

Curriculum Vitae



1 Personal Details:

Name : Osama Fawzy Zahran.
Mailing address : Department of Electronics and Electrical Communication Engineering,
Faculty of Electronic Engineering, Menofia University, Menouf City (32952),
Menofia, Egypt.
Tel. (mobile) : (+20) 1000851086
Tel. (office) : (+20) 483661334 (Ext 7121)
Fax (office) : (+20) 483660716 & (+20) 483661517
Email : osama_zahran@menofia.edu.eg
Personal e-mail : osama_zahran@hotmail.com
Date of Birth : 11th April, 1974.
Sex : Male.
Marital Status : Married and has two sons.

2 Academic Qualifications:

- June 2006** **PhD Degree in Signal and Image Processing** at Department of Electrical Engineering and Electronics, **University of Liverpool, England**, thesis titled "*Automatic weld defect detection, sizing and characterisation using ultrasonic time-of-flight diffraction*"
- July 1999** **M.Sc.** pre-request theoretical study (one year) at Department of Electronics and Electrical Communication Engineering, Faculty of Electronic Engineering, Menofia University, Egypt
- May 1997** **B.Sc. in Electronic Engineering with Excellent Honours** at Department of Electronics and Electrical Communication Engineering, Faculty of Electronic Engineering, Menofia University, Egypt. **Graduating average 86% (Rank 1/60).**

3 Employment:

- 2006 - Present** **Lecturer**, Department of Electronics and Electrical Communication Engineering, Faculty of Electronic Engineering, **Menofia University, Egypt**.
- 2002-2006** **Teaching Assistance**, part-time, at Department of Electrical Engineering and Electronics, **University of Liverpool, England**, for subjects including Microprocessor programming, P-spice tools, computers parts assembly & maintenance, and multimedia projects.
- 1997-2001** **Undergraduate demonstrator**, full-time, Department of Electronics and Electrical Communication Engineering, Faculty of Electronic Engineering, **Menofia University, Egypt**.

4 Professional Qualifications:

- Member of **British Institute of Non-Destructive Testing** – Membership number (**NDT 9482**) - since March **2003**.
- Hold an **International Post-experience Certificate in Ultrasonics Non-destructive testing (Personnel Certification in Non-destructive Testing - PCN number 210644)** – since December **2002**.

5 *Research Interests:*

Current research involves study the behaviour of Nano-scale devices, expert systems, artificial intelligence and hybrid intelligent systems, pattern recognition, development of novel signal and image processing techniques for the automated processing and fusion of non-destructive testing (NDT) data, medical image processing, image transmission over wireless channels, processing of DNA signals, computer networks, mobile communications, security of wireless networks, information hiding and steganography, and WiMAX technologies.

6 *Research Experience:*

- Extensive image processing for remote sensing applications.
- Digital signal processing of ultrasonic signals.
- Real-time pattern recognition of ultrasonic data.
- Application of artificial intelligence for image/signal processing tasks.

7 *Teaching Experience:*

7.1 *Undergraduate modules:*

2010 - 2011	Electronic Components and Circuits Drawing, 2 hr/wk, 860 students.
2010 - 2011	Communication Laboratory, 2 hr/wk, 5 students.
2009 - 2010	Electronic Components and Circuits Drawing, 2 hr/wk, 840 students.
2009 - 2010	Engineering Graphics, 2 hr/wk, 1020 students
2008 - 2009	Communication Laboratory, 2 hr/wk, 375 students.
2008 - 2009	Electronic Components and Circuits Drawing, 2 hr/wk, 1057 students.
2007 - 2008	Electronic Components and Circuits Drawing, 2 hr/wk, 1130 students.
2007 - 2008	Communication Laboratory, 2 hr/wk, 330 students.
2007 - 2008	Elective Course (Nanotechnology), 3 hr/wk, 9 students.
2006 - 2007	Communication Systems, 3 hr/wk, 30 students.
2006 - 2007	Engineering Drawing and Projection, 2 hr/wk, 10 students.
2006 - 2007	Electronic Components and Circuits Drawing, 2 hr/wk, 10 students.
2006 - 2007	Electronic Measurement Systems, 3 hr/wk, 130 students.
2006 - 2007	Satellite Engineering, 3 hr/wk, 140 students.

