A Video Based Vehicle Detection And Classification System

MYA MARIELA

Inventive Communication and Computational Technologies CRC Press
This volume proceedings contains revised selected papers from the 4th International Conference on Artificial Intelligence and Computational Intelligence, AICI 2012, held in Chengdu, China, in October 2012. The total of 163 high-quality papers presented were carefully reviewed and selected from 724 submissions. The papers are organized into topical sections on applications of artificial intelligence, applications of computational intelligence, data mining and knowledge discovery, evolution strategy, expert and decision support systems, fuzzy computation, information security, intelligent control, intelligent image processing, intelligent information fusion, intelligent signal processing, machine learning, neural computation, neural networks, particle swarm optimization, and pattern recognition.
Information Technology and Intelligent Transportation Systems Springer
This book gathers selected papers presented at the Inventive Communication and Computational Technologies conference (ICICCT 2021), held on 25–26 June 2021 at Gnanamani College of Technology, Tamil Nadu, India. The book covers the topics such as Internet of things, social networks, mobile communications, big data analytics, bio-inspired computing, and cloud computing. The book is exclusively intended for academics and practitioners working to resolve practical issues in this area.
Advances in Swarm Intelligence Springer
This book features the proceedings of The EAI International Conference on Big Data Innovation for Sustainable Cognitive Computing (BDCC 2020), which took place 18 – 19 December 2020. The papers feature detail on cognitive computing and its self-learning systems that use data mining, pattern recognition and natural language processing (NLP) to mirror the way the human brain works. This international conference focuses on technologies from knowledge representation techniques and natural language processing algorithms to dynamic learning approaches. Topics covered include Data Science for Cognitive Analysis, Real-Time Ubiquitous Data Science, Platform for Privacy Preserving Data Science, and Internet-Based Cognitive Platform.
Intelligent Systems and Applications Springer Nature
This book includes a selection of papers from the 2018 World Conference on Information Systems and Technologies (WorldCIST'18), held in Naples, Italy on March27-29, 2018. WorldCIST is a global forum for researchers and practitioners to present and discuss recent results and innovations, current trends, professional experiences and the challenges of modern information systems and technologies research together with their technological development and applications. The main topics covered are: A) Information and Knowledge Management; B) Organizational Models and Information Systems; C) Software and Systems Modeling; D) Software Systems, Architectures, Applications and Tools; E) Multimedia Systems and

Applications; F) Computer Networks, Mobility and Pervasive Systems; G) Intelligent and Decision Support Systems; H) Big Data Analytics and Applications; I) Human–Computer Interaction; J) Ethics, Computers & Security; K) Health Informatics; L) Information Technologies in Education; M) Information Technologies in Radiocommunications; N) Technologies for Biomedical Applications.

Artificial Intelligence and Computational Intelligence Springer Nature

The aim of IAEAC 2021 is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Information Technology,Communication,Network,Electronic and Automation Control It provides opportunities for the delegates to exchange new ideas and application experiences, to establish business or research relations and to find global partners for future collaboration

Image Analysis and Recognition Springer Nature

The two-volume set of LNCS 10941 and 10942 constitutes the proceedings of the 9th International Conference on Advances in Swarm Intelligence, ICSI 2018, held in Shanghai, China, in June 2018. The total of 113 papers presented in these volumes was carefully reviewed and selected from 197 submissions. The papers were organized in topical sections namely: multi-agent systems; swarm robotics; fuzzy logic approaches; planning and routing problems; recommendation in social media; predication; classification; finding patterns; image enhancement; deep learning; theories and models of swarm intelligence; ant colony optimization; particle swarm optimization; artificial bee colony algorithms; genetic algorithms; differential evolution; fireworks algorithm; bacterial foraging optimization; artificial immune system; hydrologic cycle optimization; other swarm-based optimization algorithms; hybrid optimization algorithms; multi-objective optimization; large-scale global optimization.

Advanced Video-Based Surveillance Systems Springer Nature

This book presents the proceedings of International Conference on Emerging Research in Computing, Information, Communication and Applications, ERCICA 2016. ERCICA provides an interdisciplinary forum for researchers, professional engineers and scientists, educators, and technologists to discuss, debate and promote research and technology in the upcoming areas of computing, information, communication and their applications. The book discusses these emerging research areas, providing a valuable resource for researchers and practicing engineers alike.

