

Mohammed H. Al-Saleh

PhD, PDEng, IR, BSc

RESEARCH INTERESTS

- Development and modification of nanostructured polymeric materials
- Biodegradable Polymers processing and compatibilization of biopolymer blends
- Structure/property relationship in polymer composites and blends
- Shielding of electromagnetic interferences
- Materials for Energy – Supercapacitors

STANFORD UNIVERSITY TOP 2% RESEARCHERS LIST

- Overall Rank: 10195 out of 161442
- Field Rank (Polymers and Materials): 72 out of 80760 [top 0.1%]

GOOGLE SCHOLAR PROFILE (MARCH, 2024)



Mohammed H. Al-Saleh

[Jordan University of Science and Technology](#)

Verified email at just.edu.jo - [Homepage](#)

[Nanocomposites](#) [Polymer blends](#) [EMI shielding](#)

FOLLOWING

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	All	Since 2019
Citations	7187	3518
h-index	33	25
i10-index	49	42

TAUGHT COURSES

Advanced Mass Transfer, Process Design, Process Modeling and Simulation, Applied Math & Modeling, Separation Processes, Mass Transfer, Fluid Mechanics, Polymer Science and Engineering, Engineering Ethics, Heat and Mass Transfer Laboratory, Unit Operations Laboratory.

EDUCATION

Jan. 05-Dec. 08

PhD in Chemical Engineering

University of Alberta, Edmonton AB – Canada

Advanced courses: Advanced transport phenomena, Catalysis and reactor analysis, Polymer engineering and science, Numerical solutions, Biological waste treatment processes, and water and wastewater treatment

Sep. 01 – Dec. 03

MSc in Process Development and Design

University of Twente, Enschede – The Netherlands

Advanced courses: Advanced plant design; Conceptual design; Techno-economic evaluation of chemical processes; Distillation, absorption and extraction; Reactive Separations; Industrial catalysis; Polymerization engineering

Sep. 96 – Feb. 01

B.Sc. in Chemical Engineering

Jordan University of Science and Technology (JUST), Irbid- Jordan

WORK EXPERIENCE

Feb. 10 - Now

Faculty Member [Assistant (2010-2015), Associate (2015-2022), Professor (Since March 2022)]

Department of Chemical Engineering, JUST, Irbid-Jordan



- Sept. 19 – Aug. 20 **Chairman**
Chemical Engineering Department, JUST
- August 16 – July 19 **Associate Professor**
Department of Chemical & Petroleum Engineering, UAEU, Alain-UAE
- Sept. 15 – Aug. 16 **Vice Dean of Research**
JUST – Irbid, Jordan
- Worked with the Deanship of Research team on developing strategic plans to promote research activities and scholarly outcome from JUST.
 - Organized and delivered talks in workshops to promote new faculty members research skills and advise them in creating research proposals for external funding.
 - Evaluated research proposals and administrated running projects.
 - Reported to the higher administration on regular basis statistics related to the scientific outcome from JUST compared to the leading institutes within the region
- Sept. 14- Aug. 15 **Director of the Nanotechnology Center**
JUST, Irbid – Jordan
- Created partnerships to promote the activities of the center.
 - Promoted the activities of the center and the nano-related research at the local and regional levels.
 - Delivered several invited talks in Jordan regarding nanotechnology and the chances for Jordan within this field.
 - Invited several internationally and nationally recognized speakers to the center to transfer knowledge and build partnerships
- Sept. 13- Aug. 14 **Assistant Dean - Deanship of Research**
JUST, Irbid – Jordan
- Managed all activities related to intellectual properties including patents evaluation and registration inside and outside Jordan.
 - Advised faculty members in issues related to patents registration procedures and available alternatives.
 - Developed the Deanship of Research annual book, including detailed analysis for research activities from JUST compared Jordan and the leading university within the region.
- Summer 2011
Summer 2010 **Visiting Researcher**
Department of Chemical & Petroleum Engineering
University of Calgary, Calgary – Canada
- Jan.09 – Jan. 10 **Postdoctoral Fellow**
University of Alberta & University of Calgary – Canada
- Metal nanowire synthesis and composites
 - Effective teaching in engineering
 - Methodologies and teaching skills to maximize students learning
 - Exploring students learning styles
 - Implementing active and cooperative teaching skills

