Research Focus: Sensor Web Technologies

CLARITY is a Partnership between DCU, UCD, Tyndall National Institute and Industry Partners. Encompassing fundamental innovations across the spectrum of sensor technology, web-scale sensing and data analytics of large data sets.

Research Group

CLARITY’s DCU team is led by Prof. Alan Smeaton (Deputy Director), Prof. Dermot Diamond, Prof. Noel O’Connor and Prof. Niall Moyna

25 Post-doctoral researchers, 33 PhD researchers, 12 research assistants

Core Expertise

Extensive knowledge and expertise in: sensing technology, wearable sensors, video analytics, real-time sentiment analysis and lifelogging

3 Key Application Areas

- Consumer
- Industrial
- Bio-Medical

Commercial Experience

Over the past 4 years CLARITY has successfully completed over 58 funded industry collaborations, 3 start-ups, and 13 technology licenses
Industry Collaborations

CLARITY has undertaken 11 Innovation Partnerships and is currently working on 4. Recently CLARITY in DCU won the Enterprise Ireland Commercialisation Award for an Innovation Partnership with Fairview Analytics in Data Mining and Video Analytics.

Examples of Ongoing Research

- New types of cloud-connected environment sensors for air, gas and water quality monitoring
- Wearable sensors for physiological monitoring
- Video Analytics particularly for public safety applications
- Sports Analytics for performance capture and assessment
- Lifelogging – recording and analyzing people’s life’s logs
- Real-time Sentiment Analysis towards brands, reality TV shows, sports events, …

Where could CLARITY expertise help other businesses

- All aspects of sensing technology for environmental and physiological monitoring.
- Data mining and video analytics for security, surveillance, environmental monitoring and access to media archives
- Social media analytics
- Lifelogging for market analysis, customer surveys, and lifestyle profiling
- ‘Future Farm'; bringing sensors into agriculture, location/activity tracking of farm animals
- Monitoring food production and distribution,