CURRICULUM VITAE

HEDI NABLI

10 February 1968
Sfax, Tunisia
Married, two daughters

King Faisal University
College of Science, Department of
Mathematics and Statistics
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Education

- 2004: Habilitation degree in Applied Mathematics
  Title: Performabilité sur des processus de Markov et modèles fluides stochastiques
  Institution: National School of Engineering of Tunis

- 1995: PhD in Mathematics & Applications
  Title: Mesure de performabilité sur des processus de Markov à espace d'états fini
  Institution: IRISA, University of Rennes I, France
  Fellowship: CNRS, France

- 1992: Diplôme d'études approfondies (Master) in Mathematics & Applications
  Title: Etude, analyse et comparaison des mesures de la sûreté de fonctionnement pour des modèles markoviens homogènes
  Institution: University of Rennes I, France

- 1990: BSc in Mathematics
  Ecole Normale Supérieure de Bizerte, Tunisia

- 1986: Baccalaureate, option: Mathematics & Sciences
  Hédi Chaker School, Sfax, Tunisia

Employment Experience

- 2013 – Present: Professor in applied mathematics
  King Faisal University, College of Science
- 2009 – 2013: Professor in applied mathematics
  Faculty of Sciences of Sfax, Tunisia
- 2004 – 2009: Maître de Conférences (Associate Professor) in applied mathematics
  Higher Institute of Computers and Mathematics of Monastir, Tunisia
- 1996 – 2004: Assistant Professor in applied mathematics
  Faculty of Sciences of Monastir, Tunisia
- 1995 – 1996: Business Manager
  Société de Construction Industrialisée, Tunis
- 1992 – 1995: Temporary Assistant
  University of Rennes I, France

Research Interests

- Performability measure on Markov processes
- Stochastic fluid models in queueing systems
- linear programming & Simplex algorithm

Scientific Publications

Book

Hédi Nabli - *Recherche Opérationnelle : Algorithme du Simplexe et ses Applications* - Centre de Publication Universitaire, ISBN: 978-9973-37-351-9, Tunisia (2006).

International Journals

1. Nabli H., Abbessi W., Ouerghi H. - A unified algorithm for finite and infinite buffer content distribution of Markov fluid models - *Performance Evaluation*, Vol. 99-100 (2016) 37-54, Impact Factor: **1.250**

2. Nabli H., Chahdoura S. - Algebraic simplex initialization combined with the nonfeasible basis method - *European Journal of Operational Research*, Vol. 245 (2015) 384-391, Impact Factor: **2.625**

3. Abbessi W., Nabli H. - Performance evaluation of video traffic models - *International Journal of Engineering Research & Technology*, Vol.4 (2015) 88-93, Impact Factor: **1.76**

4. Nabli H., Al-Alwan A. - Comments on the transient solution of stochastic fluid models - To appear in *Scientific Journal of King Faisal University*

5. Nabli H., Dammak L. - Relaxation and nonfeasible basis method for linear programs with bounded variables - Submitted to *EJOR*, Impact Factor: **2.625**

6. Carrasco J. A., Nabli H., Suné V. and Sericola B. - Comment on "Performability Analysis: A new Algorithm" - *IEEE Transactions on Computers* 59 (2010) 137-138, Impact Factor: **1.379**

7. Nabli H. - An Overview on the Simplex Algorithm - *Applied Mathematics and Computation*, 210 (2009) 479-489, Impact Factor: **1.349**

8. Nabli H. and Ouerghi H. - Uniqueness of asymptotic solution for general Markov fluid models - *Performance Evaluation*, 66 (2009) 580--585, Impact Factor: **1.166**

9. Nabli H. - Time to stationarity for general Markov fluid models - *International Journal of Communication Systems*, 19 (2006) 249--262, Impact Factor: **0.712**

10. Nabli H. - Transient and asymptotic analysis of general Markov fluid models - *Queueing Systems*, 47 **3** (2004) 283--304, Impact Factor: **0.438**

11. Nabli H. - Asymptotic solution of stochastic fluid models - *Performance Evaluation*, 57 **2** (2004) 121--140, Impact Factor: **1.166**

