

Curriculum vitae

Osama Mohammad Al-Haj Hassan

Personal Information

Name : Osama Mohammad Mustafa Al-Haj Hassan
Nationality : Jordanian
Place Of Birth : Wahran, Algeria
Sex : Male
Date Of Birth : 21/4/1980
Marital Status : Single
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Education

1. PhD in Computer Science Department, University of Georgia, GA, USA, 2010.
Dissertation: Scalability and Efficiency in Personalized Web Services. Won best graduate student award.
2. M. Sc. in Computer Science, New York Institute of Technology (NYIT), Amman, Jordan, 2004.
Average: With Distinction (3.54).
Thesis: A New Exam Scheduling Algorithm Using Graph Coloring.
3. B. Sc. in Computer Science, Princess Summaya University for Technology, Amman, Jordan, 2002.
Average: 80.1%
Project: Online dynamic web registration system. It is developed using HTML, JSP, Servlets, Photoshop, Flash.
4. Tawjihi(Secondary Certificate), Al-Ittihad School, Amman, Jordan, 1998.
Average 86.7%

Academic Rank

- Associate Professor: Isra University, 2016, Job Duration: 2010-Current.

Major of Education

- General Major: Computer Science.
- Specific Major: Distributed Systems.
- Research Interests: Web Services, Web 2.0, Mashups, Peer-to-Peer Networks, Replication and Caching.

Awards

- Best graduate student award, 2010, Computer Science Department, University of Georgia/GA/USA.

Projects

1- Exam Scheduling Project:

- The software produces a schedule for exams, it takes into consideration a variety of constraints regarding Exam Scheduling problem. This project is a modified implementation of my MS thesis and it is developed using java and MySQL DBMS.

2- Client-Server online Automated Exam:

- I developed this project for Al-Ahliya private university-Amman-Jordan, this project let users take an exam; questions of the exam are selected randomly from a pool of questions. At the end of the exam, grade of the student is stored in a database on the server. (Developed using VB6 and MS Access Database).

3- Academic Process Evaluation Software:

- I developed this project for Al-Ahliya private university-Amman-Jordan, this project takes data of surveys scanned with a scanner device. Surveys represent evaluation of students to their instructors. The software computes the average score of instructors, departments, faculties and university. (Developed using Java and MS Access Database).

Employment

- 1- Lecturer in Princess Sumaya University for Technology/Amman/Jordan. Sep 2022-Current**
 - Different academic teaching responsibilities.
- 2- Lecturer in Isra University/Amman/Jordan. Aug 2010-Sep 2022.**
 - Different academic teaching responsibilities.
- 3- Director of Admission and Registration department, Isra University, Des 2018-Dec 2019.**
 - Admission, and registration of students, enforcing regulations of awarding B.SC degree and MS degree, dealing with student related issues, attending Dean's Council.
- 4- Lecturer in Applied Science University/Amman/Jordan. Summer 2011/2012**
 - Different academic teaching responsibilities.
- 5- Teacher Assistant (TA), Computer Science Department, University of Georgia (UGA), Athens, GA, USA. Jan, 2010 – April, 2010.**
 - Assisting Students, Grading Assignments.
- 6- Computer Lab Administrator, Forestry Department, University of Georgia (UGA), Athens, GA, USA. Sep,01,2007- Jun,31,2009.**
 - PCs maintenance, Managing Linux Server, Linux Server Backup.
- 7- TA for Dr.Chi Thai, Driftmier department, University of Georgia (UGA)/Athens/GA/USA. Aug/01/2005 - Dec/01/2005.**
 - Grading assignments.
- 8- Lecturer in IT faculty, Al-Ahliyya Amman University/Amman/Jordan. Sep/15/2004 - Aug/15/2005.**
 - Different academic teaching responsibilities.
- 9- Lab Technician, Al-Ahliyya Amman University/Amman/Jordan. Oct/05/2003 - Sep/15/2004.**
 - Maintaining PCs, Installing Software.
- 10- Java Developer, Payment Centric LLC/Amman/Jordan. Aug/10/2003 - Oct/05/2003.**
 - Develop electronic banking J2EE applications that include designing dynamic web pages using EJB, JMS, JSP and servlets.
- 11- Lab Technician, Zarka Private University/Zarka/Jordan. Sep/15/2002 - Aug/10/2003.**
 - Maintaining PCs, Installing Software.

