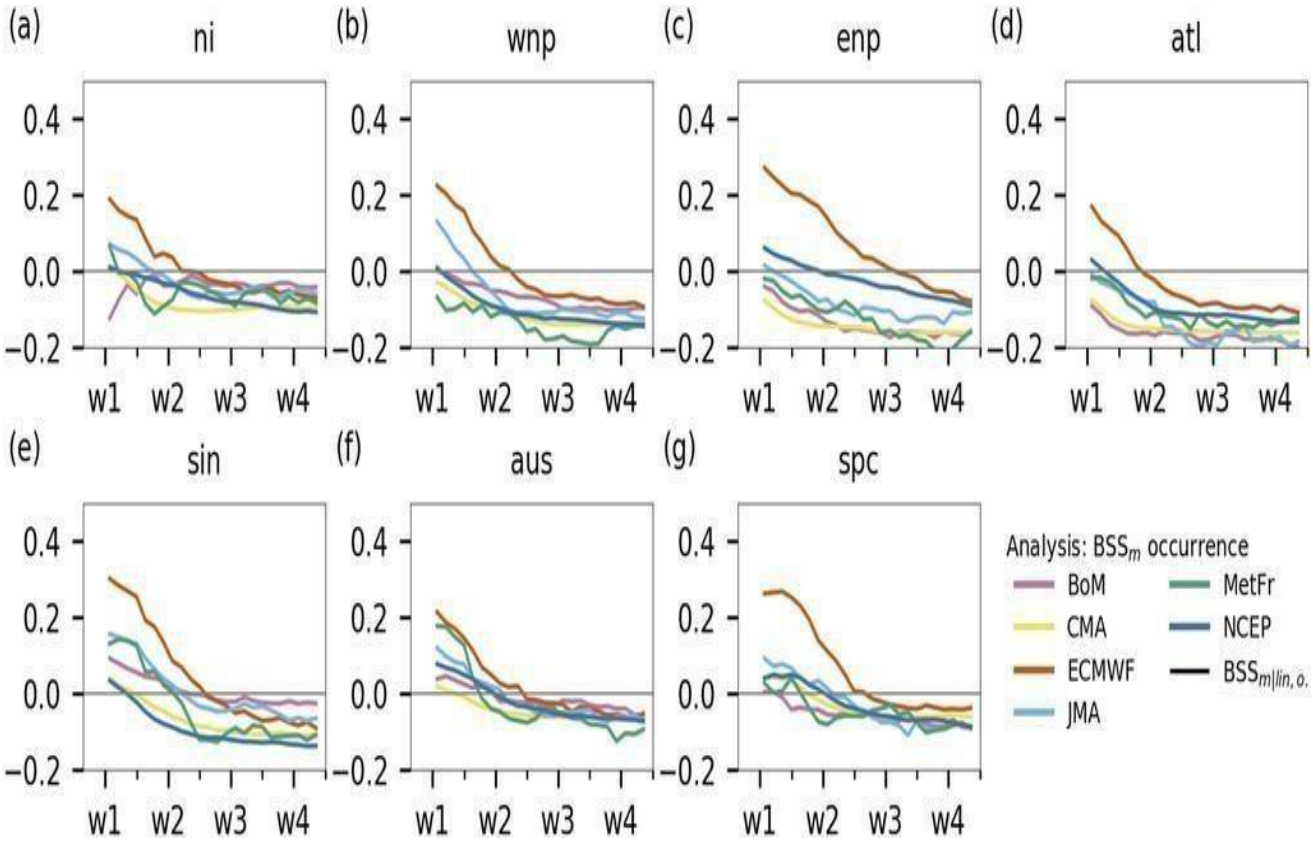
Sprint-1

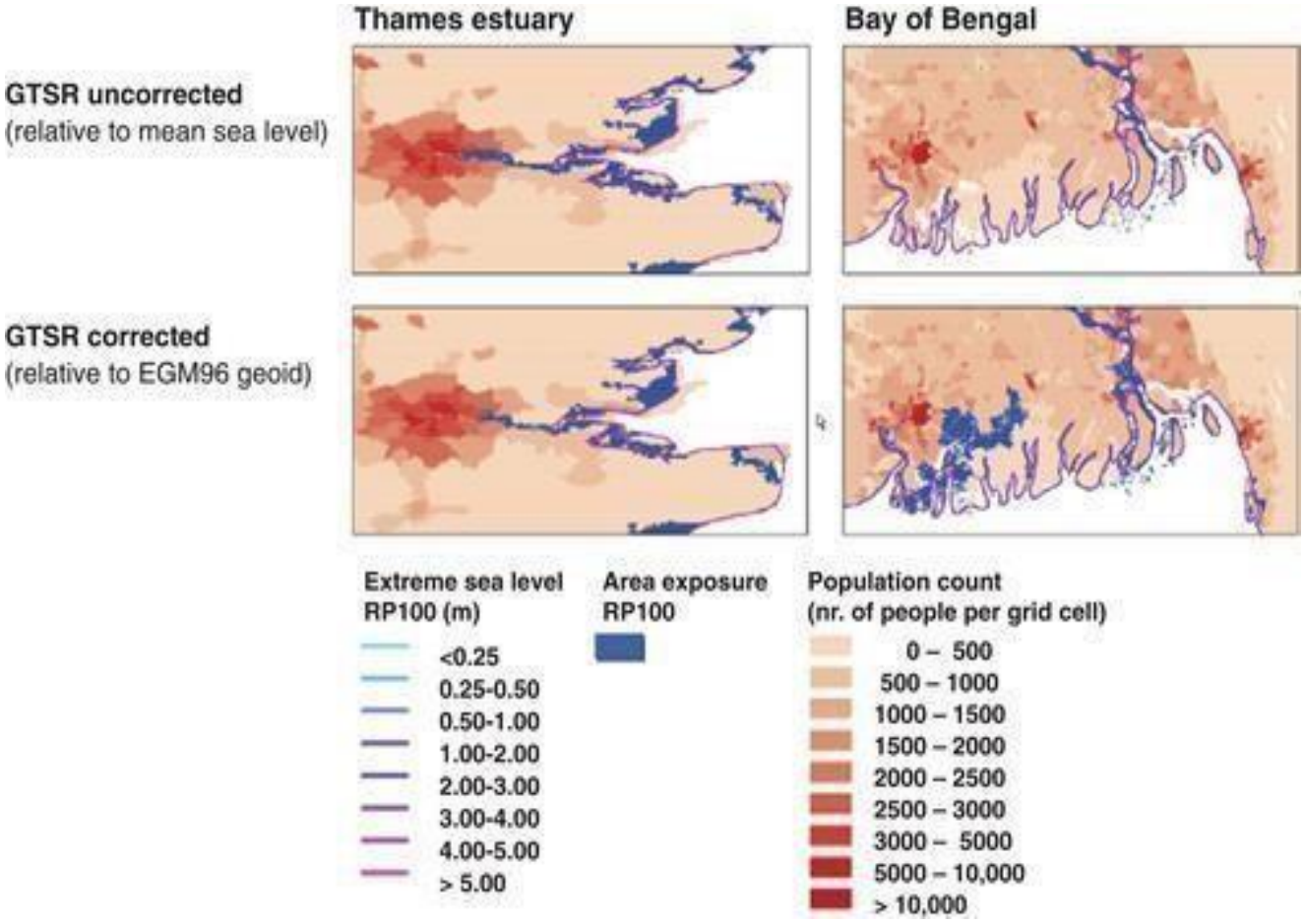
Simulation Creation (Connect Sensor Arduino with Python code)

Date	24 November2022
Team ID	PNT2022TMID49008
Project Name	Natural Disasters Intensity Analysis and Classification using Artificial Intelligence
Maximum Marks	20 Marks

