

Curriculum Vitae



Marwan M. Batiha, Ph.D.

Vice President For Academic Affairs

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Research Gate:

<https://www.researchgate.net/profile/Marwan-Batiha>

BIOGRAPHY:

Professor Marwan Batiha is an esteemed chemical engineer and academic leader, currently serving as Vice President for Academic Affairs at Al-Hussein Bin Talal University (AHU) in Jordan. His distinguished career spans decades of research, teaching, and administrative leadership.

Professor Batiha's academic journey began with a scholarship from the Jordanian Ministry of Higher Education and Scientific Research, enabling him to study at Ivanovo State University of Chemistry & Technology. There, he earned a Diploma with honors in Automation of Chemical Processes and Industries in 1993, followed by a Ph.D. in Chemical Engineering in 1997, specializing in reaction engineering and process control.

In 1998, Professor Batiha began his tenure at Jerash Private University in Jordan, where he was promoted to Associate Professor in 2006. In 2007, he joined the Department of Chemical Engineering at AHU. Over the years, he took on multiple leadership roles at AHU, notably serving as Dean of the Faculty of Engineering from 2008 to 2013. His academic accomplishments were further recognized with his promotion to Full Professor in 2011.

In 2013, Professor Batiha was honored with a Fulbright Postdoctoral Fellowship, which enabled him to join the Catalysis and Nanomaterials Laboratory at Rice University in Houston, USA. There, he advanced his research in the modelling, simulation, and optimization of chemical reactions and reactors.

Professor Batiha's research covers a broad range of topics within chemical engineering. His areas of expertise include the absorption and adsorption of sulfur dioxide in aqueous solutions and minerals, environmental modeling of organic chemical behavior, heavy metal removal from aqueous solutions, and computational kinetics. He has authored or co-authored over 30 peer-reviewed journal articles and led four major funded projects with a combined budget of \$275,000.

Throughout his career, Professor Batiha has received numerous awards recognizing his contributions to chemical engineering. He has been honored with the Distinguished Scholar Award, the Arab Fund Fellowship for distinguished researchers, and the Fulbright Postdoctoral Fellowship. Additionally, he was recognized by the Scientific Support Fund at the Ministry of Higher Education in Jordan with the Prestigious Award for Distinguished Research for his publication, "*Precipitation Treatment of Effluent Acidic Wastewater from Phosphate-Containing Fertilizer Industry: Characterization of Solid and Liquid Products*," published in *Separation and Purification Technology* in August 2014.

مختصر السيرة الذاتية

الأستاذ الدكتور مروان محمد بطيحة هو أكاديمي وباحث متميز في مجال الهندسة الكيميائية ويشغل حالياً منصب نائب رئيس جامعة الحسين بن طلال للشؤون الأكاديمية. حصل على درجة الدكتوراه مع مرتبة الشرف في الهندسة الكيميائية من جامعة إيفانوف للحكومة للكيمياء والتكنولوجيا عام ١٩٩٧.

بدأ مسيرته الأكاديمية في جامعة جرش الأهلية، حيث تولى عدة مناصب إدارية، منها رئيس قسم العلوم وعميد البحث العلمي، وتم ترقيته إلى رتبة أستاذ مشارك في عام ٢٠٠٦. في عام ٢٠٠٧، انتقل إلى جامعة الحسين بن طلال ليشغل منصب أستاذ مشارك في قسم الهندسة الكيميائية، وتم ترقيته إلى رتبة أستاذ في عام ٢٠١١. تولى عدة مناصب قيادية في الجامعة، بما في ذلك عميد كلية هندسة التعدين والبيئة (٢٠٠٨-٢٠٠٩) ثم عميداً مؤسساً لكلية الهندسة (٢٠٠٩-٢٠١٣)، كما شغل منصب رئيس مجلس مركز الطاقة المتجددة في الجامعة (٢٠١٦-٢٠١٩) ومنصب نائب رئيس الجامعة للشؤون الأكاديمية منذ عام ٢٠٢٤ حتى الآن.

توسعت خبرة الأستاذ الدكتور بطيحة عالمياً من خلال عمله أستاذاً زائراً في جامعة رايس الأمريكية (٢٠١٣-٢٠١٤) وجامعة البلقاء التطبيقية (٢٠١٩-٢٠٢١)، كما عمل باحثاً زائراً في جامعة مونستر الألمانية للعلوم التطبيقية في عام ٢٠١٠.

يمتلك الأستاذ الدكتور بطيحة نشاطاً بحثياً غنياً، حيث نشر أكثر من ثلاثين بحثاً علمياً في مجلات متخصصة ومعتمدة. قاد مشاريع بحثية مدعومة من قبل جهات أوروبية ووطنية بقيمة إجمالية تقارب ٢٠٠ ألف دينار أردني.

