

Khaled A S Marghani, PhD

Professor

Biomedical Signal & Image Processing Expert

Medical Physics Group Coordinator

Department of Physics Faculty of Science

University of Tripoli Tripoli-Libya

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Education:

PhD in Biomedical Imaging Processing, University of Newcastle upon Tyne (2005).

MSc in Nuclear Physics, University of Tripoli (1997).

BSc in Physics, University of Tripoli (1991).

Skills:

Languages: Arabic, and English.

Administration: Management, Team Work, Hard Working, Electronic Administration, and Reporting.

Computer: Word, Excel, Power Point, Microsoft365, and MATLAB.

Hobbies: Volunteer Work, Planting, and Sport.

General Experience: Teaching and Administration on Undergraduate/Postgraduate program, Strategic Planning, Establishing Alumni, communication and Voluntary Works.

Administration:

Head of the Alumni Committee of University of Tripoli 2017-2021.

Coordinator of branch of Imaging on the Department of Medical Engineering, Faculty of Engineering, University of Tripoli 2019-2021.

Member of Alumni By low Committee of University of Tripoli 2017-2018.

Head of Suq Aljumah Convocation Box for development and synthesis 2018-2021 (**voluntary work**).

Nominated to Head of the Committee of the University of Tripoli Alumni, 2017.

Coordinator and Active Member of the Suq Aljumah 2030 Council Strategy in Social Services, and Education groups respectively, 2016-2017 (**voluntary work**).

Treasury of the Suq Aljumah Social Partnership Association, Suq Aljumah Council, Tripoli-Libya, 2016-2017 (**voluntary work**).

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Convocation Membership of Souk Aliumma Social Partnership, Suq Aljumah Council, Tripoli-Libya, 2015-2017 (**voluntary work**).

Chair of Convocation of the Al-Marghani Local Culture Centre, Souk Aljumma, Tripoli-Libya, 2015-2017 (**voluntary work**).

University Representative to establish agreement between the University of Tripoli and the National Centre of Small and Intermediate Projects 2014-2015.

Department Postgraduate Coordinator during the period from March 2013 to July 2015.

General Physics Course Coordinator on the Faculty of Engineering, University of Tripoli. Full 2011-2012. ☐ Establishing Member of the Hemam Charity Association for Human Development and Help the Needy. Tripoli 2011.

Sep - Oct 2011, Head of Education office at Suq Aljumah Council, of Suq Aljumah branch (**voluntary work**).

Faculty of Science Catalogue Advisor (2011-2012).

Nominated to upgrade the Dept of Physics Curriculum for new Branches and Subjects starting from Spring 2010.

Sep. 2009-July 2010/ Examination & Study Unit Committee Member / Dept of Physics, University of Tripoli, Tripoli-Libya.

Mar. 2008- Jan 2009/ Examination Invigilation Coordinator / Dept of Physics, University of Tripoli, Tripoli-Libya.

Organising the 2ed Quran Computation in El-marghani District during the wholly Ramadan month 2007 (**voluntary work**).

Nov. 2007- Oct. 2008/ Pre-medical Physics Course High Committee Member / Faculty of Medicine, University of Tripoli for Medical Studies.

Establishing, and organising the 1st Quran Computation in El-marghani District during the wholly Ramadan month 2006 (**voluntary work**).

2006- -Cont-/ Medical Physics Group Coordinator, Dept of Physics, University of Tripoli, Tripoli-Libya.

2004-2005/ Libyan Student Union Committee Member, Treasury / University of Newcastle upon Tyne, Newcastle upon Tyne-UK (**voluntary work**).

1997-1998/ Academic Director / Afaaq High Institute for Computer and Administration, Tripoli-Libya.

Publications:

Khaled A Marghani, Satnam S Dlay, Bayan S Sharif, Andrew J Sims, Ahmed O Elhmassi, and Ahmed M. Elhaj, 'Automatic Histological Classification of Colon Cancer Using Combined Textural and Morphological Parameters'. Romanian Journal of Biophysics, **under process**.

Alya M Elsharif, A. M. Elhaj, Khaled A Marghani, and Ahmed O Hamassi, 'Electrical Conductivity and Permittivity of Irradiated Kidney Tissue'. Libyan Journal of Science, Vol 23, 2020.

Khaled Marghani, ..., 'Strategic Plane of Municipality of Suq Aljumma 2030'. Municipality of Suq Aljumma, 2020.

A. M. Elhaj, A. M. El Khatib, K. A. Marghani, A. M. Gsiea, and M. Moustafa, 'Effects of X-Ray Irradiation on Blood Viscosity and Blood Components', Romanian Journal of Biophysics, Vol. 29, No. 1/2019.