12. Nabli H. - Performability: Asymptotic distribution and moment computation - *Computers and Mathematics with Applications*, 48 (2004) 1--8, Impact Factor: **2.069**

13. Nabli H. and Sericola B. - Performability analysis for degradable computer systems - *Computers and Mathematics with Applications*, 39 (2000) 217--234, Impact Factor: **2.069**

14. Nabli H. - Performability measure for acyclic Markovian models - *computers and Mathematics with Applications*, 35 **8** (1998) 41--51, Impact Factor: **2.069**

15. Nabli H. and Sericola B. - Performability analysis: A new algorithm - *IEEE Transactions on Computers*, 45 **4** (1996) 491-494, Impact Factor: **1.379**

International Conferences

1. Nabli H. - Recueil sur les coniques et leurs applications en mathématiques arabes - *XIIe Colloque Maghrébin d'histoire des Mathématiques Arabes* - Marrakech, Morroco, May 2016.

2. Nabli H. and Dammak L. - Relaxation et méthode de base non réalisable pour la résolution des problèmes linéaires à variables bornées - *1st Annual Tors Conference (TORS'15)* - Hammamet, Tunisia, June 2015.

3. Nabli H. and Chahdoura S. - Adaptation de la règle du steepest-edge à la méthode de base non réalisable - *16e Conférence ROADEF de la Société Française de Recherche Opérationnelle et Aide à la décision (ROADEF 2015)* - Université Aix-Marseille, France, February 2015.

4. Nabli H., S. Chahdoura and L. Dammak - Principe de non faisabilité en programmation linéaire - *14e Conférence ROADEF de la Société Française de Recherche Opérationnelle et Aide à la décision (ROADEF 2013)* - Université de Technologie de Troyes, France, February 2013.

5. Abbessi W. and Nabli H. - GoP-Based Fluid Markovian Modelling of Video Traffic - *The Second International Conference on Communications and Networking (ComNet'2010)* - Tozeur, Tunisia, November 2010.

6. Nabli H. - Application des Mathématiques : les Mathématiques Arabes en exemple - Actes du *10e Colloque Maghrébin sur l'Histoire des Mathématiques Arabes*, Tunis, Tunisia, May 2010.

7. Abbessi W. and Nabli H. - Comparison of Computation Methods for the Steady-State Markov Modulated Fluid Queues - *1st IEEE Workshop on Performance evaluation of communications in distributed systems and Web based service architectures,* Sousse, Tunisia, July (2009).

8. Nabli H. and Ouerghi H. - An asymptotic solution for general Markov fluid models with finite buffer capacity - *4ième Colloque sur les Tendances des Applications Mathématiques en Tunisie Algérie Maroc (TAM-TAM'09)*, Kenitra, Morocco, May (2009).

9. Abbessi W. and Nabli H. - Fluid Markovian Modeling of MPEG Video Traffic - In: *Third International Conference on the Latest Advances in Networks (ICLAN'2008)*, Edited by Beylot A. L., Boumerdassi S. et Renault E., Toulouse, France (2008) 108--112.

10. Nabli H. - Nouvelle méthode de recherche d'une base réalisable initiale pour l'algorithme du simplexe - In: *XIII Congress of International Association for Fuzzy-Set Management and Economy*, ISBN:978-9973-9979-0-6, Hammamet, Tunisia (2006).

11. Nabli H. – Stationary regime detection of stochastic fluid models – In: *Multiconference on Computational Engineering in Systems Applications (CESA'2003)*, Edited by Borne, Craye et Dangoumau, Lille, France (2003) SR-R-00-0214.

