

السيرة الذاتية

Curriculum Vitae

PERSONAL INFORMATION :

Name Hanı Abdallah AL-Rawashdeh
Nationality Jordanian
Date of Birth 1/1/1975
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ACADEMIC QUALIFICATIONS :

- 2010 - 2013 [Zagazig University / Egypt]
[Ph.D. of Industrial Engineering / Faculty of Engineering].
Title of Theses: "Development of a Genetic Algorithm for Solving Flow Shop Scheduling Problem"
- 2004 - 2006 [Mutah University / Jordan]
[M.Sc. of Engineering Management / Faculty of Engineering].
- 1993 - 1998 [Mutah University / Jordan]
[B.Sc. of Mechanical Engineering - Production / Faculty of Engineering].
- 1993 [General Secondary Certificate / Scientific Section / Jordan]

WORKING EXPERIENCE :

- 1998 - 1999 [Ministry of Public Works and Housing / Jordan].
- 1999 - 2000 [Ministry of Education / Jordan].
- 2000 - 2005 [Balqa Applied University / Jordan].
- 2005 - 7/9/2014 [Tafila Technical University / Jordan].
Lecture and Supervisor of: Materials lab, Metallurgy Lab, Strength of Materials Lab, Theory of Machines Lab, and Engineering Workshop.
- 7/9/2014 - 6/9/2019 [AL-Hussein Bin Talal University / Jordan]
Assistant Professor.



- **7/9/2019 - Until now [AL-Hussein Bin Talal University / Jordan]**
Associate Professor.
- **18/9/2016 – 15/9/2020 [Chair of Mechanical Engineering Department - Faculty of Engineering - AL-Hussein Bin Talal University / Jordan]**
- **18/11/2020-Until now [Director of the Industrial Communication Department]**

Courses Taught:

- **Materials Science**
- **Strength of Materials (1)**
- **Strength of Materials (2)**
- **Metallurgical Processes**
- **Theory of Machines**
- **Safety Management and Engineering (Master)**
- **Engineering Statistics (Master)**
- **Advanced Engineering Statistics (Master)**
- **Engineering Economy (Master)**
- **Advanced Engineering Economy (Master)**
- **Operation Researches (1) & (2)**
- **Advanced Operation Researches (Master)**
- **Projects Management (Master)**
- **Statics**
- **Dynamics**
- **Inventory Control**
- **Quality Control**
- **Total Quality Management (Master)**
- **Cost Estimation and Control for Engineering (Master)**
- **Dies Technology**
- **Industrial Management**
- **Safety and Maintenance**
- **Automobile Maintenance Principles**
- **Materials Science Lab**
- **Strength of Materials Lab**
- **Metallurgical Processes Lab**
- **Theory of Machines Lab**
- **Production Engineering**
- **Production Processes**
- **Production Engineering Workshop**
- **Engineering Workshop**
- **Engineering Drawing**
- **Artificial Intelligent (Master)**
- **Mechanical Design (1)**
- **Project (1)**
- **Project (2)**



Graduate Studies:

▪ Direct Supervision:

- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Amani Snaid Yaseen, Al-Hussien Bin Talal University, Ma'an 2019. Thesis Title: "Development of Self Compacted Concrete by using Phosphogypsum Waste and Scoria as a Partial Replacement of Cement to Determine Thermal Conductivity".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Hazem Abdul Qader Al-Shakhanbeh, Al-Hussien Bin Talal University, Ma'an 2021. Thesis Title: "Novel Vehicle Ventilation System Powered by Solar Energy".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Jehad Tawfiq AL Bdour, Al-Hussien Bin Talal University, Ma'an 2021. Thesis Title: "Analysis and Study of Hybrid Renewable Energy System for Green Building to Improve Efficiency and Reduce GHG Emissions".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Laith Mohammad Arrfou, Al-Hussien Bin Talal University, Ma'an 2021. Thesis Title: "Development of Sustainable Renewable Energy System to Reduce Carbon Emission in Irrigation Stations at Off Grid Remote Area by Hybrid System".**

