



# Dr. Mohamed Anis GHARBI

## Associate Professor

**Personal details:** 39 years old, Tunisian citizen, married, three children

**Languages:** Arabic, English, French

**Professional address:** Department of Industrial Engineering, College of Engineering, King Saud University, PO Box 800 Riyadh 11421, Saudi Arabia

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### Education

- April 2006**      **University Habilitation in Management Science**, High Institute of Management, University of Tunis
- February 2003**   **Ph.D. in Management Science**, High Institute of Management, University of Tunis  
Thesis title: *Exact Algorithms for Scheduling Parallel Machines with Heads and Tails* Supervisor: Pr. Mohamed Haouari  
Very honorable Mention: Four published papers in ISI journals (Journal of Scheduling, Operations Research Letters, Annals of Operations Research, and Discrete Applied Mathematics)
- July 1999**      **M. Sc. in Operations Research**, High Institute of Management, University of Tunis
- June 1996**      **B. Sc. in Mathematics**, Faculty of Science, University of Tunis
- June 1992**      **Baccalaureate in Mathematics**, High School of El Menzah 6, Tunis

### Academic experience

- Since September 2007: Associate Professor**  
College of Engineering, King Saud University
- January-September 2007: Associate Professor**  
High Institute of Computer Science, University of Tunis El Manar
- 2003-2007: Assistant Professor**  
High Institute of Computer Science, University of Tunis El Manar
- 2002-2003: Lecturer**  
National Institute of Applied Sciences and Technologies, University of Tunis
- 2000-2002: Lecturer**  
Faculty of Economics and Management of Nabeul, University of Tunis
- 1999-2000: Instructor**  
High Institute of Economics and Business, University of Tunis

### Distinctions and Awards

- Ranked first (Senior category) of the Roadef/Euro 2012 Google challenge qualification phase (read more at <http://enews.ksu.edu.sa/2012/03/07/gharbi-mrad>).
- Supervisor of the Best Industrial Engineering Graduation Project (June 2011), College of Engineering, King Saud University

- Thomson Reuters Award for Contribution to Scientific Research and Excellence in Operational Research, 2010 (read more -in French- at <http://www.leaders.com.tn/article/trophees-talents-emergents-onze-chercheurs-tunisiens-primes-par-thomson-reuters?id=3486>)

### Areas of interest

- Systems Engineering
- Operations Research
- Supply Chain Management
- Production Planning
- Machine Scheduling
- Workforce Staffing and Scheduling
- Health Care Management
- Transportation Problems
- Cutting and Packing Problems
- Logistics
- Inventory Management
- Forecasting
- Network Attack-Defense Strategies

### Special Professional Appointments

- Member of the Editorial Board of *The Scientific World Journal* (ISI journal, Impact Factor 1.731)
- Member of the Editorial Board of *Supply Chain Forum: An International Journal*
- Member of the Editorial Board of *ISRN Operations Research*

### Publications

#### International refereed journals

1. Anis Gharbi, Mohamed Haouari, Mohamed Labidi (2014), "An Exact Approach for Single Machine Scheduling with Unavailability Periods", *European Journal of Industrial Engineering*, in press.
2. Mohamed Labidi, Mehdi Mrad, Anis Gharbi, Mohamed Aly Louly (2014), "Scheduling IT Staff at a Bank: A Mathematical Programming Approach", *The Scientific World Journal*, doi:10.1155/2014/768374.
3. Anis Gharbi, Talel Ladhari, Mohamed Kais Msakni, Mehdi Serairi (2013), "The Two-Machine Flowshop Scheduling Problem with Sequence-Independent Setup Times: New Lower Bounding Strategies", *European Journal of Operational Research*, Vol 231, pp. 69-78.
4. Anis Gharbi (2013), "Scheduling Maintenance Actions for Gas Turbines Aircraft Engines", *International Journal of Mechanical, Industrial Science and Engineering*, Vol 7, pp. 224-226.
5. Anis Gharbi, Mohamed Haouari, Talel Ladhari, Mohamed Ali Rakrouki (2013), "An Effective Genetic Algorithm for a Complex Real-World Scheduling Problem", *International Journal of Mechanical, Industrial Science and Engineering*, Vol 7, pp. 281-284.
6. Anis Gharbi, Amira Mahjoubi (2013), "New Lower Bounds for Flow Shop Scheduling", *International Journal of Humanities and Management Sciences*, Vol 1, pp. 28-32.
7. Anis Gharbi, Abdurrahman Al-Ahmari, Mohamed Kais Msakni, Hisham Al-Khalefah (2012), "A New Genetic Algorithm for Designing Cellular Manufacturing Systems with Labor and Tools Issues", *Applied Mechanics and Materials*, Vols. 110-116, pp. 4307-4314.

