



2nd ASEAN-MRC Water Security Dialogue:
Sustainable Investment for a Connected, Resilient,
and Water-secure Southeast Asia,
Institute of Technology of Cambodia

Utilizing Machine Learning for Real-Time Flood Prediction

Machine learning enhances flood prediction by analyzing data patterns, improving accuracy, and providing real-time warnings for better disaster preparedness.

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Present by: Ms. KEAM Lyvong
Date: 18th Sep, 2024

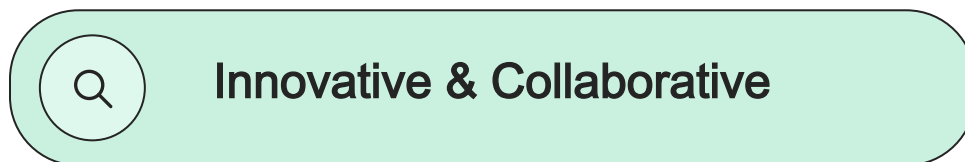
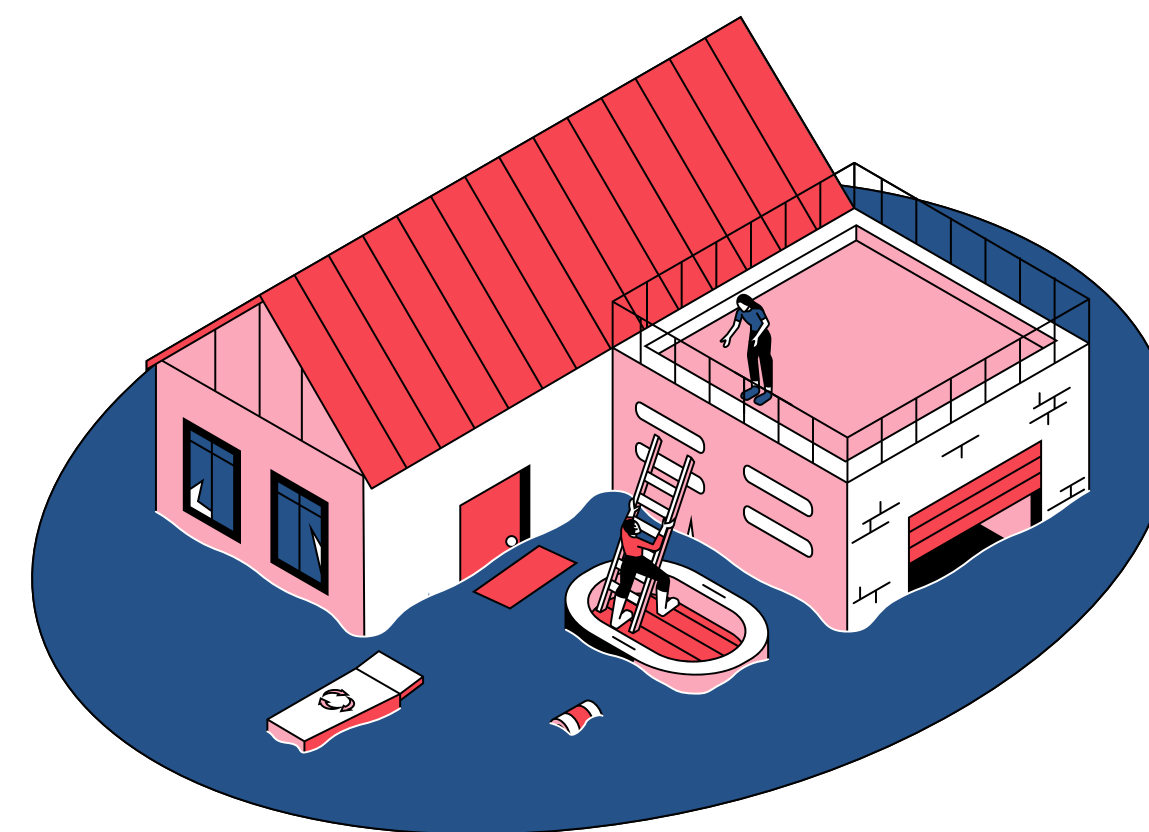


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1. Introduction

What is Our Strategy for This Project?

