

# CURRICULUM VITAE

## Sameer Al-Dahidi

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### PERSONAL INFORMATION

**Date and Place of Birth** : Nov 12<sup>th</sup>, 1986, Kuwait  
**Nationality** : Jordanian  
**Marital Status** : Married (one child)  
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### EDUCATION

January 2013 – March 2016

**Ph.D. in Energetic and Nuclear Science and Technology**, *Politecnico di Milano, Italy*

- Politecnico di Milano QS Rankings 2017/2018: 1<sup>st</sup> (Italy) and 28<sup>th</sup> in Engineering and Technology (world).
- Thesis “Development of data-driven methods for prognostics and health management under variable operational conditions in industrial equipment”.
- Marie Curie Ph.D. Fellowship within the European Project “Innovation through Human Factors in risk analysis and management” (InnHF, [www.innhf.eu](http://www.innhf.eu)).
- Ph.D. with **Honors** (the highest possible grade).

September 2010 – September 2012

**M.Sc. in Nuclear Energy, Operations & Maintenance**, *École Central Paris, University Paris Sud 11, France*

- GPA of 16/20 (Very Good – Rank 1 out of 12).
- Master Scholarship from French Government, 2010-2012.

September 2004 – June 2008

**B.Sc. in Electrical Engineering**, *The Hashemite University, Jordan*

- GPA of 3.92/4.0 (Excellent – Rank 1 out of 121).

September 2003 – August 2004

**General Secondary Education Certificate (Scientific Stream)**, *Alshamila Secondary School, Jordan*

- GPA of 92.6/100 (Excellent).

### ACADEMIC EXPERIENCE

February 2018 – Present

**Assistant Professor and Exchange Coordinator**, *Mechanical and Maintenance Engineering Department, German Jordanian University, Madaba, Jordan.*

October 2017 – January 2018 (4 months)

**Part-Time Lecturer**, *Mechanical Engineering Department, The Hashemite University, Zarqa, Jordan.*

June 2016 – May 2017 (1 year)

**Research Associate**, *Energy Department, Politecnico di Milano, Milan, Italy.*

Research topic 1: Development of data-driven methods for the prediction of electricity production by renewable energy sources (Co-operation contract between Edison R&D and Politecnico di Milano).

Research topic 2: Development of methods for the analysis of long term, high dimensional data streams and their use for detection of abnormal patterns in industrial equipment of electricity production plants (Co-operation contract between EDF R&D and Politecnico di Milano).

January 2013 – March 2016 (3 years and 3 months)

**Ph.D. Candidate and Early Stage Researcher** at InnHF EU Project (Project ID 289837), *Energy Department, Politecnico di Milano, Milan, Italy*

Research topic: Development of data-driven methods for prognostics and health management under variable operational conditions in industrial equipment

January 2014/2015 – April 2014/2015 (6 months)

**Visiting Ph.D. Candidate (Secondment Period – Research Collaboration)**, *Chair System Science and the Energy Challenge, Fondation Electricité de France (EDF), CentraleSupélec, Laboratory of Industrial Engineering, Paris, France*

Research topic: Processing condition monitoring data for diagnosis and prognosis of components in a fleet of electricity production plants (*Co-operation between Électricité de France (EDF) R&D and Politecnico di Milano*)

January 2014 – April 2014 (4 months)

**Researcher at HEMIS EU Project** (Project reference FP7-ICT-314609, [www.hemis-eu.org](http://www.hemis-eu.org)), *Energy Department, Politecnico di Milano, Milan, Italy*

Research topic: the development of a data-driven model for the diagnosis of Insulated Gate Bipolar Transistor (IGBT) failures.

June 2008 – October 2008 (3 months)

**Lab Supervisor**, *Electrical and Computer Engineering Department, The Hashemite University, Zarqa, Jordan.*

## TEACHING EXPERIENCE

- Teaching (Assistant Professor) of several under-graduate level courses in School of Applied Technical Sciences at the Mechanical and Maintenance Engineering Department, **German Jordanian University**, Jordan, Spring 2017 – Present:
  - *Statics*
  - *Engineering Workshops*
  - *Reliability and Quality Control*
  - *Management of Maintenance Systems*
  - *Spare Parts and Storage Management.*
- Teaching (Part-time lecturer) of several under-graduate level courses in Mechanical Engineering Department, **The Hashemite University**, Jordan, Fall 2017 (192 hours):
  - *Numerical Analysis* (9 credits)
  - *Thermal Science Lab I* (3 credits - coordinator).
- Teaching assistant of several graduate-level courses at **Politecnico di Milano**, Italy, 2014-2017 (35 hours):
  - *Risk, reliability and safety analysis*
  - *Availability and Maintenance*
  - *Computational methods for Reliability*
  - *Advanced methods for RAM, diagnostics and prognostics of industrial equipment.*
- Teaching assistant of several industrial courses at **Eni Corporate University**, Italy, 2014-2016 (35 hours):
  - *Quantitative Risk Assessment*
  - *Maintenance Engineering.*
- Teaching assistant of a graduate-level course in Master Nuclear Energy program at **École Centrale Paris**, France, February 2<sup>nd</sup> and 13<sup>rd</sup>, 2015 (7 hours):
  - *Maintenance of Nuclear Installations.*

## GRADUATE STUDENT ADVISING

- Co-advisor of **THREE Master** students in their theses at the Energy Department, Politecnico di Milano, *February 2018-Present* (Advisors: Prof. Enrico ZIO and Prof. Piero BARALDI):
  - Maria Rosaria TERMITE
  - Miriam FRESC
  - Eleonora NIGRO.
- Co-advisor of **TWO PhD** students in their theses at the Energy Department, Politecnico di Milano, *June 2016-Present* (Advisors: Prof. Enrico ZIO and Prof. Piero BARALDI):
  - Zhe YANG
  - Mingjing XU.

