Kinfu An Open Source Implementation Of Kinect Fusion

The field of robotic vision has advanced dramatically recently with the development of new range sensors. Tremendous progress has been made resulting in significant impact on areas such as robotic navigation, scene/environment understanding, and visual learning. This edited book provides a solid and diversified reference source for some of the most recent important advancements in the field of robotic vision. The book starts with articles that describe new techniques to understand scenes from 2D/3D data such as estimation of planar structures, recognition of multiple objects in the scene using different kinds of features as well as their spatial and semantic relationships, generation of 3D object models, approach to recognize partially occluded objects, etc. Novel techniques are introduced to improve 3D perception accuracy with other sensors such as a gyroscope, positioning accuracy with a visual servoing based alignment strategy for microassembly, and increasing object recognition reliability using related manipulation motion models. For autonomous robot navigation, different vision-based localization and tracking strategies and algorithms are discussed. New approaches using probabilistic analysis for robot navigation, online learning of vision-based robot control, and 3D motion estimation via intensity differences from a monocular camera are described. This collection will be beneficial to graduate students, researchers, and

professionals working in the area of robotic vision.
New Development in Robot VisionSpringer
This book presents novel and advanced topics in Medical Image Processing and Computational Vision in order to solidify knowledge in the related fields and define their key stakeholders. It contains extended versions of selected papers presented in VipIMAGE 2013 – IV International ECCOMAS Thematic Conference on Computational Vision and Medical Image, which took place in Funchal, Madeira, Portugal, 14-16 October 2013. The twenty-two chapters were written by invited experts of international recognition and address important issues in medical image processing and computational vision, including: 3D vision, 3D visualization, colour quantisation, continuum mechanics, data fusion, data mining, face recognition, GPU parallelisation, image acquisition and reconstruction, image and video analysis, image clustering, image registration, image restoring, image segmentation, machine learning, modelling and simulation, object detection, object recognition, object tracking, optical flow, pattern recognition, pose estimation, and texture analysis. Different applications are addressed and described throughout the book, comprising: biomechanical studies, bio-structure modelling and simulation, bone characterization, cell tracking, computer-aided diagnosis, dental imaging, face recognition, hand gestures detection and recognition, human motion analysis, human-computer interaction, image and video understanding, image processing, image segmentation, object and scene reconstruction, object recognition and

tracking, remote robot control, and surgery planning. This volume is of use to researchers, students, practitioners and manufacturers from several multidisciplinary fields, such as artificial intelligence, bioengineering, biology, biomechanics, computational mechanics, computational vision, computer graphics, computer science, computer vision, human motion, imagiology, machine learning, machine vision, mathematics, medical image, medicine, pattern recognition, and physics.

Die Monetarisierung von Daten ist per se ein sehr junges Thema, zu dem es nur sehr vereinzelt Fallbeispiele gibt. Es fehlt an einer Strategie bzw. einem Konzept, das Führungskräften den Weg in die Monetarisierung von Daten zeigt, insbesondere jenen, die die Digitale Transformation bzw. Industrie 4.0 für sich entdeckt haben oder davon bedroht sind. Weil Maschinendaten meist unstrukturiert und ohne Domänenwissen/Metadaten nicht verwertbar sind, birgt die Monetarisierung von Maschinendaten ein noch nicht abschließend bewertbares Potenzial. Um dieses Potenzial greifbar zu machen, werden in diesem Werk neben Beiträgen aus der Wissenschaft auch Praxisbeispiele aus der Industrie beschrieben. Anhand von unterschiedlichen Beispielen aus diversen Branchen kann der Leser bereits heute Teil einer zukünftigen Datenökonomie werden. Mehrwerte und Nutzen werden konkret beschrieben.

Vulnerability is an essential but also an intriguing

ambiguous part of the human condition. This book con-ceptualizes vulnerability to be a fundamental threat and deficit and at the same time to be a powerful resource for transformation.The exploration is undertaken in multidisciplinary perspectives and approaches the human condition in fruitful conversations with medical, psychological, legal, theological, political and philosophical investiga-tions of vulnerability.The multidisciplinary approach opens the space for a broad variety of deeply interrelated topics. Thus, vulnerability is analyzed with respect to diverse aspects of human and social life, such as violence and power, the body and social institutions. Theologically questions of sin and redemption and eventually the nature of the Divine are taken up. Throughout the book phenomenological descriptions are combined with necessary conceptual clarifications. The contributions seek to illuminate the relation between vulnerability as a fundamental unavoidable condition and contingent actualizations related to specific dangers and risks. The core thesis of the book can be seen within its multi-perspectivity: A sound concept of vulnerability is key to a realistic, that is to say neither negative nor illusionary anthropology, to an honest post-theistic understanding of God and eventually to a deeply humanistic understanding of social life.