7.2 *Postgraduate modules:*

2010 – 2011	Applications of Artificial Neural Networks in Communications Systems, 3 hr/wk, 8 students.
2010 – 2011	Advanced Applications of Artificial Neural Networks, 3 hr/wk, 9 students.
2010 – 2011	Elective Course (Neural networks), 3 hr/wk, 2 students.
2010 – 2011	Advanced Image Processing Techniques, 3 hr/wk, 10 students.
2010 – 2011	Image processing, 3 hr/wk, 30 students.

2009 – 2010	Elective Course (Ultrasonic Imaging), 3 hr/wk, 25 students.
2009 – 2010	Image processing, 3 hr/wk, 25 students.
2008 – 2009	Elective Course (WiMAX technology), 3 hr/wk, 85 students.
2007 – 2008	Communication Circuits, 3 hr/wk, 46 students.
2006 – 2007	Remote Sensing, 3 hr/wk, 39 students.

8 Supervision of Graduation Projects:

2011 – 2012	Supervision of a graduation project titled: " Electronic Voting System ".
2010 – 2011	Supervision of a graduation project titled: " Security Surveillance System Using IP Cameras ".
2010 – 2011	Supervision of a graduation project titled: " Security Systems Using GSM System ".
2009 – 2010	Supervision of a graduation project titled: " Mobile Railway Tracking Using GPS and GSM Systems ".
2008 – 2009	Supervision of a graduation project titled: " Smart Meter over GSM ", Reach the final stage of Made in Egypt (MIE) Competition which organized by IEEE Egypt GOLD and Get the 1st rank in Nobel Prize Simulation Competition which organized by Cairo University.
2008 – 2009	Supervision of a graduation project titled: " Mobile Train Link over GSM ".
2007 – 2008	Supervision of a graduation project titled: " Computer Aided Design of Nano-Devices ".

9 Supervision of Research Projects:

1. Supervision of a Ph.D. thesis titled, "**Applying Advanced Digital Signal Processing Techniques in Industrial Radioisotopes Applications**".
2. Supervision of a M.Sc. thesis titled, "**Effective Image Transmission over Wireless Channels**".
3. Supervision of a M.Sc. thesis titled, "**Classification of Landmines Using Acoustic Waves**".
4. Supervision of a M.Sc. thesis titled, "**Detection of Buried Objects Using Acoustic Waves**".
5. Supervision of a M.Sc. thesis titled, "**Security Aspects in WiMAX Systems**".
6. Supervision of a M.Sc. thesis titled, "**Performance Study of Orthogonal Frequency Division Multiple Access (OFDMA) in Worldwide Interoperability for Microwave Access (WiMAX) Systems**".
7. Supervision of a M.Sc. thesis titled, "**Implementation of Elliptic Curve Cryptography on Wireless Communication Networks**".
8. Supervision of a M.Sc. thesis titled, "**Data Hiding in Digital Imaging**".
9. Supervision of a M.Sc. thesis titled, "**Processing of Color Images Using Color Filter Arrays**".

10 Training and Development Courses:

1. "Quality standards in educational aspects", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2011, Egypt.
2. "Credit hours systems", Strategic Studies, Faculty and Leadership Development Centre,

Menofia University, 2011, Egypt.

3. "Legal and financial aspects in university environment", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2011, Egypt.
4. "Conference organization", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2011, Egypt.
5. "Management of Research Teams", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2011, Egypt.
6. "Competing for research funds", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2011, Egypt.
7. "Effective presentation skills", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2006, Egypt.
8. "Effective communication skills", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2006, Egypt.
9. "University code of ethics", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2006, Egypt.
10. "New trends in teaching methodologies", Strategic Studies, Faculty and Leadership Development Centre, Menofia University, 2006, Egypt.
11. "Preparing for selection interviews", University of Liverpool Postgraduate Training Programme, 2005, England.
12. University of Liverpool Postgraduate Career Development Training Programme, 2004, England.
13. "Marketing your research experience", University of Liverpool Postgraduate Training Programme, 2004, England.
14. "Improve your leadership, teamwork and assertiveness", University of Liverpool Postgraduate Training Programme, 2004, England.
15. "Enhance your networking and interpersonal skills", University of Liverpool Postgraduate Training Programme, 2003, England.
16. "Ultrasonic non-destructive examination", Lavender International NDT training school, 2003, England.
17. University of Liverpool Postgraduate Research Development Training Programme, 2003, England.
18. Demonstration and teaching methods, University of Liverpool, 2002, England.

