

SPACE SYSTEMS SYMPOSIUM (D1)
Enabling Technologies for Space Systems (2)

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MODULATED LIGHT CAMERA FOR SPACE APPLICATIONS AND ASSESSMENT VIA A TEST
BENCH SYSTEM

Abstract

The Modulated Light Camera Technology, developed by the University of Nottingham, illuminates a target with modulated laser light and measures the distance to the target scene by the phase change of the return, across an imaging array. This enables the measurement of distance to different parts of the scene simultaneously, on a pixel by pixel basis. One of these has been assembled under the ESA Innovation Triangle Initiative and supplied to SEA where there has been an assessment of the potential of this technology for a range of space applications, including Rover Vision, Rendezvous and Docking, and monitoring the deployment of large structures. The supplied piece has been tested with appropriate modulation schemes. Finally, a roadmap has been devised to show the developments needed to take this test system forward to a fully fledged spaceborne instrument.