3rd International Conference on Computational Systems and Information Technology for Sustainable Solutions (CSITSS-2018) Springer Nature

Non-linear image processing -- Color photo denoising via hue, saturation and intensity diffusion / Lei He and Chenyang Xu -- Examining the role of scale in the context of the non-local-means filter / Mehran Ebrahimi and Edward R. Vrscay -- Geometrical mutliscale noise resistant method of edge detection / Agnieszka Lisowska -- A simple, general model for the affine self-similarity of images / SImon K. Alexander, Edward R. Vrscay, and Satoshi Tsurumi -- Image and video coding and encryption -- Efficient bit-rate estimation for mode decision of H. 264 / AVC / Shuwei Sun and Shuming Chen -- Introducing a two dimensional measure for watermarking capacity in images / Farzin Yaghmaee and Mansour Jamzad -- Estimating the detectability of small lesions in high resolution MR compressed images / Juan Paz, Marlen Pérez, Iroel Miranda, and Peter Schelkens -- JPEG artifact removal using error distributions of linear coefficient estimates / Mika Inki --

3rd EAI International Conference on Big Data Innovation for Sustainable Cognitive Computing Springer Nature

This book discusses the basic principles of sustainable development in a smart city ecosystem to better serve the life of citizens. It examines smart city systems driven by emerging IoT-powered technologies and the other dependent platforms. Smart Cities: AI, IoT Technologies, Big Data Solutions, Cloud Platforms, and Cybersecurity Techniques discusses the design and implementation of the core components of the smart city ecosystem. The editors discuss the effective management and development of smart city infrastructures, starting with planning and integrating complex models and diverse frameworks into an ecosystem. Specifically the chapters examine the core infrastructure elements, including activities of the public and private services as well as innovative ICT solutions, computer vision, IoT technologies, data tools, cloud services, AR/VR technologies, cybersecurity techniques, treatment solution of the environmental water pollution, and other intelligent devices for supporting sustainable living in the smart environment. The chapters also discuss machine vision models and implementation as well as real-time robotic applications. Upon reading the book, users will be able to handle the challenges and improvements of security for smart systems, and will have the know-how to analyze and visualize data using big data tools and visualization applications. The book will provide the technologies, solutions as well as designs of smart cities with advanced tools and techniques for students, researchers, engineers, and academics.

2021 IEEE 5th Advanced Information Technology, Electronic and Automation Control Conference (IAEAC) Springer

This book highlights recent research on bio-inspired computing and its various innovative applications in information and communication technologies. It presents 38 high-quality papers from the 10th International Conference on Innovations in Bio-Inspired Computing and Applications (IBICA 2019) and 9th World Congress on Information and Communication Technologies (WICT 2019), which was held at GIET University, Gunupur, India, on December 16–18, 2019. As a premier conference, IBICA–WICT brings together researchers, engineers and practitioners whose work involves bio-inspired computing, computational intelligence and their applications in information security, real-world contexts, etc. Including contributions by authors from 18 countries, the book offers a valuable reference guide for all researchers, students and practitioners in the fields of Computer Science and Engineering.

Intelligent Vehicular Networks and Communications Springer

This book summarises the state of the art in computer vision-based driver and road monitoring, focussing on monocular vision technology in particular, with the aim to address challenges of driver assistance and autonomous driving systems. While the systems designed for the assistance of drivers of on-road vehicles are currently converging to the design of autonomous vehicles, the research presented here focuses on scenarios where a driver is still assumed to pay attention to the traffic while operating a partially automated vehicle. Proposing various computer vision algorithms, techniques and methodologies, the authors also provide a general review of computer vision technologies that are relevant for driver assistance and fully autonomous vehicles. Computer Vision for Driver Assistance is the first book of its kind and will appeal to undergraduate and graduate students, researchers, engineers and those generally interested in computer vision-related topics in modern vehicle design.

Recent Advances in Intelligent Image Search and Video Retrieval Springer

This book presents select peer-reviewed proceedings of the International Conference on Frontiers in Smart Systems Technologies (ICFSST 2019). It focuses on latest research and cutting-edge technologies in smart systems and intelligent autonomous systems with advanced functionality. Comprising topics related to diverse aspects of smart technologies such as high security, reliability, miniaturization, energy consumption, and intelligent data processing, the book contains contributions from academics as well as industry. Given the range of the topics covered, this book will prove useful for students, researchers, and professionals alike.

