# zuhdi photo**CURRICULUM VITAE**

# **ZuhdiHamdiSalhab**

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## Personal Information

1. Marital status : Married
2. Nationality : Palestinian
3. Place & date of birth : Hebron, 18/3/1961

## Education

1. ***Associate Professor from 1/1/2015.***
2. **PhD.** In Internal Combustion Engines- Alternative Fuels and Environmental Protection: TechnicalUniversity of Liberec-Czech Republic 2001.
3. **MSc.** In Internal Combustion Engines: TechnicalUniversity, Brno-CzechRepublic 1985.
4. **Tawjihi**, Scientific stream, Hebron, 1979, 87%.

### Employment

**PalestinePolytechnicUniversity,**

Hebron,West bank, Palestine.

1. October 1990 to August 1998: Full-time Lecturer, Department of Mechanical Engineering. Taught a variety of subjects including internal combustion engines, thermodynamics, automotive systems, car electricity, automotive workshop, automotive diagnosis& maintenance, vehicle hydraulics, and engineering drawing.
2. Supervising of various graduate projects.
3. Working with various teams deals with developing of two years program in automotive field.
4. Teaching courses in automotive mechanics and electricity with cooperation of continuing education Department (about 1500hours).
5. ***September 2001 to present: Full-time Lecturer, Department of Mechanical Engineering. Taught a variety of subjects including Internal Combustion Engines I and II, Statics, Materials Science, Mathematics for Mechanical Engineers, Thermodynamics, Applied Thermodynamics, Thermal power & Heat Transfer, Engineering Drawing, Industrial Safety, Automotive Electricity and Electronics, Automotive Diagnosis &Maintenance, Scientific Research Methodology, Ethics in engineering, Energy conversion systems, Introduction to Engineering, Air Pollution and its Control.***
6. **Special topics, Energy conversion systems, and Solar thermal systems for Master Program.**
7. **Supervising of various graduate projects related to alternative fuels (LPG & hydrogen), renewable energy (especially hydrogen fueled engine, electrical car, and solar car), and others.**
8. ***Supervising of Master program thesis.***

### Languages

1. Arabic: Native language.
2. English: Very good.
3. Czech: Fluently.

**Work Experience**

1. **2004- 2006, Director of Mechanical Engineering Department.**
2. **2005 – 2010, Coordinator of General Engineering.**
3. **From 1st September 2008to 1stSeptember 2010; Director of Mechanical Engineering Department.**
4. ***From 1st March2014- to present; Director of Renewable Energy & Environment Research Unit (REERU). (The Centre of Excellence in Water, Environment and Energy Research and Services).***
5. **From 18thJuly 2012 to 23th July 2016 (4 years): *Dean of Applied Professions College*.**

### Membership

1. Member of Palestinian& Jordanian Engineers Association.
2. Member of College of Engineering Council (2003-2010) and from 1/9/2018 to 1/9/2020.
3. Member of Scientific Research Council at PPU (2007- 2011).
4. Member of Renewable Energy & Environment Research Unit(REERU)at PPU (from 2006 to present).
5. Member of evaluation committee of mechanical engineering programs at Palestinian Universities, 2006- 2007.
6. Chairman and member of many committees in the College of Engineering (master programs, graduation projects, academic programs, exams, study plans, field training, and social committee).
7. Member of Deans’ council (from July 2012 to July 2016; 4 years).
8. Member of University council (from July 2012 to present).
9. Member of University Higher Academic Committee (from September 2016 to 9/2020).
10. Member of National Carbon Footprint Committee (since 4 years).

### Training courses

1. November 1986 to November 1987: Practical experience in engineering projecting and designing, DRUPOS, Czech Republic.
2. March 1988 to July 1990 as Auto-mechanic.
3. August3rd to 21st, 1992: participation in pedagogical and practical trainer’s course on teaching of auto mechanics-motor tester, Jerusalem, organized by UNDP.
4. June 20th to 30th, 1997: participation in practical trainer’s course on modern automotive systems, Baghdad, Iraq.
5. Attending the second training course about reduction and influence of exhaust gases of gaseous fuel of vehicles as a friendly fuel of humanity and environment, , organized by Roads & Environment Safety Center – RESC- cooperation with GEF/SGP and UNDP, Ramallah, Palestine, 21-26/12/2002.
6. May 2010, participation in a practical trainer’s course on renewable energy using (wind and solar energy) for one week, Hebron, Palestine.
7. October 2nd-3rd, 2011: attended the training course of adapting the institutional and legal frameworks for industrial permitting and monitoring systems to the integrated pollution prevention and control principles. Organized by HORIZON 2020 Capacity Building/ Mediterranean Environment Programme.
8. October-November 2011: attended the course of 40 training hours of scientific research writing using LATEX cooperated by PPU and funded by USAID.
9. August 28th to 30th, 2019: How to Integrate Interdisciplinary Courses in Arab and German Universities Arab-German, organized by Young Academy of Sciences and Humanities (AGYA), Amman, Jordan.
10. January 12th to 16th, 2020: " Training Entrepreneurship, including Gender and Governance aspects". OKP Project in Water & Agriculture, An Najah University, Nablus, Palestine.

