PERVEIZ KHALID (Ph.D.)

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Total No. of Publications: 77
International: 56
National: 21
Total Impact Factor: 41.019
Citations: 151
h-index: 07

EXPERIENCE

Assistant Professor/ Head of Geophysics **since March 2011**
Institute of Geology, University of the Punjab Lahore, Pakistan

- Designed courses and syllabi and launched 2 years postgraduate program, M.Phil. in specialization Geophysics.
- Designed courses and syllabi and launched Ph.D. program in specialization of Geophysics.
- Established Geophysical state of art computer laboratory of industry standard.
- Established Geophysical Data (seismic, wireline logs) Bank.
- Brings commercial softwares related to Oil & gas exploration industry (Kingdom, OpendTect etc.).
- Organized workshops, lectures by professional oil & gas exploration industry experts.
- Established and successfully completed (on-going) joint research projects with foreigner Universities.

Research Associate **Oct. 2007 – Sep. 2010**
Laboratory of Complex Fluid and Their Reservoirs, University of Pau, France

Worked on Seismic properties and rock physics modeling of CO_2 saturated rocks, which was a part of ANR France project EMSAPCO2. This study focused the fluid phase transition effects on seismic properties and rock physics parameters. The research concluded that fluid replacement model of Gassmann is more appropriate if fluid bulk modulus is calculated by thermodynamic (Landau-Lifshitz) approach instead of classical Wood's approach at low frequency. The latter approach ignores mass and heat transfer effects, between the phases at the passage of seismic waves, which creates promising impedance contrasts and seismic attributes to distinguish high and low gas saturation.

Field Geophysicist **Oct. 2004 – Jul. 2005**
Bureau of Geophysical Prospecting (Pakistan) International

While working with BGP as an on-site data processor, I was involved in 2D & 3D seismic data acquisition and on-site processing activities, which also included data quality control, seismic layout, trouble shooting, load and geometry balancing of seismic data using workstation applications.

EDUCATION

Ph.D.	*Geophysics* *Major: Rock Physics* *Minor: Exploration Geophysics*	2007 – 2011	University of Pau, France
MS/M2	*Petroleum Engineering* *Major: Petroleum Engineering* *Minor: Geophysics*	2006 – 2007	University of Pau, France
M.Sc.	*Major: Geophysics* *Minor: Geology*	2002 – 2004	Quaid-i-Azam University Islamabad, Pakistan
B.Sc.	*Physics and Applied Mathematics*	1999 – 2001	Punjab University Lahore, Pakistan

RESEARCH PUBLICATIONS

1. Farid A., **Khalid P.,** Ali, M.Y., Iqbal M.A., and Jadoon K.Z. (2018) Seismic Stratigraphy of the Mianwali and Bannu Depressions, North-western Indus Foreland Basin. International journal of Earth Sciences, DOI.org/10.1007/s00531-017-1558-6, (Impact Factor = 2.283).

2. Ahmed N., **Khalid P.,** Shafi H.M.B., and Connolly P. (2017) DHI evaluation by combining rock physics simulation and statistical techniques for fluid identification of Cambrian-to-Cretaceous clastic reservoirs in Pakistan. Acta Geophysica, 65(5): 991 – 1007, DOI: org/10.1007/s11600-017-0070-5 (Impact Factor = 0.968).

3. Farid A., **Khalid P.,** Jadoon K.Z., Iqbal M.A., and Small J. (2017) An application of variogram modelling for electrical resistivity soundings to characterize depositional system and hydrogeology of Bannu Basin, Pakistan. Geoscience Journal, 21(5): 819 – 839, DOI: https://doi.org/10.1007/s12303-017-0016-6 (Impact Factor = 1.095).

4. Muhammad S., and **Khalid P.,** (2017) Hydrogeophysical investigations for assessing the groundwater potential in part of the Peshawar basin, Pakistan. Environmental Earth Sciences, 76: paper No. 494, DOI: 10.1007/s12665-017-6833-0 (Impact Factor = 1.569).

