

## Dr. Abir Benabid Najjar

Assistant Professor, Vice Chair of Software Engineering Department  
College of Computer and Information Sciences  
King Saud University

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NATIONALITY    Tunisian & French  
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### Education

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- 2007-2010    Ph.D. in Computer Sciences  
              **Pierre and Marie Curie University of Paris (UPMC)**, Paris, France.  
              Ph.D. Thesis entitled “Study of the cyclic RCSP” and conducted at the **Computer Sciences Laboratory of Paris-6 (LIP6)** under the direction of Pr. Claire Hanen.
- 2006-2007    Master of Science in Computer Sciences  
              **National Polytechnic Institute of Grenoble (INPG)**, Grenoble, France.  
              Majoring: Operational Research and Combinatorial Optimization.
- 2004-2007    Master of Engineering in Telecommunications  
              **National School of Computer Science and Applied Mathematics of Grenoble (ENSIMAG)**, Grenoble, France.
- 2002-2004    DUT (two-years university degree in Technology)  
              **Preparatory Institute of Scientific and Technological Studies (IPEST)**, La Marsa, Tunisia.

### Academic and industrial experiences

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- Sep 2014-  
Present      Vice Chair of Software Engineering Department, College of Computer and Information Sciences,  
              **King Saud University**, Riyadh, Saudi Arabia.
- Feb 2012-  
Present      Assistant Professor, Software Engineering Department, College of Computer and Information  
              Sciences, **King Saud University**, Riyadh, Saudi Arabia.
- 2011-2012    Postdoctoral researcher in the Network Theory and Communications Research Group (TREC), a joint  
              research group between the **National institute of research in Computer sciences and Mathematics (INRIA)** and **Ecole Normale Supérieure (ENS)**, Paris, France.
- 2010-2011    Lecturer, College of Languages, **Paris Ouest Nanterre la Défense University**, Paris, France.
- 2008-2010    Lecturer, College of Computer Sciences, **Pierre and Marie Curie University of Paris**, Paris, France.
- Mar - Jul  
2007          Master thesis entitled “Study of liveness of weighted event graphs in the design of embedded  
              systems”, **Computer Sciences Laboratory of Paris-6 (LIP6)**, Paris, France
- Jun - Aug  
2006          Engineer internship entitled “Design and implementation of ICAO server”, **Aviasys**, Evry, France.
- July 2005     Internship, Electroplating Department, **Schneider Electric**, Grenoble, France.

## Funded Research Projects

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- 2013 Principal Investigator of KSU Research Center Project RC#121241 “Optimized Arabic Keyboard for Single-Pointer Keying Applications”.
- 2013 Principal Investigator of MSc Project supported KACST “Toward utilizing Near Field Communication (NFC) technology for the visually impaired people”.

## Supervised projects

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### MSc Theses

- 2014-2015 “User-Centered Design of Navigation Mobile Applications Interface for the Visually Impaired”, Shaden Alzeer
- 2014-2015 “Indoor Wheelchair Navigation for the Visually Impaired ”, Rawan Hamoud Alsarrani, Co-supervised with Dr. Manar Fawzi
- 2013-2014 “Usability study of NFC technology for the Visually Impaired”, Mona AlZuhair, Co-supervised with Dr. Eiman Kanjo
- 2013-2014 “An Optimized Single-Finger Arabic Keyboard Layout”, Nourah Alswaidan, Co-supervised with Dr. Manar Fawzi

### Capstone Projects

- 2013 The SMAART Project: a System for Medical Animations creation and visualization using Augmented Reality Technology
- 2012 The Find my Way Project: a navigation mobile application for the new Center for Female Scientific and Medical Colleges in Al-Diriya  
[Awarded Best Project in the annual IT Project Fair 2012 in KSU. Participated in Zayed University's Annual Conference on Undergraduate Research on Applied Computing URC2013, Dubai, United Arab Emirates.]
- 2012 The Malls of Riyadh Project: a Navigation mobile application for Riyadh malls  
[Participated in Zayed University's Annual Conference on Undergraduate Research on Applied Computing URC2013, Dubai, United Arab Emirates.]
- 2012 The Balanced Diet Project: a web application with suite of interactive games for children and useful information for parents around balanced nutrition.

## Scientific Committees

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- 2014 **Invited Panel Discussion Member:** “Opportunities and Challenges for Research and Innovation in the Arab World” in Zayed University's Annual Conference on Undergraduate Research on Applied Computing URC2014, Dubai, United Arab Emirates.
- 2014 **Technical Program Committee Member** in iUSER Conference 2014, Malaysia.

- 2014 **Technical Program Committee Member** in the 2nd IEEE International Workshop on Ambient Multimedia and Sensory Environment (AMUSE-2014), Chengdu, China.
- 2013 **Reviewer** for the journal of Computers in Human Behavior, Impact Factor: 2.293, Imprint: Elsevier.
- 2013 **Technical Program Committee Member** in Zayed University's Annual Conference on Undergraduate Research on Applied Computing URC2013, Dubai, United Arab Emirates.
- 2013 **Jury member** in the KSU 4th Students Scientific Symposium, Riyadh, Saudi Arabia.

