أ. د. صالح مصطفى ابو السعود Saleh Mustafa Abu-Soud
Full Professor of Computer Science/Artificial Intelligence

http://scholar.google.com/citations?user=YjZiOScAAAAJ&hl=en
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Dr. Saleh Abu-Soud is a full professor at the Department of Data Science and Artificial Intelligence in Princess Sumaya University for Technology (PSUT). He got his PhD in Computer Science in 1992 (METU), M. Sc. in Computer Science in 1988 (METU), and B.Sc. in Computer Science in 1985 (Yarmouk University). He was working in Jordan University in the period between 1992 and 1995, then he joined PSUT till now, in which he served as the head of the department of Computer Science in the period from 2005 to 2007, and the Dean of students affairs in 2014/2015. He left to work in NYIT for four years in the period from 2007 to 2011, in which he was a professor of Computer Science and the director of accreditation and quality assurance department in the period from 2007 to 2010.

His research interest is in the area of Artificial Intelligence. He is the owner of ILA inductive learning algorithm and EXCLUDE algorithm for excluding irrelevant attributes. He is interested mainly in many research topics as Machine Learning, Natural Language Understanding, Biometric Keystroke Dynamics, and Speech Synthesis with inductive learning. He has many research papers and 2 books. He supervised dozens of master students and many PhD students, more details can be seen on (*http://scholar.google.com/citations? user=YjZiOScAAAAJ&hl=en*) and *https://www.researchgate. net/profile/Saleh_Abu-Soud*. He is a member of many international projects such as TEJ, UNAM, MEDAWEL Al Tair, and others. He is interested in innovation and entrepreneurship.

He is involved in establishing the Data Science and Artificial Intelligence program in Princess Sumaya University for Technology (PSUT) and was a part of many specialized teams for establishing Artificial Intelligence programs on both undergraduate and graduate levels in PSUT and many other local universities.

PERSONAL INFORMATION

FIRST NAME:	Saleh
MIDDLE NAME:	Mustafa
SURNAME:	Abu-Soud
BIRTH DATE:	1963
BIRTHPLACE:	Amman
NATIONALITY:	Jordanian
LANGUAGES:	1. Arabic
	2. English
MARITAL STATUS:	Married with five children
ADDRESS:	PSUT
	El-Jubeiha P.O.Box(1438)
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ACADEMIC QUALIFICATIONS

(1) **Diploma** (of science) 1981
    Bin Marwan Secondary School
    Amman - Jordan

(2) **B.Sc.** in Computer Science 1981-1985
    Yarmouk University
    Irbid-Jordan

(3) **M.Sc.** in Computer Science 1985-1988
    Middle East Technical University
    Ankara-Turkey
    Thesis Title: Efficiency Improvement of DSS using DBMS

(4) **Ph.D.** in Computer Science 1988-1992
    Middle East Technical University
    Ankara-Turkey
    Thesis Title: Parallel Backward Inference Engine for Production Systems

AREAS OF INTEREST

(1) Artificial Intelligence (Machine Learning, Data Mining, Expert Systems)
(2) Systems Analysis and modeling.
(3) Software Engineering
(4) Data Base Management Systems & Distributed DBMS
(5) Computer Architecture
(6) Management Information systems

(7) Decision Support Systems
(8) Parallel Processing
(9) Security

ACADEMIC EXPERIENCE

(1) 2020 - now
   Full Professor
   Department of Big Data and Artificial Intelligence
   Princess Sumaya University for Technology
      Amman - Jordan
(2) 2011 – 2020
   Associate Professor
   Department of Software Engineering
   Princess Sumaya University for Technology
   Amman - Jordan
(3) 2008 – 2011
   Full Professor
   School of Engineering and Computing Sciences
   NYIT Amman
(4) 2007 – 2008
   Associate Professor
   School of Engineering and Computing Sciences
   NYIT/Amman
(5) 2001- 2007
   Associate Professor
   Department of Computer Science
   Princess Sumaya University for Technology
   Amman - Jordan
(6) 1995 - 2001
   Assistant Professor
   Department of Computer Science
   Princess Sumaya University for Technology
   Royal Scientific Society
   Amman - Jordan
(7) 1992 - 1995
   Assistant Professor
   Department of Computer Science
   University of Jordan
   Amman - Jordan
(8) 1991
   Part Time Instructor
   Department of International Relations
   Middle East Technical University
   Ankara-Turkey
(9) 1989 - 1991
   Teaching and Research Assistant
   Department of Computer Engineering
   Middle East Technical University
   Ankara-Turkey

