



TEMP360 Storage Condition Monitoring System for Food SMEs

SP Singapore Polytechnic

Technology Licensing Opportunity

Technology Overview

Food manufacturing and food service operations face critical compliance challenges as food safety regulations require temperature logging of food storage conditions multiple times daily, creating significant manpower allocation burdens. The hectic nature of food operations frequently results in logging lapses that compromise regulatory compliance, whilst existing temperature probes installed near condenser units fail to provide representative readings of actual storage conditions. Available monitoring software compounds these problems by lacking food industry-specific features.

SP's Temp360 solution eliminates these operational and compliance barriers through wireless IoT monitoring that automates temperature & humidity logging and reporting. The system features cable-free, battery-powered devices that install without drilling into existing structures, enabling easy deployment across cold rooms, fridges, freezers, warmers, and dry storage areas. The live dashboard provides real-time monitoring accessible on any web browser device. This transforms temperature monitoring from a labour-intensive, error-prone manual process into an automated, reliable system that ensures continuous regulatory compliance whilst freeing up manpower resources for core food operations.

Potential Applications

- Freezer and Chiller storage monitoring
- Warmer temperature monitoring
- Dry storage monitoring

Commercialization / R&D Opportunities

- ✓ Ready for commercialization
- ✓ Looking collaborators for further development / to develop new applications
- ✓ Available for licensing
- ✓ Accepting business plans from interested parties

Intellectual Property -

- Know-How

Technology Features & Specifications

- Allows temperature monitoring with less human intervention
- Minimizes the need of modifying the existing storage equipment during the installation of the sensors
- Prevents data loss during power or connectivity disruption through temporary data buffering
- Allows customization of temperature tolerance setting
- Provides timely alert and notification upon detection of deviations for multiple users
- Collates real-time data and generates monthly report for audit purposes
- Allows viewing of live data on any browser

Unique Value Proposition

Zero-Infrastructure Installation

- Unlike solutions requiring drilling, structural modifications, or frequent charging, Temp360 deploys instantly without any infrastructure changes. Our battery-powered, wireless system eliminates installation complexity whilst providing reliable 24/7 monitoring that food operations demand.

Singapore Food Industry Compliance by Design

- Purpose-built for Singapore's regulatory environment, Temp360 automatically generates SFA-compliant temperature records in required formats, eliminating manual logging burdens.

Local Development and Support Advantage

- As a locally developed and maintained solution, Temp360 provides timely technical support for Singapore's F&B SMEs. This eliminates the extended implementation and response time.

Metal-Environment Communication Resilience

- Our communication protocol is specifically engineered to overcome signal interference from the extensive metal structures common in food industry settings. This ensures reliable data transmission where many market solutions fail due to communication limitations.

Food Industry-Specific Intelligence

- Beyond basic monitoring, Temp360 provide monthly audit reports and compliance alerts that generic monitoring solutions may not deliver. This transforms regulatory compliance from a burden into an automated, reliable process tailored specifically for Singapore's food industry needs.

Disclaimer

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