ClanTect - WBSC Casablanca
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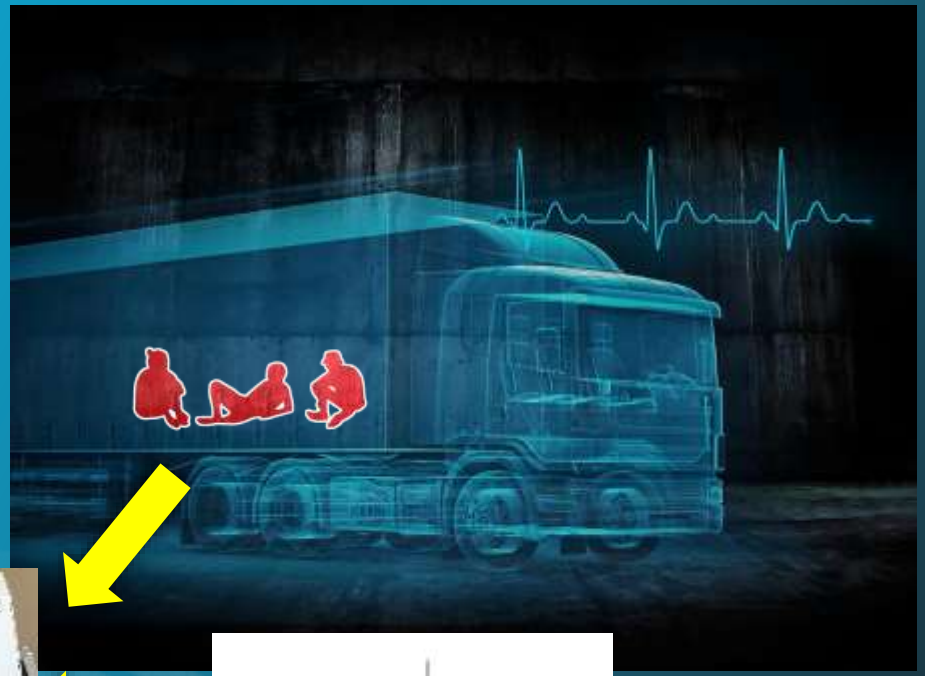
ClanTect MDT
Motion Detection Technology

ClanTect Motion Detection Technology – Addressing threat of illegal immigration

ClanTect MDT

- Used for the detection of hidden human (or animal) presence in vehicles
- Can detect any human induced vehicle motion
- Uses ISVR IP to make system immune to any external disturbances
- This enables very high accuracy detection



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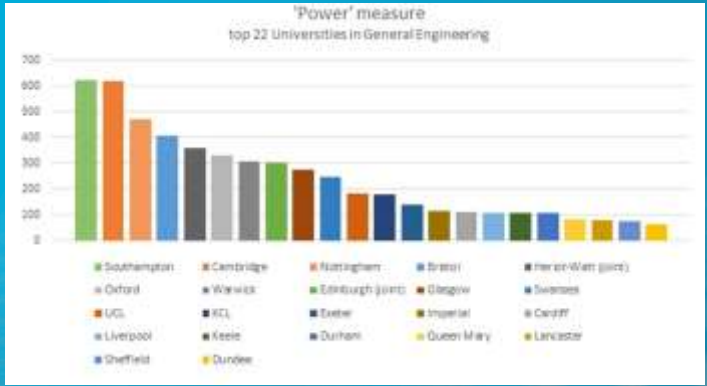
ClanTect Background

ClanTect Ltd is a spin-out company of the Institute of Sound and Vibration Research (ISVR) at the University of Southampton in the UK

- University of Southampton rated No. 1 in the UK for General Engineering in latest Research Excellence Framework Results
- Latest QS World University Rankings places the University of Southampton amongst the top 100
- Although ClanTect formed in 2016 the technology is based on **40 years** of experience in the field of sound, motion and vibration technology
- Company supported by world-leading scientific expertise at the ISVR



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Institute of Sound and Vibration Research

ISVR is the largest academic grouping in the world dedicated to N&V technologies (est. 1963)

- Uniquely for University department, two-thirds of funding from external research grants.

- Awarded Queen's Anniversary Prize for research achievements in 2006

- Large scale facilities include anechoic and reverberant chambers, motion simulators and acoustic water tanks.