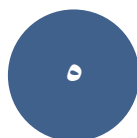
▪ Membership on Examining Committees for Graduate Studies:

- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Ro'a Ma'an Al-Nawayseh, Mu'tah University, Kerak 2016. Thesis Title: "Assessment of Safety Culture in Jordanian Construction Industry".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Ibrahim Mohammed Al-Saryri, Mu'tah University, Kerak 2016. Thesis Title: "Factors Affecting Public Competitive Bids in Al-Karak Governorate".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Faten Ahmmad M. AL-Btoush, Mu'tah University, Kerak 2017. Thesis Title: "Success Factors of Construction Projects Performed in Al-Karak Governorate in the Period between 2000-2015".**
- ✓ **MSc in Mechanical Engineering / Renewable Energy / Mechanical Engineering Department/ Faculty of Engineering / Shadi M. Alshagarin, Mu'tah University, Kerak 2018. Thesis Title: "Reduction of CO₂ Emission by Using Wind Turbine Plants".**



- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Yusra Salim M. Al-Amareen, Mu'tah University, Kerak 2018. Thesis Title: "Impact Variation Order on Construction Projects: a Case Study of Ma'an".**
- ✓ **MSc in Mechanical Engineering / Renewable Energy / Mechanical Engineering Department/ Faculty of Engineering / Nesrien Saleh Al-Dmour, Mu'tah University, Kerak 2018. Thesis Title: "Solar Gasification: Production of Synthesis Gas from Carbonaceous Materials".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Asma Ibrahim AL-Awaje, Mu'tah University, Kerak 2018. Thesis Title: "Causes and Effects of Delay in Construction Projects in Tafila Governorate in Period between Years 2008-2017".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Ahmad Tawfiq AL-Masharfeh, Mu'tah University, Kerak 2018. Thesis Title: "The Importance of Strategic Project Management Process in NGOs in Jordan".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Mahmoud Riad Ibrahim Alburdaini, Al-Hussien Bin Talal University, Ma'an 2018. Thesis Title: "Design and Optimization of a Small Wind Turbine 20 KW".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Wosainah Dhmour, Mu'tah University, Kerak 2018. Thesis Title: "Factors Influencing Design Quality and its impact on Construction Industry".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Bara'ah Abedalhafeed AL-Ma'aitah, Mu'tah University, Kerak 2018. Thesis Title: "Improving of Energy Management System in Cement Industry".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Mohmmad AL-Rfooh, Al-Hussien Bin Talal University, Ma'an 2018. Thesis Title: "Shading Effects on Photovoltaic Arrays Output: A Proposed Solution to Minimize Effect of Symmetrical Shade on Photovoltaic Solar Systems".**
- ✓ **MSc in Mechanical Engineering / Mechanical Engineering Department / Faculty of Engineering / Amani Rasmi Al-Nawaiseh, Mu'tah University, Kerak 2018. Thesis Title: "Correlation of Microstructure and Mechanical Properties of Thermoplastic Glass Laminate".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Aseel Bin Hidayieh, Mu'tah University, Kerak 2019. Thesis Title: "The Reality of Administrative Information Systems and its Impact on the Management of Construction Projects in Karak Governorate".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Abdallah AL-Daher, Al-Hussien Bin Talal University, Ma'an 2019. Thesis Title: "Design of Parabolic Trough Collector System for Domestic Heating and Air Conditioning".**