8. Anis Gharbi, Mohamed Labidi (2010), "Jackson's Semi-Preemptive Scheduling on a Single Machine", *Computers and Operations Research*, Volume 37, pp. 2082–2088.
9. Anis Gharbi, Mohamed Naceur Azaiez, Mohamed Kharbech (2010), "Minimizing Expected Attacking Cost in Networks", *Electronic Notes in Discrete Mathematics*, Volume 36, pp. 947–954.
10. Anis Gharbi, Talel Ladhari, Mohamed Kais Msakni, Mehdi Serairi (2010), "Polynomial Lower Bounds for the Two-Machine Flowshop Problem with Sequence-Independent Setup Times", *Electronic Notes in Discrete Mathematics*, Volume 36, pp. 1089–1096.
11. Anis Gharbi, Mohamed Labidi (2010), "Extending the single machine-based relaxation scheme for the job shop scheduling problem", *Electronic Notes in Discrete Mathematics*, Volume 36, pp. 1057–1064.
12. Lotfi Hidri, Anis Gharbi, Mohamed Haouari (2008), "Energetic Reasoning Revisited: Application to Parallel Machine Scheduling", *Journal of Scheduling*, Volume 11, pp. 239–252.
13. Anis Gharbi, Mohamed Haouari (2007), "An Approximate Decomposition Algorithm for Scheduling on Parallel Machines with Heads and Tails", *Computers and Operations Research*, Volume 34, pp. 868–883.
14. Mohamed Haouari, Anis Gharbi, Mahdi Jemmali (2006), "Tight Bounds for the Identical Parallel Machine Scheduling Problem", *International Transactions in Operational Research*, Volume 13, pp. 529–548.
15. Mohamed Haouari, Lotfi Hidri, Anis Gharbi (2006), "Optimal Scheduling of a Two-Stage Hybrid Flow Shop", *Mathematical Methods of Operations Research*, Volume 64, pp. 107–124.
16. Mohamed Haouari, Anis Gharbi (2005), "Fast Lifting Procedures for the Bin Packing Problem", *Discrete Optimization*, Volume 2, pp. 201–218.
17. Anis Gharbi, Mohamed Haouari (2005), "Optimal Parallel Machines Scheduling with Availability Constraints", *Discrete Applied Mathematics*, Volume 148, pp. 63–87.
18. Mohamed Haouari, Anis Gharbi (2004), "Lower Bounds for Scheduling on Identical Parallel Machines with Heads and Tails", *Annals of Operations Research*, Volume 129, pp. 187–204.
19. Mohamed Haouari, Anis Gharbi (2003), "An Improved Max-Flow Based Lower Bound for Minimizing Maximum Lateness on Identical Parallel machines" *Operations Research Letters*, Volume 31, pp. 49–52.
20. Anis Gharbi, Mohamed Haouari (2002), "Minimizing Makespan on Parallel Machines Subject to Release Dates and Delivery Times", *Journal of Scheduling*, Volume 5, pp. 329–355.