We developed a prototype with a water level sensor integrated into our system to collect real-time data for accurate flood analysis, making it key to our prediction model. [1]

What is our objective?



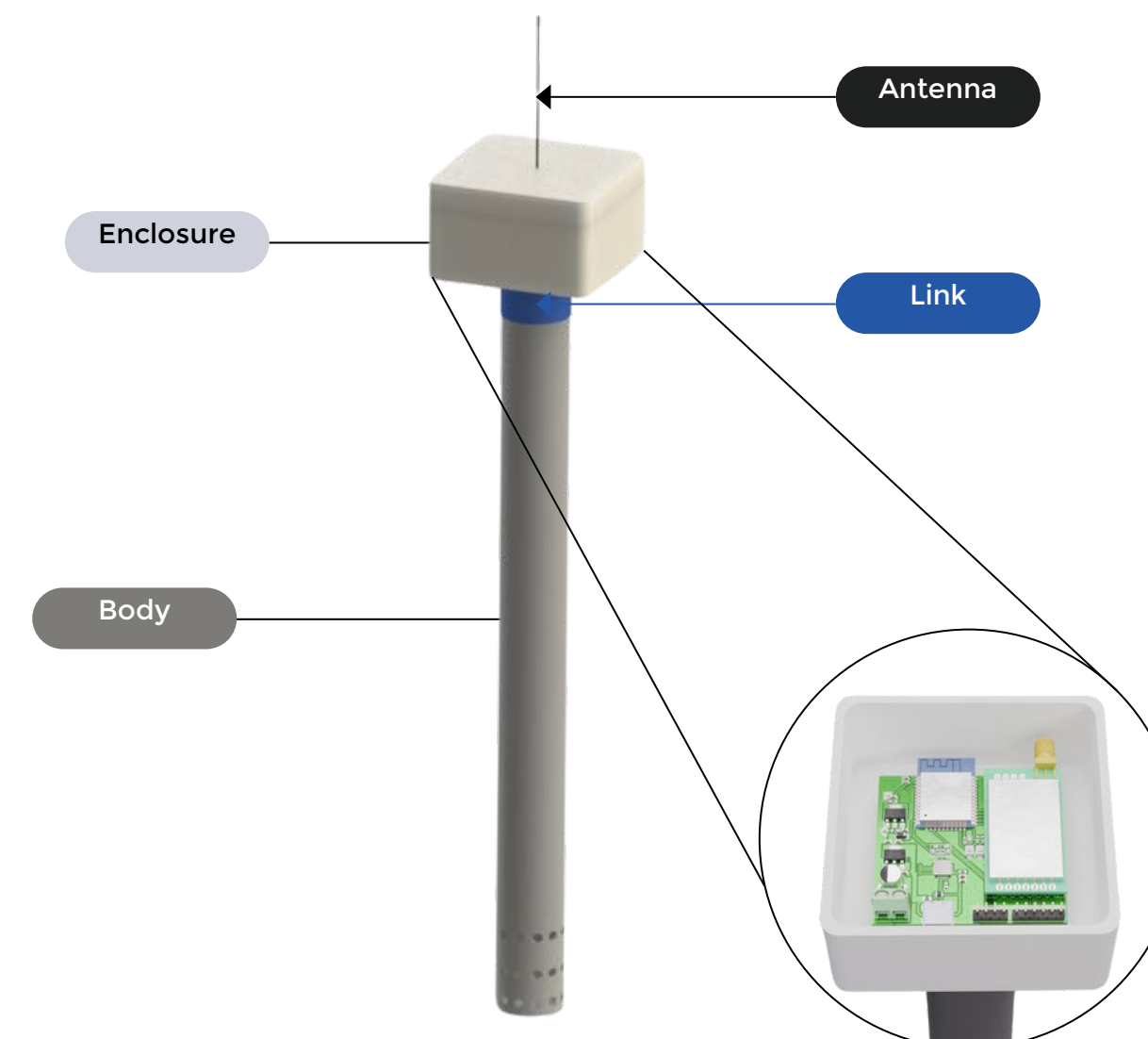