- ✓ **MSc in Mechanical Engineering / Mechanical Engineering Department/ Faculty of Engineering / Mus'ab Awad Alataiqeh, Mu'tah University, Kerak 2019. Thesis Title: "Correlation between Impact Strength and Hardness Testing of High Strength Engineering Materials".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Dana Ahmad AL Alawi, Mu'tah University, Kerak 2019. Thesis Title: "Real Estate Evaluation Concepts and Their Impact on Investment (Case Studies)".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Salsabeel AL-Takhaineh, Mu'tah University, Kerak 2019. Thesis Title: "The Role of Engineering Management in the Application of Quality Standards in Construction Sector".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Marwa Foud Al-Tarawneh, Mu'tah University, Kerak 2019. Thesis Title: "The Role of Employee and Customer Satisfaction in Product Quality".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Bushra Khairi Mezher, Mu'tah University, Kerak 2019. Thesis Title: "Design and Managing a Microgrid Control System for Green Buildings".**
- ✓ **MSc in Mechanical Engineering – Renewable Energy / Mechanical Engineering Department/ Faculty of Engineering / Moath Attalah Altarawneh, Mu'tah University, Kerak 2019. Thesis Title: "Waste Heat Recovery in Cement Plant with Thermo-Electric Generator Implementation".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Ena'am Abedalhameed Al-Muhisen, Mu'tah University, Kerak 2019. Thesis Title: "Application of Lewis Method in Engineering Projects Management".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Enas Abdallah Kulaib Al-Fanatseh, Al-Hussien Bin Talal University, Ma'an 2019. Thesis Title: "Study of Solar Cooling System used Lithium Bromide – Water (LIBR – H₂O)".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Farah Abdelsalam Al-Kasaabeh, Mu'tah University, Kerak 2019. Thesis Title: "The Legal Provisions Issued by the International Federation Contracts (FIDIC) and Their Compatibility with the Jordanian Legislation of Contracting Contracts".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Rawan AL-Sarairh, Mu'tah University, Kerak 2019. Thesis Title: "The Impact of Organizational Culture on Quality Management in Consulting Companies and Engineering Offices".**



- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Maisam Ahmad Al-Dmour, Mu'tah University, Kerak 2020. Thesis Title: "Tort Liability of the Engineer and Contractor during the Project Execution Period".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Musab Abdullah Al-Rawajfeh, Mu'tah University, Kerak 2020. Thesis Title: "Impact of Applying Occupational Safety and Health Programs on Employees Performance in Construction Sector".**
- ✓ **MSc in Mechanical Engineering – Renewable Energy / Mechanical Engineering Department/ Faculty of Engineering / Faris Mohammad Hussein Al-Masoodi, Mu'tah University, Kerak 2020. Thesis Title: "Performance Evaluation of Solar Photovoltaic Panel under Different Cooling Methods".**
- ✓ **MSc in Mechanical Engineering – Renewable Energy / Mechanical Engineering Department/ Faculty of Engineering / Maryam Abdallah Al-Hajaya, Mu'tah University, Kerak 2020. Thesis Title: "Measures of Waste Avoidance via Energy Recovery in Municipalities of Jordan: Case Study of Al-Karak".**
- ✓ **MSc in Smart Systems Energy Management / Industrial System Engineering Department / Faculty of Engineering / Omar Bader Al-Bdour, Mu'tah University, Kerak 2020. Thesis Title: "Improvement of Energy Efficiency for Faculty of Engineering in Mutah University".**
- ✓ **MSc in Mechanical Engineering – Renewable Energy / Mechanical Engineering Department/ Faculty of Engineering / Shahed Mohammad Farajat, Mu'tah University, Kerak 2020. Thesis Title: "Design a Solar Power Air Conditioning System for the Engineering Faculty Building at Mutah University".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Rawan Marwan Al Haddad, Al-Hussien Bin Talal University, Ma'an 2020. Thesis Title: "An Experimental Investigation on Performance, Emission and Characteristics of Hndal Seed Oil Blends in Internal Combustion a Diesel Engine".**
- ✓ **MSc in Enineering Management / Industrial System Engineering Department / Faculty of Engineering / Ibraheem E. Gharaibeh, Mu'tah University, Kerak 2020. Thesis Title: "Prioritization of Maintenance Interventions using the Analytical Hierarchy Process (AHP) and Multi Attribute Utility Theory (MAUT)".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Alaa Zakaria AL-Shrideh, Al-Hussien Bin Talal University, Ma'an 2020. Thesis Title: "The Optimal use of Renewable Energy IN Residential Buildings under Jordanian Building Regulations. Case Study: Aydon -Irbid Housing City".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Waed Younes AL-Twaissi, Al-Husseine Bin Talal University, Ma'an 2020. Thesis Title: "Impact of Accumulated Dust on Photovoltaics Cells Performance and Efficiency in Ma'an Region".**

- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Nadiah Abd-Alkareem AL-Farajat, Al-Hussein Bin Talal University, Ma'an 2020. Thesis Title: "CO₂ Emissions and Energy Performance using Life Cycle Assessment Methods of AL-Rajef Wind Farm".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Fatima Eid Al Naimat, Al-Hussein Bin Talal University, Ma'an 2021. Thesis Title: "Development of Light Weight Concrete Bricks with Especial Reference to Thermal Performance in Buildings".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Manar Mahmoud Abdel Rahman, Mu'tah University, Kerak 2021. Thesis Title: "Evaluating of the Pre-Qualification and Classification Criteria of Engineering Offices in the Field of Safety and Occupational Health".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Rayah Khaled A. AL-Dmour, Mu'tah University, Kerak 2021. Thesis Title: "The Impact of Poor Planning on the Duration of Construction Projects".**
- ✓ **MSc in Smart Systems Energy Management / Industrial System Engineering Department / Faculty of Engineering / Mutaz Ali Al-Omyreen, Mu'tah University, Kerak 2021. Thesis Title: "Smart Energy Management System for Al-Karak Governmental Hospital".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Ala'a Khalil Al-Bawwat, Al-Hussein Bin Talal University, Ma'an 2021. Thesis Title: "Optimal Design and Economic Study of a Hybrid Renewable Energy System to Desalinate Seawater".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / AL-Mothana Mustafa Gasaymeh, Al-Hussein Bin Talal University, Ma'an 2021. Thesis Title: "Designing and Developing Wind Turbine Unit for Wind Energy Harvesting from Moving Vehicles on Roads in Jordan".**
- ✓ **MSc in Mechanical Engineering / Mechanical Engineering Department/ Faculty of Engineering / Ghaith Kamel Al-hawajreh, Mu'tah University, Kerak 2021. Thesis Title: "Performance Analysis of Nano -Coated Journal Bearing".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Ahmed Khanger Abu Saif, Al-Hussein Bin Talal University, Ma'an 2021. Thesis Title: "Effect of Dust on the Wind Turbine Nacelle: Case Study (Ma'an Project Farm)".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Walaa Farouq Al-Omari, Al-Hussein Bin Talal University, Ma'an 2021. Thesis Title: "Geothermal Energy Harvesting in Jordan and its Applications".**



- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Sajeda Suliman AL-Awasa, Mu'tah University, Kerak 2021. Thesis Title: "The Implications of Applying Safety and Occupational Health on the Welfare of Workers in the Jordanian Construction Industry".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Ekremah Mohammed Al-Qudah, Mu'tah University, Kerak 2021. Thesis Title: "Insurance of Professional Liability for Engineering Offices and Consultant in Jordan".**
- ✓ **MSc in Mechanical Engineering / Mechanical Engineering Department/ Faculty of Engineering / Rashed Dyab Alnazal, Mu'tah University, Kerak 2021. Thesis Title: "Experimental Study of the Performance of Compression Ignition Engine and Emissions using Various Bio Diesel Blends".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Mays Yousef Al-Nawafleh, Mu'tah University, Kerak 2021. Thesis Title: "Risk Assessment and Safety Management for Oil and Gas Facilities".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Mothana Altayem, Mu'tah University, Kerak 2021. Thesis Title: "Waste Tire Management in Jordan: Handling of Post-Consumer Tire and Collection and Storage".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Raad Sameer Alsuhamat, Mu'tah University, Kerak 2021. Thesis Title: "The Effect of Managing Multiple Construction Projects on their Performance and Quality in Jordan".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Rana Nadher Abd Abd, Mu'tah University, Kerak 2021. Thesis Title: "Role of Project Management in Preventing Work-Related Risks to the Workers during the Execution Phase".**
- ✓ **MSc in Mechanical Engineering / Mechanical Engineering Department / Faculty of Engineering / Mu'taz Sanad Al-Tarawneh, Mu'tah University, Kerak 2021. Thesis Title: "Performance Analysis of Nano-Lubrication of Plane Inclined Slider Bearing".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Salim Odeh Al-Rawashdeh, Mu'tah University, Kerak 2021. Thesis Title: "Construction Waste Management: Aqaba Zone Case Study".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Wa'ad Madallah Al-Hasanat, Al-Hussein Bin Talal University, Ma'an 2022. Thesis Title: "Modeling and Simulation of Solar Cell using PCID".**



- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Ali Radi Hasan, Al-Hussein Bin Talal University, Ma'an 2022. Thesis Title: "Analysis and Opportunities for a Solar Pumping System for Agriculture in North Shouneh Area (Mu'aath Ben Jabal Municipality) of Jordan".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Mohammad Jalal AL Atari, Mu'tah University, Kerak 2022. Thesis Title: "Total Quality Management Role for Jordanian Manufacturing Small Firms".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Osama Ahmed Nawasreh Al-Hussein Bin Talal University, Ma'an 2022. Thesis Title: "Improving Efficiency of Auxiliary Boiler in INDO-Jordan Chemical-Shidiah(Case Study)".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Reham AL-Disi, Al-Hussein Bin Talal University, Ma'an 2022. Thesis Title: "Geothermal Energy Utilization for Heating, Ventilating and Air Conditioning Systems at AL-Bayt University".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Heba Mohammad AL-Khatatbeh, Mu'tah University, Kerak 2022. Thesis Title: "Challenges Facing the Implementation of Quality Management in Construction Sector in Jordan".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Tasneem Salih Ghunaim, Mu'tah University, Kerak 2022. Thesis Title: "Bus Rapid Transit System in Amman: Challenges, Initiatives and Planning".**
- ✓ **MSc in Renewable Energy Engineering / Mechanical Engineering Department / Faculty of Engineering / Hadeel Ahmad Hlalat, Al-Hussein Bin Talal University, Ma'an 2022. Thesis Title: "Improving Building Thermal Insulation Performance by Using Sawdust in Concrete Mixture ".**
- ✓ **MSc in Intelligent Energy Systems Management / Industrial System Engineering Department / Faculty of Engineering / Haneen Ali Al-Rawashdeh, Mu'tah University, Kerak 2022. Thesis Title: "Intelligent Energy Systems Management in Tourist Resorts in Jordan".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Maryam Mohammad Al-Khlouf, Mu'tah University, Kerak 2022. Thesis Title: "Managing the Thermal Impact of Green Walls on Internal Spaces of Aqaba Buildings".**
- ✓ **MSc in Engineering Management / Industrial System Engineering Department / Faculty of Engineering / Aala' Haroun Alne'amat, Mu'tah University, Kerak 2022. Thesis Title: "Applying of Artificial Intelligence to Reduce Cost and Time in Construction Projects".**

SKILLS & Sessions:

- ICDL
- AUTOCAD 2-D and 3-D
- SPSS
- TOEFL
- PRIMAVERA
- MATLAB
- Engineering Projects Management
- Safety and Health Occupational
- CNC Machines Programming
- Comprehensive Computer Skills

LANGUAGES :

- **Mother Language:** Arabic
- **Another Language:** English
writing, speaking and reading