Intelligent Road Transport Systems Springer

In recent years, the application of intelligent transportation systems (ITS) has steadily expanded, and has become a hot spot of common interest to universities, scientific research institutes, enterprises and institutions in the transportation field. ITS is the product of the deep integration of modern high-tech in the transportation industry, and its development has accompanied that of modern high-tech. ITS is now also becoming part of the Internet of Things (IoT), and is expected to contribute significantly to making our cities smarter and connecting with other infrastructure. Although there are many monographs and textbooks on intelligent transportation, with the advancement of technology and changes in demand, the key technologies of ITS are also rapidly changing. This book chiefly focuses on the main technologies of ITS, examining them from four perspectives: “sense” (perception and management of traffic information, chapters 2 & 3), “transmission” (interaction of traffic information, chapter 4), “prediction” (prediction of traffic states, chapter 6) and “application” (intelligent transportation applications, chapters 6 through 10). Given its scope, the book can be used as a textbook for undergraduates or graduates, as well as a reference book for research institutes and enterprises. This book emphasizes the use of basis traffic engineering principles and state-of-art methodologies to develop functional designs. It largely reflects the authors’ own experience in adapting these methodologies to ITS design. For example, the book addresses various forms of data collection, models used to predict and evaluate traffic states, comprehensive description in connected vehicles, applications for users and traffic managers, etc. The knowledge gained here will allow designers to estimate the performance differences among alternatives and gauge their potential benefits for functional design purposes. To gain the most from the book, readers should be somewhat familiar with the field of traffic engineering and interested in ITS.

Advances in Machine Learning and Computational Intelligence Springer Science & Business Media

This two-volume set (CCIS 134 and CCIS 135) constitutes the refereed proceedings of the International Conference on Intelligent Computing and Information Science, ICICIS2011, held in Chongqing, China, in January 2011. The 226 revised full papers presented in both volumes, CCIS 134 and CCIS 135, were carefully reviewed and selected from over 600 initial submissions. The papers provide the reader with a broad overview of the latest advances in the field of intelligent computing and information science.

Data Analytics and Learning Frontiers Media SA

This book initially reviews the major feature representation and extraction methods and effective learning and recognition approaches, which have broad applications in the context of intelligent image search and video retrieval. It subsequently presents novel methods, such as improved soft assignment coding, Inheritable Color Space (InCS) and the Generalized InCS framework, the sparse kernel manifold learner method, the efficient Support Vector Machine (eSVM), and the Scale-Invariant Feature Transform (SIFT) features in multiple color spaces. Lastly, the book presents clothing analysis for subject identification and retrieval, and performance evaluation methods of video analytics for traffic monitoring. Digital images and videos are proliferating at an amazing speed in the fields of science, engineering and technology, media and entertainment. With the huge accumulation of such data, keyword searches and manual annotation schemes may no longer be able to meet the practical demand for retrieving relevant content from images and videos, a challenge this book addresses.This book initially reviews the major feature representation and extraction methods and effective learning and recognition approaches, which have broad applications in the context of intelligent image search and video retrieval. It subsequently presents novel methods, such as improved soft assignment coding, Inheritable Color Space (InCS) and the Generalized InCS framework, the sparse kernel manifold learner method, the efficient Support Vector Machine (eSVM), and the Scale-Invariant Feature Transform (SIFT) features in multiple color spaces. Lastly, the book presents clothing analysis for subject identification and retrieval, and performance evaluation methods of video analytics for traffic monitoring. Digital images and videos are proliferating at an amazing speed in the fields of science, engineering and technology, media and entertainment. With the huge accumulation of such data, keyword searches and manual annotation schemes may no longer be able to meet the practical demand for retrieving relevant content from images and videos, a challenge this book addresses.

Proceedings of Third Doctoral Symposium on Computational Intelligence Springer Nature

Advanced Video-Based Surveillance Systems presents second generation surveillance systems that automatically process large sets of signals for performance monitoring tasks. Included is coverage of different architecture designs, customization of surveillance architecture for end-users, advances in the processing of imaging sequences, security systems, sensors, and remote monitoring projects. Examples are provided of surveillance applications in highway traffic control, subway stations, wireless communications, and other areas. This work will be of interest to researchers in image processing, computer vision, digital signal processing, and telecommunications.