Be able to predict the flood



Monitor and alert the data real-time



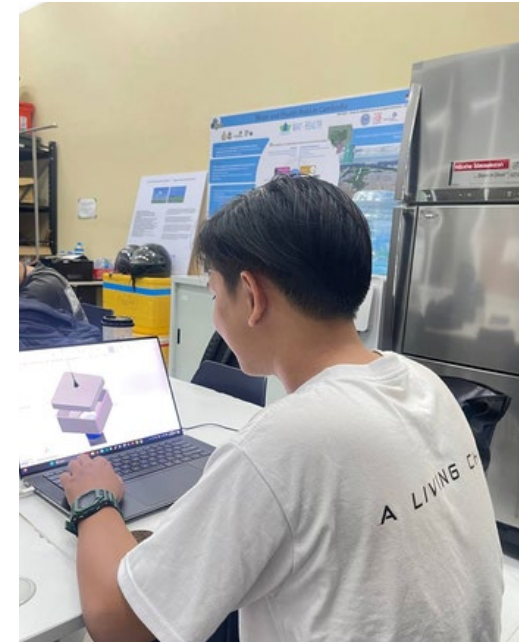
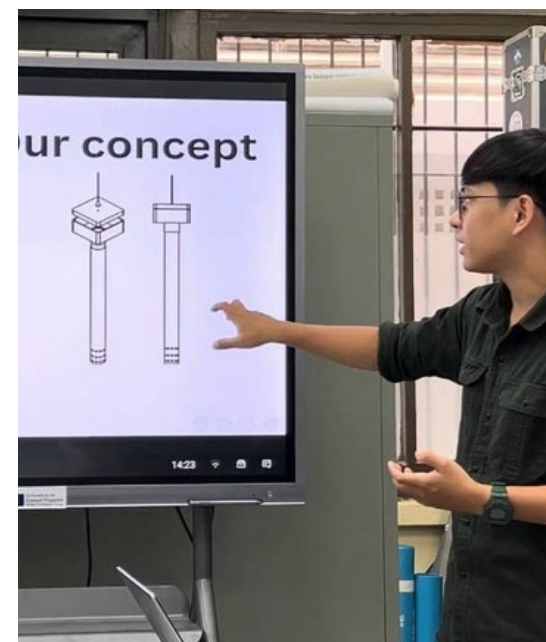
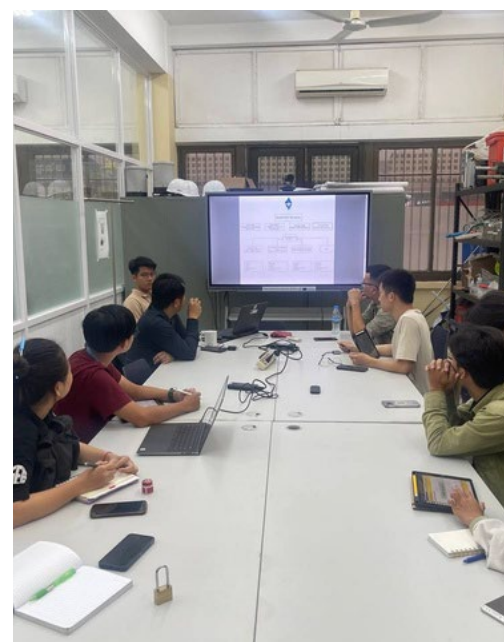
Low cost for purchasing and maintenance



