

## Resume

**Name:** Mayyadah S. Abed

**Birth Date:** 05/March/1982

**Job Address:**

Full Professor Doctor Engineer

Ph.D. in Materials Engineering

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**Academy for:** 20 Years.

**Nationality:** Iraqi

**Languages:** Mother Language: Arabic

Second Languages: English & few Turkish

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Publons Page: <https://publons.com/wos-op/researcher/W-9993-2019/>

Web of Science ResearcherID: W-9993-2019



Dr. Mayyadah S. Abed, born in Iraq, is a distinguished Professor of Materials Engineering at the University of Technology-Iraq (2024). She earned her B.Sc. (2004) and M.Sc. (2008) from the same university. She began her Ph.D. in Materials Engineering there (2009), completing nanotechnology research at the University of Missouri-Columbia, USA (2012-2014). Dr. Abed specializes in nanotechnology, green synthesis, and composite materials, publishing extensively in her field.

## **Qualification:**

- Ph.D. Nanomaterials and Nanotechnology/Materials Engineering/ University of Technology / Baghdad-Iraq (2014). Research scholar to University of Missouri –Columbia, USA (2012-2013). PhD thesis (Preparation and Characterization of Carbon Nanotubes Composite)
- M.Sc. Rubber Nano Composite/ Materials Engineering /University of Technology/Baghdad-Iraq (2008). MSc. Thesis (Improving the Properties of the Tire Tread by Adding SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>)
- B.Sc. Materials Engineering / University of Technology/ Baghdad-Iraq (2004).

## **Job History:**

1. Assistant Professor at Department of Materials Engineering/ University of Technology/Baghdad-Iraq (2019 to 2024).
2. Lecturer Doctor at Department of Materials Engineering/ University of Technology/Baghdad-Iraq (2014).
3. Vacation (2015-2017) in Turkey.
4. Asst. Lec. at Department of Materials Engineering/ University of Technology/Baghdad-Iraq (2011-2014).
5. Asst. Lec. at Department of Materials Engineering and Nanotechnology and Advanced Materials Researches Center/University of Technology/ Baghdad-Iraq (2008-2011).
6. Researcher at Environmental Researches Center/ University of Technology/ Baghdad – Iraq (2005-2008).

## **Undergraduate Teaching Courses:**

1. Nanotechnology (for M.Sc. Materials Eng.)
2. Phase Transformations (for M.Sc. Materials Eng.)
3. Theoretical course/ Mathematics (2<sup>nd</sup> grade Materials Eng.)
4. Theoretical course/Nanomaterials and Nanotechnology (3<sup>rd</sup> grade/Eng. Material Department/ ceramic and building materials branches, Polymer Branch and general materials Branch.
5. Theoretical course/ Composite Materials (4<sup>th</sup> grade/general materials engineering Dept.)
6. Laboratories (Rubber lab./ materials inspection lab./ nanotechnology lab.)

### **Published papers:**

1. Modification of Glass Fiber/Epoxy Composites by Polyvinyl Alcohol (PVA) Electrospun Nanofibers, SA Abdulrahman, AA Mohammed, MS Abed, *Annales de Chimie. Science des Materiaux* 48 (6), 805, 2024  
<https://doi.org/10.18280/acsm.480606>
2. Green synthesis of nano silver-modified date syrup 3D graphene for adsorptive removal of heavy metals from wastewater and its antibacterial efficiency, AH Alazzawi, MS Abed, BH Al-Tamimi, *Journal of Physics: Conference Series* 2857 (1), 012048  
<https://doi.org/10.1088/1742-6596/2857/1/012048>
3. Ballistic efficiency of hybrid multilayered body armor against 9 mm FMJ bullet,” S. S. Tomman, M. S. Abed, and P. S. Ahmed, *AIP Conf. Proc.* 3105, 060015 (2024).  
<https://doi.org/10.1063/5.0213040>
4. Innovations in prosthetic foot design enhancing durability, functionality and comfort through PLA composite filament 3D printing, Yousif, L.E., Abed, M.S., Al-Zubidi, A.B. and Resan, K.K. (2024), *Pigment & Resin Technology*, Vol. ahead-of-print No. ahead-of-print.  
<https://doi.org/10.1108/PRT-10-2023-0092>
5. Sodium Alginate Substrate Coated with PVA Nanosilver Composite Nanofibers for Skin Tissue Engineering, Ishraq Abd Ulrazzaq Kadhim, Alaa Sabeih Taeh, Mayyadah S. Abed, *Revue des Composites et des Matériaux Avancés-Journal of Composite and Advanced Materials*, Vol. 34, No. 3, June, 2024, pp. 305-313.  
<https://doi.org/10.18280/rcma.340305>
6. Acidic Influence on Geopolymerization: A Thorough Study Using HCl and Iraqi Kaolin. Jabar, T.A., Alzuhairi, M.A. & Abed, M.S., *Russ J Appl Chem* (2024).  
<https://doi.org/10.1134/S1070427224010105>
7. Microwave-assisted green synthesis of silver nanoparticles using turnip root (*Brassica rapa* subsp. *Rapa*) extract and their antibacterial efficacy, Ali H Alazzawi, Basma H Al-Tamimi, and Mayyadah S Abed, *Physica Scripta*, Volume 99, Number 5, 055308.  
<https://doi.org/10.1088/1402-4896/ad3a41>
8. Investigation of Roughness, Morphology, and Wettability Characteristics of Biopolymer Composite Coating on SS 316L for Biomedical Applications, Hanaa A. Al-Kaisy, Basma H. Al-Tamimi, Qahtan A. Hamad, and Mayyadah S. Abed, *International Journal of Biomaterials* Volume 2024, Article ID 5568047, 11 pages.

