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BEST: Better Smart Campus Sensor Technologies

A Radboud-Glasgow Collaboration Fund Research Project

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BEST: Better Smart Campus Sensor Technologies

Context: Smart technologies enable more efficient use of built environments:

- space can be used better
- personnel better deployed
- energy consumption & emissions reduced

while maintaining a pleasant environment

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BEST: Better Smart Campus Sensor Technologies

Aim: to explore better software and hardware integration for the UoG Smart Campus

Technical aim: to develop and evaluate a usable Internet of Things solution that is durable, safe, secure, maintainable and minimises costs and emissions

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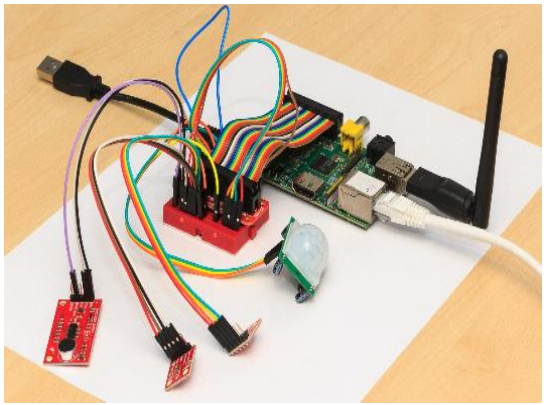
Mart Lubbers Jeremy Singer
Computing & Inf. Sciences **Computing Science**
Radboud University **University of Glasgow**

University of Glasgow

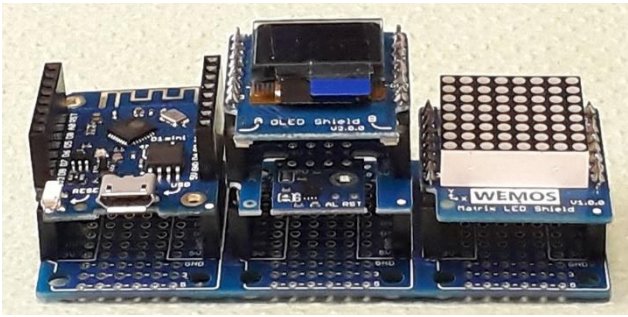
Novel SoftwareTechnology & New Sensors

We are exploring the ability of the radical new Clean iTask/mTask programming language from Radboud CS to achieve the aims on

- existing UoG CS Supersensors ~£40, ~2Watts/hour

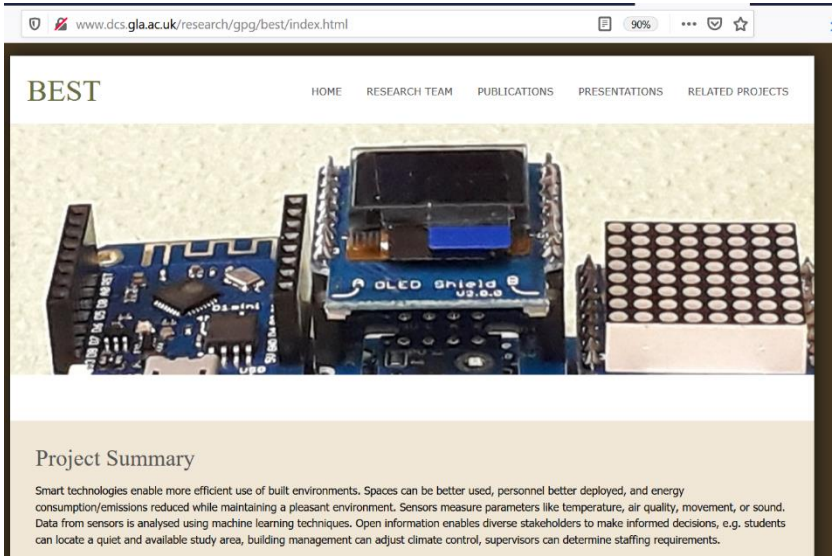


- cheaper microprocessors like the Wemos D1 Mini. ~£5, < 0.2 Watts/hour



Progress to date: Project Management

- Appointed project staff
- 2-day project launch in Glasgow
- Regular monthly project meetings.
- Established a project infrastructure: website, code & document repository



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Progress to date: technical

- Determined the specification for the UoG smart campus sensors: heat, light, air quality, temp, sound

- Replicated UoG supersensor functionality using
  - Clean iTask/mTasks
  - Wemos microprocessors

- Designing comparative experiments

Radboud/Glasgow Application Process

Low Pain:

- 9-page form, with
  - Short textual descriptions (250 words)
  - Simple Budget
- Investigator CVs

Our application has been shared with colleagues at Glasgow and Radboud