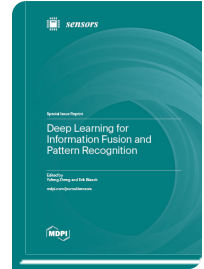*Special Issue Reprint*

Deep Learning for Information Fusion and Pattern Recognition

www.mdpi.com/books/reprint/10446

Edited by
Yufeng Zheng
Erik Blasch

There is a large amount of data from different types of sensors, for instance, multispectral electro-optical/infrared (EO/IR) and computed tomography/magnetic resonance (CT/MR) images, among others. How to take advantage of multimodal data for object detection and pattern recognition is an active field of research. Information fusion (IF) is used for enhancing the performance of pattern classification, while deep learning (DL) technologies, including convolutional neural networks (CNNs), are powerful tools for improving object detection, segmentation, and recognition. It is viable to combine DL and IF to boost the overall performance of pattern classification and target recognition. Such combinations of powerful techniques may exploit the deeply hidden features of the multimodal, spatial, or temporal data.

This reprint presents cutting-edge research utilizing DL and IF techniques. Key research areas include image and video analysis, covering topics such as super-resolution, object detection, semantic segmentation, video captioning, and text processing, including labeling enhancement and screening misinformation. Biometric applications explore innovations in human identification using facial and finger vein recognition, facial micro-expression analysis, and fatigue detection. Advanced applications extend to handwritten recognition, tracking supermarket customer behavior, parcel sorting, predicting road surface conditions, and plastic waste classification.

MDPI

Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/10446

MDPI\Books
Publishing Open Access Books & Series

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.

Open Access
Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.

Author Focus
Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.

High Quality & Rapid Publication
MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.

High Visibility
Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).

Print on Demand and Multiple Formats
MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

Learn more ▶ mdpi.com/books