5. Farid A., **Khalid P.,** Jadoon K.Z., Iqbal M.A., and Shafique M. (2017) Applications of variogram modeling to electrical resistivity data for the occurrence and distribution of saline groundwater in Domail Plain, northwestern Himalayan fold and thrust belt, Pakistan. Journal of Mountain Science 14: 158 – 174, DOI: 10.1007/s11629-015-3754-9 (Impact Factor = 1.016).

6. Hussain M., Ahmed N., Chun W.Y., **Khalid P.,** Mahmood A., Ahmad S.R., and Rasool U. (2017) Reservoir Characterization of Basal Sand Zone of Lower Goru Formation by Petrophysical Studies of Geophysical Logs. Journal of Geological Society of India 89: 331 – 338, DOI: 10.1007/s12594-017-0614-y. (Impact Factor = 0.479).

7. Azeem T., Chun W.Y., Lisa M., **Khalid P.,** Qing L.X., Ehsan M.I., Munawar M.J., and Wei X. (2017) An integrated petrophysical and rock physics analysis to improve reservoir characterization of Cretaceous sand intervals in Middle Indus Basin, Pakistan. Journal of Geophysics and Engineering 14: 212 – 225, DOI:10.1088/1742-2140/14/2/212. (Impact Factor = 0.994).

8. Hussain M., Chun W.Y., **Khalid P.,** Ahmed N., and Mahmood A. (2017) Improving Petrophysical Analysis and Rock Physics Parameters Estimation Through Statistical Analysis of Basal Sands, Lower Indus Basin, Pakistan. Arabian Journal for Science and Engineering 42(1): 327 – 337, DOI: 10.1007/s13369-016-2128-0, (Impact Factor = 0.865).

9. Azeem T., Yanchun W., **Khalid P.,** Y uan F., and Lifang C. (2016) An application of seismic attributes analysis for mapping of gas bearing sand zones in the sawan gas field, Pakistan. Acta Geodaetica et Geophysica 51 (4): 723 – 744, DOI: 10.1007/s40328-015-0155-z, (Impact Factor = 0.794).

10. Ehsan M.I., Ahmed N., Din Z.U., **Khalid P.,** and Wei L.X. (2016) An application of AVO derived attributes to analyze seismic anomalies of gas hydrate bearing sediments in Makran offshore, Pakistan. Acta Geodaetica et Geophysica 51 (4): 671 – 683, DOI: 10.1007/s40328-015-0146-0, (Impact Factor = 0.794).

11. Naeem M., Burg J.P., Ahmad N., Chaudhry M.N., and **Khalid P.** (2016) U-Pb zircon systematics of the Mansehra Granitic Complex: implications on the early Paleozoic orogenesis in NW Himalaya of Pakistan. Geoscience Journal 20(4): 427 – 447, DOI: 10.1007/s12303-015-0062-x, (Impact Factor = 1.095).

12. **Khalid P.,** Bajwa A.A., Naeem M., and Din Z.U. (2016) Seismicity distribution and focal mechanism solution of major earthquakes of northern Pakistan. Acta Geodaetica et Geophysica 51 (3): 347 – 357, DOI: 10.1007/s40328-015-0130-8, (Impact Factor = 0.794).

13. Ehsan M.I., Ahmed N., **Khalid P.,** Wei L.X., Naeem M. (2016) An application of rock physics modeling to quantify the seismic response of gas hydrate-bearing sediments in Makran accretionary prism, offshore, Pakistan. Geoscience Journal 20(3): 321 – 330, DOI: 10.1007/s12303-015-0044-z, (Impact Factor = 1.095).

14. Ehsan M.I., **Khalid P.,** Ahmed N., You J., Liu X.W., and Azeem T. (2016) Seismic Attenuation and Velocity Dispersion to Discriminate Gas Hydrates and Free Gas Zone, Makran Offshore, Pakistan. International Journal of Geosciences 7(8): 1020 – 1028, DOI: 10.4236/ijg.2016.78077, (Impact Factor = 0.79).

