Smart Caring System for Ornamental Fish

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Abstract

Ornamental Fish Industry continues to be one of the fastest growing worldwide. Healthy fish production at aquariums requires intensive care and ensures a stable and an optimum production environment inside the fish tanks, which is a challenging task. Unfortunately, due to the limitations in fish industry, productivity of well-developed, healthy fish has drastically depreciated. Limited skills and knowledge of aquarists have been a challenging task which has led to inaccurate predictions on certain factors such as quantification and length of estimation, amounts and types of fish food and servicing the filters at proper time intervals. Existing aquariums depend on the experience and availability of the aquarists, which can be a challenging process in real life. Developing a system to regulate these major concerns is a prominent solution. This research is done to propose an automated method, with the help of several fish aquariums and existing research papers, to encounter the mentioned major concerns which affects the aquarists and other stakeholders.

Keywords

Smart Fish Caring, Deep Learning, Video Processing, CNN, Image Processing, Automated System