#### Conference Proceedings

1. Anis Gharbi (2014), "Improving the Academic Environment through Computerized Optimization Tools: A Success Story at the Largest Gulf University", *IBEA2014, Hong Kong*, paper ID: 069MIX.
2. Anis Gharbi, Talel Ladhari, Mohamed Kais Msakni, Mehdi Serairi (2012), "Tight Lower Bounds for the Two-Machine Flowshop Scheduling Problem with Setup Times", *PMS2012, Leuven, Belgium*, pp. 152–155.
3. A. Gharbi, M. Louly, M. N. Azaiez, A. Bouras (2011), "Goal-Programming Models for Nurse Scheduling Assessment of Two Critical Intensive Care Units", *INFORMS Healthcare, Montreal, Canada*, paper ID: 53591.
4. Anis Gharbi, Talel Ladhari, Mohamed Kais Msakni, Mehdi Serairi (2011), "Bounding Schemes for Scheduling a Two-Machine Flowshop with Set-up Times", *International Conference and Exhibition on Knowledge-Based Business, Industry and Education (KBIE 2011), Manama, Bahrain*, paper ID: 114.
5. Anis Gharbi, Mohamed Labidi (2009), "Jackson's Semi-Preemptive Schedule for the One Machine Problem", *10<sup>th</sup> Conference of the French Operations Research Society (ROADEF'09), Nancy, France*, pp. 108–110.
6. Lotfi Hidri, Anis Gharbi, Mohamed Haouari, and Chefi Triki (2008), "Enhanced Energetic Reasoning for Parallel Machine Scheduling", *Eleventh International Workshop on Project Management and Scheduling (PMS 2008), Istanbul, Turkey*, pp. 144–147.

7. Mahdi Jemmali, Mohamed Haouari, Anis Gharbi (2006), "Bounding Strategies for scheduling on Identical Parallel Machines", *IEEE International Conference on Service Systems and Service Management (ICSSSM'06)*, Troyes, France, pp. 1162-1166.
8. Anis Gharbi, Mohamed Haouari (2005), "Une nouvelle heuristique pour le problème d'ordonnancement à machines parallèles avec dates de disponibilité et temps de latence" *6<sup>th</sup> Conference of the French Operations Research Society (ROADEF'05)*, Tours, France.
9. Anis Gharbi, Mohamed Haouari (2004), "Optimal Parallel Machines Scheduling with Initial and Final Availability Constraints", *Ninth International Workshop on Project Management and Scheduling (PMS 2004)*, Nancy, France, pp. 218-221.

#### Submitted papers

1. Mehdi Mrad, Anis Gharbi, Mohamed Haouari, Mohamed Kharbeche, "An Optimization-Based Heuristic for the Machine Reassignment Problem", submitted to *Annals of Operations Research*.
2. Anis Gharbi, Mohamed Labidi, "The Non-Permutation Flow Shop Scheduling Problem: Adjustment and Bounding Procedures", submitted to *The Scientific World Journal – Operations Research*.

#### **Contribution to the Academic Environment**

- Design of an Optimized Course Scheduling Tool at KSU College of Engineering, College of Engineering, King Saud University, 2013
- Design of an Accurate Forecasting Tool of the Registration Process at KSU College of Engineering, College of Engineering, King Saud University, 2012
- Optimized Exam Scheduling Tool for the College of Engineering at KSU, College of Engineering, King Saud University, 2012
- Design of a Computerized Registration Support System for the College of Engineering at KSU, College of Engineering, King Saud University, 2012
- Optimized Scheduling of Preparatory Year Courses, College of Engineering, King Saud University, 2011
- Accurate Forecasting of Section Capacities and Student Registration, Department of Industrial Engineering, King Saud University, 2011
- Design of Optimized Course Scheduling Software for the Industrial Engineering Department, King Saud University, 2011
- Two Optimization Models for Automated Exam Scheduling for the Industrial Engineering Department, King Saud University, 2011
- Design of an Optimization-Based Simulator for the Student Registration Process, Department of Industrial Engineering, King Saud University, 2011
- A Decision Support System for Optimal Student Registration, Department of Industrial Engineering, King Saud University, 2011
- Participation to the Design of an Implementation Plan for the New Engineering College of Excellence, King Saud University, 2009
- Participation to the ABET Accreditation of the Industrial Engineering Department, King Saud University, 2008-2009