## PUBLICATIONS

### International journal articles:

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#### 2013

Ayala, M A, **Benabid, A**, Artigues C, Hanen C. 2012. The resource-constrained modulo scheduling problem: an experimental study. Computational Optimization and Applications, Springer US. DOI 10.1007/s10589-012-9499-2(ISSN 0926-6003 ). **IF 1.350**.

#### 2012

**Benabid, A**, Hanen C, Marchetti O, Munier A. 2012. Periodic Schedules for Bounded Timed Weighted Event Graphs, IEEE Transactions on Automatic Control. 57(5):1222 -1232. **IF 2.110**.

#### 2011

**Benabid, A**, Hanen C. 2011. Worst case analysis of Decomposed Software Pipelining for cyclic unitary RCPSP with precedence delays. Journal Of Scheduling (JOS). 14(5):511-522. **IF 1.051**.

#### 2010

**Benabid, A**, Hanen C. 2010. Performance of Garey Johnson algorithm for pipelined typed tasks systems. International Transactions in Operational Research (ITOR). 17(6):797–808. **IF 0.648**.

**Benabid, A**, Hanen C. 2010. Minimizing lateness for precedence graphs with constant delays on dedicated pipelined processors. Electronic Notes in Discrete Mathematics (ENDM). 36:791-798.

### International Refereed Conferences

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#### 2014

AlZuhair, M., **Benabid, A**., Kanjo, E., 2014. User Involvement for the Development of Indoor Navigation System for the Visually Impaired, iUSER Conference, Malaysia.

AlZuhair, M., **Benabid, A**., Kanjo, E., 2014. NFC based applications for visually impaired people - A review, Multimedia and Expo Workshops (ICMEW), 2014 IEEE International Conference, pp.1,6, 14-18 July 2014, Chengdu, China.

AlSwaïdan N., Hosny M., **Benabid, A.** 2014. An Optimized Single-Finger Arabic Keyboard Layout, Science and Information Conference, London, UK.

**Benabid, A.**, Alhudhud. G. 2014 . “The synergy of engineering and research aspects in Software Engineering Education”, 27th IEEE Conference on Software Engineering Education and Training (CSEE&T), Klagenfurt, Austria, pp: 44-48.

Al-Dayel H., Al-Swayah A., Al-Dhafian B., Al-Hudhud G. **Benabid A.** 2014. “Modelling Virtual Graduation Projects Coordinator: From Object Oriented to Agent Oriented”, Middle Eastern Simulation and Modelling Conference, MESM 2014, AOU, Muscat, Oman.

### 2013

**Benabid, A.** 2013. Optimization of the Arabic Keyboard Layout for Single-pointer Applications. Metaheuristics International Conference, Singapore.

**Benabid, A.** 2013. Toward an optimized Arabic Keyboard design for single-pointer applications. Genetic and Evolutionary Computation Conference (GECCO), Amsterdam, The Netherlands.

### 2012

Artigues, C, Ayala M A, **Benabid A**, Hanen C. 2012. Bornes inférieures et supérieures pour l'ordonnancement modulo sous contraintes de ressources. Roadef Conference. Angers, France.

Artigues, C, Ayala M A, **Benabid A**, Hanen C. 2012. Lower and upper bounds for the resource-constrained modulo scheduling problem. 13th International Conference on Project Management and Scheduling. Leuven, Belgium.

### 2010

**Benabid, A**, Hanen C. 2010. Decomposed Software Pipelining for VLIW with precedence delays and resource constraints. 24th European Conference on Operational Research. Lisbonne, Portugal.

**Benabid, A**, Hanen C. 2010. Minimizing lateness for precedence graphs with constant delays on dedicated pipelined processors. International Symposium on Combinatorial Optimization. Hammamet, Tunisia.

**Benabid, A**, Hanen C. 2010. Performance of Garey-Johnson algorithm for unitary RCPSP. 12th International Workshop on Project Management and Scheduling. Tours, France .

**Benabid, A**, Hanen C. 2010. Performance of Zinder-Roper algorithm for unitary RCPSP with constant precedence latencies. Roadef Conference. Toulouse, France.

### 2009

**Benabid, A**, Hanen C. 2009. Decomposed Software Pipelining for cyclic unitary RCPSP with precedence delays. 4th Multidisciplinary International Scheduling Conference. Bonn, Germany.

**Benabid, A**, Hanen C. 2009. Worst case analysis on modulo scheduling for specialized processors systems. Roadef Conference. Nancy, France.

**2008**

**Benabid, A,** Hanen C. 2008. Performance of Garey Johnson algorithm for pipelined typed tasks systems. 6th ALIO/EURO Workshop on Applied Combinatorial Optimization. Buenos Aires, Argentina.

**Benabid, A,** Hanen C. 2008. Periodic Schedules for Unitary Timed Weighted Event Graphs. Roadev Conference. Clerement-Ferrand, France.