- Jan 05 – Dec. 08 **Teaching Assistant**
Department of Chemical and Materials Engineering
University of Alberta, Edmonton – Canada
Courses: Equilibrium stage processes and Heat transfer
- April – Dec. 2004 **Water Treatment Engineer (Part-time)**
Wadi Al-Arab Water Treatment Plant, Irbid-Jordan
Worked and received training in:
 - Plant operation (the plant consists of: aeration, flocculation and coagulation, sand filters and disinfection units)
 - Water quality control lab
- Sep. 02- Oct. 03 **Project Engineer (Exxon Mobil and University of Twente)**
Exxon Mobil Refinery, Rotterdam – The Netherlands
 - Studied the fouling of calcium carbonate in the flexi-coker heater overhead system
 - Studied calcium carbonate leaching from the flexi-coker cokes
 - Developed a MATLAB model to predict the fouling locations in the plant
 - Used ASPEN PLUS to optimize the flexi-coker heater overhead system and the sour water stripping column operating conditions
 - Reduced the fouling problem and steam consumption by suggesting new configurations for the process
- Sep. 01 – Aug. 02 **Trainee Research Assistant**
University of Twente, Enschede - The Netherlands
In this year I did many process and equipment design projects (for more info please refer to my publications section)
- July - Sep. 2000 **Trainee Process Engineer**
Jordan Petroleum Refinery Company, Zarqa-Jordan.
Worked and received training at crude distillation unit, hydrotreating, hydrocracking (UNIBON), fluid catalytic cracking (FCC), vacuum distillation, storage tanks steam production plant, and quality control labs

PUBLICATIONS

A. SCIE/Scopus Journal Papers

Summary of my published papers

Total Number	1 st Author	Scopus Q1 & SCIE	Scopus Q2 & SCIE	Scopus Q3 & SCIE
58	42	43	10	4

[58] **Al-Saleh MH.**, and El-methaly HM., Influence of PLA/HDPE Ratio and CNT Content on the Morphology, Electrical, and EMI Shielding of CNT-filled PLA/HDPE Blends, Synthetic Metals, 2024, 304, 117592.

[57] **Al-Saleh MH.**, and Al-Sharman MM., Influence of Carbon Nanofiller Geometry on EMI Shielding and Electrical Percolation Behaviors of Polymer Composites, Synthetic Metals, 2023, 294, 117314.

[56] **Al-Saleh MH.**, Towards a Cost-Effective Carbon Nanofillers-Based Composites for EMI Shielding Applications, Synthetic Metals, 2023, 293, 117271.

- [55] **Al-Saleh MH**, Al-Shboul TM. CNT-Filled PLA/PCL Biodegradable Blends: Effect of the PCL Viscosity and CNT addition on the Microstructure, Electrical and Mechanical Properties, *Journal of Thermoplastic Composite Materials*, 2023, 36, 3485-3498.
- [54] **Al-Saleh MH.**, Influence of Carbon Nanotubes Purity on the Properties of Carbon Nanotubes/Low Density Polyethylene Composites, *Journal of Macromolecular Science, Part B.*, 2022, 61, 611-621.
- [53] **Al-Saleh MH.**, and Al-Sharman MM., Influence of graphene nanoplatelets geometrical characteristics on the properties of polylactic acid composites, *Diamond and Related Materials*, 2022, (126) 109092.
- [52] **Al-Saleh MH.**, Valliyengal MS., Mousa N., and Ruksar M., Effect of Polyethylene Structure on the Properties of Carbon Nanotube/Polyethylene Composites, *Journal of Macromolecular Science, Part B.*, 2022, 61, 298-308.
- [51] **Al-Saleh MH.** Influence of polymer structure on the electrical resistivity of nanocomposite materials, *Synthetic Metals*, 2020, 265, 116409.
- [50] **Al-Saleh MH.** Measuring Surface Energy of Carbon Nanotubes Using Modified Washburn Method, *Materials Research Express*, 2019, 6 (11), 115088.
- [49] **Al-Saleh MH.** Synergistic effect of CNT/CB hybrid mixture on the electrical properties of conductive composites, *Materials Research Express*, 2019, 6 (6), 065011.
- [48] **Al-Saleh MH.** Carbon-based polymer nanocomposites as dielectric energy storage materials. *Nanotechnology*, 2019, 30 (6), 062001.
- [47] Irshidat MR, **Al-Saleh MH.** Influence of nanoclay on the properties and morphology of cement mortar. *KSCE Journal of Civil Engineering*, 2018, 22 (10), 4056–4063.
- [46] Abdelal NR, **Al-Saleh MH**, Irshidat MR, Utilizing vacuum bagging process to prepare carbon fiber/CNT-modified-epoxy composites with improved mechanical properties. *Polymer-Plastics Technology and Engineering*, 2018, 57(3), 175-184.
- [45] Irshidat MR, **Al-Saleh MH.** Thermal Performance and Fire Resistance of Nanoclay Modified Cementitious Materials. *Construction and Building Materials*, 2018, 159, 213-219.
- [44] Aljarrah MT, **Al-Saleh MH**, Al-Harashsheh M, Fabrication and dielectric characterization of barium hexaferrite/UHMWPE composite for energy storage applications, *Physica B: Condensed Matter*. 523 (2017) 45–51.
- [43] **Al-Saleh MH.** Clay/carbon nanotube hybrid mixture to reduce the electrical percolation threshold of polymer nanocomposites. *Composites Science and Technology*, 2017, 149, 34-40.
- [42] Irshidat MR, **Al-Saleh MH.** Flexural strength recovery of heat-damaged RC beams using carbon nanotubes modified CFRP. *Construction and Building Materials*, 2017, 145, 474-482.
- [41] Irshidat MR, **Al-Saleh MH.** Repair of heat-damaged RC columns using carbon nanotubes modified CFRP. *Materials and Structures*, 2017, 50, 162.
- [40] **Al-Saleh MH.** Electrical, EMI shielding and Tensile Properties of PP/PE Blends Filled with GNP:CNT Hybrid Nanofiller. *Synthetic Metals*, 2016, 217, 322-330.
- [39] **Al-Saleh MH**, Abdul-Jawad S, Graphene Nanoplatelets/Polystyrene Nanocomposite: Dielectric and Charge Storage Behaviors, *Journal of Electronic Materials*, 2016, 45 (7), 3532-3539.

