**CURRICULUM VITAE**

1. **PERSONAL DATA**

**Name:** Mutaz A. B. Al-Tarawneh

**Date of Birth:** 27/12/1982

**Place of Birth:** Karak

**Nationality:** Jordanian

**Contact Address:** Computer Engineering Dept, Faculty of Engineering, Mutah University, Karak, JORDAN 61710

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1. **ACADEMIC/PROFESSIONAL PARTICULARS**
2. **Field of Specialization:**

Computer Engineering, Computer Architecture

1. **Academic Qualifications**

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| --- | --- |
| **PhD** | Electrical and Computer Engineering, Southern Illinois University Carbondale, USA, 2010.  **Dissertation title:** Improving the Off-chip Bandwidth Utilization and Energy Efficiency in Chip Multiprocessor (CMP) Architectures.  **GPA:** 4.0 |
| **MSc** | Electrical and Computer Engineering, Southern Illinois University Carbondale, USA, 2008.  **Thesis title:** Worst-case Performance Analysis of Low-Power Instruction Caches.  **GPA:** 4.0 |
| **BEng** | Computer Engineering, Mutah University, Jordan, 2005.  **Project title:** A Computer Simulation of Remotely Controlled Nuclear Radiation Detection Robot Using Java.  **Accumulative average:** 85.99%  **Overall assessment:** Excellent. |

1. **Academic Honors and Awards**

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| 1. Mutah University award for getting the first rank among Computer Engineering graduates for the academic year 2004/2005, Jordan,2005. |
| 1. Mutah University scholarship to pursue graduate studies in Computer Engineering, Jordan, 2006. |

1. **Language Proficiency**
2. Arabic: Mother language.
3. English: Excellent command in reading, writing and communication.
4. **CAREER DETAILS**
5. **Academic Positions Held**

|  |  |
| --- | --- |
| **Associate Professor**  Computer Engineering Department, Mutah Univesity, Jordan. | 02/2016 - Present |
| **Associate Professor (Sabbatical Leave)**  Computer Engineering Department, Princess Sumaya University for Technology, Jordan. | 09/2017 – 09/2018 |
| **Assistant Professor**  Computer Engineering Department, Mutah Univesity, Jordan. | 12/ 2010 – 02/2016 |
| **Teaching Assistant**  ECE Department, Southern Illinois University Carbondale, USA. | 08/ 2008 – 12/2010 |

1. **Professional/Industrial Positions Held**

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| --- | --- |
| **Computer Engineer**  Central Electricity Generating Company , Aqaba /Jordan. | 02/2006 – 12/2006 |
| **Computer Engineer - Intern**  Ministry of public works and housing, Jordan. | 07/2005 – 02/2006 |
| **Computer Engineer –Intern**  Computer and Communication Company, Amman /Jordan | 06/2004 – 09/2004 |

1. **Administrative Positions Held**

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| --- | --- |
| **Head of Computer Engineering Department**  Faculty of Engineering, Mutah University, Jordan. | 09/2018 - present |
| **Dean Assistant for Laboratory Affairs**  Faculty of Engineering, Mutah University, Jordan. | 08/2011- 08/2012 |

1. **Teaching**
2. **Summary of Courses Taught**

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| --- | --- | --- |
| **Mutah University** | | |
| **Course Code** | **Course Title** | **Times Taught** |
| 0405213 | Discrete Math | 8 |
| 0405272 | Microprocessor Systems | 7 |
| 0405375 | Embedded Systems | 8 |
| 0405376 | Microprocessor Systems Design | 7 |
| 0405430 | Modeling and Simulation | 2 |
| 0405475 | Computer Architecture | 5 |
| 0405476 | Microcomputers | 2 |
| 0405531 | Real-Time Systems | 6 |
| 0405533 | Fault-Tolerant Systems | 3 |
| 0405323 | Analog and Digital Communications | 2 |
| 0405341 | Control Systems | 1 |
| 0401200 | Engineering Analysis | 1 |
| 0402302 | Engineering Probability and Statistics | 1 |
| 0406342 | Systems Modeling and Simulation | 3 |
| 0406434 | Smart Systems Engineering | 1 |
| 0404200 | Communication Skills | 2 |
| 0405477 | Computer Architecture Lab. | 3 |
| 0405478 | Embedded Systems Lab. | 6 |
| 0405482 | Digital Logic Lab. | 2 |
| 0307113 | Object Oriented Programming | 1 |
| **Princess Sumaya University for Technology** | | |
| 22241 | Digital Logic | 1 |
| 22541 | Computer Architecture for IT | 1 |
| 22242 | Embedded Systems | 2 |
| 22701 | Embedded Systems Design (MSc Level) | 1 |

1. **Research Students Supervised/Trained**

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| --- | --- |
| **Level** | **Number of Trainees** |
| Master Students | 3 |
| Undergraduate Students | 32 (as groups) |

1. **Participation in Thesis and Oral Examination Committees**

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| --- | --- |
| **Level** | **Number of Examinations** |
| Master Students | 7 |

1. **Training**

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| --- | --- | --- | --- |
| **Activity** | **Institution** | **Country** | **Period** |
| Multicore Programming | Mutah University | Jordan | 02/2011 – 04/2011 |
| MATLAB Programming | Mutah University | Jordan | 03/2015 – 06/2015 |
|  |  |  |  |

1. **RESEARCH**
2. **Research Interests**
3. Computer architecture.
4. Power-aware computing
5. Real-time/embedded systems
6. Parallel programming
7. Cloud computing and fuzzy logic applications.
8. **Participation in Regional & International Conferences**

* Workforce Development Conference: Academia and Private Sector Dialog, Higher Education Accreditation Commission, Amman, Jordan, July 20th , 2011.
* The First International Conference on New Visions for Information and Communication Technology (ICNVICT 2013), Middle-East University, Amman, Jordan, November 6th – 7th, 2013.
* Higher-Education Cooperation Day, National Erasmus+ Office, Amman, Jordan, December 8th, 2014.