11 Invitation to Speak:

December 2007, Space Technology and Development Seminar, organized by **National Authority for Remote Sensing and Space Science** on "Exploration and peaceful uses of outer space in developing countries".

12 Scientific and Social Activities:

- **Reviewer of the following scientific journals and conferences:**
 - Optical Engineering Journal - Society of Photographic Instrumentation Engineers (SPIE).
 - Progress in Electromagnetic Research (PIER, PIER B,C,M, PIER Letters).
 - International Journal of Speech Technology (IJST) - Springer.
 - International Journal of Electronics – Taylor & Francis

- International Journal of Communication Systems.
 - Journal of Electromagnetic Waves and Applications (JEMWA).
 - International Journal of Electronics (IJE) - Society of Photographic Instrumentation Engineers (SPIE).
 - Journal of Electronic Imaging (JEI).
 - International Journal of Computer and Engineering Research (www.academicjournals.org/IJCER).
 - Scientific Research and Essays (www.academicjournals.org/SRE).
 - 2011 4th IEEE International Conference on Computer Science and Information Technology (IEEE ICCSIT 2011), China, June 10 - 12, 2011.
- **Member of Strategic Planning Team, Quality Assurance & Accreditation Unit, Faculty of Electronic Engineering, Menofia University, Egypt** (Since 20 November 2011).
 - **Supervisor of Robocon Team, Faculty of Electronic Engineering, Menofia University, Egypt** (Since 15th November 2011).
 - **Member of Leaders Election Supervision Committee, Faculty of Electronic Engineering, Menofia University, Egypt.** (Since 25 September 2011).
 - **Head of Information Technology Unit, Menofia University Staff Club, Menofia University, Egypt.** (Since June 2011).
 - **Member of Management Committee of Menofia University Staff Club, Menofia University, Egypt.** (Since 7 June 2011).
 - **Head of Graduation Projects Distribution Committee** for the academic year 2010-2011, Electronics and Electrical Communications Department, Faculty of Electronic Engineering, Menofia University, **Egypt.**
 - **Member of Culture Relations Affairs Committee, Electronics and Electrical Communications Department, Faculty of Electronic Engineering, Menofia University, Egypt** (September 2010 – August 2011).
 - **Member of Community Services and Environmental Affairs Committee, Faculty of Electronic Engineering, Menofia University, Egypt** (September 2010 – August 2011).
 - **Member of Management Team of Continuous Quality Assurance Project (CQAP), Faculty of Electronic Engineering, Menofia University, Egypt** (Since March 2010).
 - **Supervisor of Sport Committee of the Student Union, Faculty of Electronic Engineering, Menofia University, Egypt** (October 2009 – September 2011).
 - **Head of Students Timetables Planning Committee, Faculty of Electronic Engineering, Menofia University, Egypt** (Since August 2009).
 - **Member of Safety and Emergency Committee, Faculty of Electronic Engineering, Menofia University, Egypt** (February 2009 – June 2010).
 - **Managing Editor of the Faculty Magazine, Faculty of Electronic Engineering, Menofia University, Egypt** (December 2008 – May 2009).
 - **Supervisor of Culture and Information Committee of the Student Union, Faculty of Electronic Engineering, Menofia University, Egypt** (October 2008 – October 2009).
 - **Member of Internal and External Student's Summer Training Supervision Committee** Faculty of Electronic Engineering, Menofia University, **Egypt** (Summers 2008 – 2009 – 2010 - 2011).
 - **Member of Academic Advisory Committee, Faculty of Electronic Engineering, Menofia**

University, **Egypt** (Since June **2008**).