15. Mahmood S.A., Mehmood K., **Khalid P.,** Afzal Z., Ahmad J., Tariq B., Kaukab I.S., and Hanif M.A. (2016) Dem Based Analysis of neotectonics in Hindukush (N. Pakistan) . Geodynamics Research International Bulletin (GRIB) 3(5): 1 – 13.

16. Ahmed N., **Khalid P.,** Ali T., Ahmad S.R., and Akhtar S. (2016) Differentiation of Pore Fluids Using Amplitude versus Offset Attributes in Clastic Reservoirs, Middle Indus Basin, Pakistan. Arabian Journal

for Science and Engineering 41(6): 2315 – 2323, DOI: 10.1007/s13369-015-1992-3, (Impact Factor = 0.728).

17. Ahmed N., Ghazi S., and **Khalid P.** (2016) On the variation of b-value for Karachi region, Pakistan through Gumbel's extreme distribution method. Acta Geodaetica et Geophysica 51(2): 227 – 235, DOI: 10.1007/s40328-015-0122-8, (Impact Factor = 0.794).

18. Ghazi S., **Khalid P.,** Aziz T., Sajid Z., and Hanif T. (2016) Petrophysical analysis of a clastic reservoir rock: a case study of the Early Cambrian Khewra Sandstone, Potwar Basin, Pakistan. Geoscience Journal 20(1): 27 – 40, DOI: 10.1007/s12303-015-0021-6, (Impact Factor = 1.095).

19. **Khalid P.,** and Ahmed N., (2016) Modulus defect, velocity dispersion and attenuation in partially-saturated reservoirs of Jurassic sandstone, Indus Basin, Pakistan. Studia Geophysica et Geodaetica 60(1): 112 – 129, DOI: 10.1007/s11200-015-0804-2. (Impact Factor = 0.818).

20. Majeed A., Ullah W., Anwar A.W., Shuaib A., Ilyas U, **Khalid P.,** Mustafa G., Junaid M., Faheem B., and Ali S. (2016). Cost-effective biosynthesis of silver nanoparticles using different organs of plants and their antimicrobial applications: A review. Materials Technology: Advanced Biomaterials DOI: 10.1080/10667857.2015.1108065. (Impact Factor = 1.227).

21. Ahmed N., **Khalid P.,** and Anwar A.W. (2016) Rock physics modeling to assess the impact of spatial distribution pattern of pore fluid and clay contents on acoustic signatures of partially-saturated reservoirs. Acta Geodaetica et Geophysica 51(1): 1 – 13, DOI: 10.1007/s40328-015-01010-0. (Impact Factor = 0.794).

22. **Khalid P.,** Ahmed N., Mahmood A., Saleem M.A., Hassan (2016) An Integrated Seismic Interpretation and Rock Physics Attribute Analysis for Pore Fluid Discrimination. Arabian Journal for Science and Engineering 41(1): 191 – 200, DOI: 10.1007/s13369015-1732-8. (Impact Factor = 0.728).

23. Ahmed N., **Khalid P.,** Ghazi S., and Anwar A.W. (2015) AVO forward modeling and attributes analysis for fluid identification: A case study. Acta Geodaetica et Geophysica 50(4): 377 – 390, DOI: 10.1007/s40328-014-0097-x. (Impact Factor = 0.794).

24. Naeem M., **Khalid P.,** and Anwar A.W. (2015) Construction material prospects of granitic and associated rocks of Mansehra area, NW Himalaya, Pakistan. Acta Geodaetica et Geophysica, 50(3): 307 – 319, DOI: 10.1007/s40328-014-0087-z. (Impact Factor = 0.794).

25. **Khalid P.,** Yasin Q., Sohail G.M.D. and Kashif J.M. (2015), Integrating core and wireline log data to evaluate porosity of Jurassic formations of Injra-1 and Nuryal-2 wells, western Potwar, Pakistan. Journal of Geological Society of India 86 (5): 553 – 562, DOI: 10.1007/s12594-015-0346-9. (Impact Factor = 0.596).