### Computer experience

1. Application packages: Excel, Word, PowerPoint, AutoCAD,….
2. Latex

### Research Interests

### Traffic induced pollution, their control and pollution.

* Renewable energy.
* Alternative fuels and their impact on engine performance and environment.
* Solid waste management.
* Water & Waste water.

### Editorial Board Member of Journals

* **Member of Editorial Board of International Journal of Energy Science (IJES)***- ISSN Online: 2304-3679, ISSN Print: 2218-6026***.**
* **Member of Editorial Board of Journal of Advances in Energy Engineering (AEE) -** *ISSN Online: 2327-7572, ISSN Print: 2327-7327***.**
* **Memberof International Journal of Renewable Energy Technology Research (IJRETR) - *ISSN: 2325-3924*.**
* **Member of Editorial Board of International Journal of Mechanical Engineering and Research (IJMER) -** *ISSN: 2277-8128***.**
* **Member of Editorial Board of American Journal of Energy Research -** *ISSN (Print): 2328-7349, ISSN (Online): 2328-7330.*
* **Member of Editorial Board of American Journal of Mechanical Engineering(AJME) -** *ISSN-(Print):*2328-4102*, ISSN (Online):*2328-4110*.*
* **Member of Editorial Board of Journal of Atmospheric Pollution- *ISSN (Print): 2381-2982 ISSN (Online): 2381-2990.***

**Awards**

* Award of Deanship of Graduate Studies and Scientific Research for best scientific and practical research in the University in the academic year 2006-2007.
* Many letters of appreciation for many distinguished acts in the University.

**Workshops**

* Attending the Scientific meeting about vehicles emissions with paper entitled "effect of car-gas pollution on health and environment", Bethlehem, 4/2000.
* Attending the workshop "Solid Waste Management Treatment'' presentation about:"Solid Waste Management Treatment Opportunities in the Palestinian Authority areas'' organized by Deanship of Graduate Studies and Scientific Research at PPU, Hebron 3/2009.
* Participation in workshop of Evaluation of graduation projects in Palestinian Universities in Birzeit University- Ramallah (a presentation of PPU experience), 31/11/2011.
* Energy and renewable energy improvement of strategic sectors in Palestine, Ramallah, 6/12/2011, organized by Energy Authority with cooperation of the Palestinian Center for Energy and Environment Researches and with French Agency for Development (participation).
* A presentation about the REERU and water testing cooperated with school health officials of Education Directorate in Hebron, 5/3/2012.
* Participation the workshop (conference) on Renewable Energy Investment, organized by Energy Palestinian Authority with cooperation with a German Conrad Adenaur Association, Ramallah, 20/3/2012.
* **Participation the** workshop of **Capacity Building for Sustainable Treatment and Valorization of Olive Mill Waste in Palestine**. OLITREVA Projectorganized by Applied Research Institute-Jerusalem (ARIJ), Bethlehem, Palestine, 28/3/2012.
* Organizing and attending with a presentation the workshop entitled "Towards Expanding the Use of Renewable Energy in Palestine", cooperated with Palestinian Association for Solar and Sustainable Energy, Hebron, 30/4/2012.