حصل الأستاذ الدكتور بطيحة على العديد من الجوائز والمنح، من أبرزها منحة فولبرايت الأمريكية، وجائزة الزمالة العربية للباحثين المتميزين من الصندوق العربي للتنمية في الكويت. كما مُنح جائزة أفضل بحث علمي منشور في قطاع العلوم الهندسية من صندوق دعم البحث العلمي الأردني لعام ٢٠١٤.

EDUCATIONAL QUALIFICATIONS:

Diploma (Bachelor + Master) in Chemical Engineering (Automation of Technological Processing and Industries), Diploma with Honours, Ivanovo Institute of Chemistry and Technology, Ivanovo, Russia. From Sep. 1988 to June 1993.

Thesis title: Dynamic Modelling of Gas-Liquid Reactors in the Chlorination Process of Polyvinylchloride (PVC).

Ph.D. in Chemical Engineering (Reaction Engineering and Process Control). Ivanovo State Academy of Chemistry and Technology, Ivanovo, Russia. From Nov. 1993 to May 1997.

Thesis title: Mathematical Modelling, Optimization and Control of Gas-Liquid Reactors (Synthesis Process of Hydroxylaminedisulfate in the Production of Caprolactam).

Postdoctoral Fellow, Catalysis and Nanomaterials Laboratory, Department of Chemical and Biomolecular Engineering, George R. Brown School of Engineering, Rice University, Houston, Texas, USA. From Sep. 2013 till Aug. 2014.

PROFESSIONAL EXPERIENCE:

Academic Rank

Full Professor since 16/09/2011

Academic Positions

- Feb. 2019- Feb. 2021 Visiting Professor, Department of Chemical Engineering, Al-Huson University College, Al-Balqa Applied University, Jordan
- Sep. 2013- Aug. 2014 Visiting Professor, Department of Chemical and Biomolecular Engineering, George R. Brown School of Engineering, Rice University, Houston, Texas, USA (Sabbatical Leave).
- Sep. 2011- present Professor, Department of Chemical Engineering, Faculty of Engineering, Al-Hussein Bin Talal University, Maan, Jordan
- Sep. 2007- Sep. 2011 Associate Professor, Department of Chemical Engineering, Faculty of Engineering, Al-Hussein Bin Talal University, Maan, Jordan
- May 2006 – Sep. 2007 Associate Professor, Department of Sciences, Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan
- Oct. 1998 – May 2006 Assistant Professor, Department of Sciences, Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan
- Feb. 1998– Aug. 1998 Full Time Lecturer, Department of Sciences, Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan
- Oct. 1995 – April 1997 Teaching and Research Assistant, Department of Technical Cybernetics and Automation, Ivanovo State Academy of Chemistry and Technology, Ivanovo, Russia.

Administration

- Oct. 2014 – Present Vice President for Academic Affairs, Al-Hussein Bin Talal University, Maan, Jordan
- Jan. 2016 – Jan. 2019 Chairman of Renewable Energy Research & development Council, Al-Hussein Bin Talal University
- Sep. 2009- Sep. 2013 Dean of Faculty of Engineering, Al-Hussein Bin Talal University, Maan, Jordan
- Nov. 2008- Sep. 2009 Dean of Faculty of Mining and Environmental Engineering, Al-Hussein Bin Talal University, Maan, Jordan

Sep. 2008- Nov. 2008	Vice Dean of Faculty of Mining and Environmental Engineering, Al-Hussein Bin Talal University, Maan, Jordan
Sep. 2003 – Sep. 2006	Head of Science Department, Faculty of Agriculture & Science, Jerash Private University, Jerash, Jordan

SCHOLARSHIPS, HONOURS & AWARDS

- 8 **Prestigious Award for Distinguished Research, Awarded by Scientific Support Fund at the Ministry of Higher Education** in Jordan for the publication of the article titled: "Precipitation treatment of effluent acidic wastewater from phosphate-containing fertilizer industry: characterization of solid and liquid Products" published in Separation and Purification Technology, 08/2014.
- 7 **Arab Fund Fellowship Award for Distinguished Researchers**, Arab Fund for Economic and Social Development, Kuwait. One year fellowship to conduct research at Catalysis and Nanomaterials Laboratory, Department of Chemical and Biomolecular Engineering at Rice University, Houston, Texas, USA. Sep. 2013- August 2014.
- 6 **Fulbright Research Fellowship Award**. Catalysis and Nanomaterials Laboratory, Department of Chemical and Biomolecular Engineering at Rice University, Houston, Texas, USA. Sep. 2013- July 2014.
- 5 **German Research Foundation** (Deutsche Forschungsgemeinschaft, DFG). Muenster University of Applied Sciences, June-Sep. 2010, Muenster, Germany.
- 4 **An award for supervising the best graduation project** in the engineering colleges among the Jordanian Universities for the year 2008. This Award was given by the Jordanian Engineering Association. The project was titled: "Effect of Reaction conditions on the production of sodium hexafluorosilicates" by Mohammad Shwaiter, Bassam Makahlah, Ahmad Al-Mahameed and Omar Al-Kasasbah, *Winner of first place of Jordan Engineering Association competition/Chemical Engineering Section*
- 3 **Diploma with Honours** (Red Diploma), Ivanovo Institute of Chemistry and Technology.
- 2 **Ph.D. Scholarship**, Russian Ministry of Higher Education based on the Diploma with Honours.
- 1 **B.Sc. Scholarship**, Jordanian Ministry of Higher Education & Scientific Research based on the General Secondary Examination / Scientific Stream.

