Global warming has tremendously affected global weather. Therefore, there is a spike in natural calamities, especially floods. Flood affects the land connection, and hence the popular maps such as google maps or open street maps could be no more be effective for rescue operations.

We are interested in building a map of such destructed environment and integrating it into current maps. Moreover, an underwater traversability map has immense significance for such a situation. We use multibeam imaging sonar to detect, track, classify and integrate underwater obstacles in this new map.

**Tasks**
- Analyze the state of the art in feature detection and tracking in multibeam forward looking sonar.
- Analyze the techniques in literature for integrating underwater information in traversability maps.
- Implement, test, and evaluate the chosen approach.

**Requirements**
- Interest in robotics, image processing or machine learning.
- Knowledge of C++ (OOP and Data structures).

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