**Conference Organization& Reviewing**

* Member of organizing committee of Conference of Engineering Education in Palestine, 18-19 May 2005, Hebron, Palestine.
* Member of organizing and scientific committee of 1st International Conference onEnergy and Environment Protection in Sustainable Development**.**8-9May 2007, Hebron, Palestine.
* Member of organizing and scientific committee of 2nd International Conference onEnergy and Environment Protection in Sustainable Development**.** 10-12 November 2009, Hebron, Palestine.
* Member of organizing and scientific committee of 4thEnergy International Conference, 26-27January 2011, Ramallah, Palestine.
* Reviewer of Seventh Jordanian International mechanical Engineering Conference [JIMEC7]- Jordan Engineers Association and Philadelphia University, Amman- Jordan, September 27- 29, 2010.
* Reviewer of 2012 IEEE International Conference on Power and Energy(PECON). **Malaysia,2- 5 December 2012*(EDAS)*.**
* Reviewer of 4th International Congress on Engineering Education (ICEED 2012),organized by the Engineering and Technical Education Research Group (EnTER), Faculty of Electrical Engineering, Universiti Teknologi MARA, Malaysia, 5-6 December 2012***(EDAS)***.
* Reviewer of IEEE Business Engineering and Industrial Applications Colloquium 2013 (BEIAC 2013). Langkawi, Malaysia on 8-9 April 2013***(EDAS)***.
* Reviewer of International Journal of Energy Science (IJES).
* Member of organizing and scientific committee of 3rd International Conference onEnergy and Environment Protection in Sustainable Development (9-10October 2013, Palestine).
* Reviewer of "The American Journal of Educational Research": Research Paper ID: 1300100017 entitled "Energy and Environmental Impact on the Biosphere Energy Flow, Storage and Conversion in Human Civilization", 2013.
* Reviewer of "American Journal of Environmental Protection": Research paper ID 8000400047 entitled "Impact of blending Ethanol in gasoline on a SI Engine performance and emissions", 2013.
* Member of Technical Program Committee for International Conference on Computer Vision and Image Analysis, 25-27 March, 2014- Ras Al Khaima, UAE.
* Member of scientific committee of the 5th International Conference on Energy in Palestine (27-28/1/2015, Ramallah, Palestine).
* Member of Technical Program Committee for International Biometrics & Smart Government Summit (IBMSGS' 2015), 18-20 January,2015, Sousse, Tunisia.
* Reviewer of " Journal of Atmospheric Pollution ". Research paper IDJAP-8000700entitled

"Review on Pollutants from the Solid Biomass Combustion", 12/2014.

* Reviewer of "The American Journal of Mechanical Engineering": Research Paper ID: IDAJME-3000100261 entitled Performance Evaluation of Spark-Ignition Engine at Constant Load Using Ethanol as Doping Agent", 4/2015.
* Reviewer of " Third International Civil and Infrastructure Engineering Conference 2015 [incie2015]. Research paper ID: 1570157957 entitled Engineering Factors of Motorcyclist Red Light Runner In Malaysia.21-22/9/2015, Kuala Lumpur, Malaysi.
* Member of organizing committee of the 4th Palestinian International Conference on Computer and Information Technology 7-8/10/2015, PPU, Hebron, Palestine.
* Chairperson of (organizing and scientific committees) the "4th International Conference on Energy and Environment Protection in Sustainable Development"**,**(April 2016)- Palestine Polytechnic University, Hebron, Palestine.
* Member of scientific committee of the Sixth International Conference of science and Development (6th ICSD, March 14th – 15th , 2017). The Islamic University of Gaza, faculty of Science, Gaza – Palestine.
* Chairman of scientific committee, member of preparatory committee and reviewer of “Third National Occupational Safety and Health Conference – NOSHC”.April 26th, 2017 Ramallah,Palestine.
* Reviewer of “Modeling CO, CO2 and NOx Evolution from Small and Medium Size Electric Genets" : American Journal of Modeling and Optimization- 2017.
* Reviewer of “A Review on the Different Geometries of Combustion Chamber in CI Engines on Performance, Ignition and Emission". Journal of Atmospheric Pollution- 2017.
* Member of scientific committee of the Third International Conference on Basic and Applied Sciences (ICBAS III) - 19 - 20 March, 2018 Gaza – Palestine.
* Member of technical program committee of the International Conference on **C**lean **E**nergy, **S**ystems and **S**mart **A**pplications (**CESA’20**), **09-10 July 2020**, in the Double Tree by Hilton Cambridge Belfry, Cambridge City, England, United Kingdom.
* Reviewer of “Comparative Assessment of some Emitted Pollutants’ Concentrations from selected Fossil Fuel- fired Generators, ID: JAP 8000700060". Journal of Atmospheric Pollution- **November 2020**.
* Reviewer of "A Linear Programming Based Load Scheduling System Considering Dynamic Pricing and Renewable Energy". 12th International Renewable Engineering Conference (IREC2021), **April 14th-15th 2021**in Amman, Jordan.
* Reviewer of " Augmented Sidewall Topology of Semiconductor Die", Manuscript Number: Ms\_JERR\_67865.  [Journal of Engineering Research and Reports](http://www.journaljerr.com/), **2 May’2021**.
* Reviewer of " Multi-Mean Scout Particle Swarm Optimization (MMSCPSO) based Reactive Power Optimization in Large-Scale Power Systems", Manuscript Number: Ms\_JERR\_69898. [Journal of Engineering Research and Reports](http://www.journaljerr.com/), **14 June’2021**.