PROFESSIONAL EXPERIENCE

2005 / 2007   * Chairman of the Computer Science Department, PSUT
2007 / 2010   * Director of Accreditation and Quality Assurance Department, NYIT/Amman.
                      * NYIT Global Programs Coordinator
2014/2015   * Dean of Students Affairs, PSUT

COURSES TAUGHT

1) Introduction to Computers: U
2) Programming Languages: U
3) Digital Logic Design: U
4) Computer Interface Design: U
5) File Management: U
6) Information Systems: U/G
7) Systems Analysis and Design: U/G
8) Advanced Systems Analysis and Modeling: G
9) Data Base Management Systems: U
10) Advanced Data Base Management Systems: U/G
11) Distributed Data Base Management Systems: U /G
12) Computer Architecture: U
13) Advanced Computer Architecture: G
14) Data Structures: U
15) Decision Support Systems: U/G
16) Management Information Systems: U/G
17) Artificial Intelligence: U/G
18) Expert Systems: U/G
19) Numerical Analysis: U/G
20) Software Engineering: U/G
21) Programming Languages Concepts: U
22) Operating Systems: U
23) Knowledge Based Systems: G
24) Software Documentation U
25) Software Requirements Engineering U
26) Information Systems Management (ISM): G
27) Business Intelligence G
28) Business Modeling for Data Science G
29) Research Methodology G

ACTIVITIES

1) 2018: A member of Applied Computing Research Group (ACR), United Kingdom.
2) 2000: a member of *The International Association of Science and Technology for Development (IASTED) Technical Committee on Artificial Intelligence, USA.*
3) 1999: an external referee for *The Journal of Experimental and Theoretical Artificial Intelligence, USA.*

4) 1997: a referee for *Journal of the American Society for Information Science (JASIS)*: a special issue on Data Mining, *USA.*
5) An external referee for many National and International Conferences on Computer and Information Systems.
6) Member of *IEEE Computational Intelligence Society (IEEE CIS)*

AWARDS

1) Award of the best professor in PSUT for the year 2013/2014
2) Research grant award from NYIT in 2010
3) Research grant award from NYIT in 2009
4) A scholarship from Arab Aids in the period from 1987 to 1991
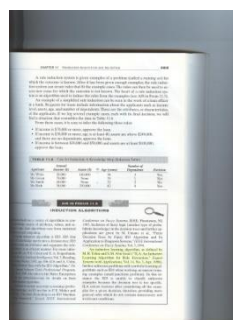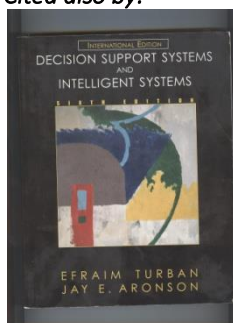
PUBLICATIONS

Research Papers:

Journal Papers

JP.15) Elhassan, A., Abu-Soud, S.M., Alghanim, F., Salameh, W., ILA4: Overcoming missing values in machine learning datasets – An inductive learning approach **Journal of King Saud University - Computer and Information Sciences**, 2022, 34(7), pp. 4284–4295

JP.14) Duaa Abdelrazaq, Saleh Abu-Soud, and Arafat Awajan. "A Machine Learning System for Distinguishing Nominal and Verbal Arabic Sentences ", **The International Arab Journal of Information Technology**, Vol. 15, No. 3A, Special Issue **2018**.

P.13) Abu-Soud S. "Exclude: A New Algorithm for Excluding Irrelevant Features in Inductive Learning ", **International Journal of Circuits, Systems and Signal Processing**, vol. 12, ISSN: 1998-4464, pp. 661-673, **2018**.

JP.12) Abu-Soud S and Sufyan Al Majali. "ILA-3: An Enhanced Version of ILA with a New Feature Selection Approach ", **WSEAS Transactions on Systems and Control**, vol. 13, pp. 171-185, ISSN: 19918763, **2018**.