PUBLICATIONS :

- Adel A Ibrahim, Raafat H El-Shaer, **Hani A. Al-Rawashdeh**, Gamal M Nawarra. "*Flow Shop Scheduling using Genetic Algorithm: Historical Review and Categorization of Procedures*", The Egyptian Journal of Engineering Sciences and Technology (EJEST), Volume 16, No. 3, (2013), PP. 1671-1685.
- Gamal M. Nawara, Adel A. Ibrahim, Raafat H. Elshaer, **Hani A. Al-Rawashdeh**. "*Impact of Genetic Algorithm Operators on its Performance for Solving Flow Shop Scheduling Problem*", The Egyptian Journal of Engineering Sciences and Technology (EJEST), Volume 17, No. 1, (2014), PP. 1712-1723.
- **Hani A. Al-Rawashdeh** and Hisham O. Al-Rawashdeh. "*Impact of Genetic Algorithm Parameters on its Performance for Solving Flow Shop Scheduling Problem*", Australian Journal of Basic and Applied Science (AJBAS), Volume 9, No. 5, (2015), PP. 510-519.



- Ahmad O. Hasan, U.M. Elghawi, Ala'a H. Al-Muhtaseb, A. Abu-jrai, **Hani Al-Rawashdeh**, A.Tsolakis. *"Influence of composite after-treatment catalyst on particle-bound polycyclic aromatic hydrocarbons–vapor-phase emitted from modern advanced GDI engines"*, Fuel, Volume 222, (2018), PP. 424-433.
- Ahmad O. Hasana, **Hani Al-Rawashdeh**, Ala'a H. Al-Muhtaseb, Ahmad Abu-Jrai, Read Ahmad, Joseph Zeaiter. *"Impact of changing combustion chamber geometry on emissions, and combustion characteristics of a single cylinder SI (spark ignition) engine fueled with ethanol/gasoline blends"*, Fuel, Volume 231 (2018), PP. 197–203.
- Mohammad M. Alalaya, **Hani A. Al-Rawashdeh**, Ahmad Alkhateb. *"Combination Method between Fuzzy Logic and Neural Network Models to Predict Amman Stock Exchange"*, Open Journal of Business and Management, Volume 6, No. 6, (2018), PP. 632-650.
- **Hani. A. Al-Rawashdeh**, A. O. Hasan, Kamis issa, Jehad bin yamin, U Al-Qawabeha. *"Modelling of Fatigue Failure for Plasma Coated Members using Artificial Intelligence Technique"*, Innovative Systems Design and Engineering, Volume 9, No. 3, (2018), PP. 24–30.
- Mohammad M. Alalaya, **Hani A. Al-Rawashdeh**, Akram Alawad. *"Moving Average Convergence / Divergence and Relative Strength Index Applied to Predict Price of ASE"*, International Journal of Business and Social Science, Volume 9, No. 6, (2018), PP. 35-42.
- **Hani. A. Al-Rawashdeh**, Ahmad O. Hasan and Riad A. Ahmad. *" Evaluation the Wind Turbines Farm in the Town of Tafila / Jordan"*, International Journal of Development Research, Volume 8, No. 10, (2018), PP. 23218-23224.
- **Hani. A. Al-Rawashdeh**, Riad A. Ahmad, and Ahmad O. Hasan. *"The Efficient Selection Methods of Genetic Algorithm used in Scheduling Problems"*, International Journal of Development Research, Volume 8, No. 10, (2018), PP. 23213-23217.
- Riad A. Ahmad, Ahmad O. Hasan, **Hani Al-Rawashdeh**. *"Photoblastic Stress Analysis of Crankpin Fillets of a Crankshaft"*, Journal of Failure Analysis and Prevention, Volume 19, No. 2, (2019), PP. 476-487.



