

# Al al-Bayt University





## Dr. Saad Bani-Mohammad

Associate Professor/Dean of IT College,
Department of Computer Science,
Prince Hussein Bin Abdullah College for Information
Technology,

Al al-Bayt University, P.O. Box 130040, Mafraq 25113, Jordan. Tel: 00962 2 6297000 ext. 3390 E-mail: bani@aabu.edu.jo

#### PERSONAL DATA

Place of Birth : Kuferkhall, Jarash, Jordan.

Nationality : Jordanian.

Gender : Male.

Martial Status : Married with four children (Yamen,

Salma, Bana, and Rayyan).

#### **EDUCATION**

- Ph.D in Computer Science (Parallel Computing), Department of Computing Science, University of Glasgow, Glasgow, U.K, 2005-2008.
  - Ph.D. Dissertation: "Efficient Processor Allocation Strategies for Mesh-Connected Multicomputers"
- MSc in Computer Science (Parallel Computing), Department of Computer Science, Al al-Bayt University, Jordan, 2000-2002, Rank 1/8.
  - M.Sc. Dissertation: "Non-Contiguous Processor Allocation for 3D Mesh Multicomputers"
- BSc in Computer Science, Department of Computer Science, Yarmouk University, Jordan, 1990-1994.
- General Secondary School Certificate, Ministry of Education, Jordan, 1989-1990.

#### AWARD RECEIVED

- His Royal Highness Prince Hamzah bin Al-Hussein's Award for the Top Rank student on the batch of the MSc students on 2002.
- Al al-Bayt University's Scholarship for the PhD study at University of Glasgow, U.K.

## **RESEARCH INTEREST**

- Parallel Computing.
- Contiguous Processor Allocation for 2D and 3D Mesh-Connected Multicomputers.

- Non-Contiguous Processor Allocation for 2D and 3D Mesh-Connected Multicomputers.
- Grid Computing.
- Cluster Computing.
- Performance Modelling and Simulation.

## RECENT PROFESSIONAL EXPERIENCE

#### 1. Al al-Bayt University, Jordan, 2014-Present:

o Dean, Prince Hussein Bin Abdullah College for Information Technology.

## 2. Al al-Bayt University, Jordan, 2013-2014:

 Vice Dean, Prince Hussein Bin Abdullah College for Information Technology.

## 3. Al al-Bayt University, Jordan, 2008-2013:

 Head of Computer Science Department, Prince Hussein Bin Abdullah College for Information Technology.

#### 4. Al al-Bayt University, Jordan, 2009-2010:

 Dean Assistant, Prince Hussein Bin Abdullah College for Information Technology.

#### 5. University of Glasgow, United Kingdom, 2006-2008:

o Tutor in the Department of Computing Science, University of Glasgow.

#### 6. Al al-Bayt University, Jordan, 2002-2005:

 Lecturer in the Department of Computer Science, Prince Hussein Bin Abdullah College for Information Technology.

#### 7. Al al-Bayt University, Jordan, 1994-2002:

- o Computer Labs Supervisor, Department of Computer Science.
- Teacher in the Computer Laboratories in the Department of Computer Science.
- o Participating in the establishment of Research and Training laboratories of the Computer Science Department.
- Carrying out the responsibility of training the employees on campus periodically.

## MASTER THESIS SUPERVISED

- 1. Ibrahim Alrawahna, A Spiral Non-Contiguous Processor Allocation Algorithm for 2D Mesh-Connected Multicomputers, 2015.
- 2. Raed alharafesha, Irregular Shape Strategy for Non-contiguous Sub-mesh Allocation in 2D Mesh-Connected Multicomputers, 2015.
- 3. Batool Zyoud, The Effect of the Heavy-Tailed Distribution on the Performance of Non-Contiguous Processor Allocation and Job Scheduling Strategies for 2D Mesh-Connected Multicomputers, 2014.
- 4. Abeer Shudeefat, An Efficient Processor Allocation Algorithm for 2D Mesh-Connected Multicomputers, 2014.
- 5. Ahmad Al-Sabhany, **The Performance of Non-contiguous Allocation for Common Communication Patterns in 3D Torus Mesh Multicomputers**, 2014.