- <https://doi.org/10.1155/2024/5568047>
9. Utilizing Kaolin-Based Geopolymer Catalysts for Improved Doura Vacuum Residue, Tuqa A. Jabar, 1Mohammed A. Alzuhairi, Mayyadah S. Abed, Iraqi Journal of Oil & Gas Research, Vol. 04, No. 1 (2024).  
<http://doi.org/10.55699/ijogr.2024.0401.1061>
  10. Heavy metals in cosmetics and tattoos: a review of historical background, health impact, and regulatory limits, Mayyadah S. Abed, Ahmed A. Moos, Mohammed A. Alzuhairi, Journal of Hazardous Materials Advances, Volume 13, February 2024, 100390.  
<https://doi.org/10.1016/j.hazadv.2023.100390>
  11. Geopolymer bricks from Iraqi local ores, Rawnaq S. Mahdi; Hawraa Dhealdin; Mayyadah S. Abed; Aseel B. Al-Zubaidi, AIP Conf. Proc. 3018, 020030 (2023).  
<https://doi.org/10.1063/5.0171553>
  12. Influence of SiC nanoparticles addition on the microstructure and mechanical properties of stir-casted Zn-Al alloy, Niveen Jamal Abdulkader & Mayyadah Shanan Abed, International Journal of Cast Metals Research, Volume 36, 2023 - Issue 4-6.  
<https://doi.org/10.1080/13640461.2023.2260662>
  13. BALLISTIC IMPACT OF ALUMINA/WOVEN FABRIC-EPOXY/ALUMINUM HYBRID COMPOSITE AS BODY ARMOUR: EXPERIMENTAL AND SIMULATION. Ahmed, P.S., Abed, M.S. & Saleem, I.A., J Appl Mech Tech Phy 64, 555–563 (2023).  
<https://doi.org/10.1134/S0021894423040016>
  14. Production of Agro-waste cement Composites: Influence of nutshells on mechanical and hardened properties, Ahmed Tareq Noaman, Mayyadah S. Abed, Layth Al-Gebory, Aseel B. Al-Zubaidi, Ahmed A. Al-Tabbakh, Construction and Building Materials, Volume 394, 29 August 2023, 132137.  
<https://doi.org/10.1016/j.conbuildmat.2023.132137>
  15. From date syrup to three-dimensional graphene network, Mayyadah Abed, Basma Al-Tamimi and Ali Saloum, Published 14 July 2023 • 2023 IOP Publishing Ltd, Physica Scripta, Volume 98, Number 8.  
<https://doi.org/10.1088/1402-4896/ace3fe>
  16. Production of Agro-waste cement Composites: Influence of nutshells on mechanical and hardened properties, Construction and Building Materials, Elsevier, Volume Ahmed Tareq Noaman, Mayyadah S. Abed,