Publications

- 1- **Osama Al-Haj Hassan**, Osama Qtaish, Maher Abu Hamdeh, Mohammad Al-Haj Hassan. "A Hybrid Exam Scheduling Technique based on Graph Coloring and Genetic Algorithms Targeted Towards Student Comfort". International Journal of Advanced Computer Science and Applications. Vol 10, No 3. 2019.
- 2- Mohammad Al-Haj Hassan, **Osama Al-Haj Hassan**. "Constraints Aware and User Friendly Exam Scheduling System". International Arab Journal of Information Technology (IAJIT). Vol 13, No 1. pp 156-162, 2016.
- 3- Adi A Maaita, Hamza AA Al_Sewadi, Abdulameer K Husain, **Osama Al-Haj Hassan**. "A Cryptographically Secure Multi-stage Pseudo-random Number Generator". International Journal of Advanced Research in Computer and Communication Engineering. Vol 4, No 5, pp 12-18. 2015.
- 4- **Osama Al-Haj Hassan**, Thamer Al-Rousan, Anas Abu Taleb and Adi Maaita. "An efficient and scalable ranking technique for mashups involving RSS data sources". Journal of Network and Computer Applications. Vol. 39, pp. 179-190. 2014.
- 5- Anas Abu Taleb, Tareq Alhmiedat, Reem Abu Taleb, and **Osama Al-Haj Hassan**. "Sink Mobility Model for Wireless Sensor Networks". Arabian Journal for Science and Engineering. Vol 39. No 3. 2014.
- 6- **Osama Al-Haj Hassan**, Ashraf Odeh, Adi Maaita, and Aymen Abu-Errub. "Designing Structured Peer-to-Peer Architectures for Mashups". IAENG International Journal of Computer Science, Vol. 41, No. 1, pp72-80, 2014.
- 7- Aymen Abu-Errub, Ashraf Odeh, Qusai Shambour, and **Osama Al-Haj Hassan**. "Arabic Roots Extraction Using Morphological Analysis". International Journal of Computer Science Issues, Vol. 11, No. 2, pp 128 - 134, 2014.
- 8- Thamer Al-Rousan, Ayad Al-Zobaydi, and **Osama Al-Haj Hassan**. "The Roles OF Decision Making and Empowerment in Jordanian Web Based Development Organizations". Journal of Web Engineering (JWE), Rinton Press. Vol 13. No 5 & 6, pp 469-482, 2014.
- 9- **Osama Al-Haj Hassan**, Lakshmish Ramaswamy, Fadi Hamad, and Anas Abu Taleb. "Cooperative distributed architecture for mashups". Enterprise Information Systems. Vol 8, No 3, pp 406-444, 2014.
- 10- **Osama Al-Haj Hassan**, Ashraf Odeh, and Anas Abu Taleb. "MashChord: A Structured Peer-to-Peer Architecture for Mashups Based on Chord". Lecture Notes in Engineering and Computer Science . 2013.

