Qosai Kanafani
22 / 09 / 1967
Syrian Nationality

qosai.kanafani@gmail.com

+963954887605

Assistant Professor in Informatics

- **More than 15 years of experience.**
- **Education.**
- **Programming & Developments.**

Professional Experiences

2011 - 2021 :	Teaching: Algorithms and Data Structures, Algorithms Analysis and Design, Operations Research, Mathematics for Engineers, and Probability & Statistics at Faculty of Informatics and Communications of Yarmouk Private University (YPU).
2008 - 2021 :	Teaching: Mathematics for Engineers, and Probability & Statistics at Faculty of Mechanical and Electrical Engineering of Damascus University. Topology 1 & Topology 2 and Complex Analysis at Al-Qonaitarah branch of Damascus University.
2009 - 2011 :	Teaching: Mathematics for Engineers, and Probability & Statistics at Faculty of Mechanical and Electrical Engineering of Al-Baath University.
2006 - 2007 :	Electrabel • Administration and support of SAP jobs and flows. • Scheduling jobs. • Creations managements and print spools. • Manage Backups / Restorations by Networker. • Landscape management system (transport orders). • Update Kernel. • Follow up and execution of the production plan and Billing plan. • Monitoring. • Updating and maintenance of administrative documents jobs and flows. • Tuning • SP Applications.
2004 - 2005 :	Oracle database administrator. Administration of SAP R/3 system: • Server instance and Control R/3 work processes R/3 • Establishment of system jobs • User administration • Principal of Administration • Administration of printers and managing spool requests.
1997 - 2003 :	Research and Development Engineer to **GAIN** and **L.2T.I** CNAM laboratory of the University Paris XIII in the context of an IT student of doctorate.
1996 - 1997 :	Master Project: Development in C/Unix an application for improving and automatic classification of dynein arms by morphological methods in two dimensions, prepared in the laboratory Speech, Signal and Images of ESIEE.
1994 - 1995 :	Studies of French at the University of Lyon **II**.
1990 - 1994 :	Teacher of "Applied Mathematics" at the University of Damascus.

1988 - 1989 :	Project: control automatic thresholding of gray images (4 months).

Supervisions

[1] :	Co-Supervision with Dr. Moustafa Al-Mawaldi to receive a PhD in Medical Engineering by the engineer, **Nisreen Sulayman,** entitled: **A study in the field of building an efficient content-based mechanism to retrieve images from a medical images database.** The thesis was discussed on 15/9/2015.
[2] :	Co-Supervision with Dr. Ahmed Khaddour to receive a PhD in Medical Engineering by the engineer, **Ghada Mohiuddin Saad,** entitled: **Clustered micro-calcification detection in mammographic images by using image feature analysis and mathematical classifiers.** The thesis was discussed on 17/11/2016.
[3] :	. Co-Supervision with Dr. Mohammed Mazen Al-Mahayri to receive a PhD in Computer Engineering and Informatics by the engineer, **Reem Kiwan,** entitled: **Develop a mechanism to identify multiple objects in the image using deep learning networks.**

Formations

1997 - 2003 :	PhD in Informatics « Compression and Visualization of Medical images by Segmentation » University of PARIS 13.
1996 - 1997 :	Master Computer Science and Applications, University of Marne-la-Vallée. (Paris). Option: Computer Graphics, with honors.
1988 - 1989 :	Master's degree in Pure Mathematics at the University of Tishreen (Syria); honors.
1985 - 1988 :	Degree Pure Mathematics at the University of Tishreen (Syria), honors.
1985 :	Bachelor Science, honors.

Researches

My research is on the medical image treatment, MRI (magnetic resonance imaging), CT (Computer Tomography), linear filtering, filtering by nonlinear scattering, contrast enhancement, mathematical morphology, segmentation by stochastic EM algorithm (Expectation Maximization), parameter estimation, thresholding, volume data compression 3D compression, BTC methods (Block Truncation Coding), VQ (Vector Quantization) and EM-BTC-VQ, volume data visualization in 3D, by methods MIP (Maximum Intensity Projection), Weighted sum, TGG (Transparent Gray-level gradient shading), the image quality measures (Quality index).

