



3D-3D ultrasound registration for surgical navigation systems

By Alexander Lampret

AV Akademikerverlag Aug 2012, 2012. Taschenbuch. Condition: Neu. Neuware - Minimal invasive surgery gets more and more important because of its advantages for patients and the health system. Because the surgeon has reduced sight, patient or organ movements are not always recognized. Due to this movements, the necessary treatment or biopsy can affect healthy tissue instead of sick one. Computer-aided image-based navigation systems supports the surgeon to identify such movements. These navigation systems uses pre-operative 3D computer tomography (CT) or magnetic resonance (MR) images and compare them to real-time 2D ultrasound (US) images from the endoscope head. Within a number of treatments tissue deformation can occur and these deformations are not considered in the CT or MR images. These deformation limits the effect of navigation systems. This thesis describes a 3D-3D US-US registration method which detects and corrects tissue deformation during interventions in gastroenterology. Before treatment starts a 3D CT and a 3D US image are recorded simultaneously. At the beginning of the treatment session, the ROI is again imaged with the 3D US. Both US images are then processed with a series of filters to reduce noise and to highlight the anatomically significant structures. The following 3D-3D registration between...



READ ONLINE
[3.24 MB]

Reviews

The ideal publication i ever read through. It is probably the most amazing ebook i have read. You wont really feel monotony at at any moment of your own time (that's what catalogues are for concerning should you request me).

-- Kianna Cummings MD

Most of these ebook is the ideal book offered. It is rally interesting throgh reading through time. Your way of life span will be enhance the instant you complete reading this ebook.

-- Antonina Friesen

You May Also Like



[Arsenic Removal Technologies from ground water](#)

LAP Lambert Academic Publishing Jan 2013, 2013. Taschenbuch. Condition: Neu. Neuware - Ground water is one of the main sources of drinking water especially in rural areas of India. Groundwater is generally regarded as safe to drink. At the same time ground water...



[Design and Development of Low Cost Adsorbents](#)

LAP Lambert Academic Publishing Nov 2013, 2013. Taschenbuch. Condition: Neu. Neuware - Clean and pure water is one of the implicit requisites for a healthy human population. However the growing industrialization and extensive use of chemicals for various concerns, has increased the...



[HBR Guide to Getting the Right Work Done](#)

Ingram Publisher Services Feb 2013, 2013. Taschenbuch. Condition: Neu. Neuware - IS YOUR WORKLOAD SLOWING YOU-AND YOUR CAREER-DOWN Your inbox is overflowing. You're paralyzed because you have too much to do but don't know where to start. Your to-do list never seems...



[Modeling of Evanescent wave Optical Fiber Biosensor](#)

LAP Lambert Acad. Publ. Mrz 2011, 2011. Taschenbuch. Condition: Neu. Neuware - Biomedical electronics and instruments, equipment, diagnostic & detection tools success based on the success of high sensitive biosensors invention and development. Biosensors are the active electronic, semiconductor electronics, optoelectronics or...



[Intermediate Accounting \(IFRS\) Volume 1](#)

LAP Lambert Academic Publishing Nov 2018, 2018. Taschenbuch. Condition: Neu. Neuware - This book focuses on the second stage of financial accounting, which is the intermediate accounting. The first part deals with the problems and disclosures of the financial statements, as well...



[Simultaneous Removal of Iron, Arsenic and Fluoride](#)

LAP Lambert Academic Publishing Okt 2016, 2016. Taschenbuch. Condition: Neu. Neuware - Groundwater is the major source of domestic water for people living in rural and semi-urban area of Assam - a northeastern hilly province of India. However, it contains excessive amounts...