- 11- Anas Abu Taleb, Tareq Alhmiedat, **Osama Al-haj Hassan**, and Nidal M. Turab. "A Survey of Sink Mobility Models for Wireless Sensor Networks". Journal of Emerging Trends in Computing and Information Sciences. Vol 4. No. 9. pp. 679-687. 2013.
- 12- Bassam AL Shargabi and **Osama Al-haj Hassan**, Alia Sabri, Asim El Sheikh. "Quality-of-Service Based Web Service Composition and Execution Framework". International Journal of Information Technology and Web Engineering (JITWE), Vol 6. No.3, pp. 57-74, July-September 2013.
- 13- **Osama Al-Haj Hassan** and Bassam Al-Shargabi. "A scalable and efficient Web 2.0 reader platform for mashups". International Journal of Web Engineering and Technology. Vol 7. No 4., pp. 358-380, 2012.
- 14- **Osama Al-Haj Hassan**, Lakshmish Ramaswamy and John A. Miller, "The MACE Approach for Caching Mashups", International Journal of Web Services Research (JWSR), Vol. 7, No. 4, 2012.
- 15- **Osama Al-Haj Hassan**, Lakshmish Ramaswamy and John A. Miller; "CoMaP: A Cooperative Overlay-based Mashup Platform". 18th International Conference on Cooperative Information Systems (CoopIS 2010), October 2010. (**Best Paper Award Winner**). (Acceptance Rate: 20%).
- 16- **Osama Al-Haj Hassan**, Lakshmish Ramaswamy and John A. Miller. "Enhancing Scalability and Performance of Mashups through Merging and Operator Reordering". International Conference on Web Services (ICWS-2010), 2010 (Acceptance Rate: 17.6%).
- 17- **Osama Al-Haj Hassan**, Lakshmish Ramaswamy and John A. Miller. "MACE: A Dynamic Caching Framework for Mashups". IEEE 7th International Conference on Web Services (ICWS-2009), July 2009 (Acceptance Rate: 15.6%).
- 18- **Osama Al-Haj Hassan**, Lakshmish Ramaswamy, John Miller, Khaled Rasheed, E.Rodney Canfield. "Replication in Overlay Networks: A Multi-objective Optimization Approach". International Conference on Collaborative Computing: Networking, Applications and Worksharing, Florida, USA, 2009.
- 19- Mohammad Malkawi, Mohammad Al-Haj Hasan, **Osama Al-Haj Hasan**. "A New Exam Scheduling Algorithm Using Graph Coloring". The International Arab Journal of Information Technology, 5(1): 80-86, 2008.
- 20- **Osama Al-Haj Hassan**, Lakshmish Ramazwamy. "Message Replication in Unstructured Peer to Peer Network". International Conference on Collaborative Computing: Networking, Applications and Worksharing, NewYork, USA, 2007.
- 21- Greg Silver, **Osama Al-Haj Hassan**, John Miller. "From Domain Ontologies to Modeling Ontologies to Executable Simulation Models". Winter Simulation Conference, Washington D.C., USA, 2007.

Teaching

I taught the following courses during my work as a lecturer.

- 1- **Databases**: This course contains database concepts, ER diagram, EER diagram, mapping, relational algebra, functional dependencies and normalization. The course also includes a lab that concentrates on writing SQL commands using Oracle SQL Plus.
- 2- **Networks and Servers Programming**: This course contains advanced java topics related to networks. It includes building a dynamic website using Java Spring Boot, bootstrap, CSS, javascript, JQuery, Java Database Connectivity (JDBC), and Client/Server interaction using sockets and datagrams.
- 3- **Web Design 2**: Dynamic website development using html, CSS, javascript, JQuery, bootstrap, php, MySQL DBMS, and Apache Server. It includes php tags, session tracking, cookies and forwarding.
- 4- **Smart Phone Programming**: Building advanced native Android mobile applications using java Android, Android Studio, MySQL, php webservice, Firebase.
- 5- **Database Management Systems (Database 2)**: This course contains database concepts related to transactions and concurrency. The course is backed up with an introduction to PL/SQL, and an introduction to Oracle Developer Forms and Reports.
- 6- **Operating Systems**: Various topics related to computer system structure, operating system structure, system calls, virtual machines, processes, CPU scheduling, deadlocks, and memory management.
- 7- **Computer Networks**: Networks basics, hardware, network layers, error detection and recovery techniques, routing techniques.
- 8- **Data Structures**: The various data structures used in programming such as arrays, Linked Lists, Queues, Stacks, Trees. The applications of the previous data structures
- 9- **Information Security**: topics related to cyphering and encryption/decryption techniques, cryptography, security attacks.
- 10- **Software Documentation**: How to write software requirements specifications Document, Software Architecture, Agile Documentation, UML related diagrams.
- 11- **Programming Fundamentals**: The basics of programming in Java or C#, topics include input/output statements, variables, control structures, and arrays.

- 12- **Object Oriented Programming**: This course is teaches java language. It includes defining classes, defining variables, defining methods, creating objects, method overriding and overloading, inheritance, and building GUI with java, Java I/O.
- 13- **Visual Programming**: Building desktop applications using Java or C#, using different GUI controls such as Text Boxes,etc, and Event Handling.
- 14- **Programming with C++**: This course is dedicated for C++ beginners. It includes defining classes, defining variables, defining methods, creating objects, method overriding and overloading, and inheritance.
- 15- **Introduction to Internet**: This course contains theoretical and practical material about the internet. It includes internet topologies, types of communication medium, basic internet protocols, applications of using the internet.
- 16- **Computer Skills**: Includes Microsoft Word, Excel, PowerPoint, and Access.
- 17- **Pre-Computer Skills**: Microsoft Word, Excel, PowerPoint, and Access.