



# Computer Vision System for Automatic PCB Inspection & Quality Analysis with Auto Rejection

Surendra Khushwaha<sup>1</sup>

<sup>1</sup>PG Scholar  
SGVU, Jaipur

[surur.kushwaha@gmail.com](mailto:surur.kushwaha@gmail.com)

Dinesh Goyal<sup>2</sup>

<sup>2</sup>Associate Professor  
SGVU, Jaipur

[dgoyal@gyanvihar.org](mailto:dgoyal@gyanvihar.org)

Rahul kumar<sup>3</sup>

<sup>3</sup>Assistant professor  
SGI, Sikar

[rahulkumar1680@gmail.com](mailto:rahulkumar1680@gmail.com)

**Abstract**— In this paper, we present a Computer Vision system for printed circuit board (PCB) automated inspection. In the last years, PCB industry has been invested in manufacturing automation improvement. This is known, especially in measurement and inspection field. We can note that the tolerances on PCB assembly become more accurate. With computer hardware and cameras advances, new Computer Vision algorithms should be developed, and applied in industry with low cost. Besides, new visual inspection systems using computers should be implemented to solve smaller tolerance requirements.

**Keywords** — Computer Vision algorithms, PCB.