26. **Khalid P** (2015) Thermoelastic relaxation and its effects on the compressibility of pore fluid and P wave velocities. Arabian Journal of Geosciences 8: 6157 – 6167, DOI 10.1007/s12517-014-1641-2. (Impact Factor = 1.224).

27. **Khalid P.,** Ahmed N., Naeem M., and Khan K.A. (2015) A modeling study of AVO-derived attributes to differentiate reservoir facies from non-reservoirs facies and fluid discrimination in Penobscot area, Nova Scotia. Geoscience Journal 19(3): 471 – 480 DOI: 10.1007/s12303-014-0048-0. (Impact Factor = 1.095).

28. Ullah, W., Anwar A. W., Majeed A., Sharif A., Sharif R., **Khalid P.,** Mustafa G., and Khan A. (2016) Cost-effective and facile development of Fe3O4–reduced graphene oxide electrodes for supercapacitors. Materials Technology, 30, Iss. sup3: 144 – 149, DOI: 10.1179/17535557A15Y.000000016. (Impact Factor = 1.422).

29. Naeem M., Sadiq R.A.B., Anwar M. and **Khalid P.** (2014) Mechanical properties and petrographic characteristics of Margala Hill Limestone and Lockhart Limestone of Rumli area, Islamabad Pakistan. Acta Geodaetica et Geophysica 49: 441 – 454, DOI: 10.1007/s40328-014-0068-2, (Impact Factor = 0.543).

30. **Khalid P.**, Naeem M., Din Z.U., and Yasin Q. (2014) On seismic monitoring of CO2 leakage from geological storages and Contamination of fresh water aquifer. Acta Geodaetica et Geophysica 49: 235 – 247, DOI: 10.1007/s40328-014-0059-3, (Impact Factor = 0.794).

31. Farid A., **Khalid P.,** and Jadoon K.Z. (2014) The depositional setting of the late Quaternary sedimentary fill in southern Bannu basin, northwest Himalayan fold and thrust belt, Pakistan. Environmental Monitoring and Assessment 186: 6587 – 6604, DOI: 10.1007/s10661-014-3876-5. (Impact Factor = 1.679).

32. **Khalid P.,** Naeem M., Din Z.U., and Ghazi S. (2014) Effect of Capillary Pressure on Seismic Properties of Rocks Saturated with Bubbly Fluids. Science International, 26, p. 1529 – 1534 (HEC Recognized).

33. **Khalid P.,** Naeem M., Afzal M.H., Din Z.U., and Yasin Q. (2014) Petroleum Play Analysis of Cretaceous Sequence, Punjab Platform, Central Indus Basin, Pakistan. Science International, 26, p. 2163 – 2171 (HEC Recognized).

34. Naeem M., **Khalid P.,** Ullah S., and Din Z.U. (2014) Physio-mechanical and Aggregate Properties of Limestones from Pakistan. Acta Geodaetica et Geophysica 49: 369 – 380, DOI: 10.1007/s40328-014-0054-8 (Impact Factor = 0.794).

35. **Khalid P.,**Qayyum F., and Yasin Q. (2014) Data Driven Sequence Stratigraphy of the Cretaceous Depositional System, Punjab Platform, Pakistan. Surveys in Geophysics 35: 1065 – 1088, DOI 10.1007/s10712-014-9289-8, (Impact Factor = 5.112).

36. Ghazi S., Aziz T., **Khalid P.,** and Sahraeyan M. (2014), Petroleum Play analysis of the Jurassic Sequence, Meyal Oil-field, Potwar Basin, Pakistan. Journal of Geological Society of India 84: 727 – 738, DOI:10.1007/s12594-014-0183-2 (Impact Factor = 0.596).