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### Publications

1. ***National & International Journals***
2. [Berun, S.](https://www.infona.pl/contributor/0@bwmeta1.element.baztech-article-BUJ6-0025-0095/tab/publications), [Scholz, C.](https://www.infona.pl/contributor/1@bwmeta1.element.baztech-article-BUJ6-0025-0095/tab/publications), [Salhab, Z.](https://www.infona.pl/contributor/2@bwmeta1.element.baztech-article-BUJ6-0025-0095/tab/publications), [Zuzanek, L.](https://www.infona.pl/contributor/3@bwmeta1.element.baztech-article-BUJ6-0025-0095/tab/publications) Combustion variability of spark ignition hydrogen fuelled engine. **Journal of KONES** - 1999 - Vol. 6, No. 3-4 - 1-6.
3. ZuhdiSalhab, Beroun S.: Ecological effect of gas-fuelled engines, *Palestine Engineer Magazine no.46, 12/2000,pp: 65-70.*
4. Zuhdi Salhab,HuseinAmro, HazemShweiki, Mahmoud Ghannam: Hydrogen Using As a Potential Fuel for Motor Vehicles (in Arabic). *Palestine Engineer Magazine no.52, 7/2007, p. 87.*
5. Zuhdi Salhab, Monjed Al-Shuwaiki, Tarek Hasasneh, ThabetShawar: A Solar Car Building.*Palestine Engineer Magazine no.56, 9/2010, pp: 83-84.*
6. Zuhdi Salhab, Estimation of Traffic Induced Pollution in Palestine. **Journal of Energy and Power Engineering, ISSN 1934-8975, USA,***Volume 4, Number 5, May 2010 (Serial Number 30), pp: 32- 36.*
7. Zuhdi Salhab, Mohammad G. Qawasmi, Hussein Amro, MosaZalloum, Mohammad S. Qawasmi, NafezSharawi, Comparative Performance and Properties of Spark-ignition Outboard Engine Powered by Gasoline and LPG. **Jordan Journal of Mechanical and Industrial Engineering** (JJMIE).*Volume 5, Number1, February 2011, ISSN 1995-6665, pp: 47 – 52.*
8. Zuhdi Salhab,Effect of Exhaust Gas Recirculation on the Emission and Performance of Hydrogen Fueled Spark- Ignition Engine.**Global Journal of Researches in Engineering (GJRE-B- Automotive Engineering)**, *Volume 12 Issue 2 Version 1.0, August, 2012, ISSN: 0975-5861, pp: 19-23.*
9. Zuhdi Salhab, HuseinAmro, Evaluation of Vehicular Noise Pollution in the City of Hebron, Palestine. **International Journal of Modern Engineering Research (IJMER),***Volume 2, Issue 6, November-December 2012, ISSN: 2249-6645, pp: 4307-4310.*
10. ***Conferences***
11. Zuhdi Salhab, Tomeh E.: Ventilator dynamics. GIAGO 2/2000, Technical University of Ostrava, Czech Republic.
12. Tomeh E., ZuhdiSalhab, Novak J.: Stable and diagnostic systems. Grant FRVS 1256/2000, page 55, Liberec, Czech Republic.
13. Zuhdi Salhab, Beroun S.: Engine combustion chambers, International conference of internal combustion engines CONES, Poland, 1999.
14. Zuhdi Salhab: Vehicles exhaust gases reduction-using alternative fuels, 1st Palestinian Environmental Symposium, Hebron, 3/2000.
15. ZuhdiSalhab, Blazek J.: Experimental engine OCC OCTANEhydrogen fuelled–the influence of engine speed, Technical paper, SM 383/2000, Technical University of Liberec, Czech Republic 2001.
16. ZuhdiSalhab,Beroun S., Blazek J., Drozda H.: Turbocharged experimental single-cylinder engine fuelled hydrogen, XII MOTORSYMPO conference,Brno, Czech Republic,6/2001.
17. Zuhdi Salhab,Beroun S., Blazek J., Drozda H.:The influence of engine adjustment and fuel type on parameters of engine working cycle, XII MOTORSYMPO conference, ISBN 80-01-02382-6, LN 00B073.Brno, Czech Republic,6/2001.
18. Zuhdi Salhab,Beroun S., Blazek J., Drozda H.: Thermodynamics of working cycle of spark-ignition engine with engineering simplifying, European conference EAEC, Bratislava, Slovak Republic, 6/2001, p.81-90, pp.10, ISBN 80-89057-00-4, LN 00B073.
19. Zuhdi Salhab,Beroun S., Blazek J., Scholz C., The influence of engine speed of OCC-OCTANE engine hydrogen fuelled, **Technical paper and study tool** SM 383/2000, Technical University of Liberec, Czech Republic.