[1] <https://www.mrcmekong.org/flood-and-drought-forecasting>

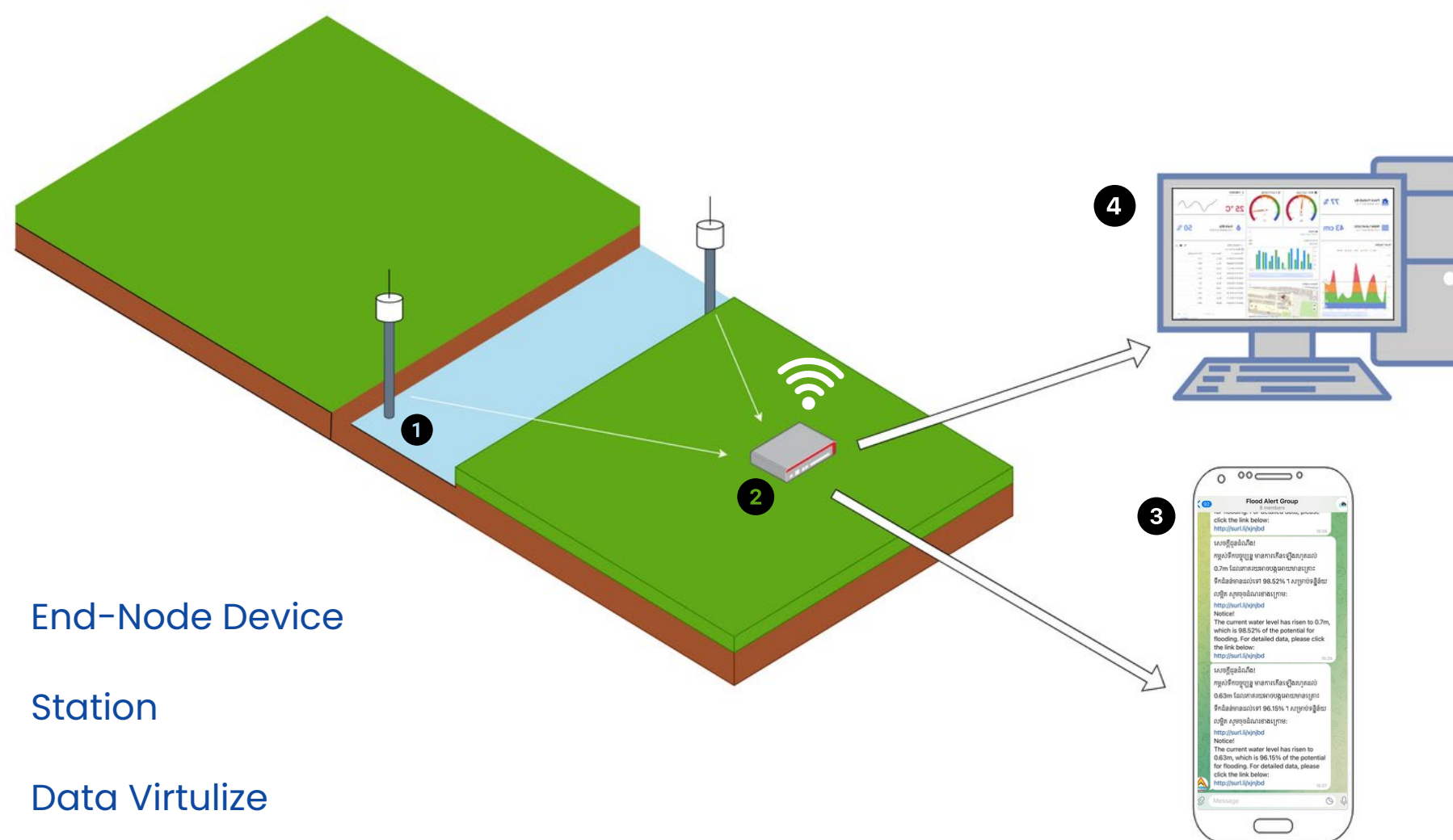
2. Project workflow

How do we start our journey?