JP.11) Abu-Soud S. "ILATalk: A New Multilingual Text-To-Speech Synthesizer with Machine Learning*, ***International Journal of Speech Technology,** Volume 19, Issue 1, pp 55–64, ISSN 1381-2416, March **2016**.

.

JP.10) Abu-Soud S. "PaSSIL: A New Keystroke Dynamics System for Password Strengthening Based on Inductive Learning ", **WSEAS Transactions on Information Science and Applications,** Volume 13, **2016**.

JP.9) Abu-Soud S. "An Enhanced Non-Static Biometric Keystroke Dynamics Model for Strengthening the Information Content Security", **International Journal of Applied Science and Technology**, Vol. 4, No. 5; September **2014**, 219-232.

JP.8) Abu-Soud S. and Ali Al Ibrahim, DRILA: A Distributed Relational Inductive Learning Algorithm, **WSEAS Transactions on Computers**, Issue 6, Volume 8, June <u>2009</u>, ISSN: 1109-2750.

JP.7) Abu-Soud S. and Ahmad Al Odat, ClassifyChi2: A New Discretization Algorithm, **Journal of Advanced Research in Computer Science**, <u>2008</u>.

JP. 6) Abu-Soud S., "A Noise- Tolerant Inductive Algorithm and its Application to DNA Sequence Analysis," **Advances in Modeling: Computer Science and Statistics, Vol. 6, Issue 1, France, <u>2001</u>.**

JP. 5) Abu-Soud S. and Moh. Haj Hassan, *"A Parallel Inductive Learning Algorithm,"* **Advances in Modeling: Computer Science and Statistics, Vol. 4, No. 2, 29-46, France, 2000.**

JP. 4) *M. Tolun, Mahmoud Uludag, Hayri Sever and* Abu-Soud S., *"ILA-2: An Inductive Learning Algorithm for Knowledge Discovery."* **Cybernetics and Systems: An International Journal, vol. 30, no. 7, Oct.-Nov. <u>1999</u>.**

JP. 3) Abu-Soud S., *"A Disjunctive Learning Algorithm for Extracting General Rules"*, **Journal of Institute of Mathematics and Computer Science (Computer Science Series)**, Vol. 10, No. 2 (<u>1999</u>) 201-217.

JP. 2) M. Tolun and Abu-Soud S., *"An Inductive Learning Algorithm for Production Rule Discovery,"* **The International Journal of Expert Systems with Applications**, 14(3), April <u>1998</u>, 361-370.
Cited also by:

JP.1) *"Parallelism Issues in Backward Chaining Production Systems,"* **International Journal of Knowledge-Based Intelligent Engineering Systems**, vol. 1, number 2, April <u>1997</u>.

Conference Papers

CP18) Bsoul, M.A., Qusef, A., Abu-Soud, S., Building an Optimal Dataset for Arabic Fake News Detection Procedia Computer Science, 2022, 201(C), pp. 665–672

CP17) Saleh, Lara and Abu-Soud, Saleh., Predicting Jordanian Job Satisfaction Using Artificial Neural Network and Decision Tree 2021 11th International Conference on Advanced Computer Information Technologies, ACIT 2021 - Proceedings, 2021, pp. 735–738

CP16) Othman Istaiteh, Tala Owais, Nailah Al-Madi, Saleh Abu-Soud, Machine Learning Approaches for COVID-19 Forecasting, 2020 International Conference on Intelligent Data Science Technologies and Applications (IDSTA 2020). 2020, pp. 50–57, 9264101.

CP15) Abu-Soud S., A Novel Approach for Dealing with Missing Values in Machine Learning Datasets with Discrete Values. International Conference on Computer and Information Sciences (ICCIS 2019), Jouf University, Aljouf, Kingdom of Saudi Arabia on April 3– 4, 2019.

CP14) Dua Abdelrazeq, Abu-Soud S., and Arafat Awajan. Distinguishing Nominal and Verbal Arabic Sentences: A Machine Learning Approach. ACIT'2017 The International Arab Conference on Information Technology Yassmine Hammamet, Tunisia December 22-24, 2017

CP13) Abu-Soud S., A Hybrid Key Stroke Authentication System. The Proceeding of the Second International Conference on Informatics Engineering & Information Science (ICIEIS2013), Malaysia. Nov. 12-14, **2013**. pp 84-95.

