



# Adil Ibrahim KHALIL

## Curriculum Vitae

### Education

- 2013–2017 **PhD student in image and signal processing**, *The University of Angers, France.*  
2007–2010 **M. Sc. student in computer science**, *Voronezh State University, Russia.*  
1992–1997 **B. Sc. student in computer science**, *AL-Mustansiriyah University, Iraq.*

### PhD Thesis

Title *Processing of laser speckle contrast images: Study from mathematical models and use of nonlinear analyses to investigate the impact of aging on microvascular blood flow*

Supervisors Pr. Anne Humeau-Heurtier

Description Using image and signal processing algorithms, this PhD work aims at studying the influence of age on microcirculation, by processing laser speckle contrast imaging (LSCI) data. For this purpose, two different ways are followed: 1) the study and analysis of microvascular parameters (perfusion and moving blood cells velocity) when assumptions on moving scatterers velocity are made; 2) the processing of LSCI data with nonlinear analyses, more precisely with multiscale entropy. In our work, LSCI data are acquired from the forearm skin of healthy subjects, subdivided into two age groups. The first group includes young subjects whereas the second group includes older subjects.

### Experience

- 2017–Present **Lecturer in image and signal processing**, *The University of Diyala, Iraq.*  
2010–2012 **Assit. lecturer in image and signal processing**, *The University of Diyala, Irak.*  
2003–2007 **Laboratory technician in the computer science department**, *The University of Diyala, Irak.*

### Awards

- 2006 First class in visual Basic training course  
2006 Second class in Oracle Basic training course

## Computer skills

- Basic APPLICATION SOFTWARE SUCH AS WORD, EXCEL, L<sup>A</sup>T<sub>E</sub>X, ... ETC  
Intermediate C++, L<sup>A</sup>T<sub>E</sub>X, Microsoft Windows, Oracle  
Advanced ASP, HTML, Visual Basic

## Communication Skills

### Articles in refereed journals

1. [A. Khalil](#), A. Humeau-Heurtier, G. Mahé, and P. Abraham, Laser speckle contrast imaging: age-related changes in microvascular blood flow and correlation with pulse-wave velocity in healthy subjects, *J. Biomed. Opt.*, 20(5):051010–1–8, 2015.
2. [A. Khalil](#), A. Humeau-Heurtier, L. Gascoin, G. Mahé, and P. Abraham, Aging effect on microcirculation: A multiscale entropy approach on laser speckle contrast images, *Med. Phys.*, 43(7), 4008-4016, 2016.

### International Communications

1. [A. Khalil](#), A. Humeau-Heurtier, P. Abraham and G. Mahé, Processing of laser speckle contrast images to analyze the impact of aging on moving blood cells velocity when a Lorentzian velocity profile is assumed, in: EUSIPCO'2014 (22nd European Signal Processing Conference), Lisbonne, Portugal, pp. 2035-2039. **Poster session.**
2. [A. Khalil](#), A. Humeau-Heurtier, P. Abraham and G. Mahé, Comparative study to analyze the effect of aging on microvascular blood flow by processing laser speckle contrast images when Lorentzian and Gaussian velocity Profiles are assumed for moving scatterers, in: Image Processing Theory, Tools and Applications (IPTA), Paris, France, 2014, pp. 1-6. **Oral session.**
3. [A. Khalil](#), A. Humeau-Heurtier, G. Mahé, P. Abraham, Microvascular blood flow with laser speckle contrast imaging: analysis of static scatterers effect through modelling and simulation, in: IEEE EMS2014 (8th European Modelling Symposium on Mathematical modelling and Computer Simulation), Pise, Italy, ISBN: 978-1-4799-7411-5. **Oral session.**
4. [A. Khalil](#), A. Humeau-Heurtier, P. Abraham and G. Mahé, Analysis of the effect of static scatterers on blood cells velocity values computed from laser speckle contrast images: preliminary study, in: OPT-DIAG, Paris, France, 2014, pp. 52. **Oral session.**

### Other Communication

1. [A. Khalil](#), Analysis of the effects of aging on microvasculature through the processing of laser speckle contrast images, Journée des doctorants de l'École Doctorale STIM, JDOC2015, 9 avril 2015, Angers.

## Languages

Arabic	<b>Mother tongue</b>	
English	<b>Intermediate</b>	<i>Con conversationally fluent</i>
French	<b>Intermediate</b>	<i>Con conversationally fluent</i>
Russian	<b>Intermediate</b>	<i>Con conversationally fluent</i>

## Interests

- Chess

- Running
- Cooking

- Football