Mercedes Arrival Marks On-Road Start to Safer Car Research

A smart black new Mercedes A170 is key to a research programme being carried out by Professor Reinhard Klette and his team in Computer Science, contributing to driver assistance and car or road safety. These are ultimate goals for major car manufacturers and collaborating academic institutions worldwide.

The research team at Tamaki contributes to Daimler’s driver assistance programme, and the arrival of the Mercedes (named HAKA1 = High Awareness Kinematic Automobile no. 1, and sponsored by Mercedes NZ) means theories can now be put into practice.

A bar along the top of the test vehicle’s windscreen houses two cameras carrying information to a laptop within the car.

Reinhard Klette says Daimler’s test vehicles monitor and process recorded video images in real time and further computing gear should make this possible in HAKA1.

Close collaboration brings results
The project involves collaboration between Professor Klette, PhD student Tobi Vaudrey, and students and staff based in Computer Science at Tamaki.

The Holy Grail for car manufacturers is ever-safer vehicles and that’s where computer vision research plays a growing part in creating a vehicle that will eventually be able to drive itself more safely than the driver.

Professor Klette explains: “The car’s main dashboard display may illustrate local data such as speed restrictions, road signs, or infra-red night vision video. A computer will measure the distance to the vehicle in front 25 times a second, and, if an accident is imminent, activate a pre-collision system which could reposition car seats for optimum airbag function.”

NZ drivers offer unique insights
New Zealand’s roads and driving conditions make this research doubly valuable. Our narrow, poorly signed roads, roundabouts and speed bumps look different to those in other countries and drivers behave differently. These combinations offer the opportunity for Daimler to test their software in a variety of environments to contribute to the multi-faceted research.

The team has also secured co-sponsorship from New Zealand’s telemetry specialists BLACKHAWK, who are involved in the design phase of the GPS component of telematics. BLACKHAWK will initially contribute tracking and technical service, support and advice.

Facts:
• The project is code named .enpeda.. - which is short for environment perception and driver assistance. The two stops after the name indicate progressive movement, compared to the single stop in front of the name.
• The project is open ended, with an initial commitment for at least five years.
• The project featured on TV3’s Campbell Live in March 2008, highlighting the work of PhD student Tobi Vaudrey.

Loss, Grief and Bereavement

The School of Population Health has begun a new post-graduate course looking at the impact of loss, grief and bereavement, for both clients and health professionals. The first of the two two-day seminars was presented earlier this month by Visiting Professor and Director of Psychotherapy Research (University of Memphis), Bob Neimeyer.

Professor Bob Neimeyer is internationally recognised and respected as a leader in teaching and research on loss and grief. He has conducted extensive research, is published on the topics of death, grief, loss, and suicide intervention, and was appointed to the American Psychological Association’s Task Force on End-of-Life Issues, where he helped implement a research and practice agenda for psychology in this critical area.

The seminar is part of an interdisciplinary International Speaker Programme collaboration between the Goodfellow Unit (General Practice and Primary Health Care), Mercy Hospice Auckland, and Nursing.

Peter Huggard, Senior Lecturer, General Practice and Primary Health Care said the postgraduate course attracted more than 51 participants representing a wide range of professional groups, with an additional 130 attending the seminar as a two day professional development programme.