- Layth Al-Gebory, Aseel B. Al-Zubaidi, Ahmed A. Al-Tabbakh, 394, 2023,132137, ISSN 0950-0618, <https://doi.org/10.1016/j.conbuildmat.2023.132137>.
17. Morphology, rheology and mechanical properties of NR, NR/BR and NR nanocomposite, Journal of Engineering Science and Technology, Adil Nayeeif, Mayyadah Abed, Hayder Abdul Khaliq Ali, 17(5):3512-3525, 2022
  18. Synthesis a Novel Anti-Weathering nanocomposite Superhydrophobic RTV Silicon Rubber Enhanced with Nanosilica for Coating High Voltage Insulators, AF Jasim, MS Abed, KK Abbas, Turkish Journal of Chemistry 46 (3), 704-720, 2022
  19. Experimental and numerical investigation of drop weight impact of aramid and UHMWPE reinforced epoxy, MT Omar H. Hassoon\*, Mayyadah S. Abed, Jawad K. Oleiwi, Journal of the Mechanical Behavior of Materials (31), 71–82, 2022
  20. Synthesis of a novel antiweathering nanocomposite superhydrophobic room temperature vulcanized (RTV) silicon rubber enhanced with nanosilica for coating high voltage insulators, KK Abbas, MS Abed, AF Jasim, Turkish Journal of Chemistry 46 (3), 704-720, 2022
  21. Nanotechnology for Defence Applications (chapter 10), MS Abed, ZA Jawad: In Nanotechnology for Electronic Applications, 187-205, Springer Nature, 2022
  22. Reducing failure in power transition lines using a novel nano silica/silicone rubber hydrophobic coating of glass insulator, AF Jasim, MS Abed, KK Abbas, Materials Today: Proceedings 56, 2525-2531, 2022
  23. Experimental and numerical investigation of Kevlar and UHMWPE multi-layered armors against ballistic impact, IA Saleem, PS Ahmed, MS Abed, Materials Today: Proceedings 56, 2516-2524, 2022
  24. The Influence of Silica Nanoparticle-Based Modifying Agent on the Application of Hydrophobic Coatings, AF Jasim, MS Abed, KK Abbas Engineering and Technology Journal 39 (11), 1727-1733, 2021
  25. Numerical and Experimental Study of Hybrid Composite Body Armor, PSA Iftikhar A. Saleem, Mayyadah S. Abed, Engineering and Technology Journal 39 (11), 1681-1687, 2021
  26. The adding influence of natural nano powder to unsaturated polyester as a green composite for prosthetic socket application, QA Hamad, LA Khalaf, MS Abed, MN Al-Shroofy, AIP Conference Proceedings 2404 (1), 060001, 2021

27. Graphene preparation and graphite exfoliation, A MOOSA, M ABED, Turkish Journal of Chemistry 45, 493-519, 2021
28. Utilization of Palm Seeds Nano powder Reinforced Polyester as a Green Composite, QA Hamad, MN Al-Shroofy, MS Abed, Journal of Mechanical Engineering Research and Developments 44 (1), 242-253, 2021
29. Comparative Study of Transverse Vibration and Mechanical Properties of Aluminum, Al 7020 Alloy, and MWCNTs Reinforced Aluminum Nanocomposites, MS Abed, AA Nayeeif, HAK Ali, MM Jabbar, International Journal of Nanoelectronics and Materials, Volume 13, No. 3, July 2020 [509-522]
30. Production of polycarboxylate-ether superplasticizer (PCE) coated sand with modified hardened properties in cement mortar, AT Noaman, MS Abed, AAA Hamead, Construction and Building Materials, Elsevier, 245, 118442, 2020
31. Low velocity impact of Kevlar and ultra-high molecular weight polyethylene (UHMWPE) reinforced epoxy composites, MS Abed, PS Ahmed, JK Oleiwi, BM Fadhil, Multidiscipline Modeling in Materials and Structures 16 (6), 1617-1630, 2020
32. The Influence of Blending Different Molecular Weights of Cellulose Acetate Butyrate for CO<sub>2</sub>/N<sub>2</sub> Separation, DS Chong, ZA Jawad, PC Tan, MSA Al-Fatlawi, Journal of Physical Science 31 (2), 2020
33. Response of Viscous Damping of Dashpot Containing Hybrid Nanofluid, HA Ali, MS Abed, AA Nayeeif, Journal of Advanced Research in Fluid Mechanics and Thermal Sciences 67 (1), 2020
34. Employing recycling materials for the fabrication of smart mortar, AAA Hamead, SS Ahmed, SRA Azzat, MS Abed, GK Hammod, Materials Today: Proceedings 20, 397-402, 2020
35. INVESTIGATION OF THYME AND PUMPKIN NANOPOWDERS REINFORCED EPOXY MATRIX COMPOSITES, QA Hamad, MS Abed, Journal of Mechanical Engineering Research and Developments, 153-157, 2019
36. Green Synthesis of Silver Nanoparticles from Natural Compounds: Glucose, Eugenol and Thymol, MS Abed, AS Abed, FM Othman, Journal of Advanced Research in Fluid Mechanics and Thermal Sciences, 60(1), 95–111, 2019
37. Preparation of graphene nanoribbons (GNRs) from twisted structure carbon nanotubes using unzipping technique, MS Abed, IOP Conference Series: Materials Science and Engineering 454 (1), 012159, 2018

