



- 1. Name and Academic Rank:** Kamel Bou-Hamdan, Assistant Professor, full-time.
- 2. Education: Degrees, Discipline, Institution and Date:**
 - Ph.D., Petroleum Engineering, University of Aberdeen, 2019.
 - M.Sc., Petroleum Engineering, Heriot-Watt University, 2012.
 - B.Eng., Electrical Power & Control Engineering, Beirut Arab University, 2011.
- 3. Work Experience:**
 - Assistant Professor at the Chemical and Petroleum Engineering Department, Beirut Arab University, Lebanon. (Feb 2019 – present)
 - Part-time Lab Assistant at the School of Engineering, University of Aberdeen, UK. (Feb 2016 – Dec 2018)
 - Lecturer at the Petroleum Engineering Department, Beirut Arab University, Lebanon. (Feb 2014 – Aug 2015)
 - Consultant Engineer, Advance Engineering and Management Services, Lebanon. (Sep 2013 – Aug 2014)
- 4. Service Activities and Memberships**
 - Editorial Board Member at The Way Ahead publication. (May 2019 – present)
 - Member of the Postgraduates & Research Committee. (Aug 2019 – present)
 - Member of the Student Activities Committee. (Aug 2019 – present)
 - Academic Reviewer for different conferences and journals.
 - Switch Energy Alliance Competition Judge (2020-2021) & Mentor (2021)
 - Engineering Day Judge. (2019)
 - SPE Section Awards Judge. (2019) & Student Chapter Awards Judge. (2017)
 - University representative in events and conferences
 - Member of the Society of Petroleum Engineers. (2011 – present)
 - Member of the Order of Engineering and Architects in Lebanon. (2013–present)
- 5. Research Interests**
 - Hydraulic Fracturing
 - Drilling Engineering
 - Reservoir Characterization
 - Production Technology
 - Geomechanics
 - Renewable Energy
 - Environmental Impacts



6. Principle Publications and Presentations

6.1. Publications:

1. Bou-Hamdan, K.F. " A 3D semi-analytical model for the interaction of proppants and rocks in a fractured reservoir". (Under Review)
2. Bou-Hamdan, K.F. (2022). "Applications of Nanomaterials in the Oil and Gas Industry". Book Chapter in Handbook of Research on Green Synthesis and Applications of Nanomaterials (2 Volumes). IGI Global. <http://doi:10.4018/978-1-7998-8936-6.ch008>
3. Bou-Hamdan, K.F.; Abbas, A. (2021). "Utilizing Ultrasonic Waves in the Investigation of Contact Stresses, Areas, and Embedment of Spheres in Manufactured Materials Replicating Proppants and Brittle Rocks". Arabian Journal for Science and Engineering. <http://doi:10.1007/s13369-021-06409-6>
4. Bou-Hamdan, K.F. (2021). "Implementation Challenges of Extended Reach Drilling and Hydraulic Fracturing Operations in Unconventional Reservoirs". Petroleum & Petrochemical Engineering Journal Vol 5, No. 4, <http://doi:10.23880/ppej-16000283>
5. Bou-Hamdan, K. (2021). "Design and Implementation of an Ultrasonic Scanner Setup that is Controlled using MATLAB and a Microcontroller". Advances in Science, Technology and Engineering Systems Journal Vol. 6, No. 2, 85-92. <https://doi.org/10.25046/aj060211>
6. Bou-Hamdan, K. "[What is concealed beneath the Lebanese offshore?](#)". The Way Ahead.
7. Bou-Hamdan, K. (2020). "An experimental approach that scans the surface area using ultrasonic waves to generate a two-dimensional image". 7th International Conference on Electrical and Electronics Engineering (ICEEE), Turkey. <https://doi.org/10.1109/ICEEE49618.2020.9102557>
8. Bou-Hamdan, K. (2020). "Key Design Considerations for maximizing the recovery rate of unconventional reservoirs". SPE The Way Ahead. <https://pubs.spe.org/en/twa/twa-article-detail/?art=6638>



9. Bou Hamdan, K., Siddiq, A. & Syed, A. (2019). "Investigating the role of proppants in hydraulic fracturing of gas shales". School of Engineering, University of Aberdeen, UK. ISNI: 0000 0004 7652 6922. (PhD Thesis) <https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.768131>
10. Bou Hamdan, K., Harkous, R. & Abou Chakra, H. (2015). "An overview of Extended Reach Drilling: Focus on design considerations and drag analysis". 2015 International Mediterranean Gas and Oil Conference (MedGO), Lebanon. <https://doi.org/10.1109/MedGO.2015.7330328>

6.2. Presentations/Talks:

1. "The basic stages of the drilling and extraction process regarding the Lebanese Offshore". Lebanon and Mediterranean Gas Workshop. (2020)
2. "Hydraulic Fracturing: Key Design Considerations and Challenges". Lebanon Oil and Gas Workshop, Lebanon. (2020).
3. "Introduction to Hydraulic Fracturing". Lebanon Oil and Gas Workshop, Lebanon. (2020)
4. "An experimental approach that scans the surface area using ultrasonic waves to generate a two-dimensional image". 7th International Conference on Electrical and Electronics Engineering (ICEEE), Turkey. (2020)
5. "Investigating the role of proppants in hydraulic fracturing of gas shales". School of Engineering, University of Aberdeen, UK. (PhD Viva 2019)
6. "An elastic model for partial monolayer arrangement of spheres". Petroleum and Natural Gas Engineering seminar, University of Aberdeen, UK. (2017)
7. "Investigating the role of proppant in hydraulic fracturing of gas shales by ultrasonic waves". Engineering Postgraduate Research Symposium, University of Aberdeen, UK. (2017)
8. "Literature review investigating the role of proppant in hydraulic fracturing of gas shales". Engineering Postgraduate Research Symposium, University of Aberdeen, UK. (2016)



9. "An overview of Extended Reach Drilling: Focus on design considerations and drag analysis". 2015 International Mediterranean Gas and Oil Conference (MedGO), Lebanon. (2015)
10. "Contribution of the petroleum engineering program at Beirut Arab University to the future of Oil & Gas industry in Lebanon". The Middle East Education Market: Academia Lebanon 2014, Lebanon. (2014)
11. "Wind Energy System". Renewable Energy Technology & Sources Symposium, Beirut Arab University, Lebanon. (2011)