RESEARCH INTERESTS:

- Modelling, Simulation, Optimization and Control of Chemical Reactions and Reactors.
- Absorption and Adsorption of Sulphur Dioxide in Aqueous Solutions and Natural and Modified Minerals.
- Industrial Wastewater Treatment.
- Modelling the Fate of Organic Chemicals in the Environment.

- Removal of Heavy Metals from Aqueous Solutions.
- Computational Kinetics.

PROFESSIONAL ASSOCIATIONS

- Jordan Engineers Association, Chem. Eng. Division, Member, from June 1993 to present.
- Member of central committee of Chemical Engineering Division at Jordan Engineers Association from 2021 to present.

RESEARCH VISITS:

- 1 Faculty of Chemical Engineering, Muenster University of Applied Sciences, Germany. (June 2010-September 2010) Title "Characterization of Jordanian oil shale, kaolin, zeolite, and oil shale ash for the removal of SO₂ from effluent streams".
- 2 George R. Brown School of Engineering, Rice University, Houston, Texas, USA. (Sep. 2013- August 2014) Title "Removal of SO₂ from effluent streams: Novel approach to minimize SO₂ emission from potential Jordanian oil shale processing plant in the future"

TEACHING EXPERIENCE:

a) Al-Balqa Applied University, Jordan (Feb. 2019- 2021):

Teaching courses: Process Heat Transfer (2 semesters)
 Technical Writing and Reports (2 semesters)
 Process Dynamics & Control (3 semesters)
 Chemical Engineering Thermodynamics I (3 semester)
 Chemical Reaction Engineering I & II (1 semester)
 Plant Design (2 semesters)
 Equipment Design (1 semester)
 Process Modelling and Simulation Lab (1 semester)

b) Al-Hussein Bin Talal University, Jordan (Sep. 2007- present):

Teaching courses: Modelling and Simulation of Chemical Processes (12 semesters)
 Optimization Methods in Chemical Engineering (3 semesters)
 Chemical Reaction Engineering I (6 semesters)
 Chemical Reaction Engineering II (5 semesters)
 Instrumental Analysis (16 semesters)
 Research Methodology (2 semesters)
 Process Dynamics & Control (16 semesters)
 Heat Transfer (2 semesters)
 Thermodynamics I (3 semester)
 Graduation Projects (I + II) (many semesters)

Chemical Engineering Principles (3 semesters)
Special Topics in Chemical Engineering (4 semesters)
Physical Chemistry for Engineers (3 semesters)
Probability and Statistics for Engineers (3 semesters)
Chemical Industries (4 semesters)
Fertilizers Technology (3 semesters)

c) Jerash Private University, Jordan (Feb. 1998 – Aug. 2007):

Teaching courses: General Chemistry 1 & 2 (9 semesters)
Inorganic Chemistry 1 (8 semesters)
Inorganic Chemistry 2 (9 semesters)
Analytical Chemistry (1 semester)
Industrial Inorganic Chemistry (7 semesters)
Introduction to Industrial Chemistry (8 semesters)
General Chemistry Lab 1 & 2 (more than 10 semesters)
Separation Methods of Chemical Compounds (4 semesters)
Environmental Chemistry (4 semesters)
Chemistry and Society (6 semesters)

d) Ivanovo State University of Chemistry and Technology, Russia (Feb. 1995 – April 1997):

Teaching courses: Processes and Apparatuses of Chemical Technology (2 semesters)
Automatic Control Theory (4 semesters)
Automatic Control Instrumentations Lab (4 semesters)

OTHER EXPERIENCE :

- 1- Establishment of the Faculty of Engineering at Al Hussein Bin Talal University, Ma'an, Jordan.
- 2- Establishment of the Engineering Workshop Directorate at Al-Hussein Bin Talal University, Ma'an, Jordan.
- 3- Succeeding in getting the accreditation of all engineering departments at Al-Hussein Bin Talal University form Higher Education Accreditation Council / Jordan.
- 4- Establishment of a master program in Renewable Energy and Environmental Engineering.
- 5- Reviewer for many International Journals such as: Separation and Purification Technology; Journal of Hazardous Materials; Polish Journal of Chemical Technology; Applied Surface Science.

