Eyes Detection Algorithm Using Matlab

'Fundamentals of Image, Audio, and Video Processing Using MATLAB®' and 'Fundamentals of Graphics Using MATLAB®'
Neural Oscillations in Physiology and Neuropsychiatric Disorders
Advances in Multimedia Information Processing -- PCM 2015
Microelectronics, Electromagnetics and Telecommunications
Drowsiness Detection Using Image Processing
AETA 2016: Recent Advances in Electrical Engineering and Related Sciences
Intelligent and Interactive Computing
Advances in Biomedical Engineering and Technology
Advanced Computer and Communication Engineering Technology
Ambient Communications and Computer Systems
The 15th International Conference on Biomedical Engineering
Intra- and Inter-individual Variability of Executive Functions: Determinant and Modulating Factors in Healthy and Pathological Conditions
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Computational Intelligence in Data Science
Proceedings of the Second International Conference on Intelligent Transportation
Constructive Discontent in Execution
Fourth International Congress on Information and Communication Technology
Intelligent Information and Database Systems
5th Kuala Lumpur International Conference on Biomedical Engineering 2011
Data Engineering and Intelligent Computing
Image Processing in Optical Coherence Tomography Using Matlab
Eye in Systemic Diseases
Frontiers in Enterprise Integration
Pattern Recognition and Image Analysis
Gaze Interaction and Applications of Eye Tracking: Advances in Assistive Technologies
Modern Electronics Devices and Communication Systems
MIC 2022
Image Processing and Capsule Networks
ICT Analysis and Applications
Proceedings of 3rd International Conference on Computer Vision and Image Processing
Computer Vision in MATLAB. Object Detection, Motion Estimation and Tracking, Filters and Fixed Point Design

Structural, Syntactic, and Statistical Pattern Recognition
Case Studies in Intelligent Computing
Advances in Mechanical and Industrial Engineering
Rough Sets and Knowledge Technology
Proceedings of the 2nd International Conference on Cognitive and Intelligent Computing
Eye Movement Analysis for Context Inference and Cognitive-awareness

CESAR NICHOLSON

'Fundamentals of Image, Audio, and Video Processing Using MATLAB®' and 'Fundamentals of Graphics Using MATLAB®' Springer
This book includes high-quality, peer-reviewed papers from the International Conference on Recent Advancement in Computer, Communication and Computational Sciences (RACCCS-2017), held at Aryabhatta College of Engineering & Research Center, Ajmer, India on September 2–3, 2017, presenting the latest developments and technical solutions in computational sciences. Data science, data- and knowledge engineering require networking and communication as a backbone and have a wide scope of implementation in engineering sciences. Keeping this ideology in mind, the book offers insights that reflect the advances in these fields from upcoming researchers and leading academicians across the globe. Covering a variety of topics, such as intelligent hardware and software design, advanced communications, intelligent computing technologies, advanced software engineering, the web and informatics, and intelligent image processing, it helps those in the computer industry and academia use the advances of next-generation communication and computational technology to shape real-world applications.
Neural Oscillations in Physiology and Neuropsychiatric Disorders Springer Nature
This book includes original, peer-reviewed articles from the 2nd International Conference on Cognitive & Intelligent Computing (ICCIC-2022), held at Vasavi College of Engineering Hyderabad, India. It covers the latest trends and developments in areas of cognitive computing, intelligent computing, machine learning, smart cities, IoT, artificial intelligence, cyber-physical systems, cybernetics, data science, neural network, and cognition. This book addresses the comprehensive nature of computational intelligence, cognitive computing, AI, ML, and DL to emphasize its character in modeling, identification, optimization, prediction, forecasting, and control of future intelligent systems. Submissions are original, unpublished, and present in-depth fundamental research contributions either from a methodological/application perspective in understanding artificial intelligence and machine learning approaches and their capabilities in solving diverse range of problems in industries and its real-world applications.
Advances in Multimedia