- **Supervision of University Student Camping**, Menofia University, **Egypt** (Summer **2008**).
- **Member of Undergraduate Study Plan Development Committee**, Faculty of Electronic Engineering, Menofia University, **Egypt** (April **2008** – July **2008**).
- **Member of Postgraduate Study Plan Development Committee**, Faculty of Electronic Engineering, Menofia University, **Egypt** (February **2008** – July **2008**).
- **Representative of Faculty of Electronic Engineering** in some social events such as City and Guilds/Engineering Council Seminar organized by **British Council** in Cairo (January **2008**).
- **Candidate in Department Council**, Faculty of Electronic Engineering, Menofia University, **Egypt** (September **2007** – August **2008**) and (September **2010** – August **2011**).
- **Member of Computing Committee**, Faculty of Electronic Engineering, Menofia University, **Egypt** (September **2007** – August **2008**).
- **Head of Public Relations and Information Unit of Quality Assurance & Accreditation Unit, Faculty of Electronic Engineering**, Menofia University, **Egypt** (June **2008** – October **2008**).
- **Head of Public Relations and Information Unit of Faculty of Electronic Engineering**, Menofia University, **Egypt**, (Coordinator of external cooperation with companies, industrial factories and research institutes and organizer of social activities for academic staff) - (December **2007** – December **2008**).
- **Member of Management Team and Head of Public Relations and Information Unit of Quality Assurance & Accreditation Project (QAAP II)**, Faculty of Electronic Engineering, Menofia University, **Egypt** (October **2007** – August **2009**).
- **Member of Laboratory/Workshop Development Committee**, Electronics and Electrical Communications Engineering Department, Faculty of Electronic Engineering, Menofia University, **Egypt** (October **2007** - August **2010**).
- **Member of Faculty Webmaster Developing Committee**, Faculty of Electronic Engineering, Menofia University, **Egypt** (Since October **2007**).
- **Supervision of University Student Camping**, Menofia University, **Egypt** (Summer **2007**).
- **Member of Internal and External Student's Summer Training Supervision Committee** Faculty of Electronic Engineering, Menofia University, **Egypt** (Summer **2007**).
- **Member of Testing, Evaluation and Exams Invigilation Supervision Committee**, Faculty of Electronic Engineering, Menofia University, **Egypt** (Since December **2006**).
- **Member of Postgraduate-Staff Committee**, Department of Electrical Engineering and Electronics, **University of Liverpool, England** (September **2002** – June **2006**).

13 Grants Awarded:

Awarding body	Date	Amount	Project Title
Information Technology Industry Development Agency (ITIDA), Egypt	May 2011	£10000 Egyptian Pounds	Increasing Safety and Improvement of Railway Service Using GSM and GPS Technologies
Information Technology Industry Development Agency (ITIDA), Egypt	May 2011	£10000 Egyptian Pounds	Remote Security Surveillance System Using Mobile Networks

Information Technology Industry Development Agency (ITIDA), Egypt	May 2010	£10000 Egyptian Pounds	Mobile Railway Tracking Using GPS and GSM Systems
Information Technology Industry Development Agency (ITIDA), Egypt	May 2009	£10000 Egyptian Pounds	Mobile Train Link Over GSM
Giza Systems, Egypt	January 2009	£10000 Egyptian Pounds	Smart Meter Over GSM
Phoenix Inspection Ltd. England	August 2002	£2000 Sterling Pounds	Ultrasonic Inspection of Rail-Track

14 Computer Skills:

1. Operating Systems: Dos – Linux - Windows (ME, 2000, XP, Vista, 7).
2. Programming Languages: Matlab.
3. Environments: Latex, Word, Excel, PowerPoint, Access, etc...
4. Software: AutoCad - Video editing – Electrical circuits design – Web design - RF and microwave design, and graphics programs.
5. Computer Networks: Computer Networks management and administration.
6. Hardware: Assembly and Maintenance of PC computers & peripherals, and fault diagnosis.

15 Languages:

Arabic (native) - **English** (fluent).

16 Hobbies and other interests:

Reading – Drawing – Writing Poetry - Playing Chess - Camping and Travelling – Swimming – Playing Football – Fell Walking – Visiting Art Galleries.