37. **Khalid P.,** Broseta D., Nichita D. V. and Blanco J. (2014), A modified rock physics model for analysis of seismic signatures of low gas-saturated rocks. Arabian Journal of Geosciences 7: 3281 – 3295, DOI 10.1007/s12517-013-1024-0, (Impact Factor = 1.224).

38. **Khalid P.** and Ghazi S. (2013), Discrimination of fizz water and gas reservoir by AVO analysis: a modified approach, Acta Geodaetica et Geophysica 48(3): 347 – 361, DOI 10.1007/s40328-013-0023-7, (Impact Factor = 0.543).

39. **Khalid P.** (2011), Effects on seismic properties. *Lambert Academic Publishing*, p. 1 – 124, 2011.

40. **Khalid P.** (2011), Effects on seismic properties of thermoelastic relaxation and liquid/vapor phase transition. Abstract. Geophysics 76(3), p. Z49, DOI: 10.1190/1.3599017, (Impact Factor = 1.759).

41. Nichita D.V., **Khalid P.,** and Broseta D. (2010), Calculation of isentropic compressibility and sound velocity in two-phase fluids. Fluid Phase Equilibria 291: 95 – 102, DOI: 10.1016/j.fluid.2009.12.022, (Impact Factor = 2.241).

42. Ghazi S., and **Khalid P.** (2004), Hydrocarbon potential of the upper Paleocene Lockhart Limestone from Shakardara Well-1, Kohat, Pakistan. Geological Bulletin of the Punjab University, Pakistan 39: 67 – 73.

CONFERENCE PAPERS

1. Ahmed N., Ali T., and **Khalid P.** (2017) *Numerical Simulation of P-wave Attenuation and Dispersion to Identify the Low Gas Saturated Reservoirs.* "79th EAGE Conference and Exhibition 2017" June 12 – 15, 2017, Paris, France, DOI: 10.3997/2214-4609.201701464.

2. **Khalid P.,** Ullah S., and Farid A. (2017) *An Assessment of Alluvium Aquifer Characterization and Subsurface Mapping to Detect Fresh and saline water zones in Karak Valley, Khyber Pakhtunkhwa, Pakistan.* "5th International Conference Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice NovCare 2017" June 06-09, 2017, Dresden, Germany.

3. **Khalid P.,** and Ehsan M.I. (2017) *Effect of organic richness on petrophysical and seismic properties of Paleocene shales of Upper Indus Basin Pakistan.* "70th Geological Congress of Turkey Cultural Geology and Geological Heritage" 10 – 14 April 2017, Ankara, Turkey.

4. **Khalid P.,** Ahmed N., and Din Z.U. (2016) *A Modified Rock Physics Model to Improve Seismic Characterization of Jurassic Reservoirs, Pakistan.* "7th International Conference on Applied Geophysics" 14 – 15 January 2016, Bangkok, Thailand.

5. **Khalid P.,** and Ahmed N. (2016) *Estimation of Reservoir Properties from Well Logs and Core Plugs to Reduce Uncertainty in Formation Evaluation and Rock Physics Modeling: A Case Study from the Kohat-Potwar Geologic Province.* "7th International Conference on Applied Geophysics" 14 – 15 January 2016, Bangkok, Thailand.

6. **Khalid P.,** Khurram S., and Din Z.U. (2016) *Seismic hazard assessment of the site for Diamer Basha dam, Northern Pakistan.* "World Multidisciplinary Earth Sciences Symposium" 5 – 9 September 2016, Prague, Czech Republic.
7. Ahmed, N., and **Khalid, P.,** (2016) *Combining rock physics simulation and Gaussian statistical technique to identify Fizz water and gas saturated reservoirs.* "35th International Geological Congress (IGC)" 27 August – 04 September 2016, Cape Town, South Africa.

8. **Khalid P**., Ahmed, N., Muhammed S., and Din Z.U. (2016) *Investigation of hydrogeological and geophysical susbsurface conditions to delineate groundwater system in Bahawalpur District, Punjab Province, Pakistan.* "Earth Sciences Pakistan 2016" 15 – 17 July 2016, Baragali Summer Campus, University of Peshawar, Pakistan.

