



## MESTECH Research Project



**Project Title:** Image Sense – Early Warning Sensing Networks Using Digital Imagery and Surrogate Sensor Measurements

**Project Researcher:** Dian Zhang

**Funding Body:** The QUESTOR Centre

**Project Summary:** The principle of Image Sense is based on the use of a dual modality sensor node at any given location, corresponding to a camera supporting a surrogate in-situ sensor. The camera performs the role of the “always on” sensor, capturing images at a relatively low frame rate and uploading these to the sensor data Internet cloud. These image data will be processed by the cloud server with in-situ sensor data and a warning message will be sent if an abnormal event detected. This system potentially increases the accuracy of event detection by combining sensing modalities and could provide digital imagery log of an unusual event.

**Research Outputs:**

- Working demonstrator systems

**Impact/importance:**

Dual digital/surrogate monitoring approach can be cheap, fast, reliable and require less maintenance than current approaches.

Very little work has been done on visual sensing of environment for cost reasons.