Dr. Mohamed Abdou Berbar

Assistant Professor, Department of Computer Science,

College of Computer and Information Sciences

King Saud University, Riyadh, Saudi Arabia

1- Personal Information

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2. Education:

- *Ph.D. in Computer Science*, Computation Department, UMIST & Victoria University of Manchester, **UK**, in 2001.

- *M.Sc. in* computer engineering and sciences (1994) from Faculty of Electronics Eng., Menoufia University , in 1994. The master degree composed of :

  1. One year intensive courses in computer engineering and sciences.

  2. Research in Image Processing and doing thesis.

      > Thesis title: Recognition of characters of Arabic texts.

- **B. Sc.** in Electronics Engineering.   **Grade** : Very Good with honors

  From :   Faculty of Electronics Eng., Menoufia University , in 1988,

  Senior Project was in expert system programming.

3.Teaching Experience

3.1 The courses including for **undergraduate and postgraduate** students are:

Image processing fundamentals - Computer Vision - Computer Graphics - Multimedia Systems - Computer fundamentals and programming - Advanced Programming - Digital electronics - Computer engineering - Data structures and algorithms - Computer Systems Performance Evaluation - Design and analysis of algorithms - Computer Organization and assembly languages- Computer Architecture - Artificiel Intelligence - Expert Systems - Operating systems – databases fundamentals – Compiler Design- Object Oriented Programming - Programming in Java.

3.2 Senior Projects supervised by Dr M. Berbar:

1.   Image compression using neural networks

2.   Fingers print recognition

3.   Signature classification and recognition

4.   Drawing interpretation

5.   Faces detection in video images

3.3 Fields of current research interest:

The research interests are in Pattern Recognition Techniques and applications - Image Analysis, Remote Sensing image Processing. Biomedical Image Processing. Map Interpretation.

Master thesis supervised by Dr M. Berbar during his work in Menoufia University.

Masters Titles

1- "Multi-Temporal Cloud Removing Based on Image Fusion".

2- "Facial Features Detection"

3- "Efficient Memory Performance for Multi – Issue Processors"

4- " Extracting Information from Telephone Network Diagrams"

5- " Biomedical Image Analysis"

6- "Automatic Visual Inspection System for Nuclear Fuel Plates Using Neural Networks"

4. Employment History:

Summary of Employment History:						
From	**To**	**Position /Title**	**Institution Name**	**Country**	**Nature of work**	**Type of work**
7/9/2007	Till now	Assistant Professor	King Saud University	KSA	Teaching	Full Time
6/2/2005	1/9/2007	Assistant Professor	Qatar University	Qatar	Teaching	Full Time
1/3/2001	5/2/2005	Assistant Professor	Menoufia University	Egypt	Teaching	Full Time
1/1/1997	2/2/2001	Hourly paid Teaching Assistant	Victoria University of Manchester & UMIST	UK	Teaching	Part Time
1/1/1997	2/2/2001	Post Graduate Student (PhD)	Victoria University of Manchester & UMIST	UK	Research	Full Time
2/12/1989	30/5/1996	Teaching Assistant	Menoufia University	Egypt	Teaching & Research	Full Time

5. Consulting Experience

5.1 Reviewer for Conferences :

1-IASTEAD Biomedical Engineering ~BioMED 2004

2- 1st International Conference on Geometric Modeling and Imaging "GMAI06", London, UK, (2006)

3- Third International Conference on Computer Graphics, Imaging and Visualization (CGIV 2006), 26-28 July 2006, Sydney, Australia. IEEE Computer Society 2006, ISBN 0-7695-2606-3

5.2 Community and University Services Participations:

1- **Member of the Administration council of Information Technology Club** - Faculty of Electronics Eng., Menoufia University (2002/2005).

2- **Member of the Administration council of Scientific Computation Center -** Faculty of Electronics Eng., Menoufia University (2002/2005).

3- **Member of the Education committee -** Faculty of Electronics Eng., Menoufia University(2004/2005).

4- **Member of the General Committee for Programming** (2002/2003) **-** Menoufia University.

5- **Member of the General Committee for Programming** (2004/2005) **-** Menoufia University.

6- **An expert for Egyptian court to judge some scientific issues**

5.3 Social activities:

1- Secretary of "**Egyptian Student Union in Manchester**" for year 1997/1998**.**

5.4 Conferences Attended:

1- "*Statistics, Computer science, Social and scientific applications*", Cairo, Egypt, March 1993.

2- "*Artificial Intelligence Applications*" (**ICAIA**), American University, Cairo, Egypt, 22-24 January, 1994

3- "*IEE Workshop on Document Image Processing and Multimedia*", **DIPM'99**, London, UK.

4- "*International Workshop GREC'99*", Jaipur-India, 26-27 Sep.1999.

5- "*10th International Conference on AI Applications*" (**ICAIA**)- American University, Cairo - Egypt 6-8 Feb. 2002.

6-   المؤتمر الإقليمي الثاني لنظم المعلومات الجغرافية , القاهرة 6-7 مايو 2003

Second international conference for GIS – Egypt – Cairo – 6:7 May 2003

7-   "*Visual Information Engineering*" (**VIE**), Guildford- UK, 7-9 July 2003.

8-   The International Conference on Electrical, Electronic and Computer Engineering 2004 **ICEEC'04** 5-7 Sep. 2004, Cairo – Egypt.

9-   The Sixth IASTED International Conference on Visualization, Imaging, and Image Processing ~**VIIP 2006**~ Palma de Mallorca, Spain , August 28 – 30, 2006

6. Publications:

[1] I. Z. Morsi, M. M. Syiam, M. **Berbar**,(1993)" A comprehensive method for the segmentation of Arabic text," 18th Int. conf. for Statistics, Computer science, Social and scientific applications, Vol. 1, computer sciences. Cairo, Egypt, March 1993, pp. 13-32.