- **Hani A. Al-Rawashdeh**, Mohamed R. Gomaa, Ramadan J. Mustafa, Ahmad O. Hasan. "*Efficiency and Exergy Enhancement of ORC Powered by Recovering Flue Gases-Heat System in Cement Industrials: a Case Study*", International Review of Mechanical Engineering, Volume 13, No. 3, (2019), PP. 185-197.
- Riad A. Ahmad, **Hani Al-Rawashdeh** , Ahmad O. Hasan. "*Optimization of Keyway Broach Design*", Journal of Failure Analysis and Prevention, Volume 19, No. 3, (2019), PP. 688-697.
- Mohamed R. Gomaa, Nesrien Al-Dmour, **Hani A. Al-Rawashdeh**, Mohammad Shalby. "*Theoretical model of a fluidized bed solar reactor design with the aid of MCRT method and synthesis gas production*", Renewable Energy, Volume 148, (2020), PP. 91-102.
- Ramadan J. Mustafa, **Hani A. Al-Rawashdeh** , Ahmad O. Hasan, Mohamed R. Gomaa. "*Enhancement of a Hydrogen Engine Cavitation Utilizing Mixed Fuel: a Review and Experimental Case Study*", International Review of Mechanical Engineering, Volume 14, No. 1, (2020), PP. 33-42.
- Mohamed R. Gomaa, Ghayda' A. Matarneh, Mohammad Shalby, **Hani A. Al-Rawashdeh**. "*A State-of-the-art Review on a Thermochemical Conversion of Carbonaceous Materials: Production of Synthesis gas by Co-gasification Process Part I*", Current Alternative Energy, Volume 4, No. 1, (2020), PP. 1-21.
- Mohammad S. Al-Hwaiti, Eid M. Alsbou, Rawan M. Al Haddad, Ahmed I. Osman d, Ahmed Abu Jrai, Ala'a H. Al-Muhtaseb, Ahmad O. Hasan, Kevin Morgan, El-Sayed M. El-Sayed, Ahmed S. Al-Fatesh, Anis H. Fakeeha, David W. Rooney, **Hani A. Al-Rawashdeh**. "*Spatio-temporal analyses of extracted citrullus colocynthis seeds (Handal seed oil) as biofuel in internal combustion engine*", Renewable Energy, Volume 166, (2020), PP. 234-244.
- Ahmad O. Hasan, Ahmed I. Osman, Ala'a H. Al-Muhtaseb, **Hani Al-Rawashdeh**, Ahmad Abu-jrai, Riad Ahmad, Mohamed R. Gomaa, Tanmay J. DeKa, David W. Rooney. "*An experimental study of engine characteristics and tailpipe emissions from modern DI diesel engine fuelled with methanol/diesel blends*", Fuel Processing Technology, Volume 220, (2021), PP. 1-10.

