

Stable Line and Circle Detection Method in Noise Image for Machine Vision

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- A region of interest (ROI) of line or circle is detected using a template matching method of the stable feature.
- A 2D feature detection problem can be converted to 1D. Then, the local noise scale and filtering variance are computed from pixels along the sample line.
- The edge point is detected from the first order derivative and the outliers are rejected.
- The line or circle is fitted by using a linear least square method.