9. Ahmed, N., **Khalid, P.,** (2016) *Integrated Rock Physics and Statistical Methods for Characterization of Clastic Reservoirs in Pakistan.* "Earth Sciences Pakistan 2016" 15 – 17 July 2016, Baragali Summer Campus, University of Peshawar, Pakistan.

10. Ehsan M.I., **Khalid P.,** Ahmed N., and Wei L.X. (2016) *Impact of gas hydrates formation patterns on seismic and elastic properties of host sediments, Makran offshore area, Pakistan.* "Earth Sciences Pakistan 2016" 15 – 17 July 2016, Baragali Summer Campus, University of Peshawar, Pakistan.

11. Afzal A., Zaidi S.H.A., Kalsum U., Zeeshan M., Ahmed N., and **Khalid P.** (2016) *Seismic Signature of Sediments Bearing Gas Hydrates In Makran Accretionary Prism, Offshore, Pakistan: An Application of Effective Medium Theory.* "23rd SPE-PAPG Annual Technical Conference (ATC 2016)" 22-23 November 2016, paper ID PAPG - ATC STU # 009-16, p. 553 – 556, Islamabad, Pakistan.

12. Arshad M., Ahmad A., Saleh K., Zaman M., Din Z.U. and **Khalid P.** (2016) *Qualitative Seismic Interpretation and Petrophysical Analysis To Delineate The Reservoir Zone of Lower Goru Formation.* "23rd SPE-PAPG Annual Technical Conference (ATC 2016)" 22-23 November 2016, paper ID PAPG - ATC STU # 011-16, p. 563 – 567, Islamabad, Pakistan.

13. Ahmad M., Rehman A., Anwar M.A., Badar M.A., Ahmed N., and **Khalid P.** (2016) *An Application Of Amplitude Versus Offset (AVO) Modeling And Gassmann Fluid Substitution To Discriminate Reservoir Fluids And Lithology: A Development Of Matlab Code.* "23rd SPE-PAPG Annual Technical Conference (ATC 2016)" 22-23 November, 2016, paper ID PAPG - ATC STU # 011-16, p. 557 – 561, Islamabad, Pakistan.

14. **Khalid P.,** Ahmed N., and Din Z.U. (2015) *Petrophysics and rock physics modeling to improve seismic characterization of Jurassic reservoirs, Pakistan.* "VI International Conference of Young Scientists and Students Multidisciplinary Approach To Solving Problems of Geology and Geophysics" 12-15 October 2015 Baku, Azerbaijan.

15. Ahmed N., Shafi H.M.B., Iqbal Z., **Khalid P.** (2015) *Pore fluids discrimination by inverting seismic velocities into acoustic and elastic impedances in cretaceous sands of lower Indus basin, Pakistan.* "VI International Conference of Young Scientists and Students Multidisciplinary Approach To Solving Problems of Geology and Geophysics" 12-15 October 2015 Baku, Azerbaijan.

16. Ali M.S., Ahmed N., **Khalid P.** (2015) *Subsurface structural analysis, velocity modeling and statistical analysis of clastic reservoir in the Bitrism Area, Lower Indus Basin Pakistan.* "22nd SPE-PAPG Annual Technical Conference (ATC 2015)" 24-25 November, 2015, paper ID PAPG - ATC # Stu-004-14, p. 558 – 563, Islamabad, Pakistan.

17. Shafi, H.M.B., Iqbal, Z., Ahmed, N., Khalid, P. (2015) Viabilities of Oblique/Non-Oblique Incident Wave Acoustic Impedances for Discrimination of Hydrocarbon and Non-hydrocarbon Sand Facies. "22nd SPE-PAPG Annual Technical Conference (ATC 2015)" 24-25 November, 2015, paper ID PAPG - ATC # Stu-004-14, p. 558 – 563, Islamabad, Pakistan.

