FUNDED & ESTABLISHED BY

MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY

iTNT TAMILNADU TECHNOLOGY HUB

Thiagarajar College of Engineering — Since 1957 — where quality and ethics matter

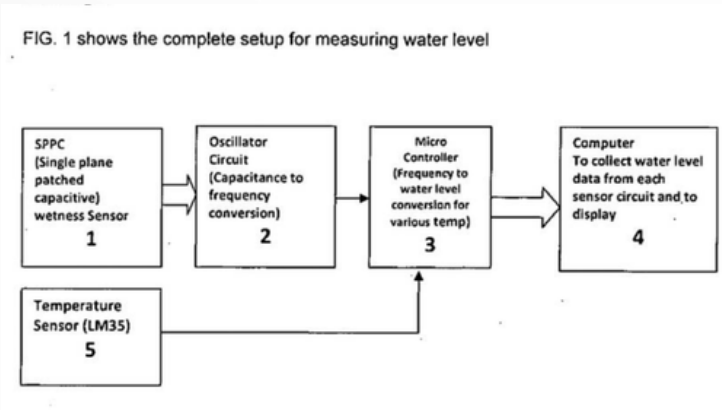
SYSTEM AND METHOD FOR MONITORING WETNESS LEVEL ON A RUNWAY IN AIRPORTS

Seeking parties interested in licensing and commercialization of technology.

Technology Brief

This technology introduces an automated system and comprehensive method for monitoring real-time wetness levels and surface water film thickness on airport runways. By deploying an integrated network of precision surface sensors and data processing units along critical runway zones, the system continuously measures, evaluates, and logs accumulation depths caused by precipitation or drainage issues. This configuration equips airport operators and air traffic controllers with critical situational awareness to prevent hazardous phenomena like hydroplaning, ultimately optimizing aircraft landing and takeoff safety.

Block Diagram



Technical Applications

The technology is primarily applied in commercial and military aviation airports to enhance airfield safety management and surface condition reporting. It is well-suited for integration with modern air traffic control towers, automated weather information systems, and Runway Condition Assessment Matrix (RCAM) reporting workflows.

Salient Features

- Real-Time Level Detection
- Automated Safety Alerts
- Data Logging and Diagnostics

Glimpse of the Technology

REFERENCE NUMBER
iTNT-TECH-0201

TECHNOLOGY SECTOR
Electronics & Semiconductors

IP STATUS
Patent Granted

APPLICATION NUMBER
446/CHE/2008

TECHNOLOGY READINESS LEVEL
TRL 3

Tamil Nadu Technology Transfer Facilitation Centre (TNTTFC)

Mr. G. Daniel Prabhakaran, RTTP
Associate Vice President - iTNT

tnttfc@tnthub.org

+91 91766 08820

https://techtransfer.itnthub.tn.gov.in/