

# Claudio Cusano

Full professor at the Department of Department of Electrical, Computer and Biomedical Engineering

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## Research areas

Machine learning and artificial intelligence for computer vision and computational photography. Generative AI. Mathematics of artificial neural networks.

## Appointments

- 2025– Rector’s delegate for Information Systems, University of Pavia.
- 2021– President of the Teaching Council of the **Bachelor of Science in Artificial Intelligence**, University of Pavia, Università degli Studi di Milano, University of Milano-Bicocca.
- 2021– President of the managing committee of the **Bachelor of Science in Artificial Intelligence**, University of Pavia, Università degli Studi di Milano, University of Milano-Bicocca.
- 2021– Director of University of Pavia node of the **Laboratorio Nazionale di Artificial Intelligence and Intelligent Systems**.
- 2021– Deputy head of the board of the **Ph.D. program in Electronics, Computer Science and Electrical Engineering**, University of Pavia.
- 2018–2021 Managing teacher of the **Bachelor in Electronic and Computer Engineering**, University of Pavia.
- 2027– Member of the board of the **Ph.D. program in Electronics, Computer Science and Electrical Engineering**, University of Pavia.
- 2023– Member of the Scientific Panel of **ISCRA (Italian SuperComputing Resource Allocation)** and **LISA (Interdisciplinary Laboratory for Advanced Simulation)**.
- 2020– Member of the **Entertainment and Gaming technical stream** dell’IEEE Consumer Technology Society.

## Teaching

- 2025– University of Pavia. Databases.
- 2024– **Laboratory of Machine Learning** course, Bachelor of Science in Artificial Intelligence.
- 2020– **Machine Learning** course, Master’s degree in Computer Engineering.
- 2016–2021 **Software Engineering**, Bachelor’s degree in Electronic and Computer Engineering.
- 2013–2025 **Principles of Computer Science**, Bachelor’s degree in Industrial Engineering.

## Collaboration with journals and international conferences

- 2024–2026 Associate Editor in Chief of the “Neurocomputing” journal.
- 2021– Associate Editor of the “Neurocomputing” journal.
- 2019–2023 Associate Editor of the “IEEE Access” journal.
- 2022 Guest editor of the special issue of the Pattern Recognition Letters journal “Visual Descriptors for Texture Recognition: from Gabor to Deep Learning”.
- 2016 Guest editor of the special issue of the Journal of Electronic imaging “Color in Texture and Material Recognition”.
- 2015 Member of the organizing committee of the workshop “Color in Texture and Material Recognition” in the “ICIAP International Conference on Image Analysis and Processing”.
- 2013 Program Chair of the “Workshop on 3D Face Biometrics” in the “10th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2013).”
- 2012– Member of the Technical Program Committee of many conferences, including: “ACM Multimedia”, “IEEE International Conference on Consumer Electronics”, “IEEE International Conference on Consumer Electronics Berlin”, “ICIAP International Conference on Image Analysis and Processing”, “International Conference on Deep Learning Theory and Applications”, “International Conference on Computer Vision Theory and Application”.

## Patents

- 2007 Claudio Cusano, Paolo Gallina, Francesca Gasparini e Raimondo Schettini, “Method for red eye detection in a digital image”, PCT/EP2007/002996 April, 3 2007. Owners: Telecom Italia S.p.A. and University of Milano-Bicocca.

## Publications

More than 90 peer-reviewed papers, published in journal or proceedings of international conferences, including:

- [1] Marco Cotogni, Fei Yang, Claudio Cusano, Andrew D Bagdanov, and Joost van de Weijer. Exemplar-free continual learning of vision transformers via gated class-attention and cascaded feature drift compensation. *International Journal of Computer Vision*, 131:4571–4589, 2025.
- [2] Marco Cotogni, Marco Arazzi, and Claudio Cusano. Photostyle60: A photographic style dataset for photo authorship attribution and photographic style transfer. *IEEE Transactions on Multimedia*, 26:10573–10584, 2024.
- [3] Marco Cotogni and Claudio Cusano. Select & enhance: Masked-based image enhancement through tree-search theory and deep reinforcement learning. *Pattern Recognition Letters*, 183:172–178, 2024.
- [4] Marco Cotogni and Claudio Cusano. Treenhance: A tree search method for low-light image enhancement. *Pattern Recognition*, 136:109249, 2023.
- [5] Simone Bianco, Claudio Cusano, Flavio Piccoli, and Raimondo Schettini. Personalized image enhancement using neural spline color transforms. *IEEE Transactions on Image Processing*, 29:6223–6236, 2020.
- [6] Simone Bianco and Claudio Cusano. Quasi-unsupervised color constancy. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, pages 12212–12221, 2019.
- [7] Simone Bianco, Claudio Cusano, and Raimondo Schettini. Single and multiple illuminant estimation using convolutional neural networks. *IEEE Transactions on Image Processing*, 26(9):4347–4362, 2017.
- [8] Simone Bianco, Gianluigi Ciocca, Claudio Cusano, and Raimondo Schettini. Automatic color constancy algorithms selection and combination. *Pattern Recognition*, 43(3):695–705, 2010.
- [9] Simone Bianco, Gianluigi Ciocca, Claudio Cusano, and Raimondo Schettini. Improving color constancy using indoor-outdoor image classification. *IEEE Transactions on Image Processing*, 17(12):2381–2392, 2008.
- [10] Alessandro Colombo, Claudio Cusano, and Raimondo Schettini. 3D face detection using curvature analysis. *Pattern Recognition*, 39(3):444–455, 2006.