- 6. Doreyed Mohammed, The Effect of Real Workload Traces on the Performance of Contiguous and Non-Contiguous Allocation Algorithms for 3D Torus Multicomputers, 2014.
- 7. Amer Mohaisen, Job Migration for 2D Mesh Multicomputers using Dynamic Compaction, 2014.
- 8. Motasem Smadi, Contiguous Submesh Allocation for 3D Mesh Multicomputers using Free List Approach, 2011.
- 9. Mohammad Yassein, A Compacting Non-Contiguous Processor Allocation Strategy for 2D Mesh-Connected Multicomputers, 2011.
- 10. Bassam Subaih, Achieving Self Healing in Service Specific Overlay Networks, 2011.
- 11. Mazen Hamdan, Comparative Performance Evaluation of Noncontiguous Allocation Algorithms in 2D Mesh-Connected Multicomputers, 2010.
- 12. Mohammad Hamed, Evaluation of Common Scheduling and Contiguous Allocation Strategies for Different Parallel Job Request Shapes, 2010.

#### ACADEMIC SERVICES AND ACTIVITIES

- 1. Member of the Deans' Council, Al al-Bayt University, (2014-Present).
- 2. Member of the Scientific Research Council, Al al-Bayt University, (2014-Present).
- 3. Member of the Computer Center Board, Al al-Bayt University, (2014-Present)
- 4. Member of the Curriculum Committee, Al al-Bayt University, (2014-Present).
- 5. Head of the Graduate Studies Committee, IT College, (2014-Present).
- 6. Member of the University Council, Al al-Bayt University, (2010-2011, 2014-Present).
- 7. Head of the Scientific Research Committee, IT College, (2013-2014).
- 8. Member of the Graduate Studies Committee, Computer Science Department, (2013-2014).
- 9. Head of the Graduate Studies Committee, Computer Science Department, (2008-2013).
- 10. Member of the Graduate Studies Committee, IT College, (2008-2013).
- 11. Member of the Scientific Research Committee, IT College, (2008-2013).
- 12. Member of the Graduate Studies Council, Al al-Bayt University, (2008-2010, 2013-2014).
- 13. Head of the Curriculum Committee, Computer science Department, (2008-2013).
- 14. Graduate Program Committee Coordinator.
- 15. Student's Advising Committee for the CS Department.

## CURRICULUM AND COURSE DEVELOPMENT

- 1. Curriculum Development for the Computer Science department: My role was to make changes to the current study plan.
- 2. Designed the "Programming in Python" course and its lab.

- 3. Designed the "PHP Programming" course.
- 4. Redesigned the "Fundamentals of Distribute and Parallel Systems" course.

#### **PUBLICATIONS:**

#### • REFEREED JOURNALS AND CONFERENCES

- Saad Bani-Mohammad, The Effect of Real Workloads and Synthetic Workloads on the Performance of Job Scheduling for Non-contiguous Allocation in 2D Mesh Multicomputers, International Journal of Distributed Systems and Technologies (IJDST), Volume 6, Issue 1, January 2015, pp. 53-68.
- Saad Bani-Mohammad, Ismail Ababneh, and Mohammad Yassen, Non-Contiguous Processor Allocation in the Mesh-Connected Multicomputers using Compaction, Accepted to appear in Journal of Information Technology Research, 2015.
- 3. Ismail Ababneh, Saad Bani-Mohammad, and Motasem Al Smadi, Corner-Boundary Processor Allocation for 3D Mesh-connected Multicomputers, International Journal of Cloud Applications and Computing, Volume 5, Issue 1, 2015.
- 4. Saad Bani-Mohammad and Ismail Ababneh, On the Performance of Non-contiguous Allocation for Common Communication Patterns in 2D Mesh-connected Multicomputers, Journal of Simulation Modelling Practice and Theory, Elsevier, Volume 32, pp. 155-165, March 2013.
- Saad Bani-Mohammad, Ismail Ababneh, and Mohammad Yassen, Non-Contiguous Processor Allocation in the Mesh-Connected Multicomputers using Compaction, Accepted for publication in the IEEE 2012 International Conference on Computer Systems and Industrial Informatics (ICCSII-12) that will be held in UAE during December 18-20, 2012.
- Ibrahim Al-oqily, Bassam Subaih, Saad Bani-Mohammad, Jawdat Jamil Alshaer, Mohammed Refai, Autonomic Healing for Service Specific Overlay Networks, International Journal of Information Technology and Web Engineering, Volume 7, Issue 2, pp. 46-59, 2012
- Ismail Ababneh, Saad Bani-Mohammad, Wail Mardini, Hilal Alawneh, and Mohammad Hamed, The Effect of Communication on the Performance of Allocation Request Shape Changes in 2D Mesh-connected Multicomputers, Accepted for publication in the International Journal of Parallel, Emergent and Distributed Systems (IJPEDS), Taylor & Francis, Vol. 27, No. 5, October 2012, pp. 409-433.
- 8. Ibrahim Al-oqily, Saad Bani-Mohammad, Bassam Subaih, and Jawdat Jamil Alshaer, **A survey for self-healing architectures and algorithms**, the 9<sup>th</sup> IEEE International Multi-Conference on Systems, Signals, and Devices (SSD), 20-23 March 2012, Chemnitz, Germany, pp. 1-5.
- 9. Saad Bani-Mohammad, On the Performance of Job Scheduling for