Information Processing -- PCM 2015 Createspace Independent Publishing Platform
Bachelor Thesis from the year 2019 in the subject Engineering - Robotics, grade: 78, University of Sunderland, language: English, abstract: This report explains the final project, driver drowsiness detection system. When a driver doesn’t get proper rest, they fall asleep while driving and this leads to fatal accidents. This particular issue demands a solution in the form of a system that is capable of detecting drowsiness and to take necessary actions to avoid accidents. The detection is achieved with three main steps, it begins with face detection and facial feature detection using the famous Viola Jones algorithm followed by eye tracking. By the use of correlation coefficient template matching, the eyes are tracked. Whether the driver is awake or asleep is identified by matching the extracted eye image with the externally fed template (open eyes and closed eyes) based on eyes opening and eyes closing, blinking is recognized. If the driver falling asleep state remains above a specific time (the threshold time) the vehicles stops and an alarm is activated by the use of a specific microcontroller, in this prototype an Arduino is used.
Microelectronics, Electromagnetics and Telecommunications Springer
This volume presents the proceedings of Medicon 2016, held in Paphos, Cyprus. Medicon 2016 is the XIV in the series of regional meetings of the International Federation of Medical and Biological Engineering (IFMBE) in the Mediterranean. The goal of Medicon 2016 is to provide updated information on the state of the art on Medical and Biological Engineering and Computing under the main theme “Systems Medicine for the Delivery of Better Healthcare Services”. Medical and Biological Engineering and Computing cover complementary disciplines that hold great promise for the advancement of research and development in complex medical and biological systems. Research and development in these areas are impacting the science and technology by advancing fundamental concepts in translational medicine, by helping us understand human physiology and function at multiple levels, by improving tools and techniques for the detection, prevention and treatment of disease. Medicon 2016 provides a common platform for the cross fertilization of ideas, and to help shape knowledge and scientific achievements by bridging complementary disciplines into an interactive and attractive forum under the special theme of the conference that is Systems Medicine for the Delivery of Better Healthcare Services. The programme consists of some 290 invited and submitted papers on new developments around the Conference theme, presented in 3 plenary sessions, 29 parallel scientific sessions and 12 special sessions.
Drowsiness Detection Using Image Processing Springer Science & Business Media
This book is a unique collection of thoughts by independent thinkers, researchers, and corporate practitioners that demonstrates the concept of constructive discontent, which can be defined as looking for the opportunity to deconstruct something in

order to build something else or build something better. The book discusses the concept of constructive discontent and provides a slate of examples of its application in practice. Taking an interdisciplinary focus that highlights fostering an innovative and entrepreneurial culture that can lead to creative solutions, the chapters look at innovations in information technology, business, the automobile and transportation industry, medical devices, agriculture, and more. The themes across the chapters highlight creativity, new rating and analysis systems, strategies to add value and reduce costs, and the fostering of an innovative culture. Chapters discuss alternate multidimensional models of individual entrepreneurial orientation, digital integration and adoption among small businesses, threats to business and labor faced by globalization during the pandemic era, success measurement techniques, risk taking and uncertainty avoidance in determining success, the predictive capability of the theory of planned behavior, and more.

AETA 2016: Recent Advances in Electrical Engineering and Related Sciences Springer

This discounted two-book set contains BOTH: Fundamentals of Image, Audio, and Video Processing Using MATLAB® introduces the concepts and principles of media processing and its applications in pattern recognition by adopting a hands-on approach using program implementations. The book covers the tools and techniques for reading, modifying, and writing image, audio, and video files using the data analysis and visualization tool MATLAB®. This is a perfect companion for graduate and post-graduate students studying courses on image processing, speech and language processing, signal processing, video object detection and tracking, and related multimedia technologies, with a focus on practical implementations using programming constructs and skill developments. It will also appeal to researchers in the field of pattern recognition, computer vision and content-based retrieval, and for students of MATLAB® courses dealing with media processing, statistical analysis, and data visualization. Fundamentals of Graphics Using MATLAB® introduces fundamental concepts and principles of 2D and 3D graphics and is written for undergraduate and postgraduate students of computer science, graphics, multimedia, and data science. It demonstrates the use of MATLAB® programming for solving problems related to graphics and discusses a variety of visualization tools to generate graphs and plots. The book covers important concepts like transformation, projection, surface generation, parametric representation, curve fitting, interpolation, vector representation, and texture mapping, all of which can be used in a wide variety of educational and research fields. Theoretical concepts are illustrated using a large number of practical examples and programming codes, which can be used to visualize and verify the results.

