A device for the assessment of vision in young children

Auckland Bioengineering Institute

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The earlier in life a vision problem can be detected, the better the treatment outcomes for the child in terms of vision, educational performance, neurological development, motor function and quality of life. However, at present there are no reliable, objective and clinically usable tests available that allow for the measurement and detection of vision problems in young children, a particularly challenging group to assess.

We are developing a new technology for the assessment of visual function in children. Our novel approaches are based on remotely monitoring and analyzing head motion and eye movements elicited by carefully designed drifting patterns.

We now wish to employ a post-doctoral fellow (for 2 year duration), on a project, funded by the Ministry of Business and Innovation and Employment, with skills in computer vision to join our translational research project.

The appropriate person would have the responsibility of developing and validating novel approaches to the head and eye measurement problem.

The ideal candidate would have skills in machine vision/learning applied to face and eye motion analysis. Strong data analysis and software skills (MatLab, OpenCV, C/C++) are required, as is a willingness to be involved in translating their work into “real-life” testing of people’s vision. The fellow will join our interdisciplinary team of internationally renowned researchers across engineering, vision science and clinical practice; in developing this new technology.

Interested applicants should contact Dr Jason Turuwhenua for further information j.turuwhenua@auckland.ac.nz