This book constitutes the thoroughly refereed post-conference proceedings of the 11th International

Joint Conference on Biomedical Engineering Systems and Technologies, BIOSTEC 2018, held in Funchal, Madeira, Portugal, in January 2018. The 25 revised full papers presented were carefully reviewed and selected from a total of 299 submissions. The papers are organized in topical sections on biomedical electronics and devices; bioimaging; bioinformatics models, methods and algorithms; health informatics.

Alle wichtigen Grundlagen - Was ist dran an den Erkenntnissen der Altersmedizin? - Biologische Grundlagen und Physiologie des Alterns - "Zeitdiebe": falsche Ernährung, Stress, metabolisches Syndrom - Spezifische Alterungsprozesse: Neurodegenerative und Herz-Kreislauf-Erkrankungen, Sexualität und Hormonstoffwechsel - Altersrisiken: Rauchen und Alkohol, Krebs, Diabetes, und Adipositas Möglichkeiten und Strategien der Alters-Prävention - Lifestyle-Konzepte: Bilanzierte Diät, Bewegung, geistige Leistungsfähigkeit, Wellness, Plastische Chirurgie, - Ganzheitliche Betrachtung: Mentale Fitness, Faktor Glück - Welche Therapieangebote haben sich bewährt? Wie werden sie eingesetzt? Schneller Zugriff auf Anti-Aging-Konzepte - Das Kurskonzept bringt Ordnung in die Fülle vorhandener Informationen. - Konkrete Tipps für die tägliche Anwendung von Anti-Aging-Strategien - Praktische Querverweise erschließen komplexe Zusammenhänge. Good-Aging: Länger gesund leben! Mit einem Geleitwort von Dr. Frank Schirrmacher, Mitherausgeber der Frankfurter Allgemeinen Zeitung und Autor des Buches "Das Methusalem-Komplott"

The two volumes LNCS 8814 and 8815 constitute the thoroughly refereed proceedings of the 11th International Conference on Image Analysis and Recognition, ICIAR 2014,

held in Vilamoura, Portugal, in October 2014. The 107 revised full papers presented were carefully reviewed and selected from 177 submissions. The papers are organized in the following topical sections: image representation and models; sparse representation; image restoration and enhancement; feature detection and image segmentation; classification and learning methods; document image analysis; image and video retrieval; remote sensing; applications; action, gestures and audio-visual recognition; biometrics; medical image processing and analysis; medical image segmentation; computer-aided diagnosis; retinal image analysis; 3D imaging; motion analysis and tracking; and robot vision.

Das erste pflegewissenschaftliche Werk zur modernen Krankenpflege, erstmals 1859 erschienen. Die Autorin unterscheidet zwischen dem pflegerischen Wissen einer qualifizierten professionellen Krankenpflegerin und dem Basiswissen für Pflege im privaten Bereich.

The two-volume set LNCS 8325 and 8326 constitutes the thoroughly refereed proceedings of the 20th Anniversary International Conference on Multimedia Modeling, MMM 2014, held in Dublin, Ireland, in January 2014. The 46 revised regular papers, 11 short papers and 9 demonstration papers were carefully reviewed and selected from 176 submissions. 28 special session papers and 6 papers from Video Browser Showdown workshop are also included in the proceedings. The papers included in these two volumes cover a diverse range of topics including: applications of multimedia modelling, interactive retrieval, image and video

collections, 3D and augmented reality, temporal analysis of multimedia content, compression and streaming. Special session papers cover the following topics: Mediadrom: artful post-TV scenarios, MM analysis for surveillance video and security applications, 3D multimedia computing and modeling, social geo-media analytics and retrieval, multimedia hyperlinking and retrieval.

The three-volume set LNCS 9349, 9350, and 9351 constitutes the refereed proceedings of the 18th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2015, held in Munich, Germany, in October 2015. Based on rigorous peer reviews, the program committee carefully selected 263 revised papers from 810 submissions for presentation in three volumes. The papers have been organized in the following topical sections: quantitative image analysis I: segmentation and measurement; computer-aided diagnosis: machine learning; computer-aided diagnosis: automation; quantitative image analysis II: classification, detection, features, and morphology; advanced MRI: diffusion, fMRI, DCE; quantitative image analysis III: motion, deformation, development and degeneration; quantitative image analysis IV: microscopy, fluorescence and histological imagery; registration: method and advanced applications; reconstruction, image formation, advanced acquisition -

computational imaging; modelling and simulation for diagnosis and interventional planning; computer-assisted and image-guided interventions.