38. Study the tensile characteristics of elastomer composites reinforced with alumina and precipitated silica particles, JK Oleiwi, MS Hamza, MS Abed, Eng Tech J 33, 1079-94, 2015
39. Different Shapes of Carbon Nanotubes via Water Assisted Chemical Vapor Deposition, KK Al-Khazraji, AH Ataiwi, MSA Al-Fatlawi, Engineering and Technology Journal 33 (2), 2015
40. Preparation and Characterization of Carbon Nanotubes Composite, Mayyadah Shanan Abed, University of Technology Ph.D. thesis, 2014
41. Improving the properties of the tire tread by adding SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> to SBR rubber, JK Oleiwi, MS Hamza, MS Abed, International Journal of Applied Engineering Research 5 (9), 1637-1652, 2010
42. A study of the hardness and wear rate of elastomer composites reinforced by Al<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub> particles, JK Oleiwi, MS Hamza, MS Abed, Engineering and Technology Journal 27 (7), 1423-1434, 2009
43. Improving the Properties of the Tire Tread by Adding SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> to SBR and NR Rubbers, MS Abed, University of Technology M.Sc. Thesis, 2008

#### **Patent:**

Dr. Jawad K. Oleiwi, Dr. Mohammed S. Hamza and Dr. Mayyadah S. Abed, "Novel Recipe to Develop the Performance of Tire Tread by Adding Fine Ceramics Powder", patent No. 4457, Central Organization for standardization and Quality control-Baghdad, (2016).

#### **Conferences and Seminars:**

1. Numerous participations as a researcher in international conference and seminars 2009-present.
2. Speaker in scientific symposium, Esraa university, "Engineering Materials and their Applications in the Medical Field", 2019.
3. Speaker in scientific symposium, University of technology, "The role of Materials Engineer in Nanotechnology", 2019.
4. IOP Conference Series: Materials Science and Engineering, Baghdad, 2019.

5. Participation in workshop on Intellectual Property and Patent Cooperation Treaty 28 February 2019, held by International Federation of Inventory Association, Iraqi Inventors and innovators Society IRAQ-III, and Alkitab University, International Palestine Hotel, Bagdad-Iraq.
6. Participation in workshop on "Successful Women Chemistry", 24/12/2018, held by Al-Nahrain University, International Bagdad-Iraq.
7. IOP Conference Series: Materials Science and Engineering, Istanbul, 2018.
8. Speaker in scientific Symposium/ Engineering college/Al-Nahrain Feb. (2015).
9. Publishing research; 1<sup>st</sup> International Conference on Laser Application and Advanced Materials, University of Technology, Baghdad-Iraq, 16-18/ Dec. (2014).
10. Seminar about Research Scholarship to University of Missouri MU/United State of America, under Topic (Preparation and Characterization of Carbon Nanotubes for Wind Turbine Coating), (2013).
11. Preparing committee member: Nanotechnology, Advanced Materials and Their Applications, first scientific conference, University of Technology, SCNAMA, 13-15 October (2009).
12. Preparing committee member: Nanotechnology Symposium, Nanotechnology and Advanced Materials Unit, University of technology UoT, Bagdad, Iraq, December (2008).

### **Honor and Awards:**

1. International medal and certificate for the second winner in International Scientific Competition for Professors and Researchers-IRAQ which held by Everest Organization Development Training/NGO with partnership GLOBAL STUDIES, 2019.
2. International certificate for the outstanding performance in Event (International Scientific Competition for Professors and Researchers-IRAQ) which held by Everest Organization Development Training/NGO with partnership GLOBAL STUDIES, 2019.