17 Published Books:

- 1) **O. Zahran**, “Automatic Ultrasonic Time-Of-Flight Diffraction Interpretation – Fundamentals and Applications”, VDM Verlag Dr. Müller Publishing House, Germany, ISBN: 978-3-639-30307-0, 363-9-303-075, December **2010**.

18 Published Papers:

- 1) M. G. El-Mashed, M. Dessouky, M. El-kordy, **O. Zahran**, and F. E. Abd El-Samie, “Target Image Enhancement for Radar Imaging”. Accepted for publication in Sensing and Imaging: An International Journal, Springer, 2011.
- 2) H. Kasban, **O. Zahran**, H. Arafa, M. El-Kordy, Sayed M. S. Elaraby and F. E. Abd El-Samie, “Quantitative and Qualitative Evaluation of Gamma Radiographic Image

Enhancement". Accepted for publication in International Journal of Signal Processing, Image Processing and Pattern Recognition, 2011.

- 3) H. Kasban, **O. Zahran**, H. Arafa, M. El-Kordy, Sayed M. S. Elaraby and F. E. Abd El-Samie, "*RTD Signal Identification Using Linear and Nonlinear Modified Periodograms*", Accepted for publication in the proceedings of the 7th IEEE International Conference on Computer Engineering & Systems (ICCES'2011), Cairo, Egypt, November **2011**.
- 4) H. Kasban, **O. Zahran**, H. Arafa, M. El-Kordy, Sayed M. S. Elaraby and F. E. Abd El-Samie, "*Automatic Segmentation of Industrial Radiographic Images*", Accepted for publication in the proceedings of the 7th IEEE International Conference on Computer Engineering & Systems (ICCES'2011), Cairo, Egypt, November **2011**.
- 5) M. G. El-Mashed, M. Dessouky, M. El-kordy, **O. Zahran**, and F. E. Abd El-Samie, "*Chirp Modulated by Gaussian Pulse for Synthetic Aperture Radar Imaging*". 28th National Radio Science Conference (NRSC 2011), National Telecommunication Institute, Egypt, March **2011**.
- 6) H. Kasban, **O. Zahran**, H. Arafa, M. El-Kordy, Sayed M. S. Elaraby and F. E. Abd El-Samie, "*Welding Defect Detection from Radiographic Image with A Cepstral Approach*", Non-destructive Testing and Evaluation (NTD & E), An International Journal- Elsevier, No. 44, p-p 266 – 231, October **2011**.
- 7) E. Mosa, N. W. Messiha, **O. Zahran** and F. E. Abd El-Samie, "*Encryption of Speech Signal with Multiple Secret Keys in Time and Transform Domains*", International Journal of Speech Technology, Vol. 13, No. 4, pp. 231-242, Springer **2010**.
- 8) E. A. El-shazly, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, "*Cepstral Detection of Buried Landmines from Acoustic Images with a Spiral Scan*", 6th International Computer Engineering Conference (ICENCO 2010), pp. 97-102, Cairo, Egypt, December **2010**.
- 9) A. Al-Ataby, W. Al-Nuaimy, and **O. Zahran**, "Automatic detection and classification of weld flaws in TOFD data using wavelet transform and support vector machines", Insight - Non-Destructive Testing and Condition Monitoring (The Journal of The British Institute of Non-Destructive Testing), Vol. 52, No 11, pp. 597-602, November 2010.
- 10) E. A. El-shazly, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, "*Automatic Detection of Buried Landmines using Cepstral Approach*", 1st International Conference on Electrical and Computer Systems Engineering (ECSE 2010), 6th October City, Egypt, November 2010.
- 11) H. Kasban, **O. Zahran**, M. El-Kordy, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, "*False Alarm Rate Reduction in The Interpretation of Acoustic to Seismic Landmine Data Using Mathematical Morphology And The Wavelet Transform*", International Journal of Sensing and Imaging, Springer, p-p 113 – 130, August 2010.
- 12) A. Al-Ataby, W. Al-Nuaimy, and **O. Zahran**, "*Towards automatic flaw sizing using ultrasonic time-of-flight diffraction*", Insight - Non-Destructive Testing and Condition Monitoring (The Journal of The British Institute of Non-Destructive Testing), Vol. 52, No 7, pp. 366-371, July 2010.
- 13) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, "*A Comparative Study of Landmine Detection Techniques*", International Journal of Sensing and Imaging, Springer, July 2010.