SKILLS:

Experimental Skills: FT-IR Spectroscopy, UV-Vis Spectrophotometer, Scanning Electron Microscope (SEM), X-ray Fluorescence (XRF), X-ray Diffraction (XRD), Thermogravimetric Analysis (TGA), Atomic Absorption Spectroscopy (AAS), Sulfur Coulometer.

Computer Skills: Windows, Microsoft Office (Word, Excel, PowerPoint ...etc); ASPEN HYSYS, ASPEN PLUS, Berkeley MADONNA, Polymath.

LANGUAGES:

Arabic: Mother Tongue.

English: Reading (excellent), Writing (excellent) and Conversation (v. good).

Russian: Reading (excellent), Writing (excellent) and Conversation (excellent).

PUBLICATIONS:

- 35 M.A. Batiha, S. Rawadieh, M.M. Batiha, L. Al-makhadmeh, M. Kayfeci, A. Marachli. Thermal insulation performance curves for exterior walls in heating and cooling seasons. *Journal of Thermal Engineering* 9 (4), 1053-1069, 2021. <https://doi.org/10.18186/thermal.1337469>
- 34 M. A. Batiha, A. Marashli, S. Rawadieh, I. Altarawneh, L. A. Al-Makhadmeh, M. M. Batiha M. A Study on Optimum Insulation Thickness of Cold Storage Walls in All Climate Zones of Jordan, *Case Studies in Thermal Engineering*, Volume 15:100538, Pages 100538, 2019. <https://doi.org/10.1016/j.csite.2019.100538>
- 33 Mohammad Al-Harashsheh, Yazan A. Hussain, Habis Al-Zoubi, Marwan Batiha, Esraa Hammouri. Hybrid precipitation-nanofiltration treatment of effluent pond water from phosphoric acid industry. *Desalination*, Volume 406, Pages 86-97, 2017. [DOI: 10.1016/j.desal.2016.06.014](https://doi.org/10.1016/j.desal.2016.06.014)
- 32 M. A. Batiha, E. A. Chizhova, M. M. Batiha, L. A. Al-Makhadmeh, S. Rawadieh, M. Alqasaimeh and A. Marashli, Effect of Pyridine and Tribenzylamine on the Hydrolysis Kinetics of Benzoyl Chloride in Water-Dioxane System, *Asian Journal of Chemistry*, Volume 29 (9), Pages 1888-1890, 2017. [DOI:10.14233/ajchem.2017.20556](https://doi.org/10.14233/ajchem.2017.20556)
- 31 M. Al-Harashsheh, M. Batiha, S. Kraishan, H. Al-Zoubi, Precipitation Treatment of Effluent Acidic Wastewater from Phosphate-containing Fertilizer Industry: Characterization of Solid and Liquid Products. *Separation and Purification Technology*, Volume 123, Pages 190-199, 2014. [DOI: 10.1016/j.seppur.2013.12.027](https://doi.org/10.1016/j.seppur.2013.12.027)
- 30 M. Al-Harashsheh, R. Shawabkeh, M. Batiha, A. Al-Harashsheh, K. Al-Zboon, Sulphur Dioxide Removal by Natural Zeolitic Tuff: An Experimental Study. *Fuel Processing Technology*, Volume 126, Pages 249-258, 2014. [DOI: 10.1016/j.fuproc.2014.04.025](https://doi.org/10.1016/j.fuproc.2014.04.025)
- 29 M. A. Batiha, L. A. Al-Makhadmeh, M. M. Batiha, A. Ramadan, A. A. H. Kadhum, Generalization of the MAFRAM Methodology for Semi-Volatile Organic Agro-Chemicals. *Water, Air, & Soil Pollution*, 225:1789, 2013. [DOI 10.1007/s11270-013-1789-5](https://doi.org/10.1007/s11270-013-1789-5)
- 28 Awni Al-Otoom, Mohammad Al-Harashsheh, Marwan Batiha, Sintering Behaviour of Jordanian oil shale under the conditions of Fluidized Bed Combustion Systems. *Oil Shale*, Volume 31, No 1, pp. 54-65, 2014. [DOI 10.3176/oil.2014.1.06](https://doi.org/10.3176/oil.2014.1.06)
- 27 M.A. Batiha, Elena Chizhova, M.M. Batiha, Effect of Tertiary Amines on the Hydrolysis Kinetics of Benzoyl Chloride in Water-Dioxane Solutions. *Asian Journal*

of Chemistry, Volume 25, Issue 7, 4087-4090, 2013. [DOI:10.14233/j.chem.2013.14238](https://doi.org/10.14233/j.chem.2013.14238)