- [38] **Al-Saleh MH**, Irshidat MR. Effect of Viscosity Reducing Agent on the Properties of CNT/Epoxy Nanocomposites. *Journal of Polymer Engineering*, 2016, 36 (4), 407-412.
- [37] **Al-Saleh MH**, Electrical and Electromagnetic Interference Shielding Characteristics of GNP/UHMWPE Composites, *Journal of Physics D: Applied Physics*, 2016, 49 (19), 195302-195308.
- [36] **Al-Saleh MH**, Carbon nanotube-filled polypropylene/polyethylene blends: compatibilization and electrical properties, *Polymer Bulletin*, 2016, 73 (4), 975-987.
- [35] Irshidat MR, **Al-Saleh MH**. Effect of using carbon nanotube modified epoxy on bond-slip behavior between concrete and FRP sheets. *Construction and Building Materials*, 2016, 105:511-518.
- [34] Irshidat MR, **Al-Saleh MH**, Almashagbeh H. Effect of carbon nanotubes on strengthening of RC beams retrofitted with carbon fiber/epoxy composites, *Materials and Design*, 2016, 89: 225-234.
- [33] **Al-Saleh MH**, Al-Saidi BA, Al-Zoubi RM. Experimental and Theoretical Analysis of the Mechanical and Thermal Properties of Carbon Nanotube/Acrylonitrile-Styrene-Butadiene Nanocomposites, *Polymer*, 2016, 89, 12-17.
- [32] Irshidat MR, **Al-Saleh MH**, Al-Shoubaki M. Using carbon nanotubes to improve strengthening efficiency of carbon fiber/epoxy composites confined RC columns, *Composite Structures* 2015, 134: 523-532.
- [31] **Al-Saleh MH**. Electrically Conductive Carbon Nanotube/Polypropylene Nanocomposite with Improved Mechanical Properties. *Materials and Design* 2015;85:76–81.
- [30] Irshidat MR, **Al-Saleh MH**, Sura Sanad. Effect Of Nanoclay On The Expansive Potential Of Cement Mortar Due To Alkali-Silica Reaction, *ACI Materials*, 2015, 112, 801-808.
- [29] **Al-Saleh MH**. Electrical and mechanical properties of graphene/carbon nanotube hybrid nanocomposites. *Synthetic Metals* 2015;209:41–6.
- [28] **Al-Saleh MH**. Effect of Clay Addition on the Properties of Carbon Nanotube-Filled Immiscible Polyethylene/Polypropylene Blends, *Journal of Macromolecular Science, Part B: Physics*, 2015, 54(10), 1259-1266.
- [27] **Al-Saleh MH**, Effect of Processing Conditions on the Dispersion, Electrical and Mechanical Properties of Carbon Nanotube/Polypropylene Nanocomposites, *Journal of Reinforced Plastics and Composites*, 2015, 34, 742-749.
- [26] **Al-Saleh MH**, Influence of conductive network structure on the EMI shielding and electrical percolation of carbon nanotube/polymer nanocomposites. *Synthetic Metals*, 2015, 205, 78-84.
- [25] Hussain YA, **Al-Saleh MH**, A viscoelastic-based model for TFC membranes flux reduction during compaction. *Desalination* 2014, 344, 362-370.
- [24] El-Ghanem HM, Abdul-Jawad S, **Al-Saleh MH**, Hussain YA, Abu-Surrah AS, Electrical Impedance Spectroscopic Study of CNT/Ethylene-alt-CO/Propylene-alt-CO Polyketones Nanocomposite, *Journal of Macromolecular Science, Part B: Physics*, 2014, 53, 878-892.
- [23] **Al-Saleh MH**, Abdul-Jawad S, El-Ghanem HM, Electrical and Dielectric Behaviors of Dry-Mixed CNT/UHMWPE Nanocomposites. *High Performance Polymers*, 2014, 26, 205-211.
- [22] Hussain YA, **Al-Saleh MH**, Ar-Ratrout SS, The Effect of Active Layer Non-Uniformity on the Flux and Compaction of TFC Membranes. *Desalination* 2013, 328, 17-23.
- [21] **Al-Saleh MH**, Al-Anid HK, Hussain YA, El-Ghanem HM, Abdul-Jawad S, Impedance characteristics and conductivity of CNT/ABS nanocomposites. *Journal of Physics D: Applied Physics*, 2013, 46, 385305 (pp 8).