Computer Vision – ECCV 2016 Springer

Data-Driven Solutions to Transportation Problems explores the fundamental principle of analyzing different types of transportation-related data using methodologies such as the data fusion model, the big data mining approach, computer vision-enabled traffic sensing data analysis, and machine learning. The book examines the state-of-the-art in data-enabled methodologies, technologies and applications in transportation. Readers will learn how to solve problems relating to energy efficiency under connected vehicle environments, urban travel behavior, trajectory data-based travel pattern identification, public transportation analysis, traffic signal control efficiency, optimizing traffic networks network, and much more. - Synthesizes the newest developments in data-driven transportation science - Includes case studies and examples in each chapter that illustrate the application of methodologies and technologies employed - Useful for both theoretical and technically-oriented researchers

Intelligent Solutions for Cities and Mobility of the Future IGI Global

The two-volume set LNAI 10191 and 10192 constitutes the refereed proceedings of the 9th Asian Conference on Intelligent Information and Database

Systems, ACIIDS 2017, held in Kanazawa, Japan, in April 2017. The total of 152 full papers accepted for publication in these proceedings was carefully reviewed and selected from 420 submissions. They were organized in topical sections named: Knowledge Engineering and Semantic Web; Social Networks and Recommender Systems; Text Processing and Information Retrieval; Intelligent Database Systems; Intelligent Information Systems; Decision Support and Control Systems; Machine Learning and Data Mining; Computer Vision Techniques; Advanced Data Mining Techniques and Applications; Intelligent and Context Systems; Multiple Model Approach to Machine Learning; Applications of Data Science; Artificial Intelligence Applications for E-services; Automated Reasoning and Proving Techniques with Applications in Intelligent Systems; Collective Intelligence for Service Innovation, Technology Opportunity, E-Learning and Fuzzy Intelligent Systems; Intelligent Computer Vision Systems and Applications; Intelligent Data Analysis, Applications and Technologies for Internet of Things; Intelligent Algorithms and Brain Functions; Intelligent Systems and Algorithms in Information Sciences; IT in Biomedicine; Intelligent Technologies in the Smart Cities in the 21st Century; Analysis of Image, Video and Motion Data in Life Sciences; Modern Applications of Machine Learning for Actionable Knowledge Extraction; Mathematics of Decision Sciences and Information Science; Scalable Data Analysis in Bioinformatics and Biomedical Informatics; and Technological Perspective of Agile Transformation in IT organizations.

Intelligent Information and Database Systems Springer Nature

This book mainly reflects the recent research works in evolutionary computation technologies and mobile sustainable networks with a specific focus on computational intelligence and communication technologies that widely ranges from theoretical foundations to practical applications in enhancing the sustainability of mobile networks. Today, network sustainability has become a significant research domain in both academia and industries present across the globe. Also, the network sustainability paradigm has generated a solution for existing optimization challenges in mobile communication networks. Recently, the research advances in evolutionary computing technologies including swarm intelligence algorithms and other evolutionary algorithm paradigms are considered as the widely accepted descriptors for mobile sustainable networks virtualization, optimization, and automation. To deal with the emerging impacts on mobile communication networks, this book discusses about the state-of-the research works on developing a sustainable design and their implementation in mobile networks. With the advent of evolutionary computation algorithms, this book contributes varied research chapters to develop a new perspective on mobile sustainable networks.

Video Based Machine Learning for Traffic Intersections Elsevier

This book presents the select proceedings of the International Conference on Automation, Signal Processing, Instrumentation and Control (i-CASIC) 2020. The book mainly focuses on emerging technologies in electrical systems, IoT-based instrumentation, advanced industrial automation, and advanced image and signal processing. It also includes studies on the analysis, design and implementation of instrumentation systems, and high-accuracy and energy-efficient controllers. The contents of this book will be useful for beginners, researchers as well as professionals interested in instrumentation and control, and other allied fields.

Related with A Video Based Vehicle Detection And Classification System:
• Texts Frequently Use Scientific Language And Jargon : click here