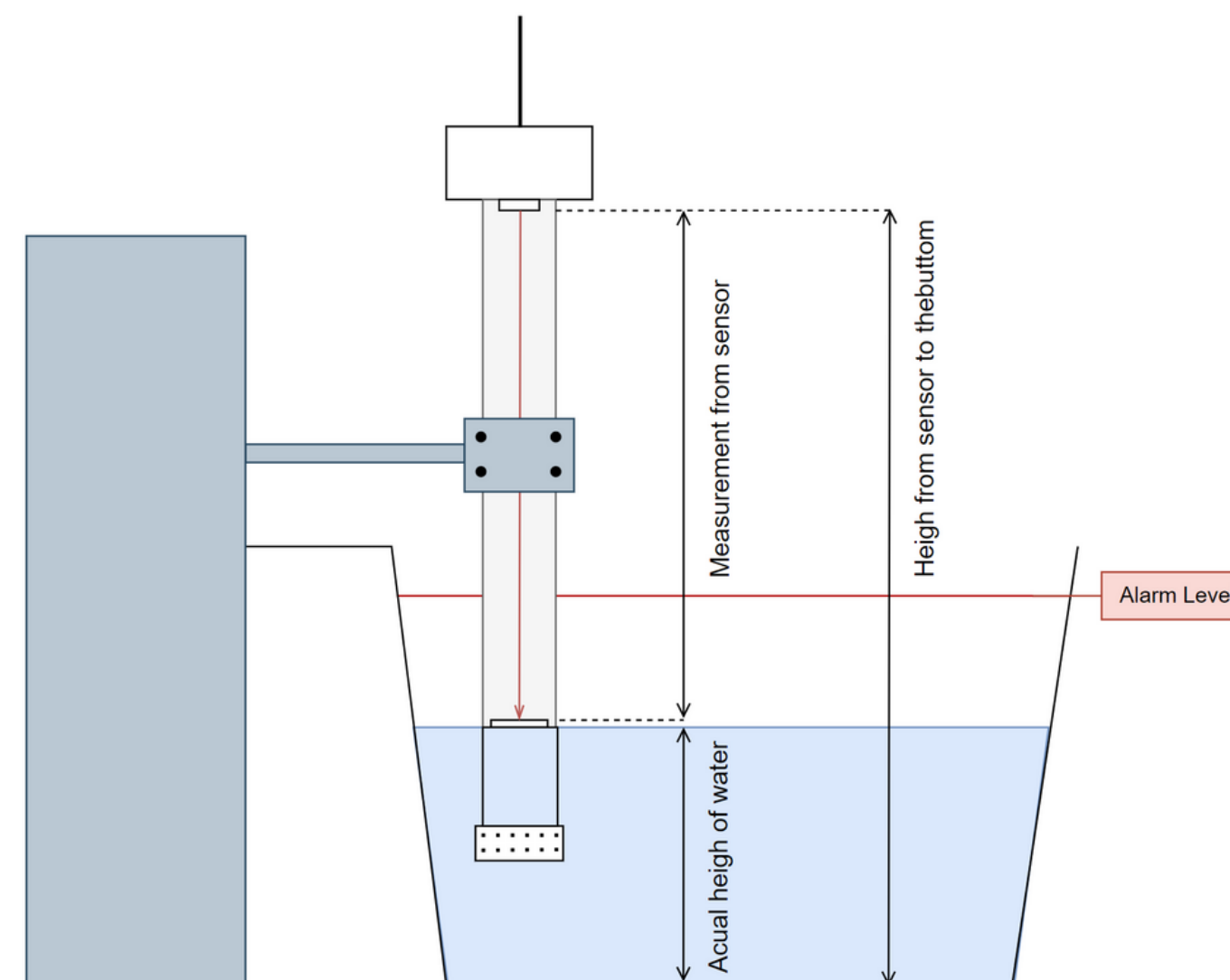
3. Methodology

How do our device works?