- [20] **Al-Saleh MH**, Saadeh W. Hybrids of conductive polymer nanocomposites, *Materials & Design*, 2013, 52, 1071-1076.
- [19] **Al-Saleh MH**, Al-Anid HK, Hussain YA. Electrical double percolation and carbon nanotubes distribution in solution processed immiscible polymer blend. *Synthetic Metals*, 2013, 175, 75–80.
- [18] **Al-Saleh MH**, Gelves GA, Sundararaj U. Carbon nanofiber/polyethylene nanocomposite: Processing behavior, microstructure and electrical properties. *Materials & Design*, 2013, 52, 128–133.
- [17] **Al-Saleh MH**, Saadeh W, Sundararaj U. EMI Shielding Effectiveness of Carbon Based Nanostructured Polymeric Materials: A Comparative Study, *Carbon*, 2013, 60, 146-156.
- [16] El Ghanem HM, Jawad SA, **Al-Saleh MH**, Hussain YA, Salah W. Effect of dc-bias on the dielectric behavior of CNT/ABS nanocomposites. *Physica B: Condensed Matter*, 2013, 41-46.
- [15] **Al-Saleh MH**, Sundararaj U. X-band EMI shielding mechanisms and shielding effectiveness of high structure carbon black/polypropylene composites, *Journal of Physics D: Applied Physics*, 2013, 46, 0353040 (pp7).
- [14] **Al-Saleh MH**, Sundararaj U. Morphological, electrical and electromagnetic interference shielding characterization of VGCFN/PS Nanocomposites, *Polymer International*, 2013, 62, 601-607.
- [13] **Al-Saleh MH**, Al-Anid HK, Hussain YA. CNT/ABS Nanocomposites by Solution Processing: Proper Dispersion and Selective Localization for Low Percolation Threshold, *Composite Part A*, 2013, 46, 53-59
- [12] **Al-Saleh MH**, Sundararaj U. Electrical and Electromagnetic Interference Shielding Characteristics of CNT/ABS Nanocomposites, *Journal of Polymer Science: Polymer Physics*, 2012, 50, 1356-1362
- [11] **Al-Saleh MH**, Sundararaj U. Review of the mechanical properties of carbon nanofiber/polymer composite, *Composite Part A.*, 2011, 42(12), 2126-2142
- [10] Gelves GA, **Al-Saleh MH**, Sundararaj U. Highly Electrically Conductive Polymer Nanocomposites using Segregated Cell-like Copper Nanowire Networks, *Journal of Materials Chemistry*, 2011, 21(3), 829-836
- [9] **Al-Saleh MH**, Gelves GA, Sundararaj U. Copper Nanowire/Polystyrene Nanocomposites: Lower Percolation Threshold and Higher EMI Shielding. *Composite Part A*. 2011, 42(1), 92-7
- [8] **Al-Saleh MH**, Sundararaj U. Electrically conductive carbon nanofiber/polyethylene composite: effect of melt mixing conditions. *Polymers for Advanced Technologies*. 2011, 22(2), 246-253.
- [7] **Al-Saleh MH**, Sundararaj U. Processing-microstructure-property relationship in conductive polymer nanocomposites. *Polymer*. 2010;51(12):2740-7.
- [6] **Al-Saleh MH**, Sundararaj U. Electromagnetic interference shielding mechanisms of CNT/polymer composites. *Carbon*. 2009;47(7):1738-46.
- [5] **Al-Saleh MH**, Sundararaj U. A review of vapor grown carbon nanofiber/polymer conductive composites. *Carbon*. 2009;47(1):2-22.
- [4] **Al-Saleh MH**, Sundararaj U. Mechanical properties of carbon black filled polypropylene/polystyrene blends containing styrene-butadiene-styrene copolymer. *Polymer Engineering and Science*. 2009;49(4):693-702.

