Penerapan teknologi hidroakustik di bidang ilmu dan teknologi kelautan = Application of field hydroacoustic technology for marine science and technology

Lubis, Muhammad Zainuddin, author

Abstrak

Utilization hydroacoustic methods in recent years have become increasingly effective for estimating the abundance of marine fish, especially fish stocks, where is impossible to do with conventional methods approach. Widely hydroacoustic technology has been used to map and classify the content of the resource base of waters and benthic animals that are on the bottom, type of substrate and benthic biota. Target Strength is the most important factor in the detection and prediction of fish stocks by using hydroacoustic. The TS is a measure that can describe the ability of a target to reflect sound waves that come about it. In the propagation of sound waves, the amount of energy per second will be flowing through the unit certain area perpendicular to the direction of propagation. The amount of energy per second crossing a certain area of the unit refers to as the intensity of the wave. The system of detection and measurement of underwater involves three components, namely medium, targets, and equipment. Sonar equation is built based on the similarity or balance between the parts of the received signal, the desired called signal and the unwanted parts referred noise or noise, depending on the specific sonar functions are applied.