Intelligent and Interactive Computing Springer Nature

This volume in the Springer Lecture Notes in

Computer Science (LNCS) series contains the papers presented at the S+SSPR 2010 Workshops, which was the seventh occasion that SPR and SSPR workshops have been held jointly. S+SSPR 2010 was organized by TC1 and TC2, Technical Committees of the International Association for Pattern Recognition(IAPR), andheld inCesme, Izmir, whichis a seaside resort on the Aegean coast of Turkey. The conference took place during August 18–20, 2010, only a few days before the 20th International Conference on Pattern Recognition (ICPR) which was held in Istanbul. The aim of the series of workshops is to create an international forum for the presentation of the latest results and exchange of ideas between researchers in the ?elds of statistical and structural pattern recognition. SPR 2010 and SSPR 2010 received a total of 99 paper submissions from many di?erent countries around the world, giving it a truly international perspective, as has been the case for previous S+SSPR workshops. This volume contains 70 accepted papers, 39 for oral and 31 for poster presentation. In addition to par- lel oral sessions for SPR and SSPR, there were two joint oral sessions of interest to both SPR and SSPR communities. Furthermore, to enhance the workshop experience, there were two joint panel sessions on “Structural Learning” and “Clustering,” in which short author presentations were followed by discussion. Another innovation this year was the ?lming of the proceedings by Videol- tures.

Advances in Biomedical Engineering and Technology Springer

Enterprise Information Systems (EIS) integrate and support business processes across functional boundaries in a supply chain environment, and have become increasingly popular over the last 15 years. In recent years, more and more enterprises world-wide have adopted EIS such as Enterprise Resource Planning (ERP) for running their businesses. Previously, information systems such as CAD, CAM, MRPII and CRM were widely used for partial functional integration within a business organization. With global operation, global supply chain, and fierce competition in place, there is a need for suitable EIS such as ERP, E-Business or E-Commerce systems to integrate extended enterprises in a supply chain environment with the objective of achieving efficiency, competency, and competitiveness. As a result, there is a growing demand for researching EIS to provide insights into challenges, issues, and solutions related to the design, implementation and management of EIS. The papers in Advances in Enterprise Information Systems were selected from two premier international conferences: the International Forum of Information Systems Frontiers—Xian International Symposium (IFISF), June 29-30, 2006, Xian, China and the IFIP TC 8.9 International Conference on Research and Practical Issues of Enterprise Information Systems (Confenis 2007), October 14-16, Beijing, China. Both events provided an excellent opportunity for EIS academicians and practitioners in the world to gather and exchange ideas, and present original research in their fields. Advances in Enterprise Information

Systems will be invaluable to scientists, researchers and professionals in EIS.
Advanced Computer and Communication Engineering Technology
CRC Press
This book develops algorithms, functions, and apps for designing and simulating computer vision and video processing systems. Algorithms are available as MATLAB functions, System objects, and Simulink blocks. You can perform feature detection, extraction, and matching, as well as object detection and tracking. Local features and their descriptors are the building blocks of many computer vision algorithms. Their applications include image registration, object detection and classification, tracking, and motion estimation. These algorithms use local features to better handle scale changes, rotation, and occlusion. Segmentation is essential for image analysis tasks. Semantic segmentation describes theprocess of associating each pixel of an image with a class label, (such as flower, person, road, sky, ocean, or car). Applications for semantic segmentation include: Autonomous driving, Industrial inspection, classification of terrain visible in satellite imagery and Medical imaging analysis. You can use the Image Labeler app to interactively label pixels and export the label data for training. The app can also be used to label rectangular regions of interest (ROIs) and scene labels for image classification. Image feature detection is a building block of many computer vision tasks, such as image registration, tracking, and object detection. The Computer Vision System Toolbox includes a variety of functions for image feature detection. These functions return points objects that store information specific to particular types of features, including (x, y) coordinates (in the Location property). You can pass a points object from a detection function to a variety of other functions that require feature points as inputs. The algorithm that a detection function uses determines the type of points object it returns. The optical character recognition (OCR) app trains the ocr function to recognize acustom language or font. You can use this app to label character data interactively for OCR training and to generate an OCR language data file for use with the ocr function. Motion estimation and tracking are key activities in many computer vision applications, including activity recognition, traffic monitoring, automotive safety, and surveillance. Tracking is the process of locating a moving object or multiple objects over time in a video stream. Tracking an object is not the same as object detection. Object detection is the process of locating an object of interest in a single frame. Tracking associates detectionsof an object across multiple frames. Tracking multiple objects requires detection, prediction, and data association. Detection detect objects of interest in a video frame, Prediction predict the object locations in the next frame and Data association use the predicted locations to associate detections across framesto form tracks. For rapid prototyping and embedded system design, the system toolbox supports fixed-point arithmetic and C-code