[3] **Al-Saleh MH**, Sundararaj U. Nanostructured CB Filled Polypropylene/Polystyrene Blends Containing Styrene-Butadiene-Styrene Copolymer: Influence of Morphology on Electrical Resistivity. *European Polymer Journal*. 2008;44(7):1931-9.

[2] **Al-Saleh MH**, Sundararaj U. Electromagnetic interference (EMI) shielding effectiveness of PP/PS polymer blends containing high structure carbon black *Macromolecular Materials and Engineering*. 2008;293(7):621-30.

[1] **Al-Saleh MH**, Sundararaj U. An innovative method to reduce percolation threshold of carbon black filled immiscible polymer blends. *Composites Part A*. 2008;39(2):284-93.

B. Refereed Conference Papers

[4] Irshidat MR, **Al-Saleh MH**, Al-Shoubaki M. Strengthening RC Columns Using Carbon Fiber Reinforced Epoxy Composites Modified with Carbon Nanotubes. *Int J Civ Archit Struct Constr Eng* 2015;9:19–22.

[3] **Al-Saleh MH**, Sundararaj U. Carbon Nanofiber/Polyethylene Nanocomposites for ESD and EMI applications. *Society of Plastics Engineers Annual Technical Conference - ANTEC*. Orlando-Florida, USA, 2012:pp.403-407

[2] **Al-Saleh MH**, Gelves GA, Sundararaj U. Novel Metal Nanowire/Polymer Nano- composites for Electromagnetic Interference Shielding. In: Laudon M, Romanowicz B, eds. *Nanotech Conference & Expo 2009, Vol 2, Technical Proceedings - Nanotechnology: Life Sciences, Medicine, Diagnostics, Bio Materials and Composites* 2009:505-508.

[1] **Al-Saleh MH**, Sundararaj U. Effect of Shear Mixing Conditions on EMI Shielding Effectiveness and Electrical Properties of VGCF Filled Thermoplastic. *Society of Plastics Engineers Annual Technical Conference - ANTEC*. Milwaukee, WI, USA 2008:34-38.

C. Patents

[1] *Nanomaterial Composites and Methods of Making*. 2010: USA. p. 61/148,554. Inventors: U. Sundararaj, G.A. Gelves, **M.H. Al-Saleh**

D. Non-Refereed Confidential Reports

1. **Al-Saleh, M.H.**, *Reduce Calcium Carbonate Fouling in FlexiCoker Heater Overhead System*. 2003, ExxonMobil, Rotterdam-The Netherlands and Process development school, University of Twente. p. 111.

2. **Al-Saleh, M.H.** and S. Anjan, *Technical and Economic Feasibility Study for Propylene Production via the Oxidative Dehydrogenation Technology*. 2002, Process development school, University of Twente: Enschede- The Netherlands. p. 356.

3. Kiewiet, B., K. Koop, and **M.H. Al-Saleh**, *Cellulose Diacetate Production from Waste Biomass Sources in the Netherlands*. 2001, Procede Twente BV: Enschede – The Netherlands. p. 37.

E. Internal Reports

1. **Al-Saleh, M.H.** and A. Roux, *Non-Isothermal Tubular Reactor for Liquid Phase Polymerization of polypropylene: A Literature Study on the Modeling of Backmixing*. 2003, Process development school – University of Twente: Enschede – The Netherlands. p. 51.

2. **Al-Saleh, M.H.** and M. Chernyshov, *Developing a ChemSep Model to Separate Xylenes From n-Octane*. 2003, Process development school library – University of Twente: Enschede – The Netherlands. p. 28.

3. **Al-Saleh, M.H.** and M. Al-Halabi, *Evaluating the Performance of a Co-current Tray Column Using Various Degrees of Complexity of the Flux Model*. 2003, Process development school library – University of Twente: Enschede – The Netherlands. p. 23.
4. **Al-Saleh, M.H.** and S. Anjan, *Catalyst Selection for Paraffins Oxidative Dehydrogenation*. 2002, Process development school, University of Twente Enschede – The Netherlands. p. 32.
5. **Al-Saleh, M.H.**, *Adsorption Characteristics of Chelated Cadmium*. 2001, Jordan University of Science and Technology, Irbid-Jordan.