20. ZuhdiSalhab,Beroun S., Blazek J., Drozda H.: Low-pressure indication of exhaust gases of OCC-OCTANE engine hydrogen fuelled, **Technical paper and study tool**SM 387/2001, Technical University of Liberec, Czech Republic.
21. Zuhdi Salhab, BlazekJ.: Properties of chosen substances depending on temperature (calculation of substances properties of chosen fuel-air mixtures and their combustion products). **Research report and technical paper**SM 393/2001, Project LN00B073, Technical University of Liberec.
22. Zuhdi Salhab, Beroun, S., Blazek, J., Hajek, T.: Calculating Program PRESSURE macro-1101.xls - Description Program. **Technical paper and study tool**of project LN00B073, Technical University of Liberec, SM 395/2001.
23. Zuhdi Salhab:**Automotive mechanics I, II for students of Vocational & Training Centers in West bank & Gaza strip**, supported and edited by Ministries of Labor, Higher Education and Transport, Ramallah, Palestine, 2001.
24. Beroun S., Kovar Z., Scholz C., Blazek J., Drozda H.,ZuhdiSalhab: Study on combustion of hydrogen lean-mixture in experimental direct injection SI engine, VISITA 6/2002, F02V181, pp. 11. ISBN 951-9155-15-5. Project GAČR, reg. no. S 101/97/K053. World Automotive Congress, Helsinki, Finland.
25. Zuhdi Salhab: Effects of Natural Gas Composition Variations: XXXIV. International Conference of Combustion Engines Departments and Workshops of Czech and Slovakian Universities- KOKA 2003,September 11- 12, 2003, Liberec-Czech Republic, pp: 211-216.
26. Zuhdi Salhab, KazemOseileh: Modern Education Methods, organized by UAE Society of Engineers-The Nature of Engineering Education in Arab World, Abu Dhabi- UAE, September17- 18, 2003.
27. Zuhdi Salhab: Hydrogen influence on engine thermodynamic and emission parameters. International Mechanical Engineering Conference and Exposition IMECE 2004- Kuwait, 5-8 December. Paper’s codeFC046 - CP. Conference organized by Kuwait Society of Engineers.
28. Elias Tomeh, Zuhdi Salhab: Vibration measuring as an instrument to identify the sources of vibration and noise on personal cars gearbox. International Mechanical Engineering Conference and Exposition IMECE 2004- Kuwait, 5-8 December. Paper’s code FM201 - CP. Conference organized by Kuwait Society of Engineers.
29. Zuhdi Salhab: Hydrogen Energy & Fuel Cells- A Vision for Our Future.Global Conference on renewable Energy Approaches for Deserts [GCREADER]. EnergyCenter-JordanUniversity, Amman-Jordan, 18- 22 September 2006, p.p. 319- 324.
30. Zuhdi Salhab**:** Prospective Future Energy Demand forthePalestinianState.Industrial Applications of Energy systems IAES 2007- SoharUniversity, Sultanate of Oman, April 3- 4, 2007.
31. ZuhdiSalhab,HuseinAmro, HazemShweiki, Mahmoud Ghannam:Hydrogen asan Energy Carrier of the Future Motor Vehicles**;** A Comparison between Emission and Performance Characteristics of Hydrogen and Gasoline.The Sixth Jordanian International Mechanical Engineering Conference [JIMEC6]- Jordan Engineers Association and Philadelphia University, Amman- Jordan, October 22- 24, 2007.
32. Zuhdi Salhab, Glass Solid Waste Management and Recycling in Palestine. The fifth International Conference for Development and Environment in the Arab World, March 21-23/2010, Assiut, Egypt, pp: 317-323.
33. Zuhdi Salhab, Ali Abu Zneid, Water Pollution Crises in Palestine. The sixth International Conference for Development and Environment in the Arab World, March 24-26/2012, Assiut, Egypt, pp:347 – 357.
34. Zuhdi Salhab,AbdallahAbuarafa, Ahmad Alhannini, Ihsan Bader: Automotive Thermoelectric Generators; Design and Building.The 8th Jordanian International Mechanical Engineering Conference [JIMEC8]- Jordan Engineers Association, Amman- Jordan, September 22- 23, 2014.