## **Collaborations with Companies**

### Consulting Activities

- *Improving Warehousing Procedures at Logistics Division of Saudi Public Security* (2013), Saudi Public Security, Riyadh
- *Analysis of the Nursing Staffing Level at KFSH&RC* (2011), King Faisal Specialist Hospital & Research Centre (Gen, Org.), Riyadh
- *Implementation and validation of optimized schedules over the pilot nursing units at KFSH&RC* (2011), King Faisal Specialist Hospital & Research Centre (Gen, Org.), Riyadh
- *Assessment of Nursing Overtime and Staff Scheduling Optimization at KFSH&RC* (2010), King Faisal Specialist Hospital & Research Centre (Gen, Org.), Riyadh
- *Efficient Staffing and Scheduling of Guard Forces* (2010), King Faisal Specialist Hospital & Research Centre (Gen, Org.), Riyadh
- *Efficient Staffing and Scheduling Safety Section* (2010), King Faisal Specialist Hospital & Research Centre (Gen, Org.), Riyadh
- *Optimal Size of the Praying Buildings in King Abdullah Al-Haram Expansion* (2009), Saudi Authorities - General Presidency of Al-Haramayn, Jeddah
- *Forecasting Capacity for King Abdullah Al-Haram Expansion* (2009), Saudi Authorities - General Presidency of Al-Haramayn, Jeddah
- *Waste Services for King Abdullah Economic City Phase 1* (2009), Al-Zugheibiah Est., Al Madinah
- *Design of Scheduling Procedures for the Wood Manufacturing Department* (2007), Stramica, Tunis

### Trainings for Professionals

- Saline Water Conversion Corporation (April 2011): *Warehouse Management and Inventory Control*, Jeddah, Saudi Arabia.
- King Faisal Specialist Hospital & Research Centre (Gen, Org.) (April 2011): *Optimization Modeling Using LINGO Software with Applications to KFSH&RC Real Cases*, Riyadh, Saudi Arabia.
- Saline Water Conversion Corporation (March 2011): *Warehouse Management and Inventory Control*, Khubar, Saudi Arabia.
- Saline Water Conversion Corporation (January 2011): *Warehouse Management and Inventory Control*, Jeddah, Saudi Arabia.
- King Fahad Specialist Hospital (2009): *Computerized Stock Control Systems*, Dammam, Saudi Arabia.
- Al Wataniya Poultry – the largest poultry in the Middle East (2008): *Inventory Planning and Control*, Al-Qassim, Saudi Arabia.

### Graduation Projects

- King Khalid International Airport (on-going): *Improving Yield through Optimized Counter and Gate Assignment*
- Riyadh Care Hospital (2013): *Improving Nursing Staff Performance*
- SABIC Catalyst (2013): *Optimizing Staff Scheduling Process*
- Saudi Telecom Company (2013): *Optimizing Technician Efficiency for Maintenance Activities*
- Almarai (2013): *Improving the Reefer Planning Process*
- King Khalid Eye Specialist Hospital (2011): *Design of a DSS for Physician Scheduling*
- Security Forces Hospital (2010): *Design of a Scheduling System for In-patient Units*

- AEC (2010): *Planning and Scheduling of the Typhoon Production Line*
- Dallah (2009): *Design of a Marketing Plan for the New Pediatric Hospital*
- Al-Khoraief Factory (2009): *Design of an Improved Material Requirement Planning*
- Al-Muhaideb Metal Company (2009): *Enhancing the Inventory Management Process*
- Alwashim Poultry (2009): *Minimizing Feed Shortages*
- King Fahd Medical City (2008): *Optimized Nurse Scheduling*
- Mobily (2008): *Optimizing Maintenance Schedules of Al Wadi Transmitters*