- **Noncontiguous Allocation in 2D Mesh-connected Multicomputers**, the 16<sup>th</sup> IEEE Mediterranean Electrotechnical Conference (MELECON 2012), 25 28 March, 2012, Medina Yasmine Hammamet Tunisia, pp. 92-96.
- Saad Bani-Mohammad, Ismail Ababneh, and Mazen Hamdan, Performance Evaluation of Noncontiguous Allocation Algorithms for 2D Mesh Interconnection Networks, Journal of Systems and Software, Elsevier, Volume 84, Issue 12, December 2011, pp. 2156-2170.
- 11. Saad Bani-Mohammad and Ismail Ababneh, The Effect of Job Scheduling on the Performance of Non-contiguous Allocation in 2D Mesh-connected Multicomputers, the 11<sup>th</sup> IEEE International Conference on Scalable Computing and Communications (ScalCom 2011), 31 August - 02 September, 2011, Pafos Cyprus.
- 12. Ismail Ababneh and Saad Bani-Mohammad, A New Window-Based Job Scheduling Scheme for 2D Mesh Multicomputers, Journal of Simulation Modelling Practice and Theory, Volume 19, Issue 1, January 2011, pp. 482-493.
- 13. Ismail Ababneh, Wail Mardini, Saad Bani-Mohammad, Helal Alawneh, and Mohammad Hamed, Effects of Allocation Request Shape Changes on Performance in 2D Mesh-Connected Multicomputers, The 10<sup>th</sup> IEEE International Conference on Computer and Information Technology (CIT 2010), 29 June 1 July, 2010, Bradford, UK.
- 14. Saad Bani-Mohammad, I. Ababneh, and Mazen Hamdan, Comparative Performance Evaluation of Non-Contiguous Allocation Algorithms in 2D Mesh-Connected Multicomputers, The 10<sup>th</sup> IEEE International Conference on Scalable Computing and Communications (ScalCom 2010) 29 June 1 July, 2010, Bradford, UK.
- 15. Saad Bani-Mohammad, I. Ababneh, and M. Ould-Khoaua, A Comparative Study of Real Workload Traces and Synthetic Workload Models for Non-Contiquous Allocation in 2D 9<sup>th</sup> IEEE Meshes, The International Conference Scalable Computing and Communications (ScalCom09) Sept. 25-27, 2009, Dalian, China.
- I. Ababneh, S. Bani-Mohammad and M. Ould-Khaoua, An Adaptive Job Scheduling Scheme for 2D Mesh Multicomputers, Journal of Supercomputing, Volume 53, Number 1 / July, 2010, pp. 5-25.
- 17. I. Ababneh, S. Bani-Mohammad and M. Ould-Khaoua, All Shapes Contiguous Submesh Allocation for 2D Mesh Multicomputers, International Journal of Parallel, Emergent and Distributed Systems (IJPEDS), Taylor & Francis, Vol. 25, No. 5, October 2010, pp. 411-421.
- 18. Saad Bani-Mohammad, The Effect of Heavy-Tailed Distribution on the Performance of Non-Contiguous Allocation Strategies in 2D Mesh Connected Multicomputers, The 23<sup>rd</sup> IEEE/ACM International Parallel and Distributed Processing Symposium (IPDPS 2009), 2009, Rome, Italy, May 25-29.

