

## Sorting Fish by Hu Moments

**Authors :** J. M. Hernández-Ontiveros, E. E. García-Guerrero, E. Inzunza-González, O. R. López-Bonilla

**Abstract :** This paper presents the implementation of an algorithm that identifies and accounts different fish species: Catfish, Sea bream, Sawfish, Tilapia, and Totoaba. The main contribution of the method is the fusion of the characteristics of invariance to the position, rotation and scale of the Hu moments, with the proper counting of fish. The identification and counting is performed, from an image under different noise conditions. From the experimental results obtained, it is inferred the potentiality of the proposed algorithm to be applied in different scenarios of aquaculture production.

**Keywords :** counting fish, digital image processing, invariant moments, pattern recognition

**Conference Title :** ICIPACV 2015 : International Conference on Image Processing, Analysis and Computer Vision

**Conference Location :** Paris, France

**Conference Dates :** April 27-28, 2015