- 26 M. Al-Harshseh, Marwan Batiha, Kamil Al-Zboun, Reyad Sawabkeh, Adnan Al-Harshseh, Khalid Al-Tarawneh, SO₂ adsorption onto zeolitic tuff and its thermal regeneration. 32nd Oil Shale Symposium, Colorado School of Mines, Golden, Colorado, USA. October 15-17, 2012. http://mines.conference-services.net/resources/328/3190/pdf/OSS2012_0065.pdf
- 25 Marwan Batiha, Mohammednoor Altarawneh, Abdullah Alsofi, Mohammed Al-Harshseh, Ibrahim Altarawneh, Saleh Alrawadieh, Theoretical Study on the Reaction of Hydrogen atoms with Aniline. *Theoretical Chemistry Accounts: Theory, Computation, and Modeling (Theoretica Chimica Acta)*, Volume 129, Number 6, Pages 823-832, 2011. [DOI: 10.1007/s00214-011-0940-x](https://doi.org/10.1007/s00214-011-0940-x)
- 24 Marwan Batiha, Mohammednoor Altarawneh, Mohammed Al-Harshseh, Ibrahim Altarawneh, Saleh Alrawadieh. Theoretical Derivation for Reaction Rate Constants of H abstraction from thiophenol by the H/O Radical Pool. *Computational and Theoretical Chemistry*, Volume 970, Issues 1-3, Pages 1-5, 2011. [DOI: 10.1016/j.comptc.2011.05.015](https://doi.org/10.1016/j.comptc.2011.05.015).
- 23 M. Batiha, M. Al-Harshseh A.A. Harshseh, R. Shawabkeh, K. Tarawneh, Absorption of Sulfur Dioxide by Dead Sea Water. *1st International Conference on Desalination and Environment: A Water Summit*. Abu Dhabi, 29 October - 1 November, 2011.
- 22 M. Al-Harshseh, M. Batiha, S. Kraishan, A. Alrouad, Treatment of Effluent Pond Water from Phosphoric Acid Plant at IJC. *1st International Conference on Desalination and Environment: A Water Summit*. Abu Dhabi, 29 October - 1 November, 2011.
- 21 Marwan Batiha, Mohammad Al-Harshseh, Muhannad Hararah, Khalid Tarawneh, Adnan Al-Harshseh, Reyad Shawabkeh. Removal of Sulfur Dioxide by Jordanian Zeolitic Tuff. *31st Oil Shale Symposium*. Colorado, USA, 17-21 October, 2011
- 20 Mohammad Al-Harshseh, Marwan Batiha, Khalid Al-Tarawneh, Adnan Al-Harshseh, Reyad Al-Shawabkah, Muhannad Hararah. Options of Sulfur Dioxide Removal Using Oil Shale Waste and Natural Materials: An Experimental Study. *31st Oil Shale Symposium*. Colorado, USA, 17-21 October, 2011
- 19 Marwan M. Batiha, Mohammad Al-Harshseh, Effect of Reaction Conditions on the Precipitation of Sodium Hexafluorosilicate Produced from Waste Hexafluorosilicic Acid, *Polish Journal of Chemical Technology*. Volume 13, Issue 2, Pages 23 — 28, (2011). [DOI: 10.2478/v10026-011-0019-4](https://doi.org/10.2478/v10026-011-0019-4)
- 18 Marwan M. Batiha, Ala'a H. Al-Muhtaseb, Mohammednoor Altarawneh, Theoretical Study on the Reaction of the Phenoxy Radical with O₂, OH and NO₂. *International Journal of Quantum Chemistry*, Volume 111, Issue 10, (2011). [DOI: 10.1002/qua.23074](https://doi.org/10.1002/qua.23074)