18. Khan, M.K., Ahmed, N., Khalid, P. (2015) An Application of Rock Physics Modeling and Seismic Attributes for Optimum Field Development. "22nd SPE-PAPG Annual Technical Conference (ATC 2015)" 24-25 November, 2015, paper ID PAPG - ATC # Stu-004-14, p. 558 – 563, Islamabad, Pakistan.

19. Ahmed H., Farid A., Khalid P. (2015) Subsidence History of the Middle Indus Basin in the Vicinity of Punjab Platform, Pakistan. "22nd SPE-PAPG Annual Technical Conference (ATC 2015)" 24-25 November, 2015, paper ID PAPG - ATC # Stu-004-14, p. 558 – 563, Islamabad, Pakistan.

20. Ali T, Ahmed N., Akhtar S., and **Khalid P**. (2014) *Discrimination of fluids and lithologiesfrom amplitude versus offset derived seismic attributes.* "21st SPE-PAPG Annual Technical Conference (ATC 2014)", 25-26 November, 2014, paper ID PAPG - ATC # Stu-003-14, p. 552 – 557, Islamabad, Pakistan.

21. Hassan, Afzal M.H., Ahmed N., Ghazi, S., and **Khalid P**. (2014) *Rock physics modeling to quantify geophysical characteristics of shale gas in lower cretaceous, southern Indus basin, Pakistan.* "21st SPE-PAPG Annual Technical Conference (ATC 2014)" 25-26 November, 2014, paper ID PAPG - ATC # Stu-004-14, p. 558 – 563, Islamabad, Pakistan.

22. Kausar T, Tariq R., Ahmed N., and **Khalid P**., (2014) *Estimation of reservoir properties from well log and rock physics to reduce uncertainty in formation evaluation in Ratana gas field, Northern Potwar.* "21st SPE-PAPG Annual Technical Conference (ATC 2014)" 25-26 November, 2014, paper ID PAPG - ATC # Stu-005-14, p. 564 – 568, Islamabad, Pakistan.

23. Mehmood A., Ahmed N., Saleem M.A., Hassan, Din Z.U., and **Khalid P.,** (2014) *Integrated seismic interpretation and attributes analysis for prospect identification of Ratana area, Northern Potwar.*"21st SPE-PAPG Annual Technical Conference (ATC 2014)" 25-26 November, 2014, paper ID PAPG - ATC # Stu-006-14, p. 569 – 573, Islamabad, Pakistan.

24. Ehsan M.I., Ahmed N., **Khalid P.,** and Wei L.X., (2014) *Seismic characterization and rock physics modeling of hydrate-bearing sediments of the continental margin of Pakistan.* "21st SPE-PAPG Annual Technical Conference (ATC 2014)" 25-26 November, 2014, paper ID PAPG - ATC # Stu-007-14, p. 574 – 578, Islamabad, Pakistan.

25. **Khalid P**, Ghazi S., Yasin Q., and Khurrem S. (2014). *Assessment of Seismic Hazard of the Kalam-Ashrit Dam, Swat, Pakistan*. "3rd Annual International Conference on Geological and Earth Sciences (GEOEARTH 2014)", Singapore 22 – 23 Sep. 2014.
26. Ghazi S., **Khalid P**., Butt A.A., Sharif S., Hanif T. (2014) *Sedimentary Facies and depositional environment of the Lower Eocene shallow shelf carbonate deposit, the Sakesar Limestone, Salt Range, Pakistan.* "3rd Annual International Conference on Geological and Earth Sciences (GEOEARTH 2014)", Singapore 22 – 23 Sep. 2014.

27. **Khalid P.,** Bajwa A.A., Ghazi S. (2014), *Focal Mechanisms Computation and Seismicity Distribution of Major Earthquakes in Lesser and Central Himalaya. Invited as Guest Speaker* "International Conference on Earth Science Pakistan 2014", Baragali, 29 – 31 Aug. 2014.