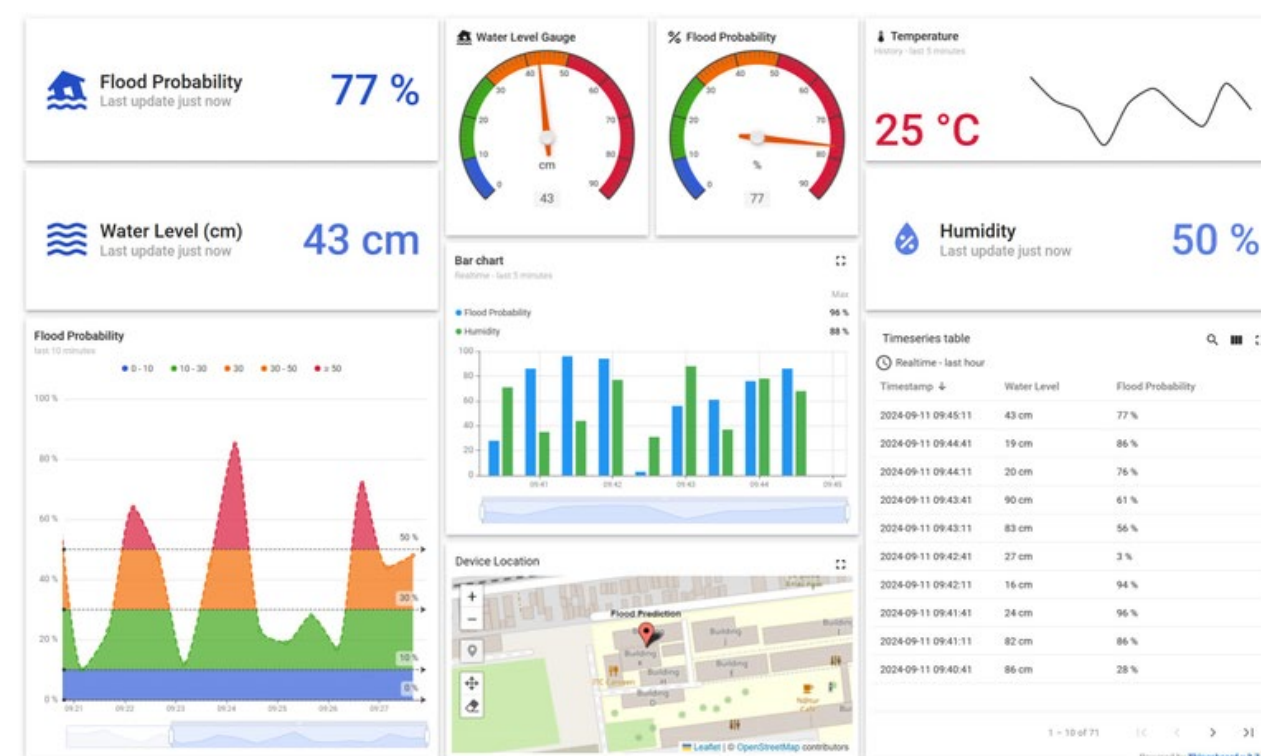
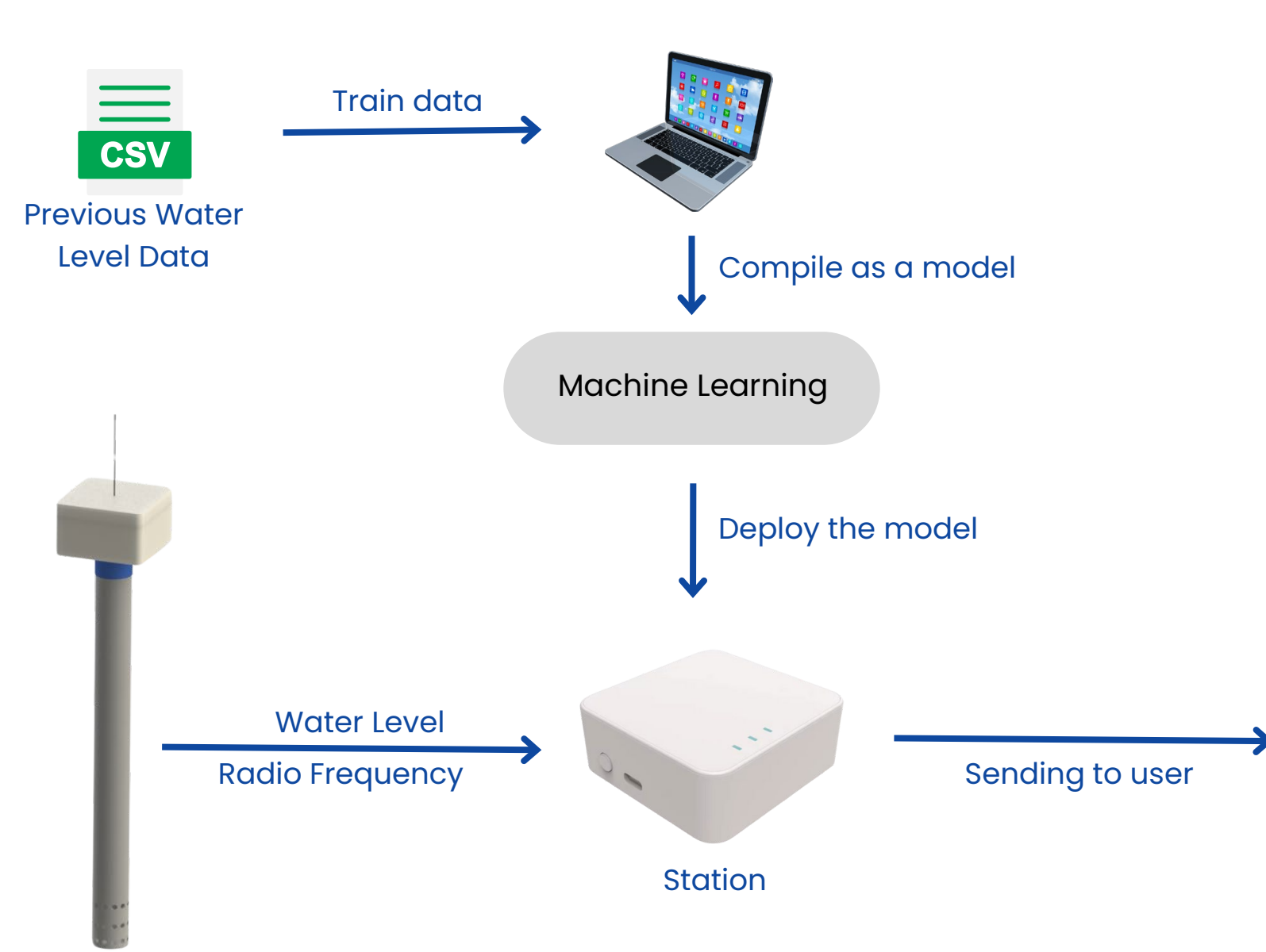
- 1 End-Node Device
- 2 Station
- 3 Data Virtulize
- 4 Flood Alert to Telegram

How do we install the node?



3. Methodology

How do we train and deploy the model?



Scan here for Dashboard link or click the link below:
<http://surl.li/xjnjbdt>

សេចក្តីជូនដំណឹង!
 កម្ពស់ទឹកបច្ចុប្បន្ន មានការកើនឡើងរហូតដល់ 0.63m ដែលភាគរយអាចបង្កអោយមានគ្រោះទឹកជំនន់មានដល់ទៅ 96.15% ។ សម្រាប់ទន្ទឹនយល់ម្អិត សូមចុចដំណោះខាងក្រោម:
<http://surl.li/xjnjbdt>
Notice!
 The current water level has risen to 0.63m, which is 96.15% of the potential for flooding. For detailed data, please click the link below:
<http://surl.li/xjnjbdt>
 3:27 PM



Scan here for Telegram Group link or click the link below:
https://t.me/+LcB_ScD0xlS4MGE9

4. About us



We are from the Institute of Technology of Cambodia, where our team is made up of a combination of students from the Faculty of Electrical Engineering, and students from the Faculty of Hydrology and Water Resources Engineering.



Mr. Seng Theara
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Mr. Koy Daniel
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Thank You

for your time and attention. If you have any questions or need further information, feel free to reach out