[2] M. M. Syiam, I. Z. Morsi, M. **Berbar**,(1994) "An Empirical Comparison of Neural Network and Binary Decision Trees for printed Arabic character recognition", 2nd Int. Conf. on Artificial Intelligence Applications **ICAIA**, Cairo, **Egypt**, January 22-24, pp. 414-425.

[3] Ritchings R.T., **Berbar** M.A., Asumu D.(1999). Model-based line-following in scanned cable diagrams, IEE Workshop on Document Image Processing and Multimedia, **DIPM'99, London, UK.**

[4] Ritchings R.T., **Berbar** M.A., Asumu D.(1999). "Automated analysis of scanned ducting diagrams", International Workshop **GREC'99**, 26-27 Sep.1999 , Jaipur-**India**, pp.301-306.

[5] Ritchings R.T., **Berbar** M.A., Asumu D. (2000). "Automated analysis of scanned ducting diagrams", in **Lecture Notes in Computer Science**, Selected Papers, Chhabra A. K., and Dori D. (eds), Vol. 1941, **Springer-Verlag**, 305-312.

http://www.uni-protokolle.de/buecher/isbn/3540412220

[6] **Berbar** M. (2002) "Automated Vectorization of circles in scanned diagrams" in 10th International **Conference** on AI Applications **ICAIA**- Cairo - **Egypt** 6-8 Feb., pp.157-164 .

[7] **Berbar** M. (2002) "Automated Vectorization of circles in scanned diagrams" ,Menoufia **Journal** of Electronic Engineering Research, Vol. 12-No.2, July 2002, pp 89-100 - **Egypt** 6-8 Feb., pp.157-164 .

[8] M. A. **Berbar**, S. F. Gaber, and N. A. Ismail (2003), "Remote Sensing Multi-level Image Fusion Based on Discrete Wavelet Transform", in 11th International **Conference** on AI Applications **ICAIA**- Cairo - **Egypt** 5-8 Feb.

[9] M. A. **Berbar**, S. F. Gaber, and N. A. Ismail (2003), "Image Fusion using Multi Decomposition levels of Discrete Wavelet Transform", **VIE Conference** 7-9 July 2003, Guildford- **UK**, pp. 294-297.

http://conferences.iee.org/VIE2003/

[10] Salwa S Mostafa, M A. **Berbar**, and N. A. Ismail (2004), "Efficient Memory Performance for Multi-Issue Processors", **ICEEC'04** : 2004 International Conference on Electrical, Electronic and Computer Engineering : proceedings : 5-7 September, 2004, Cairo, Egypt, pp. 265-268. **Publisher:** Piscataway, N.J. : IEEE, ©2004. **ISBN:** 0780385756 **OCLC:** 57455097

[11] M. A. **Berbar** and S. F. Gaber (2004), "Clouds and Shadows Detection and Removing from Remote Sensing Images", **ICEEC'04** : 2004 International Conference on Electrical, Electronic and Computer Engineering : proceedings : 5-7 September, 2004, Cairo, Egypt, pp. 75-79. **Publisher:** Piscataway, N.J. : IEEE, ©2004. **ISBN:** 0780385756 **OCLC:** 57455097

 [12] M. A. **Berbar** (2005), "Automatic Information Extraction from Telecom Egypt Diagrams" in 13th International Conference on AI Applications **ICAIA**- Cairo - **Egypt** 24 Feb..

[13] M. A. **Berbar**, O A. El-Banhawy, and A. H. El-Seady (2005), "Automated Tumors Extraction and Visualization in Nasal and Paranasal Sinuses", in 13th International Conference on AI Applications **ICAIA**- Cairo - **Egypt** 24 Feb.

[14] Mostafa M. Syiam, Hamdy M. Kelash, **Mohamed A. Berbar**, Marwa A. Radad, and Hossam M. Faheem. "Getting agents to help with the research", **IEEE Potentials**, n.03, vol.24, August-September, 2005, pp 16-21.

[15] M. A. **Berbar**, "Faces and Facial features Detection in Color Images ", **INFOS2006,** Fourth International Conference 25-27 March 2006, - Cairo - **Egypt**

[16] M. A. **Berbar**, "Automatic Visual Inspection System for Nuclear Fuel Plates Using Neural Networks", **INFOS2006,** Fourth International Conference 25-27 March 2006, - Cairo – **Egypt**

 [17] Kelash H. Mohamed, **Berba**r M. Abdou, Elaraby S. Mohamed, Hassan A. Hassan, "Automated Image Analysis System For Homogeneity Evaluation Of Nuclear Fuel Plates" International Conference on Neural Networks and Brain. **ICNN&B 2005**. China Neural Networks Council IEEE CIS Beijing Section. Oct 13 - 15, 2005

[17] M. A. **Berbar**, "Automatic Diagrams Analysis", **GMAI06**, London, UK, (2006), 209 – 214. ISBN/ISSN: 0-7695-2604-7**, IEEE** Computer Society.

[18] Mohamed. A. **Berbar**, Hamdy M. Kelash and Amany A. Kandeel "Faces and Facial features Detection in Color Images", **GMAI06**, London, UK, (2006) 160-168, ISBN/ISSN: 0-7695-2604-7**, IEEE** Computer Society.

[19] M. A. **Berbar**, "Automatic Telephone Diagrams Interpretation", **SETIT07**, Tunsia. 25-29 March 2007**, IEEE** Computer Society French section.

7. Web Page

* http://faculty.ksu.edu.sa/berbar