- Saad Bani-Mohammad, I. Ababneh, and M. Ould-Khoaua, A Performance Comparison of the Non-Contiguous Allocation Strategies in 2D Mesh Connected Multicomputers, International Conference on Communication, Computer and Power, Sultan Qaboos University, Muscat, Sultanate of Oman, February 15-18, 2009.
- S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh, and Lewis M. Mackenzie, Comparative Evaluation of Contiguous Allocation Strategies on 3D Mesh Multicomputers, Journal of Systems and Software, Elsevier, vol. 82, no. 2, pp. 307-318, 2009.
- 21. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh, Lewis M. Mackhenzie and J. D. Ferguson, The Effect of Real Workloads and Stochastic Workloads on the Performance of Allocation and Scheduling Algorithms in 2D Mesh Multicomputers, The 22nd IEEE/ACM International Parallel and Distributed Processing Symposium (IPDPS 2008), April 14-18, 2008, Hyatt Regency Hotel, Miami, Florida USA.
- 22. S. Bani-Mohammad, M. Ould-Khaoua and I. Ababneh, Greedy-Available Non-contiguous Processor Allocation Strategy and Job Scheduling for 2D Mesh Connected Multicomputers, International Journal of Computers and their Applications (IJCA), Vol. 15, No. 4, pp. 283-296, 2008.
- 23. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, Comparative Evaluation of the Non-Contiguous Processor Allocation Strategies based on a Real Workload and a Stochastic Workload on Multicomputers, Third International Workshop on Scheduling and Resource Management for Parallel and Distributed Systems(SRMPDS '07) To be held in conjunction with The 13th International Conference on Parallel and Distributed Systems (ICPADS'07) Volume 2, pp. 1-7, IEEE, Hsinchu, Taiwan, December 5-7, 2007.
- 24. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, A Performance Comparison of the Contiguous Allocation Strategies in 3D Mesh Connected Multicomputers, The Fifth International Symposium on Parallel and Distributed Processing and Applications (ISPA 2007), Wednesday, August 29 -- Friday, August 31, Niagara Falls, ON, CANADA, LNCS 4742, pp. 645-656, 2007, Springer-Verlag Berlin Heidelberg 2007.
- 25. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, An Efficient Processor Allocation Strategy that Maintains a High Degree of Contiguity among Processors in 2D Mesh Connected Multicomputers, 2007 ACS/IEEE International Conference on Computer Systems and Applications, (AICCSA 2007), Amman, Jordan, IEEE Computer Society Press, pp. 934-941, May 13-16, 2007.
- 26. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, A Fast and Efficient Processor Allocation Strategy which Combines a Contiguous and Non-contiguous Processor Allocation Algorithms, Technical Report; TR-2007-229, DCS Technical Report Series, Department of Computing Science, University of Glasgow, January 2007.
- 27. S. Bani-Mohammad, M. Ould-Khaoua and I. Ababneh, **An Efficient Non-Contiguous Processor Allocation Strategy for 2D Mesh Connected**

