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Proposal for Knowledge Management in the Aquaculture Industry

-Towards operational efficiency and knowledge transfer using IoT-

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The number of aquaculture operators and workers in Japan has been consistently declining due to the aging of the workforce and lack of successors, and a labor shortage in aquaculture and related industries is becoming apparent.

In addition, the overall aquaculture industry is facing issues such as the high cost of feeding and the lack of a stable data collection method.

Therefore, the Fisheries Agency is developing technologies to automate and save labor in the fishing industry using the IoT, as well as to automate operations and add value to products.

The purpose of this study is to identify aquaculture issues and propose a new IoT-based knowledge management for aquaculture businesses, including aquaculture companies and family farms that use the IoT.

The introduction of knowledge management has several advantages.

Improvement of manpower shortages and lack of digitization in the aquaculture industry due to a decrease in the number of new workers and the aging of the workforce.

Creating an environment that facilitates the entry of new workers by utilizing the transfer of tacit knowledge and data management.

Using systems that allow existing operations to be labor-saving and more efficient will make it easier for smaller numbers of employees and the elderly to work.

The above three points are worth mentioning.

The research methodology will first survey previous studies on aquaculture IoT, smart aquaculture, and knowledge management to confirm what is currently known.

Next, the current status and issues of smart aquaculture and the current status and issues of aquaculture knowledge sharing and transfer will be organized based on literature review and interview surveys, and knowledge management in aquaculture will be proposed by utilizing knowledge management in industrial development and other previous studies.

Finally, the validity of the proposed knowledge management was confirmed through an interview survey.