Zu einer gesicherten Diagnose kommen trotz Sprachproblemen, interkulturelle Behandlungsstrategien für Krankheitsbilder wie z.B. Schizophrenie, Depression, Angststörungen, Posttraumatische Belastungsstörung für Menschen mit Migrationshintergrund entwickeln – Praxis der interkulturellen Psychiatrie und Psychotherapie bietet Ihnen einen fundierten Einblick in die ganze Bandbreite der Psychiatrie und Psychotherapie bei Migranten, Geflüchteten und Asylsuchenden. Sie erfahren das Wichtigste über kulturelle und religiöse Hintergründe und die Bedeutung psychischer Symptome in den Herkunftsländern. Er bekommt Empfehlungen zur Auswahl optimaler Therapieformen, lernt einzuschätzen, wann eine ambulante oder stationäre Therapie sinnvoll ist und welche Netzwerke und Anlaufstellen er den Patienten empfehlen kann. Der neue Schwerpunkt in der 2. Auflage: Geflüchtete und Asylsuchende Psychiatrische Notfallbehandlung, Begutachtung und Narrative Expositionstherapie Behandlung von unbegleiteten minderjährigen Flüchtlingen und traumatisierten jesidischen Frauen Die Migrations- und Flüchtlingspolitik

Computational Vision and Medical Image Processing. VIPIMAGE 2013 contains invited lectures and full papers

presented at VIPIMAGE 2013 - IV ECCOMAS Thematic Conference on Computational Vision and Medical Image Processing (Funchal, Madeira Island, Portugal, 14-16 October 2013). International contributions from 16 countries provide a comprehensive coverage of the current state-of-the-art in the fields of: 3D Vision; Computational Bioimaging and Visualization; Computational Vision and Image Processing applied to Dental Medicine; Computational Vision; Computer Aided Diagnosis, Surgery, Therapy, and Treatment; Data Interpolation, Registration, Acquisition and Compression; Image Processing and Analysis; Image Segmentation; Imaging of Biological Flows; Medical Imaging; Physics of Medical Imaging; Shape Reconstruction; Signal Processing; Simulation and Modeling; Software Development for Image Processing and Analysis; Telemedicine Systems and their Applications; Trabecular Bone Characterization; Tracking and Analysis of Movement; Virtual Reality. Related techniques covered in this book include the level set method, finite element method, modal analyses, stochastic methods, principal and independent components analysis and distribution models. Computational Vision and Medical Image Processing. VIPIMAGE 2013 is useful to academics, researchers and professionals in Biomechanics, Biomedical Engineering, Computational Vision (image processing and analysis), Computer Sciences, Computational Mechanics and Medicine.

Ist das voll automatisierte, autonom fahrende Auto zum Greifen nah? Testfahrzeuge und Zulassungen in den USA erwecken diesen Eindruck, werfen aber gleichzeitig viele neue Fragestellungen auf. Wie werden autonome Fahrzeuge in das aktuelle Verkehrssystem integriert? Wie erfolgt ihre rechtliche Einbettung? Welche Risiken bestehen und wie wird mit diesen umgegangen? Und welche Akzeptanz seitens der Gesellschaft sowie des Marktes kann hinsichtlich dieser

Entwicklungen überhaupt erwartet werden? Das vorliegende Buch gibt Antworten auf ein breites Spektrum dieser und weiterer Fragen. Expertinnen und Experten aus Deutschland und den USA beschreiben aus ingenieur- und gesellschaftswissenschaftlicher Sicht zentrale Themen im Zusammenhang mit der Automatisierung von Fahrzeugen im öffentlichen Straßenverkehr. Sie zeigen auf, welche „Entscheidungen“ einem autonomen Fahrzeug abverlangt werden beziehungsweise welche „Ethik“ programmiert werden muss. Die Autorinnen und Autoren diskutieren Erwartungen und Bedenken, die die individuelle wie auch die gesellschaftliche Akzeptanz des autonomen Fahrens kennzeichnen. Ein durch autonome Fahrzeuge erhöhtes Sicherheitspotenzial wird den Herausforderungen und Lösungsansätzen, die bei der Absicherung des Sicherheitskonzeptes eine Rolle spielen, gegenübergestellt. Zudem erläutern sie, welche Veränderungsmöglichkeiten und Chancen sich für unsere Mobilität und die Neuorganisation des Verkehrsgeschehens ergeben, nicht zuletzt auch für den Güterverkehr. Das Buch bietet somit eine aktuelle, umfassende und wissenschaftlich fundierte Auseinandersetzung mit dem Thema „Autonomes Fahren“.
This book constitutes the refereed joint proceedings of the First International Workshop on Data Driven Treatment Response Assessment, DATRA 2018 and the Third International Workshop on Preterm, Perinatal and Paediatric Image Analysis, PIPPI 2018, held in conjunction with the 21st International Conference on Medical Imaging and Computer-Assisted Intervention, MICCAI 2018, in Granada, Spain, in September 2018. The 5 full papers presented at DATRA 2018 and the 12 full papers presented at PIPPI 2018 were carefully reviewed and selected. The DATRA papers cover a wide range of exploring pattern recognition technologies for tackling clinical issues related to the follow-up analysis of

medical data with focus on malignancy progression analysis, computer-aided models of treatment response, and anomaly detection in recovery feedback. The PIPPI papers cover topics of advanced image analysis approaches focused on the analysis of growth and development in the fetal, infant and paediatric period.