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RFID in Food Chain Virtual Event

Live Inbound Milk Supply Chain Monitoring and Logistics

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Live Inbound Milk Supply Chain Monitoring

- Harvests the following measurements across the supply chain

  - Milk quantity, temperature, quality (% of protein and fat)

  - Truck arrivals/departures and tank wash events

  - Environmental conditions

- Incorporates 250 IoT devices deployed in 100 dairy farms and 40 trucks

  - Novel milk quality sensors

  - COTS sensors, microcontrollers, NB-IoT cards, power supplies, backup batteries

  - Milk-safe enclosures specifically designed for milk monitoring

- Includes a Farmer App. and a Dashboard that supports viewing the above information and related alerting

Live Inbound Milk Supply Chain Logistics

- **Live Pickup Monitoring**

  - Detects complex milk pick up events to monitor

  - Determines pickup schedule and process adherence

- **Autonomic Milk Pickup Scheduling**

  - Considers the milk quality, quality, and temperature

  - Dynamically maintains optimal pickup schedules

- **Predictive Milk Quality and Quantity Forecasting**

  - Exploits live and long-term historical data from sensors across the supply chain

- Novel machine learning algorithms

- Related tools

Comparison with Existing Products

- **Halo, Levno, VAT manager Plus,** and **Deepfield Connect (Bosch)**
- No Milk quality or even milk solids monitoring
- No Truck arrival/departure monitoring
- No NB-IoT data carriage to the cloud
  - All existing products require GSN or Broadband/Wi-Fi to work.
  - NB-IoT reaches 20-30K further than GSN form the towers
  - GSN cost is much higher than NB-IoT and is not included in the product cost
- No scalable general purpose IoT platform that can support sensor data analysis at large scale
- No autonomic pickup scheduling and dynamic pickup rescheduling
- No forecasting
- More expensive

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THANK YOU