- 3.** Four Acknowledgements from the Dean of Department of Materials Engineering, University of Technology-Iraq (2018-2019)
- 4.** American chemical society-Iraq chapter (ACS) medal due to participation in workshop on "Successful Women Chemistry", 24/12/2018, held by Al-Nahrain University, International Bagdad-Iraq.
- 5.** Four Professional Development Attendance Badges due to participation in Teacher Development Series which held online by American Embassies in over all the world (20018-2019).
- 6.** Shield Medal from the organization committee of the 9<sup>th</sup> International Conference of Nanotechnology and Advanced Materials, University of Technology, May 2018.
- 7.** Presidency of University Acknowledgements for Iraqi patent approval (2016).
- 8.** A certificate of appreciation and Acknowledgement from Dean of Engineering College/Al-Nahrain University, for participating with a lecture at scientific symposium (2015).
- 9.** Acknowledgement from Dean of Materials engineering/ University of Technology due to complete tasks in specific time (2015).
- 10.** A certificate of appreciation for participation from the committee of international conference of laser applications and advanced materials", university of technology-Baghdad- Dec. (2014).
- 11.** Presidency of University Honoring for researcher which published their research in international journals (2012).
- 12.** Medal from ministry of higher education for researcher which published their research in international journals (2011).
- 13.** Acknowledgment from a minister of higher education at Global Day of Science (2012).
- 14.** Three Acknowledgements from presidency of University of Technology (2009-2011).
- 15.** Presidency of University Honoring for the students which completed their researches in the limited time (2008).
- 16.** 1st Student up on 4 students in M. Sc. Degree course in Materials Engineering Department (2006).
- 17.** Shield Medal of the University of Technology for the 1st B. Sc. Graduated Student up on 33 students in Department of Materials Engineering (2004).

## Experiences:

1. Training and Experience, Rubber Manufacturing by Calender, Al-Khalid Company for Rubber, Camp Sarah, Baghdad, Iraq, (2006-2007).
2. Training and Experience, Fourier Transform Infrared Spectrometer **FTIR** model 8400 Shimadzu, at Nanotechnology and Advance Materials researches center, University of Technology, (2009).
3. Training, Atomic Force Microscope **AFM** at Nanotechnology and Advance Materials researches center, University of Technology, (2009).
4. Training, Atomic Absorption Spectrometer **ABS**, at Nanotechnology and Advance Materials researches center, University of Technology.
5. Training and Experience, High Magnification Optical Microscopy, Olympus Model, Nanotechnology and Advance Materials researches center, University of Technology (2009).
6. Training, X- ray Diffraction **XRD**, Nanotechnology and Advance Materials researches center, University of Technology, (2010).
7. Training and Experience, Pulse Laser Deposition **PLD** system, Nanotechnology and Advance Materials researches center, University of Technology, (2010-2011).
8. Training and Experience, Sputtering Deposition, Atomic Layer by Layer Deposition, University of Missouri-Columbia/USA (2012).
9. Training and Experience, High Resolution Scanning Electron Microscopy **HRSEM**, Transmission Electron Microscopy **TEM**, University of Missouri-Columbia/USA (2012-2013).
10. Training and Experience, Water assisted Chemical Vapor Deposition **CVD**, University of Missouri-Columbia/USA (2012-2013).
11. Experience, Nanomaterials Preparation: Thin film, Nano Powder, Nanotubes and their Characterizations.
12. Experience, Nanomaterials Dispersion and Functionalization.
13. Experience, Nanomaterials/ polymer Composite Preparation.

## Committees

- Head of examination committee 2018-2019.
- Student Reception Committee 2018-2019.
- Supreme Committee for the implementation of the semester system 2018-2019.
- Documents and Alumni Division 2017-2019

- Member in web translation committee of department of materials engineering 2017-2018.
- Member of scientific committee in the ceramic and building materials branch 2018.
- Member in examination committee 2017-2018.
- Translation Creation Committee 2017-2018.
- Committee of Expanding students' awareness of the university atmosphere 2017-2018.
- Student Reception Committee 2018-2019.
- Supreme Committee for the implementation of the semester system 2018-2019.
- Documents and Alumni Division 2017-2019
- Member and Secretary -Academic Promotion Committee (2014).
- Member-Quality Assurance and University Performance Committee (2014).
- Member in preparation committee in Nanotechnology conferences (2009)
- Member in preparation committee in Nanotechnology conferences (2008).

### **Organizations Membership**

- Member in Iraqi Inventors and Innovators Society IRAQ-IIIS
- Member of Iraqi Engineers Association