Special Issue

Computer Vision for Defect Detection, Segmentation and Quality Control in Manufacturing Systems

Message from the Guest Editors

Recently, smart manufacturing systems increasingly began relying on automation to ensure high product quality, enhance efficiency, and reduce costs. The ability to automatically detect, segment, and classify defects in real time is critical across various industries, including aerospace manufacturing, electronics, automotive, textile, and pharmaceutical ones. However, challenges remain due to the high diversity of defect types, subtle visual characteristics, complex surface textures, and the demand for robust, high-speed inspection systems. This Special Issue aims to gather the latest cutting-edge research and developments in computer vision for defect detection, segmentation, and quality control in manufacturing. We invite contributions that address the aforementioned challenges by proposing novel algorithms, systems, and applications. The scope of this Special Issue aligns perfectly with the Electronics journal's focus on industrial electronics and applied control systems. We seek high-quality original research articles and comprehensive reviews.

Guest Editors

Dr. Biao Mei

Quanzhou Institute of Equipment Manufacturing, Haixi Institutes, Chinese Academy of Sciences, Quanzhou 362200, China

Dr. Haijin Wang

School of Mechanical Engineering, Zhejiang University, Hangzhou 310058, China

Deadline for manuscript submissions

15 February 2026

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/246771

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

mdpi.com/journal/electronics

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/journal/electronics

About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) / CiteScore - Q1 (Electrical and Electronic Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

MDPI