- Abdullah Marashli, Mahmoud Alburdaini, **Hani A. Al-Rawashdeh**, Mohammad Shalby. "*Statistical Analysis of Wind Speed Distribution Based on Five Weibull Methods for Wind Power Evaluation in Maan, Jordan*", Journal of Energy Technologies and Policy, Volume 11, No. 4, (2021), PP. 55-70.
- **Hani A. Al-Rawashdeh**, Mohammad Al-Hwaiti, Amani Yaseen, Mohamed R. Gomaa. "*Influence of Partial Replacement of Cement by Various Percentage of Scoria in Self-Compacting Concrete on Thermal Conductivity in the Jordan Building Construction for Energy Saving*", International Review of Mechanical Engineering, Volume 15, No. 7, (2021), PP. 385-393.
- Eman Bani Hani, Abdullah Marashli, Mohammad Shalby, **Hani Al-Rawashdeh**. "*Experimental Investigation of Basic Properties Biodiesel Fuels (B100, B20, B5) Produced from Waste Cooking Oil (WCO) Using Trans-Esterification Process*", International Journal of Renewable Energy Sources, Volume 6, (2021), PP. 58-67.
- **Hani Al-Rawashdeh**, Ahmad O. Hasan, Hazem A. Al-Shakhanbeh, Mujahed Al-Dhaifallah, Mohamed R. Gomaa and Hegazy Rezk". "*Investigation of the Effect of Solar Ventilation on the Cabin Temperature of Vehicles Parked under the Sun* ", Sustainability, Volume 13, No. 24, (2021), PP. 1-21.
- Abdullah Marashli, Al-Mothana Gasaymeh, Mohammad Shalby, **Hani Al-Rawashdeh**. "*Review of Effect of Specific Geometrical Parameters on the Performance of Small Straight Blade –Vertical Axis Wind turbine (SB-VAWTs) of Darrieus-type*", International Journal of Renewable Energy Research, Volume 11, No. 4 (2021), PP. 1917-1927.
- Abdullah Marashli, Ghadeer Al Shabaan, Mohammad Shalby, **Hani Al-Rawashdeh**. "*Impact of Accumulated Dust on Performance of Two Types of Photovoltaic Cells: Evidence from the South of Jordan* ", International Journal of Renewable Energy Development, Volume 11, No. 2 (2022), PP. 547-557.
- Mohammad Shalby, Ahmad Abuseif, Mohamed R Gomaa, Ahmad Salah, Abdullah Marashli, **Hani Al-Rawashdeh**. "*Assessment of Dust Properties in Ma'an Wind Farms in Southern Jordan*", Jordan Journal of Mechanical & Industrial Engineering, Volume 16, No. 4 (2022), PP. 645– 652.

- Ahmad O Hasan, **Hani Al-Rawashdeh**, Ahmad Abu-jrai, Mohamed R Gomaa, Farrukh Jamil. *"Impact of variable compression ratios on engine performance and unregulated HC emitted from a research single cylinder engine fueled with commercial gasoline"*, *International Journal of Hydrogen Energy*, (2022), PP.
- **Hani Al-Rawashdeh**, Ahmad O. Hasan, Mohamed R. Gomaa, Ahmad Abu-jrai and Mohammad Shalby. *"Determination of Carbonyls Compound, Ketones and Aldehydes Emissions from CI Diesel Engines Fueled with Pure Diesel/Diesel Methanol Blends"*, *Energies*, Volume 15, (2022), PP. 1-16.

List of Papers Presented and Published in Conferences:

- **Hani A. Al-Rawashdeh.**, (2017). *"Types of Crossover and Mutation Operator Methods for Genetic Algorithm used in Permutation Problems"*, First International Conference on Advanced in Engineering Sciences (ICAES) July 3-5, 2017, Phuket, THAILAND.
- **Hani A. Al-Rawashdeh.**, (2017). *"Proposed Genetic Algorithm for Solving Shop Scheduling Problems (FSP)"*, First International Conference on Mechanical Engineering Sciences and Applications (MESA IC1), Tafila Technical University October 8-10, 2017, Tafila, JORDAN.
- **Hani A. Al-Rawashdeh.**, (2018). *"The Appropriate Genetic Algorithm Operators (Crossover and Mutation) used in Shop Scheduling Problems"*, 4TH International Conference on Advances in Mechanical Engineering Istanbul (ICAME 2018), December 19 – 21, 2018, Istanbul, TURKEY.
- **Hani A. Al-Rawashdeh.**, (2019). *"Design of Solar Photovoltaic for Electric Vehicles Charging Unit"*, IV International Scientific Conference – Winter Session (INDUSTRY 4.0), December 11 – 14, 2019, Brovets, Bulgaria.
- **Hani A. Al-Rawashdeh.**, (2019). *"Solving Flow Shop Scheduling Problem by Using an Improved Genetic Algorithms"*, 5TH International Conference on Advances in Mechanical Engineering Istanbul (ICAME 2019), December 17 – 19, 2019, Istanbul, TURKEY.