- 17 M. A. Batiha, Abdul Amir H. Kadhum, M. M. Batiha, Mohd S. Takriff, Abu Bakar Mohamad, MAFRAM—A new fate and risk assessment methodology for non-volatile organic chemicals. *Journal of Hazardous Materials*, Volume **181**, Issues 1-3, 15, Pages 1080-1087, (2010). [DOI: 10.1016/j.jhazmat.2010.05.125](https://doi.org/10.1016/j.jhazmat.2010.05.125)
- 16 Al-Harashsheh, A, Shawabkeh, R., Al-Harashsheh, M., Batiha, M., Removal of sulfur dioxide by a Slurry of Jordanian Oil Shale Ash. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, Volume **34**, Issue 1, Pages 90-98, (2011). [DOI: 10.1080/15567030903567675](https://doi.org/10.1080/15567030903567675)
- 15 Al-Harashsheh, M, Shawabkah, R., Al-Harashsheh, A Al-Tarawneh, K. and Batiha, M., Surface Modification and Characterization of Jordanian Kaolinite: Application for Lead Removal from Aqueous Solutions. *Applied Surface Science*, **255**, 8098-8103, (2009). [DOI: 10.1016/j.apsusc.2009.05.024](https://doi.org/10.1016/j.apsusc.2009.05.024)
- 14 M. A. Batiha; A.A. H Kadhum; A.B. Mohamad; M. S Takriff; Z. Fisal; W.R. W Daud; M. M. Batiha, Modeling the Fate and Transport of Non-volatile Organic Chemicals in the Agro-ecosystem: A case Study of Cameron Highlands, Malaysia, *Process Safety and Environmental Protection*, **87**, 121-134, (2009). [DOI: 10.1016/j.psep.2008.09.001](https://doi.org/10.1016/j.psep.2008.09.001)
- 13 M. A. Batiha, Abdul Amir H. Kadhum, Abu Bakar Mohamad, Mohd S. Takriff, Zahedi Fisal, Wan Ramli W. Daud and M. M. Batiha, MAM – An Equivalence-based Dynamic Mass Balance Model for the Fate of Non-Volatile Organic Chemicals in the Agricultural Environment, *American Journal of Engineering and Applied Sciences*, **1** (4): 252-259, (2008). [DOI: 10.3844/ajeassp.2008.252.259](https://doi.org/10.3844/ajeassp.2008.252.259)
- 12 M.A. Batiha, A.A.H. Kadhum, Z. Fisal, A.B. Mohamad, W.R. Wan Daud, M.S. Takriff, M. M. Batiha, The Fate of Non-Volatile Organic Chemicals in The Agriculture Environment, *American Journal of Applied Sciences*, **2** (7) 456-467, (2007). [DOI: 10.3844/ajassp.2007.456.464](https://doi.org/10.3844/ajassp.2007.456.464)
- 11 Daradka H. M., Marwan M. Batiha , Antiandrogenic Activity of *Ruta graveolens* L in Female Albino Rats, *Asian Journal of Chemistry*, **18** (3) 2280-2284 (2006).
- 10 Marwan M. Batiha, El-Khateeb F.H., Temperature Dependence of Henry's Law Constant of Chlorine and Hydrogen Chloride in Polychlorinated Ethane Solvents, *J. Saudi Chem. Soc.*, **10** (2) 415-420 (2006).
- 9 Marwan M. Batiha, Dynamic Modelling of the Non-Catalytic Process of Ethylene Oxide Hydrolysis, *Journal of Science & Technology ISSN 1607-2073*, **9** (1&2) (2004).
- 8 Marwan M. Batiha, Mathematical Modelling and Optimization of a Radical Chlorination Process of 1,2-Dichloroethane, International Conference on Chemistry and Industry, Riyadh, Saudi Arabia, Dec. 11-15/2004.
- 7 Marwan M. Batiha, Kinetic Investigation of Consecutive-Parallel Reactions in the Non-Catalytic Process of Ethylene Oxide Hydrolysis, *Journal of King Abdulaziz University: Engineering Sciences*, **15** (1) 19-31 (2004).

- 6 Marwan M. Batiha, Optimization of the Radical Chlorination Process of 1,2-Dichloroethane, *Jerash for Research & Studies*, **7** (2) 15-23 (2003)
- 5 Marwan M. Batiha, Modelling and Simulation of a Radical Chlorination Process of 1, 2-Dichloroethane, *Damascus University Journal for Basic Sciences*, **19** (2) 36 – 47 (2003).
- 4 E.A. Chizhova, N.S. Ivanova, Andaki Lengungi, Marwan M. Batiha. Catalytic Effect of Coordinating Solvents on the Acylation Reaction Kinetics of Aniline with μ Carbonic Acid Monochloroanhydride in toluene. *Chemistry and Chemical Technology Research-Engineering Journal*, ISSN 0579-2991, **41** (3) 34-36 (1998).
- 3 Labutin A.N., Marwan M. Batiha, Groshev G.I. & Korateevskiy K.N., Kinetics of the Dissolution Process of Sulfur Dioxide in Water, *Chemistry and Chemical Technology Research-Engineering Journal*, ISSN 0579-2991, **40** (1) 55-58 (1997)
- 2 Marwan M. Batiha, Labutin A.N., Pozdniakov A.B. Mathematical Modelling and Control of Gas-Liquid Reactors, *The International Conference "Mathematical Methods in Chemistry & Chemical Technology"*. Tver, Russia, May 12-14, 1996
- 1 Marwan M. Batiha, Labutin A.N., Reactor Unit Study of Hydroxylaminedisulfonate synthesis. *IV International Conference "Cybernetical Methods in Chemical Technology"*. Moscow, Russia, October, 21-23, 1994.

