

Registration Form



Smart Irrigation System

Please sign in to continue

Register

Email

Full Name

Phone Number

e.g., +8801XXXXXXXX

Password

Confirm Password

Create Account

OR

Sign in with Google

Already have an account? [Sign In](#)

Login Page



Smart Irrigation System

Please sign in to continue

Login

Email

Password

Sign In

OR

Sign in with Google

Forgot password?

Phone number

[Send reset code](#)

Don't have an account? [Register](#)

Device Connection & Location Settings



Smart Irrigation System

AI-Powered Water Management

Aong Cho

[Logout]

Dashboard

Settings

Device Connection

Enter NodeMCU IP Address (e.g., 192.168.1.123)

Connect

Disconnected

Enter IP from Serial Monitor. You can test connectivity by visiting the IP address in your browser.

Location Settings

Default Region applied from your profile.

Country

Bangladesh

Division / State

Chattogram

Zilla / County

Rangamati

Upazila / City

Kaptai

Crop Type

e.g., Rice, Wheat, Maize, Tomato

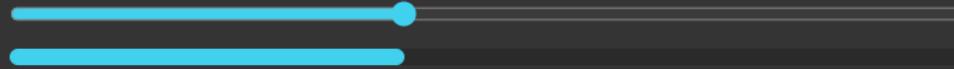
AI will tailor irrigation decisions based on this crop.

Weather Forecast & Environmental Dashboard

Soil Moisture

Demo

41.3 %



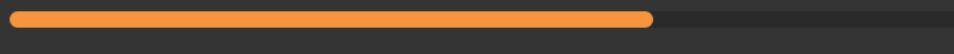
Drag to simulate moisture



Temperature

27.4 °C

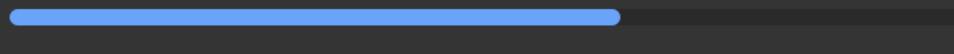
Live from OpenWeather



Humidity

64 %

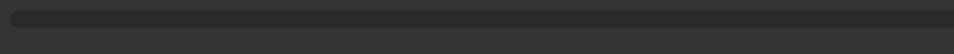
Live from OpenWeather



Rain Probability

0 %

Live from OpenWeather



Weather Forecast

Kaptai, Chittagong Division, BD
22.50, 92.22

Live · OpenWeather



27.4°C



64%



Updated: 10/11/25, 10:25



Today

10/11/25 · Clear

27.4°C (now)

64% Hum · 0% Rain



Tomorrow

11/11/25 · Clear

22°C

75% Hum · 0% Rain



Wednesday

12/11/25 · Clear

21.5°C

75% Hum · 0% Rain



Thursday

13/11/25 · Clear

21.8°C

75% Hum · 0% Rain



Friday

14/11/25 · Clear

21.9°C

75% Hum · 0% Rain

AI Agronomist Insights

AI Agronomist Insights

Auto Refresh

Refresh

Crop: Unspecified

Current Soil Moisture (live)

36.3%

50%

100%

Optimal

0%

Recommendation

Hold

For the crop, holding irrigation is recommended because current soil moisture levels are adequate, and no rainfall is anticipated.

The current soil moisture is within the optimal range for the crop type, and no rain is expected in the near future.

Confidence: 95%

Key Factors

- Soil moisture is 45%, which falls comfortably within the general ideal range of 40-60%.
- There is a 0% chance of rain today and tomorrow, indicating no natural replenishment is imminent.
- Current environmental conditions (27.4°C, 64% humidity) suggest moderate evaporative demand, but current soil moisture is sufficient.

Control Panel & Sensor Data History

Control Panel

Manual Mode

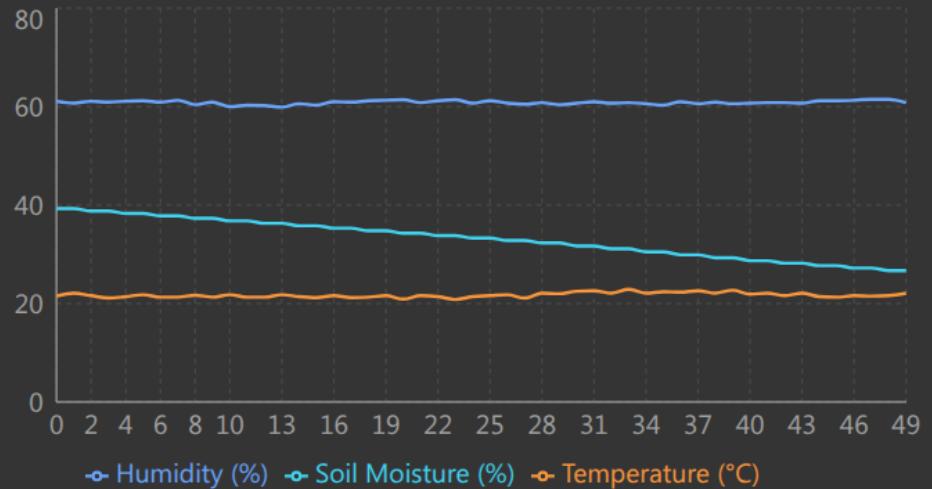


AI Mode

Follow AI Decisions

Pump turns on/off automatically based on AI

Sensor Data History



Activity Log

Activity Log

Clear Activity Log

Status	Action	Details	Time
	Pump Automatically Turned OFF by Device	Device reported new status.	10:34:24 AM
	Pump Manually Turned OFF	User override command sent to device.	10:34:22 AM
	Pump Automatically Turned ON by Device	Device reported new status.	10:34:19 AM
	Pump Automatically Turned ON by Device	Device reported new status.	10:34:18 AM

ESP8266 Serial Monitor Output

MongoDB Atlas Database - smart_irrigation.users

+ Create Database

Search Namespaces

sample_mflix

smart_irrigation

activitylogs

users

smart_irrigation.users CLUSTERED

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 404B TOTAL DOCUMENTS: 1 INDEXES TOTAL SIZE: 72KB

Find Indexes Schema Anti-Patterns 0 Aggregation Search Indexes

Generate queries from natural language in Compass ↗

INSERT DOCUMENT

Filter ↗ Type a query: { field: 'value' }

Reset Apply Options ▾

QUERY RESULTS: 1-1 OF 1

```
_id: ObjectId('6911534204a9ceedfd12528d')
email: "aongchouser@gmail.com"
passwordHash: "$2a$10$DnuAhL41a90HrKsLT3Gm5.ZCTBlYpQLosNuR2CxxF0YyWXVieRil6"
name: "Aong Cho"
phone: "+8801876660187"
roles: Array (1)
  createdAt: 2025-11-10T02:51:46.271+00:00
  updatedAt: 2025-11-10T03:40:39.140+00:00
  __v: 0
defaultRegion: Object
resetCode: "258652"
resetExpires: 2025-11-10T03:50:39.127+00:00
```