- 14) O. Zahran , H. Kasban , and F. E. Abd El-Samie' "*Utilization of Gamma Rays for Troubleshooting in Distillation Columns of Petrochemical Industry*" The online Journal on Electronics and Electrical Engineering (OJEEE) - International Foundation for Modern Education and Scientific Research, Vol. 2, No. 3, Ref. No. W10 – 0004, ISSN (2090-0279), pp 279 – 283, July 2010.
- 15) H. Kasban, O. Zahran, and F. E. Abd El-Samie' "*New Trends for On-Line Troubleshooting in Industrial Problems Using Radioisotopes*" The online Journal on Electronics and Electrical Engineering (OJEEE), - International Foundation for Modern Education and Scientific Research, Vol. 2, No. 3, Ref. No. W10 – 0005, ISSN (2090-0279), pp 284 – 292, July 2010.
- 16) H. Kasban, O. Zahran, H. Arafa, M. El-Kordy, Sayed M. S. Elaraby and F. E. Abd El-Samie, "*Laboratory Experiments and Modeling for Industrial Radiotracer Applications*", International Journal of Applied Radiation and isotopes - Elsevier, Vol. 68, pp 1045 - 1054, **June 2010**.
- 17) A. Al-Ataby, W. Al-Nuaimy, and O. Zahran, "*Towards automatic flaw sizing using ultrasonic time-of-flight diffraction*", The Seventh International Conference on Condition Monitoring and Machinery Failure Prevention Technologies (CM2010 / MFPT 2010), 22nd – 24th **June 2010, Stratford on Avon, United Kingdom**.
- 18) O. Zahran , H. Kasban , M. El-Kordy, and F. E. Abd El-Samie, "*Applying Gamma Rays for Troubleshooting Distillation Column in Petrochemical Industry*", Proceedings of the The 2010 World Congress on Electronics and Electrical Engineering, WCEEENG'10, April 4th-8th **April 2010, Luxor, Egypt**.
- 19) H. Kasban, O. Zahran, H. Arafa, M. El-Kordy, Sayed M. S. Elaraby and F. E. Abd El-Samie, "*An Efficient Approach for Residence Time Distribution Signal Processing and Identification*", Proceedings of The 7th International Conference on Informatics and systems (INFOS 2010), **Cairo, Egypt, 28-30 March 2010**.
- 20) H. Kasban, O. Zahran, Sayed M. S. Elaraby, S. EL-Rabaie, M. El-Kordy and F. E. Abd El-Samie, "*Using Radiotracer in Industrial Applications*", Proceedings of the 27th National Radio Science Conference (URSI 2010), **Menouf, Egypt, 16-18 March 2010**.
- 21) E. M. El-Bakary, O. Zahran, S. A. El-Dolil and F. E. Abd El-Samie, "*An Efficient Interleaving Approach for MC-CDMA Systems*", 5th International Computer Engineering Conference, Cairo University, 27-28 **December, 2009**.
- 22) H. Kasban, O. Zahran, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, "*Landmine Detection Technologies: A Comparative Study*", The Egyptian Journal of Environmental Change, pp. 54-59. **October 2009**.
- 23) H. Kasban, O. Zahran, H. Arafa, M. El-Kordy, S. M. Elaraby and F. E. Abd El-Samie, "*Using Radioisotopes Techniques for Troubleshooting Oil and Gas Industrial Processes*", The Seventh International Workshop (IWAVE 2009), Faculty of Engineering, Ain Shams University 24th-25th **October 2009, Cairo, Egypt**.
- 24) O. Zahran, H. Kasban, M. El-Kordy, H. Arafa, and F. E. Abd El-Samie, "*Residence time distribution measurements in phosphate production unit using radiotracer techniques*", The 48th Annual British Conference on Non-Destructive Testing (NDT2009), 14th – 17th **September 2009, Blackpool, United Kingdom**.
- 25) A. Al-Ataby, W. Al-Nuaimy, O. Zahran, and C. Brett, "*Automatic Detection and Classification of Weld Flaws in TOFD Data Using Wavelet Transform and Support Vector*

