SECURING IOT SMART HOME METERING SYSTEM

TECHNOLOGY OVERVIEW

- Provable secure end-to-end data integrity protocol to detect tampering of electricity meter readings at the concentrator in Advanced Metering Infrastructure (AMI).

- Use Chameleon Hashing and Signature to provide aggregated electricity readings.

- Smart meter proves that the readings are not tampered with by generating an evidence to produce hash collisions.

POTENTIAL APPLICATIONS

Energy (electricity, gas and water) metering systems, smart homes, wearable devices for e-healthcare monitoring, connected car, smart supply chain, etc.

MARKET OPPORTUNITIES

- Collaborate with Energy Market Authority (EMA), Singapore Power (SP) and Public Utilities Board (PUB) to expand our testbed to incorporate city gas and water meters.

- Work with smart meter manufacturers, system integrators, energy service providers to develop and standardize security standards for IoT in Singapore.

- Collaborate with security partners to create innovative solutions such as integrating our security solution into intrusion detection system to enhance intrusion and anomaly detection.
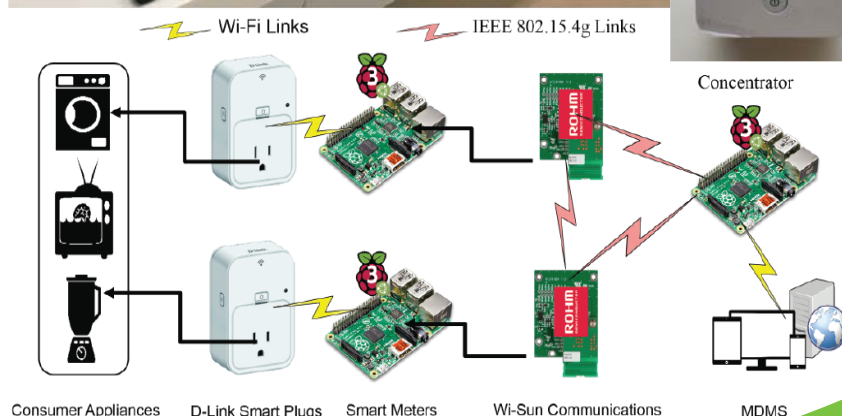
COMMERCIALISATION

This system is available for licensing.

CONTACT DETAILS
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Testbed

Looking for an open innovation partner? Contact Republic Polytechnic today!

Whether you are looking for new ideas to improve your current business flow, need access to research and technology expertise, or require facilities to bring your innovative ideas to life, we may be the partner for you.

At Republic Polytechnic (RP), we bridge the gap between knowledge and application by facilitating information and technology transfer to industry partners. Taking a holistic approach, our team of experts can assess your business needs, provide consultancy, conduct feasibility studies, and render support to help increase your company's competitiveness.

Facilities and Equipment
RP is home to state-of-the-art facilities and the latest technology, which are on par with industry standards. You can access these facilities by collaborating with RP on joint projects or through facility and equipment rentals.

Research and Development
Transform your ideas into reality. RP's multi-disciplinary applied R&D centres can work with you in many different ways, including exploiting new technologies, developing new products and streamlining processes.

Current Opportunities for Collaboration and Commercialisation

- Innovative Single-tube Multiplex Diagnostic Platform for Dengue and Chikungunya Viruses
- Low Cost Wireless Patient Weight Measurement System for the Physically Impaired and Bedridden
- New Catalysts for Sustainable Liquid Biofuels
- New Chemical Entities with Potential Applications in Photodynamic Therapy
- Thermoelectric Micro-coolers for Electronic and Optoelectronic Applications
- Visual Sentiment Analytics for Social Media Analysis
- Wireless Proximity Sensing for Safety and Security Applications
- Wireless Stress Monitoring System
- Portable Hydrogen Generator and Low Cost Hydrogen Fuel Cell System Development
- All-Solid-State Lithium Ion Thin Film Micro Battery
- Cloud-based Logistics Tracking

For more details, visit **http://www.rp.edu.sg/Industry.aspx**, or email us at **help-otd@rp.edu.sg.**