Overview

AmberFlood Lite is a flood detection and alarm system designed to monitor river sections using multiple stations that are simple, reliable, and easy to install. This system is ideal for scenarios where distributed coverage is more important than the complexity of each station. Deploy several units along the river to obtain periodic measurements and immediate flood alerts.

What It Does

- Periodic measurement of meteorological and hydrological parameters: rainfall (rain gauge) and water level (level sensor).
- Real-time flood detection through a level switch, with instant alarm transmission via SMS, sound, light, email, or any other user-defined channel.

Main Advantages

- **Distributed coverage:** more stations provide better visibility of flood risk along the watercourse.
- **Instant alerts:** react at the right time with multi-channel notifications.
- **Autonomous power:** solar panel and battery for continuous operation.
- **Centralized management:** visualize data and alarms on the AmberCloud platform.
- **Simple and robust installation:** stainless steel structures and concrete-base mounting.

System Components

- Datalogger
- Communication system
- Solar panel
- Battery
- Water level sensor
- Level switch
- Rain gauge
- Support structures (stainless steel)
- Mounting structures (concrete base)
- AmberCloud web platform for data collection and analysis
- SIM card
- Mobile data plan

How It Works

1. The station periodically measures rainfall and water level.
2. If the level switch detects a flood condiction, an immediate alarm is triggered.
3. Data and events are sent to AmberCloud, where users can view history, charts, and export reports.
4. Alerts can be configured by user, schedule and communication channel.

Options and Configuration

- Customizable alarm channels (SMS, email, sound, light, integrations)
- Adjustable sampling intervals and alarm rules
- Integration with external systems via the AmberCloud API

Use Cases

- Civil protection and municipalities
- Urban and rural Riverside zones
- Critical infrastructures (bridges, roads, WWTPs, industrial parks)
- Dams and irrigation system operations