- High level expertise covers a range of N&V disciplines
  - Underwater acoustics
  - **Advanced Signal Processing and Noise Reduction**
  - Smart structures, fluids and materials
  - Shock propagation modelling
  - Building & vehicle dynamics & acoustics
  - Sound field manipulation & 3D audio
  - Fluid borne noise
  - Auditory implant design
  - Human response to vibration

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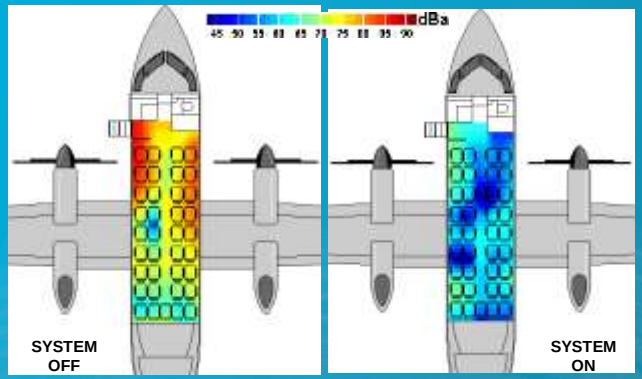
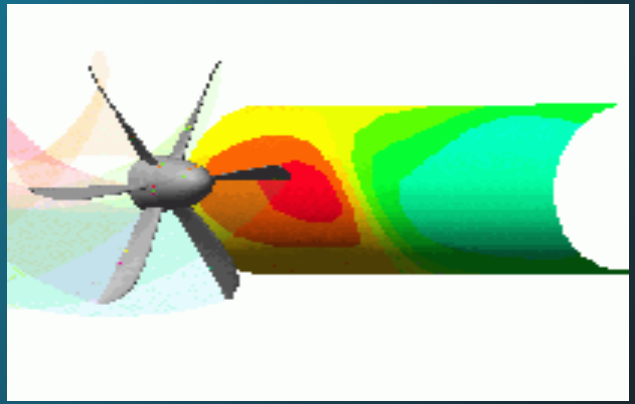
Suppression of Noise in aircraft

- Basic enabling research carried out at ISVR during the late 1980's
- Approach particularly suited to the control of tonal noise sources but broadband control also possible
- Most successful commercial application to Turboprop aircraft to tackle specific cabin noise problem from periodic excitation of fuselage
- First successful trial of ISVR system on BAe 748 twin turboprop aircraft in 1988
- Most successful commercial exploitation by Ultra now fitted to 1000 aircraft





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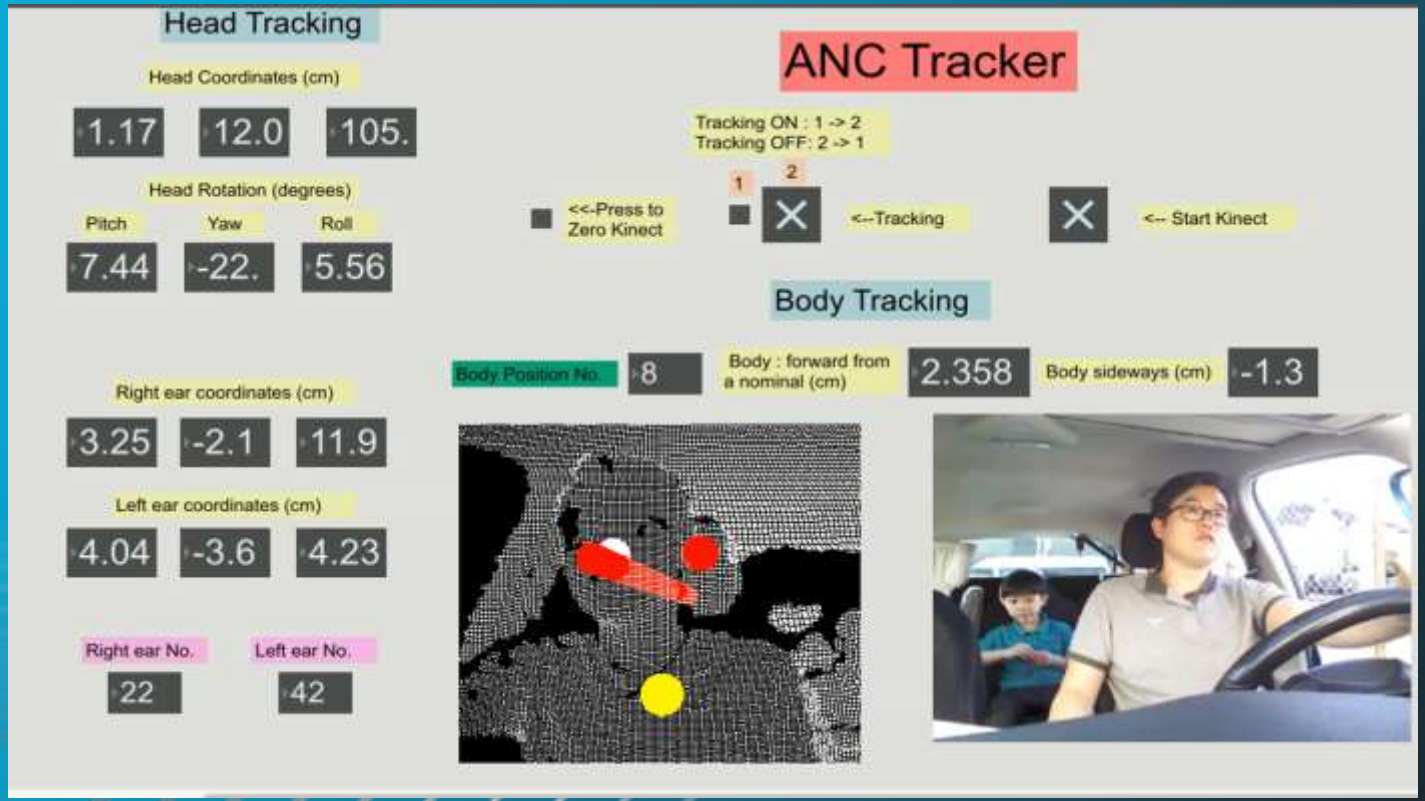
MDT based on ISVR approaches to reduction of noise in Aircraft, Cars and Maritime Vessels