- **Multicomputers**, Journal of Information Sciences Elsevier (INS), Elsevier, Vol. 177, No. 14, pp. 2867-2883, 15 July 2007.
- 28. S. Bani-Mohammad, M. Ould-Khaoua and I. Ababneh, A New Processor Allocation Strategy with a High Degree of Contiguity in Mesh-Connected Multicomputers., Journal of Simulation Modelling, Practice & Theory (SIMPRA), Elsevier Science, Vol. 15, No. 4, pp. 465-480, April 2007.
- 29. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, Processor Allocation and Job Scheduling on 3D Mesh Interconnection Networks, International Journal of Computers and Applications, (ACTA), Vol. 29, No. 3, Canada, ACTA Press, 2007.
- 30. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, A Fast and Efficient Strategy for Sub-mesh Allocation with Minimal Allocation Overhead in 3D Mesh Connected Multicomputers, Ubiquitous Computing and Communication Journal (UBICC), Vol.1, No. 1, 2006.
- 31. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, Noncontiguous Processor Allocation Strategy for 2D Mesh Connected Multicomputers based on Sub-meshes Available for Allocation, Proc. 12th International Conference on Parallel and Distributed Systems (ICPADS'06) Volume 2, pp. 41-48, 12-15 July 2006, IEEE Computer Society Press, USA.
- 32. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, Greedy-Available Non-contiguous Processor Allocation Strategy and Job Scheduling for 2D Mesh Connected Multicomputers, Proc. 11th International CSI Computer Conference, CSICC 2006, January 24-26, 2006, pp. 122-130, School of Computer Science, IPM, Tehran, Iran. This paper has been selected for the special issue in International Journal of Computers and their Applications, ISCA Press.
- 33. S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, An Efficient Turning Busy List Sub-mesh Allocation Strategy for 3D Mesh Connected Multicomputers, Proceedings of the 7th Annual PostGraduate Symposium on the Convergence of Telecommunications, Networking & Broadcasting, (PGNET 2006), Liverpool John Moores University, UK, 26-27 June 2006.
- 34. Bani-Mohammad S., Ould-Khaoua M., and Ababneh I., **Performance Evaluation of Processor Allocation Strategies in the 2-Dimensional Mesh Network**, N. Thomas (editor), Proceedings of 21st UK Performance Engineering Workshop (UKPEW 2005), School of Computing Science, Technical Report Series, CS-TR-916, University of Newcastle, UK, 14-15 July 2005. ISSN 1368-1060. pp. 177-188.
- 35. Bani-Mohammad S., Ould-Khaoua M., and Ababneh I., A Simulation Study of Allocation Strategies on the Mesh Interconnection Networks, Proceedings of the 6th Annual PostGraduate Symposium on the Convergence of Telecommunications, Networking & Broadcasting, (PGNET 2005), Liverpool John Moores University, UK, 27-28 June 2005, ISBN 1-902-56011-6, pp. 197-202.
- 36. Bani-Mohammad S., Ould-Khaoua M., and Ababneh I., Performance Analysis of Processor Allocation Strategies on 2D-Mesh Interconnection Networks ,

Technical Report; TR-2005-202, DCS Technical Report Series, Department of Computing Science, University of Glasgow, June 2005.

- 37. Bani-Mohammad S., Ould-Khaoua M.,and Ababneh I., A Simulation Study of Allocation Strategies on the Mesh Interconnection Networks, Technical Report; TR-2005-194, DCS Technical Report Series, Department of Computing Science, University of Glasgow, April 2005.
- 38. Ababneh I. and Bani-Mohammad S., **Non contiguous processor allocation for three-dimensional mesh multicomputers**, AMSE Advances in modeling and Analysis Journal (AMSE), Vol. 8, No. 2, pp. 51-63, 2003.

#### • BOOKS

 Saad Bani-Mohammad, Efficient Processor Allocation Strategies for Mesh Multicomputers, VDM Verlag Dr. Müller Aktiengesellschaft & Co. KG, Dudweiler Landstr. 99, 66123 Saarbrücken, Germany, 2009, available on amazon.com (\$110.00).

#### • BOOKS' CHAPTERS

- S. Bani-Mohammad, M. Ould-Khaoua, I. Ababneh and Lewis M. Mackhenzie, A Performance Comparison of the Contiguous Allocation Strategies in 3D Mesh Connected Multicomputers, Parallel and Distributed Processing and Applications, 5th International Symposium, ISPA 2007, Niagara Falls, Canada, August 2007, Proceedings (Lecture ... Computer Science and General Issues). Editor: Ivan Stojmenovic, Ruppa K. Thulasiram, Laurence T. Yang, Weijia Jia, Minyi Guo, Rodrigo Fernandes de Mello, Springer, LNCS 4742, p. 645, 2007, available on amazon.com (\$149.00).
- Saad Bani-Mohammad, Ismail Ababneh and Motasem Al Smadi, Submesh Allocation in 3D Mesh Multicomputers Using Free Lists: A Corner-Boundary Approach with Complete Recognition Capability, Advanced Research on Cloud Computing Design and Applications, DOI: 10.4018/978-1-4666-8676-2. Ch012. This book is published in the IGI Global book series Advances in Systems Analysis, Software Engineering, and High Performance Computing (ASASEHPC) (ISSN: 2327-3453; eISSN: 2327-3461)

#### **AFFILIATIONS**

- Senior Member, IEEE.
- Senior Member, IEEE Computer Society [IEEE-CS].
- Member, ISCA International Society for Computers and Their Applications [ISCA].
- Member of the Embedded, Networked and Distributed Systems research groups [ENDS].
- Jordan Section IEEE Member.
- Member of Asian Council of Science Editors (ACSE).

