**Abdel-RazzakNatsheh**

**Tel:**(+970)595714387          **E-mail:**natsheh.ar@gmail.com

**Date of Birth:**17 August, 1982.

**Nationality**: British

## Education

*2005 - 2011 PhD in Computer Engineering, Manchester Metropolitan University, UK.*

**Thesis Title: Automated Tool for Diagnosis of Paranasal Sinus Conditions**
Supervisors: Dr.Prasad Ponnapalli, Dr.Atef El-kholy

**Brief Synopsis of Research**:

Reporting of CT scans of Paranasal Sinuses requires detailed examination by an expert to arrive at a diagnosis. The  project  aimed at developing a computer-based automated diagnostic tool for reporting CT scans of paranasal sinuses condition. One of the objectives of this project is to produce a reliable classification that is used in sinus diagnosis in terms of the scale used by the medical experts.

The current Sinus Diagnostic System (SDS) is developed using techniques based on classical image processing techniques in conjunction with Artificial Neural Networks (ANN) techniques. Initial work involved identifying the Region of Interest (ROI) that represents the four sinus areas of interest, maxillary, ethmoid, sphenoid and frontal. The analysis of the sinus areas was performed using a technique based on a version of ANNs called Self-Organising Maps.

During my PhD I have also led seminars, supervised undergraduates in the laboratory and taken a course on "Effective Tutoring and Assessment".

**Research Interests:**
My current research centers on medical imaging, image processing and artificial intelligence
(Neural Networks).

*2000 - 2005 BSc Computer Engineering, An-Najah National University.*

**Modules included:**artificial Intelligence, Structured Programming, Software Engineering (Including Object Oriented Theory), Networks Communication Systems, electronics, microprocessor, microcontroller, and signal processing …

## Employment
**(Aug-2009 - Present day) Assisstant Professor, Dept.of Computer Information Systems, Information Technology School, An-Najah Univeristy, Nablus, Palestine.**

**(2009 – June 2011) full-time lecturer, Dept. of Engineering and Technology, Manchester Metropolitan University, Manchester, UK**

| Subjects I have taught: | |
|---|---|
| Operating Systems | Computer Netowrks |
| Mathematics | Mechanical Engineering science. |
| Web page design | Multimedia Applications. |
| 3-D design. | Java programming. |
| Engineering problem solving. | Advanced Computer systems. |
| Image Processing (MSc) | Advanced Programming (MSc) |
| Electronics 1 | Advanced Electronics |
| Microprocessors 1 | Artificial Intelligence |

**Supervised postgraduate and undergraduate students in their research projects.**

**(2006– 2009)Teaching Assistant, Dept. of Computer Science , University of Kent, Canterbury, UK**
led seminars and tutorial classes, supervised undergraduates in the laboratory and taken a course on "Effective Tutoring and Assessment".

## Skills

General skills in research project management and data analysis. Specific expertise and interests in:

*Computing Skills:*

- Applications: Microsoft Office Suite, Internet Explorer, Paint Shop Pro, Dreamweaver and several e-mail packages.
- Programming Languages: C#, Java, SQL, PHP, MATLAB and HTML.
- Operating Systems: Unix, Windows Vista, Windows XP

*Teaching Skills:*

- Taught different  type of subjects to different level of students (from year 1 to MSc level)
- Superviselab sessions for undergraduate and postgraduate students and have supervised the undergraduate and postgraduate research projects.

*Time Management*

- I met without fail, the many deadlines in my teaching and supervisory duties. I have extensive experience of juggling different tasks and bringing these to a successful conclusion.

*Other skills*

- Knowledge of research methodologies
- Statistical software: extensive experience with MATLAB.
- Data and information collection
- Writing and presenting reports

## Referees

[1] Dr. Prasad Ponnapalli – (Senior lecturer)
Manchester Metropolitan University
Department of Engineering and Technology, Chester Street, Manchester M1 5GD
Email:p.v.s.ponnapalli@mmu.ac.uk
Tel: +44 (0) 161 247 1659

[2] Dr. John Allwork  (Senior lecturer)
Manchester Metropolitan University
Department of Engineering and Technology, Chester StreetManchesterM1 5GD
Email:j.b.allwork@mmu.ac.uk
Tel: +44 (0) 161 247 1655

## Conferences, Presentations and Courses Attended

- **SGAI international conference, Cambridge, UK** 2007. Presented Paper
- **NCAF Meeting,**Oxford, 2008, presented **poster.**
- **BRS (British Rhinological Society) annual meeting,Cheltenham, UK, 2009.**
- **IEEE Conferences (CSNDSP (2 PAPERS), IST (PAPER)), 2010**

## Publications/Conference Papers

[1] Natsheh, P.V.S. Ponnapalli, N. Anani, A. Al-Kholy. Automated Tool for Diagnosis of Sinus Analysis CT Scans, Proceedings of AI 2007 the Twenty-Seventh SGAI International Conference on Innovative Techniques and Applications of Artificial Intelligence, 2007, Cambridge, UK.

[2] Abdel-RazzakNatsheh, Atef El-Kholy, Prasad VS Ponnapalli, Peter Norburn, Nader Anani. AUTOMATED TOOL FOR REPORTING CT SCANS OF PARANASAL SINUSES, BRS (British Rhinological Society), 8th annual meeting, May 2009.

[3] A.R. Natsheh, P. Ponnapalli, N. A. Anani, D. Benchebra and A.El-Kholy,"Neural networks-based tool for diagnosis of paranasal sinuses conditions," 7th IEEE, IET International symp. on comm. sys, networks and digital signal processing (CSNDSP 2010), Newcastle Upon Tyne, UK, 21-23 July 2010.

[4] D. Benchebra, P. Ponnapalli, N. A. Anani and A. R. Natsheh, "A novel algorithm for completing fragmented boundaries in images," the 7th IEEE, IET International symp. on comm. sys, networks and digital signal processing (CSNDSP 2010), Newcastle Upon Tyne, UK, 21-23 July 2010.

[5] A.R. Natsheh, P. Ponnapalli, N. A. Anani, D. Benchebra and A.El-Kholy," Automated tool for diagnosis of paranasal sinuses conditions," submitted to the IEEE,  Medical Imaging Journal. 2010 [under review].

[6] N. Anani, D. Benchebra, P. Ponnapalli, and A.-R. Natsheh, "Prediction of Line Current Harmonics in an AC-DC Converter Using Neural Networks," in the proceedings of the 2010 International Symposium on Industrial Electronics and Applications, Penang Malaysia, 2010, pp. 66-69.

## Professional Memberships

**AMIET**                              Institute of Engineering and Technology, 2006.

 (**NCAF**).                              The Natural Computing Applications Forum, 2008.