

1. Record Nr.	UNINA9910847068803321
Autore	Yin Xu-Cheng
Titolo	Open-Set Text Recognition : Concepts, Framework, and Algorithms / / by Xu-Cheng Yin, Chun Yang, Chang Liu
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9703-61-1
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (130 pages)
Collana	SpringerBriefs in Computer Science, , 2191-5776
Disciplina	780
Soggetti	Image processing - Digital techniques Computer vision Machine learning Computer Imaging, Vision, Pattern Recognition and Graphics Machine Learning Computer Vision
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Background -- Open-Set Text Recognition: Concept, DataSet, Protocol, and Framework -- Open-Set Text Recognition Implementations(I): Label-to-Representation Mapping -- Open-Set Text Recognition Implementations(II): Sample-to-Representation Mapping -- Open-Set Text Recognition Implementations(III): Open-set Predictor -- Open Set Text Recognition: Case-studies -- Discussions and Future Directions. .
Sommario/riassunto	In real-world applications, new data, patterns, and categories that were not covered by the training data can frequently emerge, necessitating the capability to detect and adapt to novel characters incrementally. Researchers refer to these challenges as the Open-Set Text Recognition (OSTR) task, which has, in recent years, emerged as one of the prominent issues in the field of text recognition. This book begins by providing an introduction to the background of the OSTR task, covering essential aspects such as open-set identification and recognition, conventional OCR methods, and their applications. Subsequently, the concept and definition of the OSTR task are presented encompassing its objectives, use cases, performance metrics, datasets, and protocols.

A general framework for OSTR is then detailed, composed of four key components: The Aligned Represented Space, the Label-to-Representation Mapping, the Sample-to-Representation Mapping, and the Open-set Predictor. In addition, possible implementations of each module within the framework are discussed. Following this, two specific open-set text recognition methods, OSOCR and OpenCCD, are introduced. The book concludes by delving into applications and future directions of Open-set text recognition tasks. This book presents a comprehensive overview of the open-set text recognition task, including concepts, framework, and algorithms. It is suitable for graduated students and young researchers who are majoring in pattern recognition and computer science, especially interdisciplinary research.