CP 12) N. Gharaibeh and Abu-Soud S., Agile Development Methodologies: Are they suitable for developing Decision Support Systems, Applications of Digital Information and Web Technologies, **2009**. ICADIWT'09 …

CP.11) N. Gharaibeh and Abu-Soud S., Software Engineering Methodology for Building Intelligent DSS, International Conference on Software and Data Technologies, Portugal, July **2008**.

CP.10) Ali Al Ibrahim and Abu-Soud S., Distributed Relational Database System Discovery. The 2008 International Conference on Machine Learning; Models, Technologies and Applications (MLMTA'08: July 14-17, **2008**)

CP.9) Randa Al Khaldi and S. Abu-Soud, A systematic Approach for Managing Inconsistency in Software Requirements, DCCA'2007 First International Conference on Digital Communications and Computer Applications, Irbid, Jordan, March **2007**.

CP.8) Abu-Soud S. and A. Al Odat, ClassifyChi2: An Efficient Discretization Algorithm, DCCA'2007 First International Conference on Digital Communications and Computer Applications, Irbid, Jordan, March **2007**.

CP.7) Randa Al Khaldi and S. Abu-Soud, Inconsistency Management in Software Functional Requirements: A Machine Learning System. The 2007 International Conference on Machine Learning; Models, Technologies and Applications (MLMTA'07: June 25-28, <u>2007</u>, USA

CP.6) Randa Al Khaldi and S. Abu-Soud, A systematic Approach for Managing Inconsistency in Software Requirements. The 2007 International Conference on Machine Learning; Models, Technologies and Applications (MLMTA'07: June 25-28, <u>2007</u>), USA.

CP.5) Abu-Soud S., *"DCL: A Disjunctive Learning Algorithm for Rule Extraction"*, Multiple Approaches to Intelligent Systems, Lecture Notes in Artificial Intelligence, Springer-Verlag, the Proceedings of the 12th Intr. Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, IEA/AIE-99, Egypt, <u>1999</u>.

CP. 4) Abu-Soud S., *"A Disjunctive Concept Learning Algorithm for Rule Generation,"* the proceedings of the 17th IASTED International Conference on Applied Informatics, Innsbruck, Austria (AI'99), Feb. <u>1999</u>.

CP. 3) Abu-Soud S., *"A symbolic Inductive Learning Classifier,"* The Proceedings of the IASTED International Conference on Computer Systems and Applications*,* March <u>1998</u>, Irbid, Jordan.

CP. 2) Abu-Soud S., *"A Framework for Integrating Decision Support Systems and Expert Systems with Machine Learning",* Proceeding of the 10th International Conference on Industrial and Engineering Applications of AI and ES, June <u>1997</u>, Atlanta, USA.

CP. 1) Abu-Soud S. and M. Tolun, *"A Parallel Backward Inference Engine,"* Proceedings of International Conference on Applications of AI X: Knowledge Based Systems, Orlando (USA), April <u>1992</u>.

Books

B.5) **Systems Analysis and Design**, Saleh Abu-Soud, 2007. Al Quds University Press. 283 pages. A Text Book taught at Bachelor level.

B.4) *Visual Programming,* M. Haj Hasan and Saleh Abu-Soud, 2005. Al Quds University Press. 320 pages. A Text Book taught at Bachelor level.

In addition to many books written for the ministry of Education in Jordan for High school Diploma, as:
B.3) **E-Commerce,** Book, Ministry of Education, 2007.

B.2) **Visual Basic 2,** Book, Ministry of Education, 2006.

B.1) **Visual Basic 1,** Book, Ministry of Education, 2005.

I supervised many PhD students and dozens of master students.

PhD Dissertations:

PhD4: "A Theoretical Software Development Methodology for Building Decision Support Systems", Natheer Gharaibeh, 2009

PhD3: "Distributed Relational DB Inductive Learning Algorithm DRILA". Ali Al-Ibrahim, 2008

PhD2: "Inconsistency Management in Software Functional Requirements: A Machine Learning System", Randa Al-Khaldi, 2007

Published as a book:

Inconsistency Management in Software Functional Requirements by Randa Al-Khaldi (Mar 16 2012)

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PhD1: "An Efficient Hybrid Discretization Algorithm", Ahmad Al-Odat,, 2007.