generation.
Ambient Communications and Computer Systems Springer Science & Business Media
This eBook attempts to unify the contributions of different research groups investigating the sources of variability in executive functions, discussing the most recent developments and integrating the knowledge accumulated across different fields. It consists of a compilation of empirical, theoretical and review articles studying executive functions in both clinical and healthy human populations. Some of the key influences on intra- and inter-variability in executive functions discussed include the developmental trajectory of executive functions, healthy and pathological aging in executive functions, as well as the influence of environmental factors and intelligence on executive functions.
The 15th International Conference on Biomedical Engineering CRC Press
This book covers the results of the creation of methods for ophthalmologists support in OCT images automated analysis. These methods, like the application developed on their basis, are used during routine examinations carried out in hospital. The monograph comprises proposals of new and also of known algorithms, modified by authors, for image analysis and processing, presented on the basis of example of Matlab environment with Image Processing tools. The results are not only obtained fully automatically, but also repeatable, providing doctors with quantitative information on the degree of pathology occurring in the patient. In this case the anterior and posterior eye segment is analysed, e.g. the measurement of the filtration angle or individual layers thickness. To introduce the Readers to subtleties related to the implementation of selected fragments of algorithms, the notation of some of them in the Matlab environment has been given. The presented source code is shown only in the form of example of implementable selected algorithm. In no way we impose here the method of resolution on the Reader and we only provide the confirmation of a possibility of its practical implementation.
Intra- and Inter-individual Variability of Executive Functions: Determinant and Modulating Factors in Healthy and Pathological Conditions Frontiers Media SA
The second volume of this book includes selected high-quality research papers presented at the Fourth International Congress on Information and Communication Technology, which was held at Brunel University, London, on February 27–28, 2019. It discusses emerging topics pertaining to information and communication technology (ICT) for managerial applications, e-governance, e-agriculture, e-education and computing technologies, the Internet of Things (IoT), and e-mining. Written by respected experts and researchers actively working in ICT, the book offers a valuable resource, especially for researchers who are newcomers to the field.
Intelligent Video Event Analysis and Understanding Robert Koprowski
This book features a collection of high-quality, peer-reviewed papers presented at the Fourth International Conference on Intelligent Computing

and Communication (ICICC 2020) organized by the Department of Computer Science and Engineering and the Department of Computer Science and Technology, Dayananda Sagar University, Bengaluru, India, on 18–20 September 2020. The book is organized in two volumes and discusses advanced and multi-disciplinary research regarding the design of smart computing and informatics. It focuses on innovation paradigms in system knowledge, intelligence and sustainability that can be applied to provide practical solutions to a number of problems in society, the environment and industry. Further, the book also addresses the deployment of emerging computational and knowledge transfer approaches, optimizing solutions in various disciplines of science, technology and health care.

Recent Trends in Computational Intelligence Enabled Research Frontiers Media SA

This book contains the proceedings of the 2nd Multidiscipline International Conference (MIC) 2022 will be an annual event hosted by Nusantara Training and Research (NTR). This year (2022), this event was held in collaboration with Nusantara Training and Research (NTR) with Universitas Borobudur Jakarta will be held on the virtual conference on 12 November 2022 at Semarang, Indonesia. We carry the theme "Multidisciplinary Research Synergies in Generating Innovations in The Digitalization Era" trying to continue to synchronize with all aspects in the pandemic era and prepare to face the new normal, as well as outlook of the field of Call for papers fields to be included in MIC. The scope of this event is multidisciplinary. Starting from social science, economics, education, law, engineering, religion, and other sciences. This conference was attended by participants and delegates from various universities from Indonesia, Malaysia, Brunai Darussalam, Philippines, Australia, and Japan. More than 100 participants from academics, practitioners and bureaucrats took part in this event to exchange knowledge according to their research results and competencies.

Detection and tracking of open eyes in video sequences Springer

The International Conference on ADVANCES IN MECHANICAL AND INDUSTRIAL ENGINEERING (ICAMIE –2020) aims to solidify knowledge of sister branches of research on Mechanical Engineering applied to Industry, Health Sectors, Energy Sector, Agricultural Sector etc. Mechanical Engineering is a core branch of Engineering with its own peculiarities and very diverse areas of action. (ICAMIE –2020) will widen the scope of bringing together innovators, researchers and industries under a common goal – creating, evaluating, implementing and benefiting from innovations in the areas of engineering applications It will thus support innovative projects and bring benefits to all involved participants. Participants from Universities, Institutes, Associations, Companies, Consultancies, R&Ds etc. from India and abroad will be invited. The aim of (ICAMIE –2020) is to be one of the most influential channels for transferring innovative ideas from academia to industry thereby these ideas may

start to generate consultancy, projects and collaborations. The novel idea to conduct this type of conference is to discuss social and industrial problems and try to find a way to resolve their solutions by advanced methods and methodologies like soft computing techniques, Multi-criteria decision making algorithms, Internet of Things, technologies, Artificial intelligence, Robotics etc. (ICAMIE –2020) will be successful being the multidisciplinary conference of its first kind and aims to be one of the most influential channels transferring innovative ideas from academia to industry thereby these ideas may start to generate consultancy, projects and collaborations.