Tahani Elabani, Khaled Marghani, Ahmed Elhmassi, Ahmed Elhaj, Najat Ammar, and Jamilla Abdullah, 'MRI Images Response to Gd on Brain Cancer'. Libyan Journal of Science, Vol. 21B, 2018.

Alya M Elsharif, Khaled A Marghani, Ahmed O Hamassi, and A. M. Elhaj, 'Characteristic Frequency of Irradiated Kidney Tissue Based on Cool-Davison Model'. Libyan Journal of Science, Vol 21A, 2018.

Rebah E Touati, Khaled A S Marghani, Tawfik T Ajaal, and Ahmed E. Hamassi, 'Optical Density Measurements on the Examination of Colon Cancer Tissues'. AL-NAWAH JOURNAL, Vol(11), No. 14, p. 6-33, 2014.

Khaled A S Marghani, Ahmed E. Hamassi, and Tahani Ayad Elabani, 'Gadoloneum Effect on MRI Image Contrast of Breast Cancer', AL-NAWAH JOURNAL, Vol(10), No. 14, p. 6-33, 2014.

Gsiea, J. P. Goss, P. R. Briddon, Ramadan M. Al-habashi, K. M. Etmimi, and Khaled A. S. Marghani, 'Native Point Defects in ZnO', International Conference on Engineering Materials and Applications (ICEMA), p.789-794, 27-28 January 2014.

Ahmed E. Hamassi , Howida Gouri, and Khaled Marghani, 'Gama Camera Operation Principles', AL-NAWAH JOURNAL, Vol(10), No. 14, p. 6-33, 2013.

Abdulqader Salem Altahbo, Khaled A Sayeh Marghani, Tawfik Taher Ajaal, Texture Features for the Classification of Histological Cancer Image Using Gray Level Co-occurrence Matrix. The 3ed International Conference on Basic Science, April-2009, Gharyan, Libya.

Ali. M. Arhouma , Khaled Marghani and Tawfik Ajaal, Medical Images Storage Using Discrete Cosine Transform. AL-Nawah Journal, Volume 9, No. 13. pp. 18-28, 2009.

Ahmed Elhmassi, Khaled Mazuz, Khaled Marghani, and F. G. Elmuzughi, Technical Notes: FBP and EM reconstruction. AL-Nawah Journal, Volume 9, No. 13. pp. 1-17, 2009.

Marghani K A, Elhmassi A A, Sims A J, Sharif B S, and Dlay S S, Morphological Analysis on The Detection of The Malignancy Changes of Pancreatic Cancer. Alacademia Journal for Basic Science, Volume 1, No. 3, pp. 72-86, July 2007.

Marghani K. A., PhD Thesis Title: Automated Quantitative Image Analysis for the Histological Assessments of Colorectal and Pancreas Cancer Tissues. University of Newcastle upon Tyne, United Kingdom, (2005)

Marghani, K., Dlay, S., Sharif, B., and Sims, A. MORPHOLOGICAL ANALYSIS OF HISTOLOGICAL IMAGES USING FRACTAL. in Fourth International Symposium on CSNDSP; Co-sponsored by IEEE, IEE, BCS, and EPSRC. 2004. The University of Newcastle upon Tyne, UK.

K. Marghani, S. Dlay, B. Sharif, A. Sims, "QUANTITATIVE MEASUREMENTS ON HISTOLOGICAL ANALYSIS USING MORPHOLOGY", Post Graduate Conference, University of Newcastle upon Tyne, UK, 2004.

E. Nwoye, S.S. Dlay, W.L. Woo and K.A. Marghani, "Clustered Fuzzy-Neural Machine for Classification of Cancerous Cells", WSEAS TRANSACTIONS on SYSTEMS, Issue 3, Volume 2, July 2003 p. 655-659, Jul. 2003.

K. Marghani, S. Dlay, A. Sims, B. Sharif, "Shape Analysis and Classification in the Identification of Colon Texture Images," In Book: Recent Advances in Intelligent Systems and Signal Processing (Proceedings of the 7th WSEAS International Multiconference CICC), pp. 140-145, Jul. 2003.

K. Marghani, S. Dlay, B. Sharif, A. Sims, "Automated morphological analysis approach for classifying colorectal microscopic images," Proceedings of SPIE – The Int. Soc. Optical Eng. (Intelligent Robots and Computer Vision XXI), vol. 5267, pp.240-249, Oct 2003.

K. Marghani, S. Dlay, B. Sharif, and A. Sims, "Morphological and texture features for cancers tissues microscopic images," Proceedings of SPIE - The Int. Soc. Optical Eng., vol. 5032 III, pp. 1757-1764, 2003. SPIE 03

Marghani K. A., MSc Project Title: Energy Levels of Ni58 Using Two Body Interaction. University of Tripoli, Tripoli-Libya, 1997 .

