

UNDERWATER SURFACE TEMPERATURE
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SOURCE: <https://www.kaggle.com/datasets/shivamb/underwater-surface-temperature-dataset>
References: <https://www.seanoe.org/data/00510/62120/>

This dataset contains underwater temperature (°C) data from seven islands and two submerged rocky reefs along the Santa Catarina coast, southern Brazil, between 26°22' S and 28°26' S. Temperature records were acquired every 20 minutes, between December 2012 and July 2014, using a HOBO Pendant® Temperature Data Logger UA-002. The data loggers were installed underwater by SCUBA divers and anchored to the rocky reef with epoxy at 5 m and 12 m depth, in the islands, and at 22 m depth in the submerged reefs. Due to equipment loss, some depths are missing for specific sites. The dataset is structured in seven variables: Site, Latitude, Longitude, Date, Time of Sampling, Temperature (°C) and Depth (meters). This dataset contains more than 5000 datapoints.

The dataset is multivariate and has 8 continuous numerical characteristics. Since I intend to focus on underwater surface temperature forecasting and analysis, "Temp (°C)" has been chosen as the forecasting variable. It is uncleaned and unclassified dataset. It is both trending and seasonal. I did preprocessing i.e., forward filling the missing variables to make it appropriate to use.

Before Preprocessing:

```
dtype: int64
ID          0
Site        0
Latitude    0
Longitude   0
Date        0
Time        0
Temp (°C)   4
Depth       0
dtype: int64
```

After Pre-processing:

```
ID          0
Site        0
Latitude    0
Longitude   0
Date        0
Time        0
Temp (°C)   0
Depth       0
Date Time   0
dtype: int64
```