts of the human body, we believe that foot can act as a brain but requires support from high technology engineering equipment. This artefact shows an alternative solution to diagnose diabetic levels in future through measuring high pressure points of underfoot pressure. Based-on preliminarily research, results of using commercial EMED System, pressure patterns of underfoot pressure have shown good indicators for a group of people, with and without diabetes. Currently, this system is used to detect ulcer development of diabetic patients at the early stage. It is believed that this important improvement can substitute the usual clinical practices of taking blood samples to detect early diabetic development. This early prevention measure will significantly improve the quality of life towards diabetes-free communities.



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