XIV Mediterranean Conference on Medical and Biological Engineering and Computing 2016 Springer Science & Business Media

These lecture notes present selected topics concerning a wide range of electrical and electronics applications, highlighting innovative approaches and offering state-of-the-art overviews. The book is divided into 14 topical areas, including e.g. telecommunication, power systems, robotics, control systems, renewable energy, mechanical engineering, computer science and more. Readers will find revealing papers on the design and implementation of control algorithms for automobiles and electrohydraulic systems, efficient protocols for vehicular ad hoc networks and motor control, and energy-saving methods that can be applied in various fields of electrical engineering. The book offers a valuable resource for all practitioners who want to apply the topics discussed to solve real-world problems in their challenging applications. Offering insights into common and related subjects in the research fields of modern electrical, electronic and related technologies, it will also benefit all scientists and engineers working in the above-mentioned fields.

Computational Intelligence in Data Science CRC Press

The two-volume set LNAI 11431 and 11432 constitutes the refereed proceedings of the 11th Asian Conference on Intelligent Information and Database Systems, ACIIDS 2019, held in Yogyakarta, Indonesia, in April 2019. The total of 124 full papers accepted for publication in these proceedings were carefully reviewed and selected from 309 submissions. The papers of the first volume are organized in the following topical sections: knowledge engineering and semantic web; text processing and information retrieval; machine learning and data mining; decision support and control systems; computer vision techniques; and databases and intelligent information systems. The papers of the second volume are divided into these topical sections: collective intelligence for service innovation, technology management, E-learning, and fuzzy intelligent systems; data structures modelling for knowledge representation; advanced data mining techniques and applications; intelligent information systems; intelligent methods and artificial intelligence for biomedical decision support systems; intelligent and contextual systems; intelligent systems and algorithms in information sciences; intelligent supply chains

and e-commerce; sensor networks and Internet of Things; analysis of image, video, movements and brain intelligence in life sciences; and computer vision and intelligent systems.

Proceedings of the Second International Conference on Intelligent Transportation Springer

This book emphasizes the emerging building block of image processing domain, which is known as capsule networks for performing deep image recognition and processing for next-generation imaging science. Recent years have witnessed the continuous development of technologies and methodologies related to image processing, analysis and 3D modeling which have been implemented in the field of computer and image vision. The significant development of these technologies has led to an efficient solution called capsule networks [CapsNet] to solve the intricate challenges in recognizing complex image poses, visual tasks, and object deformation. Moreover, the breakneck growth of computation complexities and computing efficiency has initiated the significant developments of the effective and sophisticated capsule network algorithms and artificial intelligence [AI] tools into existence. The main contribution of this book is to explain and summarize the significant state-of-the-art research advances in the areas of capsule network [CapsNet] algorithms and architectures with real-time implications in the areas of image detection, remote sensing, biomedical image analysis, computer communications, machine vision, Internet of things, and data analytics techniques.

Constructive Discontent in Execution Springer

The volume contains 94 best selected research papers presented at the Third International Conference on Micro Electronics, Electromagnetics and Telecommunications (ICMEET 2017) The conference was held during 09-10, September, 2017 at Department of Electronics and Communication Engineering, BVRIT Hyderabad College of Engineering for Women, Hyderabad, Telangana, India. The volume includes original and application based research papers on microelectronics, electromagnetics, telecommunications, wireless communications, signal/speech/video processing and embedded systems.

Fourth International Congress on Information and Communication Technology CRC Press

This book covers diverse aspects of advanced computer and communication engineering, focusing specifically on industrial and manufacturing theory and applications of electronics, communications, computing and information technology. Experts in research, industry, and academia present the latest developments in technology, describe applications involving cutting-edge communication and computer systems, and explore likely future trends. In addition, a wealth of new algorithms that assist in solving computer and communication engineering problems are presented. The book is based on presentations given at ICOCOE 2015, the 2nd International Conference on Communication and

Computer Engineering. It will appeal to a wide range of professionals in the field, including telecommunication engineers, computer engineers and scientists, researchers, academics and students.