CONFERENCES

- 14 VIII international Scientific Conference "Industry 4", Varna, Bulgaria, 27/06 – 1/07 – 2023.
- 13 6th Annual International Conference on Engineering, Athens, Greece, 24-27 June 2019.
- 12 The 32th Oil Shale Symposium, Colorado School of Mines, Golden, Colorado USA. October 15-17, 2012.
- 11 1st International Conference on Desalination and Environment: A Water Summit, Abu Dhabi, UAE, 29 October 2011 - 01 November 2011.
- 10 The 30th Oil Shale Symposium, Colorado School of Mines, Golden, Colorado USA. October 18-22, 2010.
- 9 The XIII International Scientific Conference "High Tech in Chemical Technology", Suzdal, Russia, 29 June – 2 July 2010.
- 8 The Second International Chemical Engineering Conference (CHEC 2010); University of Jordan, Amman, Jordan, October 11-13, 2010.
- 7 The Euro-Jordanian Renewable Energy Conference (EJREC), Amman, Jordan, April, 1-2, 2009.

- 6 The International Conference on Modeling & Simulation, Petra, Jordan, 18-20, November 2008.
- 5 The Second Regional Conference on Environmental Modeling, Malaysia, August, 28-30, 2007
- 4 The Second International Conference on Environment, Qena, Egypt, March, 28-30, 2006.
- 3 The International Conference on Chemistry and Industry, Riyadh, Saudi Arabia, Dec. 11-15/2004.
- 2 The International Conference "Mathematical Methods in Chemistry & Chemical Technology". Tver, Russia, May 12-14, 1996
- 1 IV International Conference "Cybernetical Methods in Chemical Technology". Moscow, Russia, October, 21-23, 1994.

MEMBERSHIP OF COMMITTEES

- 31 Chairman of Renewable Energy Research & development Council, Al-Hussein Bin Talal University (Since January 2016 till Jan 2019)
- 30 Committee member of Engineering, Nanotechnology and Supercomputer sector, Scientific Research Support Fund, Ministry of Higher Education and Scientific Research, Jordan (Since May, 2012 – till May 2013)
- 29 Member of Teaching Staff Appeal Disciplinary Council / Al-Hussein Bin Talal University. (Since September, 2011 – till Sep 2012).
- 28 Chairman of Teaching Staff Appeal Disciplinary Council / Al-Hussein Bin Talal University. (Since September, 2012 – till Sep 2013).
- 27 Quality assurance and accreditation Committee Chairman at the Faculty of Engineering / Al-Hussein Bin Talal University (Since Sep. 2008 till Sep. 2013)
- 26 Member of Assignment & Promotion Committee, Al-Hussein Bin Talal University (Since September 2010 till Sep. 2013)
- 25 Member of Dean Council / Al-Hussein Bin Talal University (Since 16/11/2008 till Sep. 2013)

- 24 Member of University Council / Al-Hussein Bin Talal University (Since 16/11/2008 till Sep. 2013)
- 23 Renewable Energy Research & development Council Member Al-Hussein Bin Talal University (Since September 2010 till Sep. 2013)
- 22 Teaching Staff Developing Council Member, Al-Hussein Bin Talal University (Since September 2010 Sep. 2013)
- 21 Member of Student Final Appeal Committee, Al-Hussein Bin Talal University (Since September 2009 Sep. 2013)
- 20 Equipment Specification Committee Chairman, Faculty of Engineering, Al-Hussein Bin Talal University.
- 19 Faculty Accreditation Preparation Committee Chairman, Faculty of Engineering, Al-Hussein Bin Talal University.
- 18 Member, Scholarship Committee, Al-Hussein Bin Talal University (Since 16/11/2008 till September 2010)
- 17 Member of Organizing Committee of the 2nd International Chemical Engineering Conference (CHEC 2010); University of Jordan, Amman, Jordan, October 11-13 , 2010.
- 16 Member of Faculty Council / Faculty of Mining and Environmental Engineering/ Al-Hussein Bin Talal University (Since 15/09/2008 till Sep. 2013)
- 15 Member of Organizing Committee of International Conference on Modeling & Simulation, (MS'08 Jordan), Petra, Jordan, 18-20 November 2008.
- 14 Head of the Publications Committee of the International Conference on Modeling & Simulation, (MS'08 Jordan), Petra, Jordan, 18-20 November, 2008.
- 13 External Examiner of Master Thesis (student: Reem Sulaiman Marji) at Jordan University of Science and Technology (2004).
- 12 Member of Scientific Committee of Seventh Jordanian Chemistry Conference – Chemistry Department – AL al-Bayt University – 1/3/2007.
- 11 Member of Scientific Committee of Second Jordanian Chemistry Conference for

Master and Bachelor Students– Chemistry Department – Jordan University of Science and Technology – 9/5/2007.