# JOURNAL REVIEWER

- IEEE Transactions on Parallel and Distributed Systems.
- Future Generation Computer Systems [FGCS].
- The Journal of Supercomputing.
- International Journal of Communication Systems.
- Journal of Systems Architecture [JSA].
- The ISCA International Journal of Computers and Their Applications [ISCA].
- International Journal of Parallel, Emergent, and Distributed Systems [IJPEDS].
- Journal of Computer and System Sciences [JCSS].
- Journal on Computer Science and Engineering [JCSE].
- International Journal of Computers & Applications [IJCA].
- Simulation Modelling Practice and Theory [SMPAT].
- Concurrency and Computation: Practice and Experience

## EDITORIAL BOARD

- International Journal of Next-Generation Computing [IJNGC].
- Journal of Computational Intelligence and Electronic Systems.

#### CONFERENCE REVIEWER

- The 5<sup>th</sup> International Conference on Information and Communication Systems (ICICS 2014).
- The 4<sup>th</sup> International Conference on Information and Communication Systems (ICICS 2013).
- The 2013 IEEE International Conference on Green Computing and Communications (IEEE GreenCom 2013).
- The 5<sup>th</sup> International Symposium on Cyberspace Safety and Security (CSS-2013).
- AEECT 2013 (2013 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies).
- The 5<sup>th</sup> International Conference on Computer Science and Information Technology (CSIT 2013).
- The 11<sup>th</sup> IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-2012).
- The 14<sup>th</sup> IEEE International Conference on High Performance Computing and Communications (HPCC 2012).
- The 3<sup>rd</sup> International Conference on Information and Communication Systems, ICICS 2012.
- IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies 2011 (AEECT 2011).
- IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-11).
- The Third IEEE International Symposium on Trust, Security and Privacy for Emerging Applications (TSP-10).
- The 8th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2010) will be held in 2010 in Tunisia: http://www2.lifl.fr/AICCSA2010/.
- The 9th IEEE/ACM International Workshop on Performance Modeling,

- Evaluation, and Optimization of Ubiquitous Computing and Networked Systems (PMEO-UCNS'2010), to be held in conjunction with IPDPS 2010, ATLANTA (Georgia) USA, April 19-23, 2010.
- International Workshop on Performance Modeling and Analysis of High Speed Interconnects (MAHSI2009) to be held in conjunction with the IEEE International Conference on Scalable Computing and Communication (ScalCom 2009).
- IEEE International Conference on Scalable Computing and Communications [ScalCom 2009].
- The 2009 IEEE International Symposium on Trust, Security and Privacy for Pervasive Applications [TSP-09].
- The 11th IEEE International Conference on High Performance Computing and Communications [HPCC-09].
- The 3rd International Conference on Communications, Computer and Power [ICCCP-09].
- The 8th International Workshop on Performance Modeling, Evaluation, and Optimization of Parallel and Distributed Systems [PMEO-PDS'09] to be held in conjunction with [IPDPS 2009].
- The 10th IEEE International Conference on High Performance Computing and Communications [HPCC-08].
- The 2007 ACS/IEEE International Conference on Computer Systems and Applications, [AICCSA 2007].
- The 5th International Workshop on Performance Modeling, Evaluation, and Optimization of Parallel and Distributed Systems [PMEO-PDS'06] to be held in conjunction with [IPDPS 2006].

# TRAINING EXPERIENCE

• Training Course in PHP Programming, The Information and Communications Technology Association of Jordan – int@j, USAID Jordan Economic Development Program – SABEQ program, Public and Private Universities, Arcana Training Center, Jordan 2011.