### **Work in progress**

1. A. Gharbi, M. Louly, M. N. Azaiez, A. Bouras, M. Marhaba, "Nurse Scheduling Models at a Local Hospital", to be submitted to Expert Systems with Applications.
2. M. Louly, A. Gharbi, M. N. Azaiez, A. Bouras, "A Nurse Staffing Analysis at the Largest Hospital in the Gulf Region", to be submitted to Nursing Management.
3. Anis Gharbi, Mohamed Labidi, "Effective Lower Bounds for the Job Shop Scheduling Problem: A Multiple Machine-Based Approach", to be submitted to Operations Research.
4. Anis Gharbi, Mohamed Naceur Azaiez, Mohamed Kharbech, "The Attacker Problem in Optimal Defense-Attack Strategies of Networks", to be submitted to Management Science.
5. Mohamed Zied Babai, Anis Gharbi, Abdurrahman Al-Ahmari, "A New ABC Inventory Classification Method: Theoretical and Empirical Investigation", to be submitted to European Journal of Operational Research.
6. Anis Gharbi, Abdurrahman Al-Ahmari, Mohamed Kais Msakni, Hisham Al-Khalefah, "Exact and Heuristic Approaches for Cellular Manufacturing with Tools and Workers Consideration", to be submitted to International Journal of Production Research.

### **Participations to Conferences**

#### Program Committees

- International Conference on Computers and Industrial Engineering, Troyes, France, 2009

#### Organization of Special Sessions

- *Progress in Scheduling*, International Symposium on Combinatorial Optimization, Hammamet, Tunisia, 2010

#### Session Chairman

- International Conference on Business, Economics and Accounting, IBEA, Hong Kong, 2014
- International Conference on Mathematical and Statistical Modeling, ISAET, Kuala Lumpur, Malaysia, 2012
- International Conference of Operations Research, WASET, Phuket, Thailand, 2012
- *Progress in Scheduling*, International Symposium on Combinatorial Optimization, Hammamet, Tunisia, 2010
- *Engineering Systems Management-Production Planning and Scheduling*, Third International Conference on Modeling, Simulation and Applied Optimization, Sharjah, UAE, 2009
- *Scheduling Algorithms*, Second Tunisian Management Science Society Meeting, Hammamet, Tunisia, 2007

#### Published Abstracts

1. March 2013, Mohamed Labidi, Anis Gharbi, "The non-permutation flow shop scheduling problem: adjustment and bounding procedures ", *The Annual Industrial and Systems Engineering Research Conference (AIEMS 2013)*, Orlando, USA.
2. July 2012, Anis Gharbi, Mehdi Mrad, Mohamed Haouari, Mohamed Kharbeche, " Google challenge 2011-2012: An approximate decomposition algorithm for machine re-assignment ", *25<sup>th</sup> European Conference on Operational Research (EURO 2012)*, Vilnius, Lithuania.
3. May 2006, Anis Gharbi, Mohamed Haouari, Mahdi Jemmali, "Tight Bounds for the Identical Parallel Machines" *ECCO XIX/CO2006 joint meeting*, Porto, Portugal.
4. May 2005, Mohamed Haouari, Anis Gharbi, "Heuristiques pour le problème d'ordonnancement à machines parallèles" *4<sup>ème</sup> Conférence Internationale en Recherche Opérationnelle (CIRO'05)*, Marrakech, Morocco.
5. September 2004, Mohamed Haouari, Lotfi Hidri, Anis Gharbi, "Optimal Scheduling of a Two-Stage Hybrid Flow Shop" *35<sup>th</sup> Annual Conference of the Italian Operations Research Society (AIRO 2004)*, Lecce, Italy.
6. June 2004, Mohamed Haouari, Anis Gharbi, "Fast Lifting Procedures for the Bin Packing Problem" *European Chapter on Combinatorial Optimization (ECCO XVII)*, Beirut, Lebanon.
7. August 2003, Mohamed Haouari, Anis Gharbi, "Optimal parallel machines scheduling with availability constraints" *18<sup>th</sup> International Symposium on Mathematical Programming*, Copenhagen, Denmark.
8. July 2003, Anis Gharbi, Mohamed Haouari, "A Branch and Bound Algorithm for Scheduling on Parallel Machines with Availability Constraints" *EURO-INFORMS Joint Meeting*, Istanbul, Turkey.
9. May 2002, Anis Gharbi, Mohamed Haouari, "Minimizing makespan on parallel machines subject to release dates and delivery times" *European Chapter on Combinatorial Optimization (ECCO XV)*, Lugano, Switzerland.
10. October 1998, Mohamed Haouari, Anis Gharbi, "Minimizing the Makespan in a Flexible Job Shop" *IEEE International Conference on System Man and Cybernetics (SMC)*, La Jolla, California, USA.
11. April 1998, Anis Gharbi, Mohamed Haouari, "Le Problème du Jobshop Flexible : Bornes Inférieures et Résolution Heuristique" *FRANCORO II : Deuxièmes journées francophones de recherche opérationnelle*, Sousse, Tunisia.