Technical competencies

	SAP R/3: 4. C 6, ECC5, ECC6 & BW
Programmation :	ABAP, JAVA, C. STEP. C++.
Systems :	AIX Unix / Linux, Windows (PC), Macintosh.
Networks :	Bus CAN, Modbus, TCP/IP.

Database :	Oracle, SQLServer, MySQL
Methodology :	OMT, UML
Internet/Intranet :	ASP, PHP, JSP, XML, Java Script, Apache, IIS, CORBA
Softwares :	SGBDR, KHOROS, Matlab, Labview, LabWindows/CVI, VHDL
Areas studied :	Ray-tracing, radiosity; illumination; animation, topological image processing (mathematical morphology).

Publications

[1] :	A. BOUDRAA, Q. KANAFANI, A. BEGHDADI, and A. ZERGAINOH. **Vector quantization for image compression based on fuzzy clustering**. In Proceedings of ISSPA'99, volume 2, pages 835-37, august 1999.
[2] :	Q. KANAFANI and A. BEGHDADI, **Segmentation of medical images using a mixture model and morphological filtering**. In Proceedings of EUSIPCO, volume 1, Tamper, Finland, September 2000.
[3] :	Q. KANAFANI, A. BEGHDADI and C. FOOKES, **Segmentation-based image compression using BTC-VQ Technique**, In Proceedings of ISSPA 2003, Paris, France, July 2003.
[4] :	M. N. Shamma and Q. KANAFANI, **Internal Encryption using weights of matrix columns,** Aleppo University Journal, 2014.
[5] :	Q. KANAFANI, **Compression of medical images by segmentation,** Aleppo University Journal, 2014.
[6] :	M. N. Shamma and Q. KANAFANI, **Encryption using linear discrete mass function on** $[1, n]$**,** Aleppo University Journal, 2015.
[7] :	GH. SAAD, A. KHADDOUR and Q. KANAFANI, **Study Performance the Computer Aided Detection (CAD) systems for the micro-calcifications detection in digital mammograms,** Tichreen University Journal, 2015.
[8] :	N. SULAYMAN, M. AL-MAWALDI and Q. KANAFANI, **An enhancement methods in cerebral angiograms for subsequent analysis,** Damascus University Journal, 2015.
[9] :	N. SULAYMAN, M. AL-MAWALDI and Q. KANAFANI, **Building an images retrieval system based on content of the cerebral digital subtraction angiography,** Tichreen University Journal, 2015.
[10] :	N. SULAYMAN, M. AL-MAWALDI and Q. KANAFANI, **Semi-automatic detection and segmentation algorithm of secular aneurysms in 2D cerebral DSA images,** Egyptian Society of Radiology and Nuclear Medicine (ESRNM), 2016.
[11] :	GH. SAAD, A. KHADDOUR and Q. KANAFANI, **Using Top-Hat and Bottom-Hat Transforms for Contrast Enhancement of Mammograms,** Tichreen University Journal, 2016.
[12] :	Q. KANAFANI, M. N. Shamma and I. Kayyaly, **Encryption using a special numerical series,** Aleppo University Journal, 2016.
[13] :	GH. SAAD, A. KHADDOUR and Q. KANAFANI, **ANN and Adaboost Application for Automatic Detection of Microcalcifications in Breast Cancer,** Egyptian Society of Radiology and Nuclear Medicine (ESRNM), 2017.

Books

[1] :	Q. Kanafani and N. Ali, Mathematics (1), for all specializations, Faculty of Mechanical and Electrical Engineering of Damascus University, 2015.
[2] :	Q. Kanafani and E. Fattach, Discrete Mathematics and Its

	Applications, for Computer Engineering, Faculty of Mechanical and Electrical Engineering of Damascus University, 2016.
[3] :	Q. Kanafani and A. Fattach, and B. Zaabalawi, Textbook of Computational Mathematics (2) for students of the Technical Institute Computer, Damascus University, 2017.
[4] :	Q. Kanafani and I. Idris, Mathematics (4), all specializations, Faculty of Mechanical and Electrical Engineering of Damascus University, 2020.

Foreign languages

English :	Well
French :	Very well
Arabic :	Mother language

Leisures

*	Reading, swimming.