

SCHOOL OF ENGINEERING

HEAD MOUNTED MOTION TRACKING SYSTEM

FINAL REPORT

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Abstract

Head-mounted display (HMD) is new to the local industry, hence it has a great potential for research and development to be carried out locally. This report is presenting a project involving HMD in motion tracking technology. Analog compass and tilt sensors are applied under the gravimetric method of motion tracking. Both sensors are combined in a head-tracking module mounted on the HMD to allow head motion tracking. The head motion tracking capability is applied in controlling video camera pan and tilt mechanism to form a complete system. This system can be applied in various field involving real time video inspection and underwater exploration. Detail discussion of the system development will be presented in this report including previous work done in the similar field.

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