PRESENTATIONS AND CONFERENCE ABSTRACTS

1. **Al-Saleh, M.H. (Speaker)**, Nanotechnology: An Overview, Tedx_JU, 2015, Amman-Jordan
2. **Al-Saleh, M.H. (Speaker)**, Nanotechnology: The Future Technology, University of Philadelphia, 2015-Jordan
3. **Al-Saleh, M.H. (Speaker)**, Nanotechnology and Scientific Research, Joint Egyptian-Jordanian Workshop on Technical Research and Collaboration, 2014, Amman-Jordan
4. **Al-Saleh, M.H. (Speaker)**, CNT/UHMWPE Nanocomposites for EMI shielding Applications, TechConnect World 2014, 2014, Washington DC, USA
5. **Al-Saleh, M.H. (Speaker)**, Haya K. Al-anid, Yazan A. Hussain, Microstructure and Electrical Properties of CNT filled PC/PS Blend, Third International Conference on Multifunctional, Hybrid and Nanomaterials, 2013, Sorrento- Italy.
6. **Al-Saleh, M.H. (Speaker)** and U. Sundararaj, Carbon Nanofiber/Polyethylene Nanocomposites for ESD and EMI applications, ANTEC Annual Technical Conference (April 2-4, 2012), Orlando-Florida, USA
7. **Al-Saleh, M.H. (Speaker)** and U. Sundararaj, Processing-microstructure-property relationship in conductive polymer composites, PPS-26 meeting, Banff-Alberta, Canada, July 4-8, 2010.
8. Gelves GA (Speaker), **Al-Saleh MH**, Sundararaj U. Novel Segregated Network Electrically Conductive Polymeric Nanocomposites using Metal Nanowires, Proceedings of the Polymer Processing Society 26th Annual Meeting (PPS-26), Banff, Alberta –Canada, July 4-8, 2010. p.5.
9. Sundararaj, U., **M.H. Al-Saleh (Speaker)** and G.A. Gelves, Novel Metal Nanowire- Polymer Nanocomposites for ESD and EMI applications, 58th Canadian Chemical Engineering Conference (October 19-22, 2008), Ottawa-Ontario, Canada.
10. **Al-Saleh MH**, Sundararaj U (Speaker) . An Innovative Method to Reduce Percolation Threshold of Carbon Black Filled Immiscible Polymer Blends, Proceedings of the Polymer Processing Society 24th Annual Meeting (PPS-24), Salerno –Italy, June 15-19, 2008. p.1. (Extended Abstract]
11. **Al-Saleh, M.H. (Speaker)** and U. Sundararaj, Influence of Processing Conditions on the Electrical Properties of VGCNF/PE Nanocomposites, 4th GSA symposium (May 27, 2008), Edmonton-Alberta, Canada
12. **Al-Saleh, M.H. (Speaker)** and U. Sundararaj, VGCNF/polymer Nanocomposites, ANTEC Annual Technical Conference (May 4-8, 2008), Milwaukee-Wisconsin, USA

13. **Al-Saleh, M.H. (Speaker)** and U. Sundararaj, Selective localization of carbon black at the interface of immiscible polymer blends, 57th Canadian Chemical Engineering Conference (October 28-31, 2007), Edmonton-Alberta, Canada
14. **Al-Saleh, M.H. (Speaker)** and U. Sundararaj, Selective Localization of Carbon Black at the Interface of Immiscible Polymer Blends, 3rd GSA symposium, (May 29, 2008), Edmonton-Alberta, Canada

HONORS AND AWARDS

- Stanford University Top 2% Scientists 2020-Now
- UAEU Publication in Top 5% Journals award 2019
- PhD scholarship, University of Alberta, 2005- 2008.
- Mary Louise Imrie Graduate Student Award, University of Alberta, 2008
- Professional Development Grants, GSA-University of Alberta, 2008
- Captain Thomas Farrell Greenhalgh Memorial Scholarship, University of Alberta, 2007.
- University of Alberta Merit-based Bursary, University of Alberta – Canada, 2006.
- Graduate Intern Tuition Supplements (GITS), University of Alberta - Canada, 2005.
- TwAIO Scholarship, University of Twente – The Netherlands, 2001-2003.
- Ministry of Higher Education Award, Amman – Jordan, 1999/2000.
- Faculty of Engineering Honor List, JUST, Irbid– Jordan, 1997-1999
- Jordan University of Science and Technology Award, 1999.

TRAINING AND WORKSHOPS

July 2012	Statistical Package for Social Sciences Academic Development Centre –JUST, Irbid – Jordan
Feb. 2012	Teaching Evaluation Academic Development Centre –JUST, Irbid – Jordan
2006-2007	University of Alberta Teaching and Learning Program University of Alberta, Edmonton-AB, Canada
Feb. 2006	E-tools for teaching and learning: A form to explore the art of the possible Faculty of Engineering workshop, University of Alberta, Edmonton-AB, Canada
Feb. 2005	Engineering Ethics and Integrity University of Alberta, Edmonton, Alberta – Canada
June 2003	Project Management Novitijd Training and Consultancy, The Netherlands
June 2002	Practitioner in Structured Innovation and Theory of Inventive Problem Solving (TRIZ) The InBITween bv and The European TRIZ Association, The Netherlands
Dec. 2001	Scale-Up of Multiphase Reactors OSPT, University of Twente – The Netherlands

