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INNOVATION LEAGUE
GLOBAL HACKATHON

sAIns.digital

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Digitalizing the Laboratory, Bridging the Gap with IoT Integration

(Theme: Building Intelligent Products and Platforms)

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Problem Statement

- Laboratories play a vital role in research, but many are still reliant on manual data entry and outdated processes, hindering efficiency and collaboration

- Conventional laboratory instruments often lack connectivity, making data collection and analysis cumbersome and time-consuming

Solution Overview

- sAIns.digital is a breakthrough solution that enables any laboratory instrument, even conventional ones, to seamlessly transmit data via IoT. There will be at least one sAIns.digital controller with several sensor modules.

Value Proposition

- sAIns.digital will revolutionizes laboratory operations, improving data accuracy, and streamlining research processes

- Benefits:
  - More than 50% reduction in data entry errors
  - Accelerated research with real-time data access
  - Enhanced collaboration through shared data repositories

Feasibility & Uniqueness

- **Implementation:**
  - The sAIns.digital's plug-and-play IoT modules easily attach to lab instruments
  - Seamless integration with cloud platforms for data storage and analysis

- **Differentiator:**
  - sAIns.digital is the first universal IoT solution for laboratories, bridging the gap between conventional and modern instrumentation
  - Cost-effective and user-friendly, sAIns.digital sets a new industry standard

- **Unique Aspects:**
  - Universal compatibility with existing lab equipment
  - Real-time data transfer to cloud-based platforms
  - Integration with data analytics tools for instant insights

Impact & Sustainability

- **Impact:**
    - Significant reduction in paper usage and waste
    - Accelerated research leads to faster discoveries
    - Enhanced data-driven decision-making in laboratory operations

- **Sustainability:**
    - Reduced environmental impact through paperless data collection
    - Ongoing data analysis leads to resource-efficient processes

Meet sAIns.digital team ...

Danny Ismarianto Ruhiyat

AIoT Engineer

- The word **science** in Bahasa Indonesia is "**sains**". Yes, there is AI in sAIns; because sAIns.digital provide Artificial Intelligence based solutions, mostly using "Computer Vision" to replace the eye's function in seeing the instrument output.

- sAIns.digital can modernize laboratories by providing a feasible and unique solution that enhances efficiency, collaboration, and sustainability.

- Meet Danny Ismarianto Ruhiyat a.k.a danito the solo fighter in sAIns.digital team.