12. Nabli H. – Performability for block degradable models: Asymptotic analysis - In: *Fifth International Workshop on Performability Modeling of Computer and Communication Systems (PMCCS' 5), 34 **13**, Edited by German, Luti and Telek, Germany (2001) 11-15.*

13. Nabli H. and Sericola B. – Performability analysis for degradable computer systems - In *Multiconference on ComputationalSeventh European Workshop on Dependable Computing (EWDC' 7), Twenty, The Netherlands, April (1995).*

Symposium and Conferences

(Contribution of Islamic savants in Mathematics, Astronomy and Engineering)

- Nabli H. – إسهامات العلماء المسلمين في الرياضيات وعلم الفلك والهندسة - Ahsaa Club of Arts, May 2015.
- Nabli H. – نظريات وتطبيقات رياضية لعلماء مسلمين - Club of Student Activities in the College of Science, KFU, March 2015.
- Nabli H. – أمثلة تطبيقية في الرياضيات مستمدة من تاريخنا الإسلامي - 4th Conference in Mathematics teaching and learning, Saudi Society of Mathematics, October 2015
- Nabli H. – نظريات وتطبيقات لعلماء مسلمين في الرياضيات - KSU, February 2015
- Nabli H. – الرياضيات وعلم الفلك عند العلماء المسلمين - KSU, February 2015

Scientific influence

- Distinct Faculty Member Award received from the King Faisal University in 2016 for the scientific, pedagogical and community development activities
- Project Leader of a new diploma at the King Faisal University entitled "Optimization Process for Industry". This diploma is in final phase of preparation and is dedicated to graduated bachelors in Mathematics, Physics or Computer Sciences
- Invited to review manuscripts that has been submitted for publication in the following International Journals:
    - IEEE, Transactions on Computers (2003)
    - International Journal of Communication Systems (2003)
    - Operational Research (2004)
    - Performance Evaluation (2005, 2012 and 2013)
    - Applied Mathematics and Computation (2012)
    - Advances in Pure and Applied Mathematics (2012)
    - Methodology and Computing in Applied Probability (2015)
- Invited to review manuscripts that has been submitted for publication in the following International Conferences: TAM-TAM (2005) & Networking (2005)

- Appointed a member of the National Recruitment Committee for "*Lecturer, Assistant Professor and Associate Professor*" in Applied Mathematics for the years "*2006-2007, 2010-2011 and 2012-2013*" respectively.

- Member of Program Committee for "*Tendances dans les Applications Mathématiques en Tunisie, Algérie, Maroc*" TAM-TAM'05, Tunis, April 2005.

- Member of Organizing and Scientific Committee of "*Ecole d'automne d'Analyse D'Algorithmes et Modèles Aléatoires*" ADAMA'2012, Mahdia, Tunisia, October 2012.

Supervision and thesis jury

- Supervision of 5 PhD Thesis, four in applied mathematics and another in computer science. Three are defended and the rest is planned in 2017 (Tunisia).

- Supervision of 7 Masters, five in mathematics, one in operational research and another in computer science. All these Masters have been defended (Tunisia).

- Supervision of a Master Thesis entitled *Combinatorial Arabesque*, KFU (KSA).

- Supervision of a Student Project entitled *Statistical estimators of "German tank problem": theoretical study and simulation using Matlab*, KFU (KSA).

- Sharing arrangement with thesis juries, three times as a member, once as president, once as reviewer and another as invited (Tunisia).

Teaching experience

- Probability theory (Tunisia, KSA)
- Markov chain (France, Tunisia)
- Monte-Carlo simulation and applications (Master, Tunisia)
- Selected topics in mathematics (Master, KSA)
- Statistics and applications (Tunisia, KSA)
- Algebra (Tunisia)
- Linear algebra (France, Tunisia)
- Linear programming (Tunisia)
- Numerical analysis (Tunisia)
- Arabic mathematics and applications (الرياضيات عند العرب وتطبيقاتها - Tunisia)
- Geometric transformations (KSA)

Educational and pedagogical skills

- Explore the software MATLAB as a didactic tool in the teaching of many courses of applied mathematics.

- Carrier of a new diploma in Tunisia what I called "*Methods and Techniques of Optimization in Industry*". The employability rate of this training is 100%.

- Conception of two new options for mathematics curriculum that I called "*Arabic mathematics and applications*" and "*Introduction to teaching and research*".
- Proposed a training of "*didactic of mathematics*" for the newly recruited Assistants of mathematics working at the University of Sfax.