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Exploits deep understanding of Vibration & Sound propagation in Structures

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ClanTect MDT Products & Services

V3 and V4 Terminals

The Terminals are in a protective metallic case, with a touch screen for operator ease of use. They are packaged in an astro-board and aluminium case for easy storage and transportation.

The Terminals are available in different configurations, including both “single-user” and “multi-user” options, depending upon whether there is a requirement for performing ‘”electronic searches” on more than one vehicle at a time. In addition, the Terminals can be used with different sensor types.

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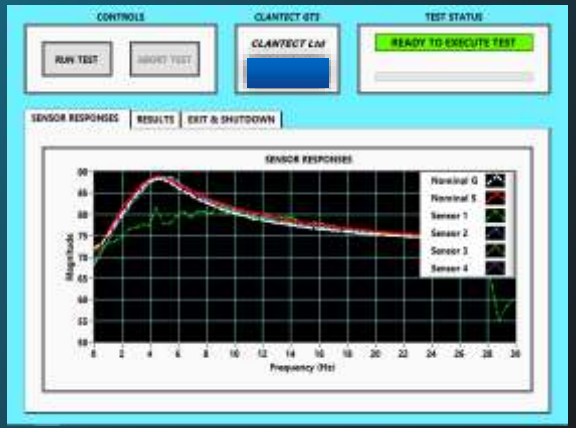
GTS Terminal

This Terminal is a “testing station” for the Sensors. The Terminal can assess and analyse the performance, health and accuracy of the Sensors, thereby ensuring optimum performance of the ClanTect system. The Terminal is designed and manufactured in a similar metallic casing, in a smaller form factor, compared to the V3 and V4 Terminals.



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ClanTect MDT Products & Services

ANPR (Automatic Number Plate Recognition) Camera

The ANPR camera is designed with a metallic casing, in order to ensure that it functions in an outdoor environment. The unit comes packaged with an Infra-Red Illumination, Magnetic Mounting Bracket and ethernet cabling that also provides power from the V3 or V4 terminal.

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ClanTect MDT Products & Services

Sensors

The Sensors are extremely sensitive devices. Once attached to the side of the vehicle, they can detect even the faintest of movement and vibration, coming from the inside.
The Sensors are also protected with metallic outer casings, to protect from damage. They are small and lightweight, so that they can easily and quickly be placed and removed from the side of the vehicles. Attachment is either with a weighted or magnetic base.

Cabling & Connectors

The cables connect the Sensors with the Terminals. These are designed for use in outdoor environments, hence they are protected with armoured casings and heavy duty end connectors.

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ClanTect MDT Products & Services

Training

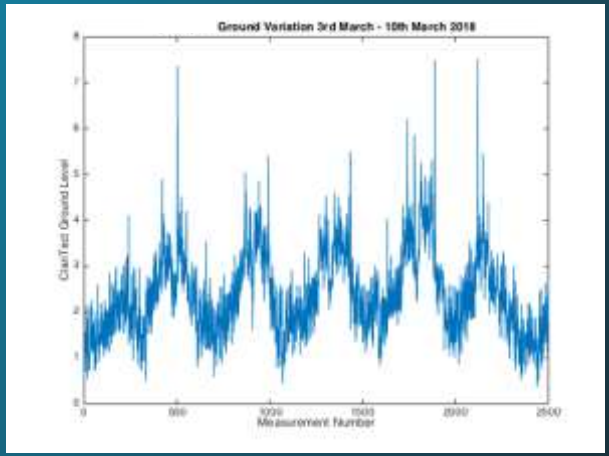
- A combination of on-site and classroom training is offered, including a "train-the-trainer" session for designated "team leaders".

Maintenance Agreement

- A comprehensive range of support services is available for the Hardware and Software products.

Managed Services

- Clantect provide "proactive" services, including Management Information & Analytics, On-Site Health-Checks, Operational Support, each with defined Service Levels.



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