PROFESSIONAL AFFILIATIONS

- Society of Plastics Engineers (SPE)
- Polymers Processing Society (PPS)
- Canadian Society for Chemical Engineering (CSCHE)
- The Chemical Institute of Canada (CIC)
- Jordan Engineers Association

SCIENTIFIC INTERNATIONAL VISITS

- Dow Company in Benelux, Terneuzen – The Netherlands
- Dow Hellas S. A., Thoriko, Lavrion – Greece
- Asprofos Engineering, Athens – Greece
- Alexandria Carbon Black Company, Alexandria – Egypt

- The Egyptian Cement Company, Agouza, Cairo – Egypt
- Shell Marketing Egypt Ltd, Maadi, Cairo – Egypt
- The Egyptian Financial and Industrial Company, Kafr El Zayat – Egypt
- Shell Global Solutions International BV, The Hague – The Netherlands

MODELING AND SIMULATION SKILLS

- Excellent user of ASPEN Plus, ChemSep and MATLAB

REVIEWER

A. International Journals

- ACS Applied Materials & Interfaces
- ACS Applied Nano Materials
- ACS Sustainable Chemistry & Engineering
- Applied Physics A
- Arabian Journal for Science and Engineering
- BioResources
- Carbon
- Composite Part A: Applied Science and Manufacturing
- Composites Part B: Engineering
- Composites Science and Technology
- Express Polymer Letters
- Industrial & Engineering Chemistry Research
- Iranian Polymer Journal
- Journal of Alloys and Compounds
- Journal of Applied Polymer Science
- Journal of Electronic Materials
- Journal of Polymer Engineering
- Journal of Polymer Science Part B: Polymer Physics
- Journal of Nanomaterials
- Journal of Reinforced Plastics and Composites
- Journal of Vinyl and Additive Technology
- Materials and Design
- Materials Chemistry and Physics
- Materials Research
- Materials Research Express
- Nano Convergence
- Nanotechnology
- Polymer Bulletin
- Polymer Composites
- Polymer Engineering and Science
- Polymer International
- Physical Chemistry Chemical Physics
- Results in Materials
- Synthetic Metals

B. Books

- **Characterization of Polymer Blends: Volume 1 & Volume II**, Eds: Sabu Thomas, Yves Grohens and Jyotishkumar P, John Wiley & Sons Ltd.

C. Proposals

- **Funding Agency:** Scientific research support fund (SRSF), Ministry of Higher Education, Amman – Jordan.

RESEARCH GRANTS

- | | |
|-----------------------|--|
| Jan. 2011-Jan. 2013 | <p>Electrostatic Charge Dissipative Conductive Polymer Nanocomposites
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 16800 JD = 24000 USD
 Team: Al-Saleh MH (PI) and Yazan A. Hussain (Co-PI)</p> |
| Nov. 2011-Nov. 2014 | <p>Conductive Polymer Nanocomposites For Electromagnetic Interference Shielding Applications
 Funding Agency: Scientific Research Support Fund, Jordan
 Amount of Fund: 74504 JD = 105,200 USD : Team: Al-Saleh MH (PI)</p> |
| Jan. 2011-July.2013 | <p>Effect of surface modifications on commercial and laboratory synthesized membranes for water treatment applications
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 15500 JD = 22000 USD
 Team: Yazan A. Hussain (PI) and Al-Saleh MH (Co-PI)</p> |
| Dec. 2012 – Dec. 2013 | <p>Influence of nanofilaments on the mechanical properties, workability, and durability of cement-based materials
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 5500 JD = 7850 USD
 Team: Mohammed Irshidat (PI) and Al-Saleh MH (Co-PI)</p> |
| Feb. 2013-Feb. 2015 | <p>Strengthening, Repair, and Rehabilitation of New and Existing Reinforced Concrete Structures Using Nano Composites
 Funding Agency: Scientific Research Support Fund, Ministry of Higher Education – Jordan
 Amount of Fund: 59600 JD = 85100 USD
 Team: Mohammed Irshidat (PI) and Al-Saleh MH (Co-PI)</p> |
| Nov. 14 – May 16 | <p>Compatibilization of Immiscible Polymer Blends Using Nanofillers
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 4030 JD = 5760 USD
 Team: Al-Saleh MH (PI)</p> |
| April 15 – Oct. 16 | <p>Effect of Chemical Modifications on the Mechanical Properties of CNT/ABS nanocomposites
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 5275 JD = 7535 USD
 Team: Raed Al-Zoubi (PI) and Al-Saleh MH (Co-PI)</p> |
| Dec. 15 – June 17 | <p>Epoxy/Thermoplastic Blends Reinforced with Carbon Nanotubes
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 3950 JD = 5640 USD
 Team: Al-Saleh MH (PI), Nisrin Abdelal and Mohammed Irshidat</p> |
| Dec. 15 – June 17 | <p>Development of Asphalt Binder Mixtures Utilizing Nanomaterials
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 9000 JD = 12,860 USD</p> |

