

GeyserSense



The Intelligent Geyser System by BridgIoT



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MJ Booysen et al. – Stellenbosch University

BridgIoT – bridgiot.com



BridgIoT



- Your bridge to the Internet of Things
- ICT spin-off from University of Stellenbosch
- Project partner MTN Mobile
- Communication, analyses, and control of IoT devices

Background



- Over 5.4 million geysers in SA
- Combined annually geysers
 - consume € 1.8 billion in energy
 - passes 500 billion litres of warm water
 - *[ca. € 800 million in damages from bursts]*

Objective

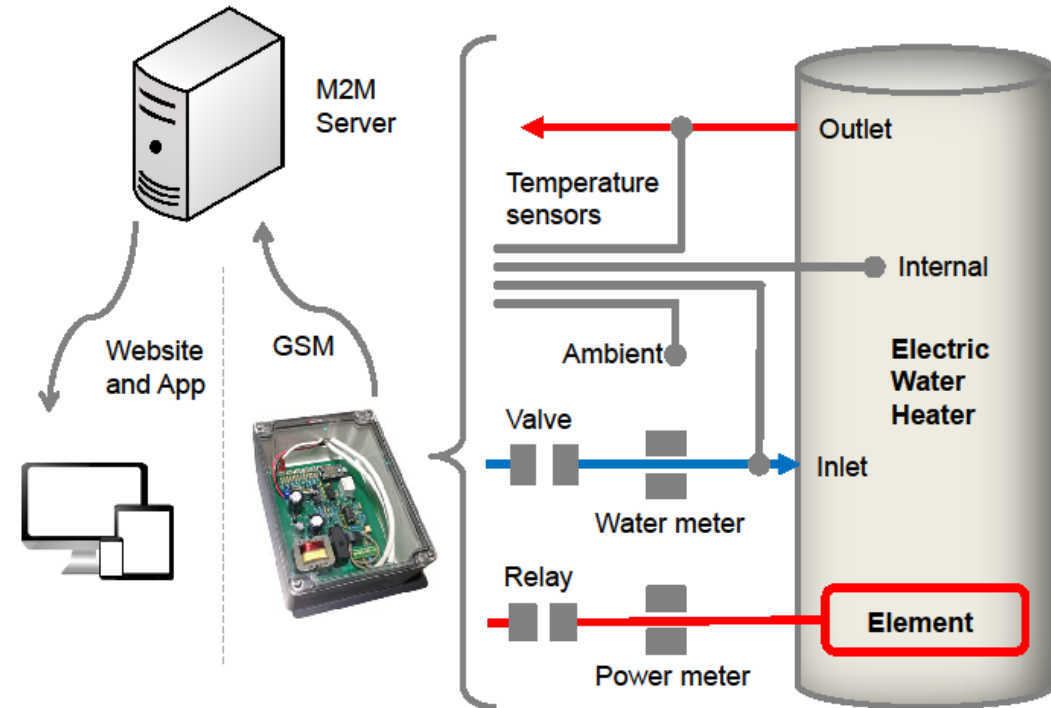


- Achieve a reduction in household water and energy consumption of water heater
 - training
 - smart management
 - detailed consumption information
 - real-time information
 - remote access

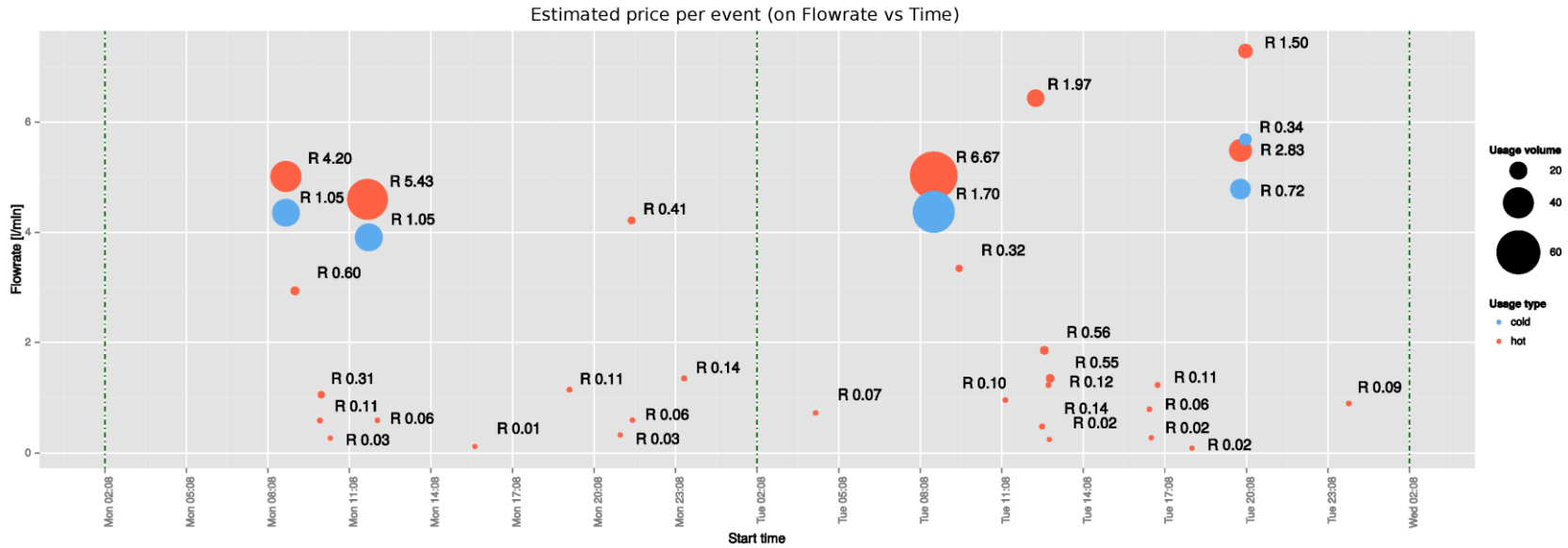
Idea



- Device that measures:
 - 4 temperatures
 - Water consumption
 - Power usage
- and control the element
- Burst detection
- GSM-cellular connectivity
- Cloud based analyses and control
- Web feedback



Feedback



Daily Geyser Usage Report

Start time	Duration	Litres	kWh	Water Cost	Energy Cost	Total Cost
06:53	3 min	16	0.57	R 0.48	R 0.74	R 1.22
07:09	5 min	25.5	0.79	R 0.77	R 1.03	R 1.79
07:51	10 min	56.5	1.61	R 1.70	R 2.09	R 3.79
13:28	10 min	12	0.30	R 0.36	R 0.39	R 0.75
19:50	4 min	15.5	0.34	R 0.47	R 0.44	R 0.91
TOTAL		125.5	3.61	R 3.77	R 4.69	R 8.46

€ 1 = R 16.36

Project status



- Pilot study
 - 10 local homes
 - 3 Months in 2015
- Water Research Commission project
 - 300 units in Mpumalanga, RSA
 - Installation July 2016
 - Completion March 2017

Potential partners



- Commercialisation of product
- Large scale manufacturing capabilities, enabling footprint expansion
- Reaching **standard compliance**
- Deployment of technology in Europe
- Funding for further deployment in Africa

Thank you



- Contact us at **info@bridgiot.co.za**
- Presented by: Jurie Erwee – Senior Engineer
- Project leader: Dr. Thinus Booysen