CYCLONE



FLOOD

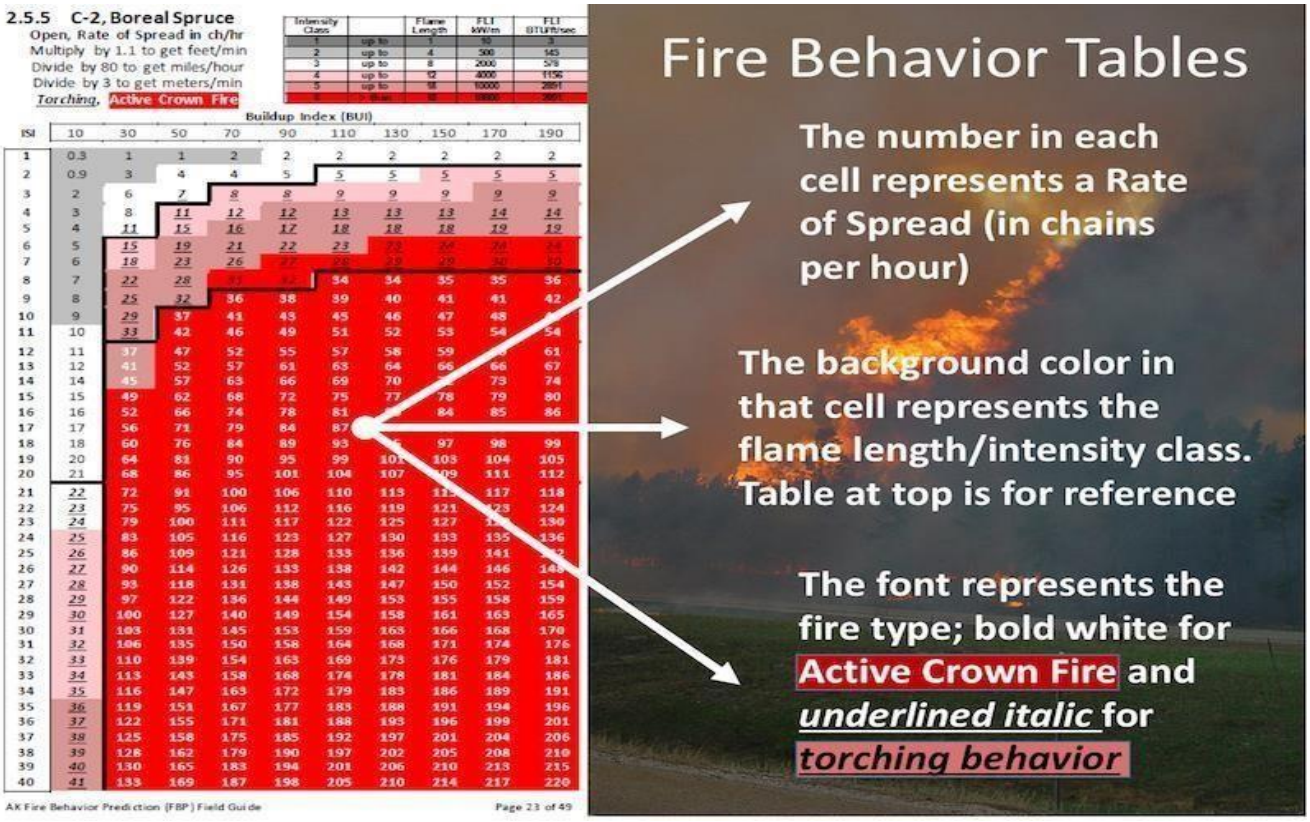


Knowing your community's evacuation route and warning signals, and identifying areas prone to flooding or landslides.

EARTH QUAKE

Model	Rescale Numeric	Train/ Test Split	Data Sampling	Data Grouping	Manual Parameter Tuning	Grid Search	Manual Drop Features	Feature Selection Function	Accuracy
Random Forest									
Gorkar (2019)	Yes	Yes	No	No	No	No	No	No	0.721
Das (2019)	Yes	Yes	Yes	No	Simple	Yes	No	No	0.658
Ghimire (2019)	Yes	Yes	Yes	Yes	Simple	Yes	Yes	No	0.715
Mendes (2019)	Yes	Yes	Yes	No	No	No	Yes	Advance	0.63
XGBoost Classifier									
Mendes (2019)	Yes	Yes	Yes	No	No	No	Yes	Advance	0.646
Narayan (2019)	No	No	No	No	No	No	Yes	Simple	0.586
Logistic Regression									
Eliseev (2020)	Yes	Yes	No	No	No	No	Yes	No	0.74
Ghimire (2019)	Yes	Yes	Yes	Yes	Simple	Yes	Yes	No	0.47
Light GBM									
Das (2019)	Yes	Yes	Yes	No	Advance	N/A	No	No	0.784
Decision Tree									
Mendes (2019)	Yes	Yes	Yes	No	No	No	Yes	Advance	0.658

WILDFIRE



Artificial intelligence allows researchers to “clean up data” around air quality and weather patterns and predict possible wildfires in a way that is much faster than before.