

**Research Title:** Machine Vision for Detect Quality of Shrimps

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### ABSTRACT

This research proposes the method of detection Raw White Shrimp's leg (*Penaeus vannamei*) by finding distinctive structural characteristic (Contour) using Fourier Descriptor in order to increase the effectiveness of detection. As a result, the distinctive characteristic is sought at the area of shrimp's inside feature that can classify shrimp with legs and with no leg clearly. Eleven values of coefficient was used to explain the boundary of shrimp's inside feature. Subsequently, coefficient of vector obtained from shrimp with no leg was calculated to find vector norm for analysis and thresholding. This method provides DSR (Detection Success Rate) higher than 97% from all 130 images used for testing.

**Keywords:** Classify, Shrimp, Fourier Descriptor