

Personal Information

Name	Huda Abdel-Rahim Karajeh
Place and date of birth	Jordan. 14 th of July, 1982
Faculty	King Abdullah II School for Information Technology
Department	Computer Information Systems Department

Qualifications

Qualification	Specialization	University of donor rank	Date
Ph.D. in Computer Information Systems	3D Image Processing (computer vision)	School of Engineering and Computing Sciences, Durham University, United Kingdom.	October 2008- April 2012
Master's Degree in Information Technology	Computer Science, Medical image processing	The University of Jordan, Jordan	October 2004- August 2006
Bachelor Degree in Information Technology	Computer Science	The University of Jordan, Jordan	October 2004- August 2006

Specialization and domain of interest

Specialization	Image Processing and Computer Vision
Domain of interest	Image Watermarking, Image Segmentation, E-Learning

Specialization and domain of interest

Title and abstract of the doctoral thesis

Thesis title: Intermediate View Reconstruction for Multiscopic 3D Display

This thesis focuses on Intermediate View Reconstruction (IVR) which generates additional images from the available stereo images. The main application of IVR is to generate the content of multiscopic 3D displays, and it can be applied to generate different viewpoints to Free-viewpoint TV (FTV). Although IVR is considered a good approach to generate additional images, there are some problems with the reconstruction process, such as detecting and handling the occlusion areas, preserving the discontinuity at edges, and reducing image artifacts through formation of the texture of the intermediate image.

In this thesis, several novel algorithms have been specifically designed to solve IVR challenges by employing them in a highly robust intermediate view reconstruction algorithm. Computer simulation and experimental results confirm the importance of occluded areas in IVR. Therefore, we propose a novel occlusion detection algorithm and another novel algorithm to Inpaint those areas. Then, these proposed algorithms are employed in a novel occlusion-aware intermediate view reconstruction that finds an intermediate image with a given disparity between two input images. This novelty is addressed by adding occlusion awareness to the reconstruction algorithm and proposing three quality improvement techniques to reduce image artifacts: filling the re-sampling holes, removing ghost contours, and handling the disocclusion area.

Career Experience

Job Title	Place of work	Date
Associate professor	Computer Information Systems, king Abdullah II School for Information Technology, <i>University of Jordan</i> , Amman, Jordan.	November 2018- Present
Assistant Professor	Computer Information Systems, king Abdullah II School for Information Technology, <i>University of Jordan</i> , Amman, Jordan.	April 2012 – November 2018
Assistant Professor	Computer Information Systems, Tabuk Community College, Tabuk University, Tabuk, Saudi Arabia.	Feb. 2014 – July 2014

Teaching and Research Assistance	Computer Information Systems, king Abdullah II School for Information Technology, <i>University of Jordan</i> , Amman, Jordan	2007- 2008
Lecturer	Computer Science Department, <i>Hashemite University</i> , Zarqa, Jordan.	2006- 2007
Teaching and Research Assistance	Computer Information Systems, king Abdullah II School for Information Technology, <i>University of Jordan</i> , Amman, Jordan.	2005- 2006

Administrative works and committees

Administrative work and committee	Date
<i>Member in IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) – IEEE – Jordan Section, Jordan Engineers Association, and Al-Zaytoonah University of Jordan.</i>	2019
<i>Member of New Trends in Information Technology (NTIT) at the King Abdullah II School for Information Technology, The University of Jordan.</i>	2017
<i>Chair in the Fifth peer-reviewed International Conference for Universities' Research Theses and Dissertations, Higher Studies Faculty, The University of Jordan.</i>	2013
<i>Member of Computer Information Systems Department Council at the King Abdullah II School for Information Technology, The University of Jordan.</i>	2012-Now
<i>Member of Curriculum Committee at Computer Information Systems Department, The King Abdullah II School for Information Technology, The University of Jordan.</i>	2014-Now:
<i>Member of Evaluation Courses Committee at Computer Information Systems Department, The King Abdullah II School for Information Technology, The University of Jordan, Jordan.</i>	2013-2014

Member of Quality Assurance Committee at Computer Information Systems Department at the King Abdullah II School for Information Technology, The University of Jordan, Jordan.	2012-2014
Member of Students Supervision committee at Computer Information Systems Department at the King Abdullah II School for Information Technology, The University of Jordan, Jordan.	2012-2014
Member of Student Election Committee at Computer Information Systems Department at the King Abdullah II School for Information Technology, The University of Jordan, Jordan.	2012-2014:

Recent Publications within last five years

Name of researcher	Research title, Publisher, Date
Karajeh, H. , Khatib, T., Rajab, L., Maqableh, M.,	"A robust digital audio watermarking scheme based on DWT and Schur decomposition", (2019). Multimedia Tools and Applications 78 (13), 18395-18418.
Karajeh, H. , Maqableh, M.,	"An Imperceptible, Robust, and High Payload Capacity Audio Watermarking Scheme Based on the DCT transformation and Schur Decomposition", (2019). Analog Integrated Circuits and Signal Processing 99 (3), 571-583.
Karajeh, H. , Maqableh, M., Rajab, L., Mohammad, H., Khatib, T., Alqirim, N.,	Social Media Networks and Pedagogy at the University of Jordan", (2018). Education and Information Technologies 23 (5), 2091-2092.
Al-Ayyoub, M., Oqaily, A., Jarrah, M., Karajeh, H. ,	"Automatically Determining the Location and Length of Coronary Artery Thrombosis Using Coronary Angiography", (2016). International Journal of Computer Science and Information Security 14 (3), 10-19.
Khatib, T., Karajeh, H. , Mohammad, H., Rajab, L.,	"A hybrid multilevel text extraction algorithm in scene images", (2015). Scientific Research and Essays 10 (3), 105-113.
Maqableh, M., Rajab, L., Quteshat, W., Masa'deh, R., Khatib, T. and Karajeh, H. ,	"The Impact of Social Media Networks Websites Usage on Students' Academic Performance ", (2015). Communications and Network 7, 159-171.

Scientific conferences and symposia

Conference Title	Place and date of conference	Type of participation
Tech Women Networking Conference	(2013), Princess Sumaya University for Technology, Jordan.	Audience
in the 23rd IBIMA Conference on Vision 2020: Sustainable Growth, Economic Development, and Global Competitiveness	(2014), Valencia, Spain, 13-14th May,	Author in this paper: "Security of Cloud Computing Environment"
23rd IBIMA Conference on Vision 2020: Sustainable Growth, Economic Development, and Global Competitiveness	(2014), Valencia, Spain, 13-14th May,	Author in this paper: "IT-Business Strategic Alignment: The Role of Mobile Technology Usage"
The Third international conference on informatics engineering and information science	(2014),	Author in this paper: "Localization of coronary artery thrombosis using coronary angiography".

Training courses

Name of course	Date
<i>Teaching Induction for Postgraduates - Small group Teaching</i> in the Sc, Two weeks Course at the Graduate School of Durham University, UK.	2008/2009.
<i>Teaching Induction for Postgraduates – Demonstrating</i> , Two weeks Course at the Graduate School of Durham University, UK.	2008/2009.
<i>Teaching Induction for Postgraduates - Assessment in the Sciences</i> , Two weeks Course at the Graduate School of Durham University, UK.	2008/2009.
<i>Starting Your Doctorate</i> , One week Course at the Graduate School of Durham University, UK.	2008/2009.
<i>Introduction to Giving Presentations: Delivering</i> , One Day Course at the Graduate School of Durham University, UK.	2010/2011

<i>Finding and managing information for your PhD</i> , One Day Course at the Graduate School of Durham University, UK.	2011/2012
<i>Literature Reviews in Science and Engineering</i> , Two weeks Course at the Graduate School of Durham University, UK.	2011/2012
<i>The Basis of Thesis Writing</i> , One Day Course at the Graduate School of Durham University, UK.	2011/2012
<i>How to get Published Author workshop</i> , Taylor and Frances, The University of Jordan.	2015
<i>Strategic Planning using Assessment to guide effective Practice</i> , as a part of diploma program in information technology in education, Ohio University, held in The University of Jordan.	2013
<i>Embracing the Future: empowering 21st Century Learners</i> , as a part of diploma program in information technology in education, Ohio University, held in The University of Jordan.	2013

Teaching activities

Taught Courses	Bachelor	Graduate
Image Processing and Application	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Digital Image Processing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Database Management Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Object Oriented Programming	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Internet and Web Technology	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Documentation and Computer Ethics	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Visual Programming .net	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Data Structure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Basics of Computing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Computer Skills	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Membership in scientific and professional bodies and societies

Name and place of scientific body and society	Date
<i>IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT)</i> – IEEE – Jordan Section, Jordan Engineers Association, and Al-Zaytoonah University of Jordan.	2019
<i>Member of New Trends in Information Technology (NTIT)</i> at the King Abdullah II School for Information Technology, The University of Jordan.	2017

Jordan Computer Society	2017
Jordan Society for Scientific Research, Entrepreneurship, and Creativity	2017

Awards

Name of Award	Donor and place of award	Date
PhD Scholarship	From The University of Jordan in Computer Information Systems / United Kingdom.	2007