- 10 Member of Teacher's Promotion Committee of Jerash Educational Directorate (Since 14/08/2003 till 18/09/2007)
- 9 Member of the Organizing Committee of the Pesticides and Contemporary Life Workshop held at Jerash University, 26/4/2004.
- 8 Member of committee of studying plan / Jerash Private University. (Since September 18, 2003 – till Sept.17.2006).
- 7 Member of Teaching Staff Appeal Disciplinary Council / Jerash Private University. (Since October 18, 2003 – till Sept.17.2006).
- 6 Member of disciplinary council of students/ Jerash Private University. (Since October 19, 2004 – till 13/09/2007).
- 5 Member, Academic Research Committee, Al-Hussein Bin Talal University (Since 16/11/2008 till now)
- 4 Coordinator between Higher Council of Science & Technology and Jerash Private University (Since 28/3/2007 To 30/09/2007)
- 3 Member of Faculty Council / Faculty of Agriculture & Science/ Jerash Private University (Since 01/10/2002 till 13/09/2007)
- 2 Chief of Committee for Studying Plan / Faculty of Agriculture & Science / Jerash Private University (Since October 01, 2000 to September 30, 2001)
- 1 Member of University Council / Jerash Private University (Since 01/10/1998 To 30/09/1999)

REFEREES:

- 1- Prof. Dr. Taha Al-Khamis, Department of Chemical Engineering, Faculty of Engineering, Mutah University, Al-Karak, Jordan. E-mail: talkhamis2000@hotmail.com

- 2- Prof. Dr. George Hirasaki, Department of Chemical and Biomolecular Engineering, Rice University, Houston, Texas, USA. E-mail: gjh@rice.edu
- 3- Prof. Dr. Konstantinos Kostarelos, Petroleum Engineering Department, University of Houston, Houston, Texas, USA. E-mail: kkostarelos@uh.edu
- 4- Prof. Dr. Norbert Ebeling, Vice Dean of Faculty of Chemical Engineering, Muenster University of Applied Sciences, Steifurt, Germany. E-mail: ebeling@fh-muenster.de

Statement of Teaching Philosophy:

Over the past 17 years as a faculty member at the Chemical Engineering Department of Al-Hussein Bin Talal University and 10 years at Jerash Private University, I have had the privilege of teaching a wide array of courses. I design my courses not just to meet syllabus requirements but to build on prior knowledge and encourage students to explore new, exciting possibilities.

One of the most rewarding aspects of my career has been helping students with a history of underperformance find success. I work to instill a passion for learning, making the process both engaging and stimulating. By transforming the classroom into a dynamic and supportive space, I strive to ignite curiosity and help students discover the joy in learning. I strive to be well-organized and thoroughly prepared, ensuring that I deliver complex concepts clearly and efficiently. My ability to simplify information, paired with a strong aptitude for using the latest teaching technologies, helps make the learning process both easy and enjoyable. With decades of experience working closely with students, I believe my primary role is to equip them with the skills, knowledge, and experiences they need to expand their horizons and thrive in their careers and personal lives.

At the core of my teaching philosophy is the belief that education should go beyond simply imparting knowledge; it should also involve mentorship. I aim to guide students in recognizing and seizing the opportunities available to them during their college years, understanding how these choices can profoundly shape their future satisfaction and success. The undergraduate years, especially in engineering, are some of the most formative in a professional's life. The attitudes, skills, and insights acquired during this time lay the foundation for their future in what is both a challenging and deeply rewarding career.

A key part of my teaching approach involves fostering collaboration. I strongly believe in the power of teamwork, particularly in engineering, where collective problem-solving is essential. In most of my courses, students work together on projects that challenge them to go beyond the textbook. These experiences push them to seek diverse sources of information, broaden their perspectives, and discover their potential within a cooperative setting. The projects typically conclude with written or oral presentations, allowing students to articulate their ideas clearly and gain confidence in communicating technical concepts. I see students as active agents in their learning journey. Rather than being a one-way provider of knowledge, I view my role as a guide who helps students navigate through complex ideas, encouraging them to take ownership of their education. By fostering an interactive and dynamic learning environment, I aim to ignite curiosity and inspire students to become lifelong learners, ready to tackle the demands of their future careers.