## **Funded Research Projects**

- *Optimizing Saudi Hospital Nurse Scheduling Using Mathematical Programming* (2012-2014), National Plan for Science and Technology, King Saud University, Riyadh
- *Enhancing Saudi Hospital Physician Scheduling Using Optimization Techniques* (2013-2015), National Plan for Science and Technology, King Saud University, Riyadh
- *Cutting Stock Optimization Tool for Saudi Factories* (2014-2016), National Plan for Science and Technology, King Saud University, Riyadh

## **Refereeing**

### International refereed journals

- Journal of the Operational Research Society
- European Journal of Operational Research
- Computers and Operations Research
- Computers and Industrial Engineering
- Annals of Operations Research
- European Journal of Industrial Engineering
- International Transactions in Operational Research
- IMA Journal of Management Mathematics

- International Journal of Operations & Quantitative Management
- International Journal of Computational Intelligence Systems
- International Journal of Planning and Scheduling
- International Journal of Operational Research
- Advances in Operations Research
- 4OR
- IEEE Transactions on Systems, Man, and Cybernetics--Part A: Systems and Humans
- Information Technology Research Journal
- Journal of King Saud University: Engineering Sciences

#### Conference proceedings

- Fifth International Conference on Modeling, Simulation and Applied Optimization (ICMSAO'13), Hammamet, Tunisia, April 28-30, 2013
- International Symposium on Combinatorial Optimization (ISCO2010), Hammamet, Tunisia, March 24-26, 2010
- The 39th International Conference on Computers & Industrial Engineering (CIE39), The University of Technology of Troyes, Troyes, France, July 6-8, 2009
- Third International Conference on Modeling, Simulation, and Applied Optimization, American University of Sharjah, Sharjah, UAE, January 20-22, 2009
- IEEE International Conference on Service Systems and Service Management, University of Technology of Troyes, France, October 25-27, 2006.

#### Research Project Proposals

- National Plan for Science and Technology, King Saud University.
- Deanship of Scientific Research, Al-Imam Mohamed Ibn Saud Islamic University.
- Deanship of Scientific Research, King Khalid University.

#### Ph.D. Theses

- Makram Zaidi (2011), *Ordonnancement des Ateliers Flexibles: Fondements, Nouvelles Approches de Résolution et Applications*, Faculty of Economics and Management of Sfax, University of Sfax
- Mejdî Souki (2011), *Operating Theatre Planning and Scheduling*, Faculty of Economics and Management of Sfax, University of Sfax
- Nizar Souayah (2010), *Exact Algorithms for Parallel Machines Scheduling*, High Institute of Management (ISG), University of Tunis
- Mariem Ennigrou Aissaoui (2008), *Approches multi-agents basées sur la recherche tabou pour le problème job shop flexible*, High Institute of Management (ISG), University of Tunis

#### Ph.D. Thesis Proposals

- Mohamed Anis Bachtobji (2007), *Maintenance Incrémentale de Règles d'Association*, High Institute of Management (ISG), University of Tunis
- Neila Trifa (2007), *Développement de méthodes d'optimisation pour les problèmes de réseaux arborescents*, High Institute of Management (ISG), University of Tunis
- Sondes Fayeche (2007), *A new prediction method of protein secondary structure*, High Institute of Management (ISG), University of Tunis



