



Intercontinental Remote Control of an Unmanned Ground Vehicle (UGV)

The Department of Production Engineering, Faculty of Engineering at University of Peradeniya (UPDN) in a program of research collaboration with academics from the University of New South Wales (UNSW), Australia, launched the first short course on Advanced Autonomous Systems in March 2014, a unique six-week module which was offered to staff members of the Faculty of Engineering.

The course was conducted by Dr. José E. Guivant & A/Prof. Jay Katupitiya of the Mechatronics Division of the School of Mechanical and Manufacturing Engineering of UNSW, in collaboration with Mr. V. Ratnaweera (Visiting Academic), Prof. S.D. Pathirana & Prof. K.S. Walgama of the Department of Production Engineering and Department of Engineering Mathematics at UPDN. Apart from the presentation of the course content and assignments, the highlight of the course was the real-time intercontinental tele-operation of a 120 kg Unmanned Ground Vehicle located in Sydney, Australia by the course participants from Peradeniya, Sri Lanka. The UGV was equipped with an advanced suite of sensors that enabled the participants to visualize a 3D point cloud depicting its surroundings, with a latency of only 120 ms.



Unmanned Ground Vehicle (UGV)
used in the experiment

For the Faculty of Engineering, UPDN, this was the first collaborative teaching/learning/practical program implemented and this initiates joint research activities between the two institutions. It is hoped that this program would provide an impetus to similar collaborative research and teaching programs with state of the art research centers worldwide.