

319. ON SCANNING BARCODES FROM OUT-OF-FOCUS BLURRED IMAGES: USING DYNAMIC TEMPLATE MATCHING APPROACH

R.S.Alagu Dhivya (Author)

Department of ECE,

Meenakshi College of Engineering,

Chennai, India

E-mail: divya.rs89@gmail.com

The limitations of charge – coupled device based barcode scanning technologies of handling out-of-focus blurred image and depend on the camera system for capturing quality, leading to find a linear barcode scanning system based on dynamic template matching system (DTMS). This system works entirely in the spatial domain, and is capable of reading linear barcodes from low-resolution and out – of-focus images. Here directed graphical model, designed to characterize the relationship between the blurred barcode waveform and its corresponding symbol value at any specific blur level. A dynamic programming-based inference algorithm is designed to retrieve the optimal state sequence, enabling real-time decoding on mobile devices of limited processing power. The performance will be verified by simulation using MATLAB.

Keywords--- Linear Barcode; Out-of-focus; dynamic template matching; direct graphical model; dynamic programming

Journal of Science and Innovative Engineering & Technology