- Wided Guezguez (2007), *Possibilistic Decision Theory : From Theoretical Foundations to Influence Diagrams Methodology*, High Institute of Management (ISG), University of Tunis
- Hayet Ben Hamida (2007), *La gestion du risque de crédit bancaire selon Bale II : Une proposition de développement d'un modèle de notation interne en ayant recours à l'analyse logistique et aux réseaux de neurones*, High Institute of Management (ISG), University of Tunis

#### Master Thesis Proposals

- Ali Al-Sayoud (2011), *Optimizing power system operations load forecasting and economic power dispatch*, Department of Industrial Engineering, College of Engineering, King Saud University

#### Tenure Files

- Hajer Metoui (2007), High Institute of Computer Science (ISI), University of Tunis El-Manar
- Achraf Gazdar (2007), High Institute of Computer Science (ISI), University of Tunis El-Manar
- Jaber Jemai (2007), High Institute of Computer Science (ISI), University of Tunis El-Manar

### **Supervising**

#### Ph.D. Theses

- Majed Al-Sheikh (on-going), *Solving nurse scheduling problem using exact and heuristic approaches*, Department of Industrial Engineering, College of Engineering, King Saud University.
- Hisham Al-Khalifah (2013), *Formation of Dynamic Cellular Manufacturing Systems with Multiple Resources and Stochastic Demand*, Department of Industrial Engineering, College of Engineering, King Saud University (co-supervision with Dr. AbdulRahmane Al-Ahmari)
- Mohamed Labidi (2011), *New Bounding Approaches for the Job Shop Scheduling Problem*, High Institute of Management (ISG), University of Tunis
- Mohamed Kais Msakni (2011), *Exact and Heuristic Algorithms For The Two-Machine Flowshop Problem with Sequence-Independent Setup Times*, High Institute of Management (ISG), University of Tunis (co-supervision with Dr. Talel Ladhari)
- Lotfi Hidri (2007), *Exact and Heuristic Procedures for the Hybrid Flow Shop Scheduling Problem*, High Institute of Management (ISG), University of Tunis (co-supervision with Dr. Mohamed Haouari)

#### Masters' theses

- Umar Syarif (on-going), *A Heuristic Approach for Staff Scheduling using a Decomposition Method*, Department of Industrial Engineering, College of Engineering, King Saud University
- Amira Mahjoubi (2013), *Improved lower bounds for the permutation flow shop scheduling problem*, High Institute of Management (ISG), University of Tunis
- Mohamed Labidi (2006), *The non-permutation flow shop scheduling problem: adjustment and bounding procedures*, High Institute of Management (ISG), University of Tunis
- Mahdi Jemmali (2005), *A theoretical and experimental study of the parallel machine scheduling problem*, Polytechnic School of Tunisia (co-supervision with Dr. Mohamed Haouari)

### **Participations to Graduate Committees**

#### Ph.D. theses

- Makram Zaidi (2011), *Ordonnancement des Ateliers Flexibles: Fondements, Nouvelles Approches de Résolution et Applications*, Faculty of Economics and Management of Sfax, University of Sfax
- Nizar Souayah (2010), *Exact Algorithms for Parallel Machines Scheduling*, High Institute of Management (ISG), University of Tunis
- Jaber Jemai (2007), *Neural Models for the Real Time Vehicle Routing Problem*, High Institute of Management (ISG), University of Tunis