The Curriculum Contents of the course are:

#### 1. **PHP I: Foundations**

- Introduction to Programming
- PHP Language Basics
- PHP Variable Basics
- PHP Control Flow Basics
- PHP Foundation Basics
- PHP Programming Basics
- PHP Web & Database Basics

#### 2. PHP II: Higher Structures

- PHP Syntax Review
- PHP Language Concepts
- Configuring PHP
- Regular Expressions

- PHP Web Concepts
- PHP Object-Oriented Programming
- PHP Database Basics
- Critical Aspects of Building PHP Applications

#### 3. Test Prep: PHP 5.3 Certification Training

- PHP Certification
- PHP Basics
- Functions
- Data Formats & Types
- Web Features
- OOP
- Security
- Strings & Patterns
- Databases
- Arrays
- I/O
- Training session in the WEB COMPOUTING COURSE, Japan International Cooperation Agency (JICA)/ Computer Technology, Training and Industrial Studies Center (CTTISC) of Royal Scientific Society (RSS), Jordan, 2002. The Curriculum Contents of the course are:

#### 1. Introduction to Unix

- Why Unix.
- Getting started with Unix.
- The Unix file system.
- Text editor.
- Controlling Process Execution.
- Introduction to Bourne and Korn Shell.
- User Interfaces.

#### 2. Introduction to Object Oriented Methodology

- What is object oriented methodology.
- What are object oriented programming languages?
- Basic Terminology
  - What is an Object?
  - Classes.
  - Attributes.
  - Methods.
- Object Oriented Analysis And Design.
- Inheritance.
- Encapsulation.
- Abstraction.
- Relationship.
- Polymorphism.
- Overloading.

#### 3. Introduction to SQL

## 4. HTML and Java Script

- Overview of HTML Page Creation.
- Heading, Paragraphs and Breaks.
- Character Formatting.
- Lists.
- Images.
- Anchors, URLs, and Image Maps.
- Tables.
- Frames.
- Forms.
- Java Script Syntax.
- Basic Programming Constructs.
- Objects, Events and the Document Object Model.
- Alerts, Prompts, and Confirms.

#### 5. Java Programming

- Stand alone Application.
- Applets.
- Servlets.

#### 6. JSP (Java Server Pages)

- Introduction to JSP.
- Simple JSP's.
- JSP Tags.
- More advanced JSP.
- Using Beans.
- Database Connection Using JDBC.

## 7. Web Computing Workshop

- Development of online Web Computing application.
- Training session in the Microsoft Windows, Specialized Technical Services Company, Jordan, 1995.
- Training session in parallel computing, National Technical University of Athens (NTUA), Greece, 1996.

#### COURSES TAUGHT

- Graduation Project (Undergraduate Students), Al al-Bayt University, Jordan.
- Graduation Project (Graduate Students), Al al-Bayt University, Jordan.
- Operating Systems (Undergraduate Students), Al al-Bayt University, Jordan.
- Parallel Programming (Graduate Students), Al al-Bayt University, Jordan.
- Research Methods (Graduate Students), Al al-Bayt University, Jordan.
- Graphical Design for Computerized Visual Instructional Media (Graduate Students), Al al-Bayt University, Jordan.
- Webpage Design (Graduate Students), Al al-Bayt University, Jordan.
- Computer (2) for Scientific Disciplines (Undergraduate Students), Al al-Bayt University, Jordan.
- Computer Skills (1) (Undergraduate Students), Al al-Bayt University, Jordan.
- Computing Science 1P (Undergraduate Students), University of Glasgow, U.K.

- Computing Science 1Q (Undergraduate Students), University of Glasgow, U.K.
- Web Page Design (Undergraduate Students), Al al-Bayt University, Jordan.
- Object Oriented Programming (Undergraduate Students), Al al-Bayt University, Jordan.
- Visual Programming (Undergraduate Students), Al al-Bayt University, Jordan.
- Programming in Java (Undergraduate Students), Al al-Bayt University, Jordan.
- Fundamentals of Distributed and Parallel Systems (Undergraduate Students), Al al-Bayt University, Jordan.
- Advanced Programming Tools (Undergraduate Students), Al al-Bayt University, Jordan.
- Python Programming (Undergraduate Students), Al al-Bayt University, Jordan.

#### LANGUAGES

- Arabic (Native).
- English.

# **REFERENCES**

- Prof. Ismail Ababneh Acting Dean of Prince Hussein Bin Abdullah College for Information Technology, Al al-Bayt University, Jordan.
- Prof. Mohamed Ould-Khaoua Department of Electrical and Computer Engineering, Sultan Qaboos University, Oman.
- Dr. Lewis Mackenzie Computing Science Department, Glasgow University, United Kingdom.
- Dr. John Ferguson Computer and Information Sciences Department, University of Strathclyde, United Kingdom.
- Dr. Ahmed Al-Dubai School of Computing, Napier University, Edinburgh, United Kingdom.