1. **Research Grants**

NVIDIA Geforce Titan X Pascal Series GPU Grant, NVIDIA Academic Program, 2017.

1. **SERVICE**

**(a) University Service**

**Mutah University, Jordan, 12/2010 - Present**

* Computer engineering graduate studies committee.
* Computer engineering scientific research committee.
* Computer engineering study plan committee.
* Computer engineering library committee.
* Computer engineering graduation projects supervision and examination committees.
* Computer engineering student council election committee.

**Princess Sumaya University for Technology, Jordan, 09/2017 – 09/2018**

* King Abdullah II School of Engineering graduate studies committee.
* Computer engineering senior design projects supervision and examination Committees.
* Computer engineering laboratories development committee.

1. **List of Publications**
2. **International Refereed Journals**

**Mutaz Al-Tarawneh,** Analysis of the Factors Influencing Architectural Time Predictability of Superscalar Processors, *Journal of Computing Science and Engineering* 13, no. 2, 2019.

**Mutaz Al-Tarawneh** and Amjed Al-Mousa, Adaptive User-Oriented Fuzzy-Based Service Broker for Cloud Services, *Journal of King Saud University-Computer and Information Sciences*

*In press,* 2019.

**Mutaz Al-Tarawneh** and Saif E. A. Alnawayseh**,** [A Worst Case Execution Time (WCET) Estimation Algorithm for Low-Leakage Very Long Instruction Word (VLIW) Processors](https://www.researchgate.net/publication/302955786_A_Worst_Case_Execution_Time_WCET_Estimation_Algorithm_for_Low-Leakage_Very_Long_Instruction_Word_VLIW_Processors). Mutah Lil-Buhuth wad-Dirasat: Natural and Applied Sciences Series, Deanship of Scientific Research, Mutah University (Jordan), Vol. 31, no. 1 pp. 29-54, 2016.

**Mutaz Al-Tarawneh**, A Fuzzy Logic Based Proximity-Aware Cloud Service Broker Algorithm, International Review on Computers and Software, Vol. 10, no. 10, Praise Worthy Prize , pp. 1027-1036,2015.

Saif E. A. Alnawayseh, Pavel Loskot, **Mutaz Al-Tarawneh** and Ziyad Al Tarawneh, Performance Evaluation of Cooperative versus Reciever Coded Diversity, WSEAS Transactions on Communications, Vol. 14, no. 1, World Scientific and Engineering Academy, pp. 309-324,2015.

**Mutaz Al-Tarawneh**, Ziyad Al Tarawneh and Saif E. A. Alnawayseh, A CPU-Guided Dynamic Voltage and Frequency Scaling (DVFS) of Off-Chip Buses in Homogenous Multicore Processors, International Review on Computers and Software, Vol 10, no. 7, Praise Worthy Prize, pp. 735-747,2015.

**Mutaz Al-Tarawneh**, On the Design of Time-Predictable Low-Leakage Cache Memory for Real-Time Embedded Systems, WSEAS Transactions on Information Science and Applications, Vol. 12, no. 1, World Scientific and Engineering Academy, pp. 82-111,2015.

**Mutaz Al-Tarawneh**, Performance Evaluation of VLIW and Superscalar Processors on DSP and Multimedia Workloads, Middle-East Journal of Scientific Research, Vol. 22, no. 11, International Digital Organization for Scientific Information (IDOSI) publications, pp. 1612-1617,2014.

**Mutaz Al-Tarawneh** and Ashraf Alkhresheh, Towards An Optimal Multicore Processor Design for Cryptographic Algorithms – A Case Study on RSA, WSEAS Transactions on Computers, Vol. 13, no. 1, World Scientific and Engineering Academy, pp. 54-77,2014.

**Mutaz Al-Tarawneh,** An Investigation of the Impact of Instruction Cache (I-Cache) Organization on Power-Performance Trade-Offs in the Design of Scalar Processors, European Journal of Scientific Research, Vol. 115, no. 1, FRDN Incorporated, pp. 7-26, 2013.

**Mutaz Al-Tarawneh** and Nazieh Botrtos,Improving the Off-chip Bandwidth Utilization in Chip Multiprocessor Using Early Write-Back, Journal of Communications and Computers, Vol. 10, no. 1, David Publishing Company, pp. 33-41, 2013.

**(b) Conference Papers**

**Mutaz Al-Tarawneh** and Nazieh Botrtos,Improving the Off-chip Bandwidth Utilization in Chip Multiprocessor Using Early Write-Back, In Proc. of the 14th World Multi-Conference on Systemics, Cybernetics, and Informatics,Orlando, Florida, USA, june 29th – July 2nd , 2010.