MSc Project Supervision:

MSc Project : Mrs. Alya Elsharif, " Title: Dielectric Properties Fitting of Kidney Tissue on the determination of the Characteristic Frequency ", Department of Physics, Faculty of Science, University of Tripoli, Tripoli-Libya-2017. ☒

MSc Project : Mrs. Tahani Elabani, " Title: MRI Images Contrast based Gadolinium Using GLCM Analysis ", Department of Physics, Faculty of Science, University of Tripoli, Tripoli-Libya-2015.

MSc Project: Miss. Rebah Twati "Title: Optical Density Measurements on Identifying Abnormalities of Colorectal Cancer", Biomedical Engineering Department, Academy Of Graduate Studies, Tripoli-Libya-2009

MSc Project: Mr. Abdulghader Tahbo "Title: Texture Features for the Classification of Histological Cancer Images using Gray Level Co-occurrence Matrix", Biomedical Engineering Department, Academy Of Graduate Studies, Tripoli-Libya-2008

MSc Project: Mr. Ali Mousbah Aghanaia "Title: Medical Images Storage using Discrete Cosine Transform", Biomedical Engineering Department, Academy Of Graduate Studies, Tripoli-Libya -2008.

MSc Project: Miss. Haiwei Yang, "Title: Gabor filter and Fourier Transform in Texture Analysis of colon Images ", University of Newcastle upon Tyne, Newcastle upon Tyne-UK, 2005.

MSc Project: Angelos Makrypodis, "Title: Analysis of Medical Images using Fractal Dimension Methods", University of Newcastle upon Tyne, Newcastle upon Tyne-UK, August 2003.

Latest Interests:

Quantitative image Analysis on Cancer Research

Medical Image Storage Based on Frequency Domains such as Fourier and DCT Transform
Contrast Agents on Medical Imaging

Dielectric Properties of Different Tissue Types.

Strategic Plans of Education and Improvements

Alumni

Voluntary Works

Teaching/Examination Experience:

Youth initiative Computation Assessor in Suq Aljumah that organised by Souk Aljumma Social Partnership Association, Municipality of Suq Aljumah (Libya), and Peaceful Change Initiative PCI (UK) (**Voluntary Work**) .

External Examiner for Demonstration Computation at the Department of Mechanical Engineering, Faculty of Engineering. 2014, 2018.

MSc Examiner for many MSc Thesis at The Department of Physics, Faculty of Science, University of Tripoli and the Biomedical Engineering Dept., The Academy for Higher Studies. 2008-2020.

2014-Upcoming / FT- Associate Professor/ Dept. of Physics, University of Tripoli, Tripoli-Libya.
Internal Examiner for Demonstration Computation at the Department of Physics, Faculty of Science. 2013.

2009-2013 / FT-Assistant Professor/ Dept. of Physics, University of Tripoli, Tripoli-Libya.

2006-2008/ FT- Lecturer / Dept. of Physics, University of Tripoli, Tripoli-Libya.

2006-2008/ PT- Lecturer & MSc Supervision/ Biomedical Engineering Dept, The Academy for Higher Studies, Tripoli-Libya.

2001-2005/PT-Demonstrator & MSc Supervision/ School of Electric, Electronic, and Computer Engineering, Newcastle upon Tyne-UK.

1997–2000/FT-Lecturer Assistant/ Dept. of Physics, University of Tripoli, Tripoli-Libya.

1996–2000 /PT-Lecturer/ Communication Dept, Civil Aviation High Institute, Tripoli-Libya.

1994–1996 /Demonstrator/ Dept. of Physics, University of Tripoli, Tripoli-Libya. PT (part time); FT (full time).

Training & Academic Meeting:

2ed Postgraduate Day at the Department of Physics, Faculty of Science, University of Tripoli, 2015.

Organizing, and attending the 1 st Postgraduate Day at the Department of Physics, Faculty of Science, University of Tripoli, 2014.

Visitor Staff, as part of my sabbatical year, University of Trieste, Trieste, Italy. June-July 2012.
Joint ICTP/IAEA Advanced School on Dosimetry in Diagnostic Radiology and its Clinical Implementation, Trieste, Italy. 11-15 May 2009.

College on Medical Physics, ICTP, Trieste, Italy. 1-19 September 2008.

Modern Biological Techniques and their Application in Cancer Diagnosis and Treatments, The African Institute for Cancer Treatments, Sobrata-Libya. 27-8-2006.

The International Physics Year, Dept of Physics, University of Tripoli, Tripoli-Libya 2005/2006.
Summer School in Image Processing, University of Szeged, (2005).

Summer School in Pattern Recognition, University of Exeter, UK (2003).

Latest update: June 2021