Team: Mohammad Azzam (PI) and **Al-Saleh MH (Co-PI)**

- Jan. 17 – Dec. 18 **Graphene Based Polymer Nanocomposite for Energy Storage Applications**
 Funding Agency: United Arab Emirates University
 Amount of Fund: 400,000 AED = 108,900 USD
 Team: **Al-Saleh MH (PI)**
- May 17 – March 18 **Carbon nanotube/Polyethylene composites: Influence of polyethylene structure**
 Funding Agency: United Arab Emirates University
 Amount of Fund: 65,000 AED = 17,700 USD
 Team: **Al-Saleh MH (PI)**
- Nov. 19 – Nov. 23 **Biodegradable Nanostructured Polymeric Materials**
 Funding Agency: Deanship of Scientific Research – JUST
 Amount of Fund: 9250 JD = 13200 USD
 Team: **Al-Saleh MH (PI)**

SUPERVISED MSc STUDENTS

1. Haya Al-Anid (Feb. 2010- March 2012)
 Thesis Title: Thermodynamic Selective Localization of CNT in immiscible Polymer Blends
2. Walaa Saadeh (Sept. 2010 – June 2013)
 Thesis Title: Conductive Polymer Nanocomposites for Electromagnetic Interference Shielding Applications
3. Sora Homod (Sept. 2011-June 2014) [Co-Supervisor]
 Thesis Title: Expansive potential of hydrophilic nanoclay reinforced cement mortar due to sulfate attack and alkali-silica reaction
4. Mahmoud A. Al-Shoubaki (Sept. 11 – Jan. 15) [Co-Supervisor]
 Strengthening of Reinforced Concrete Columns Using Nanocomposites Reinforced with Carbon Fiber Sheets
5. Hashem Almashagbeh (Sept. 12 – Jan. 15) [Co-Supervisor]
 Strengthening of Reinforced Concrete Beams Using Nanocomposites Reinforced with Carbon Fiber Sheets
6. Bader Al-Saidi (Sept. 2012-June 2015) [Co-Supervisor]
 Thesis Title: Mechanical Properties of Functionalized Carbon Nanotube/Acrylonitrile-Butadiene-Styrene Nanocomposite
7. Tamir Alshboul (Sept. 2019 -March 2021) [Supervisor]
 Thesis Title: Effect of viscosity ratio and carbon nanotubes addition on the properties of polylactic acid/polycaprolactone blends.
8. Mohammad Alshorman (Sept. 2019 – 2022) [Supervisor]
 Thesis Title: Fabrication and Characterization of Graphene/Polylactic Acid Nanocomposites
9. Hiba Malas (January 2020 - 2024) [Supervisor]
 Thesis Title: Influence of Carbon Nanotubes Migration on the Properties of Polylactic Acid/Polyethylene Immiscible Polymer Blends.

10. Hamdah El-methaly (September 2020 - 2024) [Supervisor]
Thesis Title: Influence of Carbon Nanotubes on the Microstructure and Properties of Polylactic Acid/High-Density Polyethylene Blends
11. Rahaf Allan (October 2021-Now)
Thesis Title: Influence of Carbon Fiber/Carbon Nanotubes Mixture on the Properties of Polypropylene Composites
12. Deema Alzoubi (September 2022 – Now)
Thesis Title: Influence of Stainless-steel fiber / Carbon Nanotubes Mixture on the Properties of Polypropylene Composites

PROFESSIONAL SERVICES

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|-----------|--|
| 2019 | Head of ABET Committee, Department of Chemical Engineering - JUST
Member of Faculty of Engineering ABET Committee |
| 2017-2018 | Member, CAA accreditation committee |
| 2016 | Academic Research Workshop for New Faculty Members <ul style="list-style-type: none"> • Research at JUST • Local, regional and international academic funding agencies • Proposal writing • How to get published • New research tools |
| 2016 | Supervisor and Research Project Selection (For Graduate Students at JUST)
Academic Development Center, JUST |
| 2012 | Technical Program Chair (Nanotechnology and its Applications Session)
Sixth Jordanian International Chemical Engineering Conference
Amman – Jordan |
| 2012 | Medical Waste Disposal Committee
JUST, Irbid –Jordan |
| 2011 | Nanotechnology MSc program Committee
JUST, Irbid – Jordan. |