#### Masters' theses

- Muflih Safitra (2013), *Analysis of Flexible Manufacturing Systems Using Simulation-Based Optimization*, Department of Industrial Engineering, College of Engineering, King Saud University
- Mohmaed Ali Al-Qahtani (2010), *Personal Scheduling at a Local Call Center*, Department of Industrial Engineering, College of Engineering, King Saud University
- Talal Al-Solayman (2008), *An investigation of due-date setting rules at stochastic production environment: A case study*, Department of Industrial Engineering, College of Engineering, King Saud University
- Walim Zouari (2007), *Incremental maintenance of multidimensional data*, (chairman) High Institute of Management (ISG), University of Tunis
- Brahim Douar (2007), *A hybrid approach of supervised classification: Application to face recognition*, (chairman) High Institute of Management (ISG), University of Tunis
- Mehdi M'tir (2007), *A new method of ontology extraction from texts*, (chairman) High Institute of Management (ISG), University of Tunis
- Asma Mdimagh (2007), *Nature-based heuristics for the prize collecting Steiner tree problem*, High Institute of Management (ISG), University of Tunis
- Maher Helaoui (2005), *Project scheduling: the time-cost optimization problem*, High Institute of Management (ISG), University of Tunis
- Mohamed Hmiden (2005), *Solving the transshipment problem with transfer delay and limited capacity by multi-agent simulation*, High Institute of Management (ISG), University of Tunis
- Mejd Argoubi (2005), *A hydraulic network optimization in flood periods*, High Institute of Management (ISG), University of Tunis

#### **Taught Courses**

##### Ph.D Courses

- **Advanced Statistics**, Industrial Engineering Department, College of Engineering, King Saud University
- **Advanced Topics in Engineering Optimization**, Industrial Engineering Department, College of Engineering, King Saud University
- **Heuristic Search Methods in Engineering Optimization**, Industrial Engineering Department, College of Engineering, King Saud University
- **Scheduling of Industrial Operations**, Industrial Engineering Department, College of Engineering, King Saud University
- **Stochastic Modeling**, Industrial Engineering Department, College of Engineering, King Saud University

##### Master's Courses

- **Engineering Optimization**, Industrial Engineering Department, College of Engineering, King Saud University
- **Advanced Mathematical Programming**, High Institute of Management of Tunis, University of Tunis

### Undergraduate Courses

- **Operations Management**, Industrial Engineering Department, College of Engineering, King Saud University
- **Operations Research II**, College of Engineering, Alfaisal University
- **Inventory Control and Production Planning**, Industrial Engineering Department, College of Engineering, King Saud University
- **Linear Programming and Applications:**
  - Industrial Engineering Department, College of Engineering, King Saud University
  - High Institute of Computer Science, University of Tunis El Manar
  - National Institute of Applied Sciences and Technologies, University of Tunis
  - High Institute of Technologies and Computer Science, University of Tunis
  - Faculty of Management and International Business, University of Tunis
- **Graph Theory and Applications:**
  - Industrial Engineering Department, College of Engineering, King Saud University
  - High Institute of Computer Science, University of Tunis El Manar
  - National Institute of Applied Sciences and Technologies, University of Tunis
  - High School of Technologies and Computer Science, University of Tunis
  - Faculty of Management and International Business, University of Tunis
  - University of Information Technologies and Enterprise Management of Tunis
- **Scheduling Theory and Applications:**
  - Industrial Engineering Department, College of Engineering, King Saud University
  - High Institute of Management of Tunis (graduate program), University of Tunis
  - Polytechnic School of Tunisia
  - High Institute of Computer Science, University of Tunis El Manar

### **Affiliations**

- 2010-2013: Research Fellow, BEM Bordeaux Management School, France.
- 2010-2012: Princess Fatimah Alnijris's Research Chair for Advanced Manufacturing Technology, Industrial Engineering Department, College of Engineering, King Saud University.
- Since 2005: Combinatorial Optimization Research Group (CORG), Unité de Recherche ROI (Operations Research for Industry), Polytechnic School of Tunisia
- 2005-2009: The French Society of Operational Research (ROADEF)
- 2002-2004: Laboratory of Mathematical Engineering, Polytechnic School of Tunisia, La Marsa
- Since 1998: Tunisian Management Science Society (TMSS)

### **Visiting positions**

- January 2012: Department of Mechanical and Industrial Engineering, University of Qatar.
- Since 2010: Visiting Professor, BEM Bordeaux Management School, France.
- June 1999: Conservatoire National des Arts et Métiers, Paris, France
- April 2004: LIX Laboratory, Polytechnic School of Palaiseau, France