Machines“, The 48th Annual British Conference on Non-Destructive Testing (NDT2009), 14th – 17th **September 2009, Blackpool, United Kingdom.**

- 26) E. M. El-Bakary, **O. Zahran**, S. A. El-Dolil and F. E. Abd El-Samie, “*Chaotic Maps: A Tool To Enhance The Performance of OFDM Systems*”, International Journal of Communication Networks and Information Security (IJCNIS), Vol. 1, No. 2, pp. 54-58, **August 2009.**
- 27) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, S. EL-Rabaie, M. El-Kordy and F. E. Abd El-Samie, “*Efficient Detection of Landmines from Acoustic Images*”, Progress in Electromagnetic Research C (PIER C), Vol. 6, pp. 79–92, **2009.**
- 28) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, S. EL-Rabaie, M. El-Kordy and F. E. Abd El-Samie, “*Optimizing Automatic Object Detection From Images in Laser Doppler Vibrometer Based Acoustic to Seismic Landmine Detection System*”, The 26th National Radio Science Conference (NRSC 2009), ISBN 997-5031-69-6, pp. D09 1–9, Future University, 17th - 19th **March 2009, New Cairo, Egypt.**
- 29) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El- Samie, “*False Alarm Reduction in Interpretation of Acoustic to Seismic Landmines Data Using Morphology And Wavelet Transform*”, The 5th Saudi Technical Conference and Exhibition, 11th -14th **January 2009, Riyadh, Saudi Arabia.**
- 30) E. Mosa, N. W. Messiha and **O. Zahran**, “*Random Encryption of Speech Signals*”, International Conference on Computer Engineering and Systems ICCES, pp. 306-311, **Cairo University, 2009.**
- 31) E. Mosa, N. W. Messiha and **O. Zahran**, “*Random Chaotic Encryption of Speech Signals in Transform Domain*”, International Conference on Computer Engineering and Systems ICCES, pp. 300-305, **Cairo University, 2009.**
- 32) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, “*Recent Developments in Landmine Detection Techniques*”, The 7th International Conference on Role of Engineering Towards a Better Environment (RETBE'08), Alexandria University, 20th – 22nd **December 2008, Alexandria, Egypt.**
- 33) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, “*Automatic Object Detection from Acoustic to Seismic Landmines Images*”, The International Conference on Computer Engineering & Systems (ICCES'08), IEEE ISBN 978-1-4244-2115-2, pp.193-198, Ain Shams University, 25th – 27th **November 2008, Cairo, Egypt.**
- 34) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El- Samie, “*Landmine Detection Technologies: A Comparative Study*”, The 1st Symposium on Living with Landscapes, pp. 32-38, 22nd -27th **November 2008, Cairo, Egypt.**
- 35) H. Kasban, **O. Zahran**, Sayed M. S. Elaraby, M. El-Kordy and F. E. Abd El-Samie, “*Data Interpretation of Acoustic to Seismic Based Laser Doppler Vibrometer Landmine detection System Using Morphology And Wavelet*”, The International Workshop on Acoustics and Vibration in Egypt (IWAVE 2008), Ain Shams University, 11th **October 2008, Cairo, Egypt.**
- 36) H. Kasban, **O. Zahran**, M. El-Kordy, Sayed M. S. Elaraby and F. E. Abd El-Samie, “*Automatic Object Detection From Images Scanned by Laser Doppler Vibrometer Based Acoustic to Seismic Landmines Detection System*”, The 18th International Conference on Computer Theory and Applications (ICCTA 2008), pp 434-439, Arab Academy for

Science and Technology and Maritime Transport, 11th – 13th **October 2008, Alexandria, Egypt.**