## RESEARCH INTERESTS

- Data mining, data analysis, artificial intelligence and machine learning across multiple industries. In particular, I aim at developing efficient computational methods, models and soft computing techniques for:
  - Health management (condition monitoring, diagnostics and prognostics, maintenance) of complex industrial components, systems and plants for improving operation and maintenance practices;
  - Renewable energy systems, Renewable energy production prediction;
- Mechanical Engineering fields: Thermal sciences, Heating, Ventilation and Air-Conditioning (HVAC), others.

## WORK EXPERIENCE

April 2011/2012 – August 2011/2012 (10 months)

**Master Student Intern (M1 and M2 Years), AREVA NP, Paris La Defense, France**

Project: Development of a new 3D core monitoring system “MAGELAN” (M1) and Design Performance Improvement Management of Engineering and Projects Organization Design Center (M2).

January 2009 – May 2010 (1 year and 5 months)

**Electrical & Instruments (E&I) Engineer, Consolidated Contractors International Company (CCIC), Abu-Dhabi, UAE**

Project: Expansion of Abu Dhabi Polymers Company (Borouge) (Project Value: 1.4 Billion USD).

September 2008 – December 2009 (4 months)

**Graduate Electrical & Instruments (E&I) Engineer, Kharafi National Limited Company, Kuwait**

Project: Expansion of Mina Al-Ahmadi Refinery (MAA).

June 2008 – August 2008 (3 months)

**Lab Supervisor, Electrical Engineering Department, The Hashemite University, Jordan**

## REFEREEING

### International Journals

- IEEE Transactions on Reliability
- Risk and Reliability (Part O): proceedings of the Institution of Mechanical Engineers
- International Journal of Prognostics and Health Management (IJPHM)
- MDPI Journals: Energies, Sensors, Data, Algorithms.
- Advances in Mechanical Engineering

### International Conferences (Technical Committee)

- The International Conference on System Reliability and Safety (ICSRS).
- Annual and European Conferences of the Prognostics and Health Management Society (PHM).
- Annual European Safety and Reliability (ESREL) Conferences.

## AWARDS AND HONORS

- Winner of **Excellent Oral Presentation Certificate** in the 2018 3<sup>rd</sup> International Conference on System Reliability and Safety (ICSRS2018), Barcelona, Spain of the Paper entitled “*Quantification of Uncertainty of Wind Energy Predictions*”, November 24-26 2018.
- Winner of a **Scientific Research Fellowship** for one-year post doctorate in “Development and application of methods for Reliability, Availability, Maintainability, Safety (RAMS) of industrial components and systems” at the Energy Department of Politecnico di Milano, 1<sup>st</sup> June, 2016.
- Winner of the **IEEE Reliability Society Scholarship** (Italian Chapter) for the tutorials track in the area of “Diagnostics, Prognostics and Health Management (PHM), and Condition-Based Maintenance (CBM)” within PHM 2013 Conference Politecnico di Milano, 8<sup>th</sup> September, 2013.
- Winner of the **Marie Curie Ph.D. Fellowship** within the European Project InnHF financed by the 7<sup>th</sup> framework program FP7-PEOPLE-2011- Initial Training Network: Marie-Curie Action at the Energy Department of the Politecnico di Milano – Early Stage Researcher, 2013.
- I got the **Second rank among of all graduates (535)** from all Jordanian universities in University Efficiency Examination held by the Ministry of Higher Education and Scientific Research in the (Electrical Engineering) specialization, Jordan.
- **Dean’s list** - Faculty of Engineering, The Hashemite University, Jordan, 2004-2008.

## PROFESSIONAL MEMBERSHIP

- IEEE Power & Energy Society (IEEE-PES) (October 2016 – October 2017).
- Prognostics and Health Management Society (PHM) (July 2013 – Present).
- European Safety and Reliability Association (ESRA) (March 2013 – Present).
- Jordanian Engineers Association, Electrical Engineering, Member (2008 - Present).

## LANGUAGES

Arabic: Native,                      English: Fluent,                      French: Good,                      Italian: Good.

## COMPUTER SKILLS

MatLab: Professional,                      LaTeX: Basic,                      MS Office: Professional,                      Windows: Professional.

## REFERENCES

### Enrico ZIO (Full Professor)

Chair System Science and the Energy Challenge, Fondation Electricité de France (EDF), CentraleSupélec Energy Department, Politecnico di Milano, Milan, Italy  
Tel. (Italy): +39 (0)2 2399 6340 - Tel. (France): +33 (0)1 4113 1606 - Mobile: +39 335 194 9708  
E-mail: [enrico.zio@polimi.it](mailto:enrico.zio@polimi.it); [enrico.zio@centralesupelec.fr](mailto:enrico.zio@centralesupelec.fr)

### Micaela DEMICHELA (Associate Professor)

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### Redouane SERAOUI (R&D Engineer)

Simulation and information TEchnologies for Power generation systems (STEP) Department, Electricité de France (EDF) R&D, Chatou, France  
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\* The complete list of publications is included hereafter for your reference ([https://www.researchgate.net/profile/Sameer\\_Al-Dahidi](https://www.researchgate.net/profile/Sameer_Al-Dahidi) and <https://scholar.google.it/citations?user=TdFloggAAAAJ&hl=en>)