- 37) C'Shekhar N Shitole, **O. Zahran**, and W Al-Nuaimy, "*Combining Fuzzy Logic and Neural Networks in Classification of Weld Defects Using Ultrasonic Time-Of-Flight Diffraction*", Insight - Non-Destructive Testing and Condition Monitoring (The Journal of The British Institute of Non-Destructive Testing), Vol. 49, No 2, pp. 538-542, **February 2007.**
- 38) **O Zahran** and Al-Nuaimy, "*Image Processing for Accurate Sizing of Weld Defects Using Ultrasonic Time-Of-Flight Diffraction*", European Federation for Non-Destructive Testing Conference (ECNDT2006), 25th – 29th **September 2006, Berlin, Germany.**
- 39) C'Shekhar N Shitole, **O. Zahran**, and W Al-Nuaimy, "*Combining Fuzzy Logic and Neural Networks in Classification of Weld Defects Using Ultrasonic Time-Of-Flight Diffraction*", The 45th Annual British Conference on Non-Destructive Testing (NDT2006), 12th - 14th **September 2006, Stratford-upon-Avon, United Kingdom.**
- 40) C'Shekhar N Shitole, **O. Zahran**, and W Al-Nuaimy, "*Neural-Fuzzy Classification of Weld Defects Using Ultrasonic Time-Of-Flight Diffraction*", British Institute of Non-destructive Testing (BINDT) Mini Conference on Advanced Ultrasonics, 14th -16th **June 2006, Harrogate, United Kingdom.**
- 41) **O Zahran** and W Al-Nuaimy, "*Utilising Phase Relationships for Automatic Weld Flaw Categorisation in Time-Of-Flight Diffraction Images*", 11th International Conference on Fracture (ICF 2005), 20th -25th March, **2005, Turin, Italy.**
- 42) **O Zahran** and W Al-Nuaimy, "*Automatic Defect Classification in Time-Of-Flight-Diffraction Data Using Neural Networks*". The 44th Annual British Conference on Non-Destructive Testing (NDT2005), 13th – 15th September **2005, Harrogate, United Kingdom.**
- 43) **O Zahran**, and W Al-Nuaimy, "*Automatic Data Processing and Defect Detection in Time-Of-Flight Diffraction Images Using Statistical Techniques*", Insight - Non-Destructive Testing and Condition Monitoring (The Journal of The British Institute of Non-Destructive Testing), Vol. 47, No 9, pp. 538-542, **September 2005.**
- 44) W Al-Nuaimy and **O. Zahran**, "*Time-of-Flight Diffraction - From Semi-Automatic Inspection to Semi-Automatic Interpretation*", Insight - Non-Destructive Testing and Condition Monitoring (The Journal of The British Institute of Non-Destructive Testing), Vol. 47, No 10, pp. 639-644, **October 2005.**
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19 References:

1. Prof. Waleed Al-Nuaimy

Department of Electrical Engineering and Electronics,
University of Liverpool,
Brownlow Hill
Liverpool L69 3GJ
England

Tel. No: +44 151794 4512 Fax: +44 151 794 4540 E-mail: wax@liv.ac.uk

2. Prof. Fawzy Aly Torkey

Previous President of Kafrelsheikh University,
Kafrelsheikh University,
Kafrelsheikh
Egypt

Tel. No: +20 101806445 Fax: +20 47 3223419 E-mail: fatorkey@kfs.edu.eg

3. Prof. Abubakr Mohamed Elhady

Department of Space Science,
National Authority for Remote Sensing and Space Sciences,
Cairo

Egypt

Tel. No: +20 101585844 Fax: +20 229926941

4. Prof. Sayed M. El-Araby

Head of Nuclear Research Center,
Atomic Energy Authority,
Cairo

Egypt

Tel. No: +20 109909813 E-mail: selaraby@netscape.net

5. Prof. Said El-Halafawy

Head of Electronics and Electrical Communications Engineering Department,
Faculty of Electronic Engineering,
Menofia University,
Menouf 32952

Egypt

Tel. No: +20 111150858 Fax: +20 48 3661517 E-mail: elhalafawysaid@yahoo.com

6. Prof. El-Sayed El-Rabaie

Vice-Dean for Graduate Studies and Research
Department of Electronics and Electrical Communication Engineering,
Faculty of Electronic Engineering,
Menofia University,
Menouf 32952

Egypt

Tel. No: +20 184 985 170 Fax: +20 48 3661517 E-mail: srabie1@yahoo.com