28. Ali T., Ahmed N., Din Z.U. and **Khalid P.** (2013), *Effects of pore fluids on seismic and elastic properties of reservoir rocks of Injra-01 Western Potwar, Pakistan*. "20th SPE-PAPG Annual Technical Conference (ATC 2013)" 26-27 November, 2013, Islamabad, Pakistan.

29. **Khalid P.,** Ahmed N., Yasin Q., and Ali S.H. (2012), *Seismic sequence stratigraphy and facies analysis to delineate the reservoir potential in cretaceous–tertiary unconformity of Punjab Platform, Middle Indus Basin, Pakistan.* KSEG International Symposium on "Geophysics for Discovery and Exploration" 19 – 21 Sep. 2012, Jeju, Republic of Korea.

30. Kashif J.M., **Khalid P.,** Yasin Q., and Sohail G.M. (2012), *Porosity evaluation through wireline logs and cores of Injra-01 and Nuryal-02 of Western Potwar, Upper Indus Basin, Pakistan.* KSEG International Symposium on "Geophysics for Discovery and Exploration" 19 – 21 Sep. 2012, Jeju, Republic of Korea.

31. Ijaz W., Yasin Q., **Khalid P.,** and Maqsood M. (2012), *Study of source rock maturity and hydrocarbon exploration potential by using petrophysical analysis of Punjab Platform, Central Indus Basin, Pakistan.* KSEG International Symposium on "Geophysics for Discovery and Exploration" 19 – 21 Sep. 2012, Jeju, Republic of Korea.

32. **Khalid P.**, Qayyum F., and Broseta D. (2010), *Low gas-saturation effect on AVO response.* "17th SPE-PAPG Annual Technical Conference" 10 – 11 November 2010, p. 125 – 136.

33. **Khalid P.,** Broseta D., Nichita D. V., Galliero G., Favretto C. N. and Blanco J. (2009*), Vitesses sismiques en milieu poreux faiblement saturé en gaz.* 19th Congrès Français de Mécanique, Marseille, France, 24 – 28 Aug. 2009.

34. Broseta D., **Khalid P.**, Nichita D.V., Favretto C. N., and Blanco J. (2009), A new look at seismic properties of low gas-saturated reservoirs. Extended Abstract. "71st EAGE Conference & Exhibition" 8 – 11 June 2009, Amsterdam, The Netherlands.

35. Nichita D.V., **Khalid P.,** and Broseta D. (2008*), Calculation of isentropic compressibility and thermodynamic sound velocity in two-phase mixtures.* "18th European Conference on Thermophysical Properties" 31 Aug. – 4 Sep. 2008, Pau, France.

AWARDS/ GRANTS

- 1.2 MPKR for the establishment of Geophysical state of art laboratory at the Institute of Geology from the University of the Punjab.
- 0.4 million PKR travelling grant to participate in KSEG 2012 Conference at Jeju, Republic of Korea.
- 0.3 million PKR travel grant to participate in GEOEARTH 2014 Conference at Singapore.
- 0.3 million PKR travel grant to participate in 7th Applied Geophysics Conference at Bangkok, Thailand.
- 0.2 million PKR travel grant to participate in 70th Geology Congress of Turkey.
- 0.3 million PKR travel grant to participate in 5th NOVCARE at Dresden, Germany
- Member of Young Scientists Delegate sent to Belarus (2015) by Pakistan Academy of Science
- Ph.D. Approved supervisor by Higher Education Commission of Pakistan.
- SEG travel grant for SEP 2010 and 1st IGSC, Bucharest, Romania, 3 September – 7 September, 2010.
- Certificate of Appreciation in On-site seismic data processing training BGP (Pakistan) International.
- 1st position in student research paper contest organized by PAPG-SPE in Annual Technical Conference 2015.
- 1st and 3rd position in student research paper contest organized by PAPG-SPE in Annual Technical Conference 2014.
- 1st position in student research paper contest organized by PAPG-SPE in Annual Technical Conference 2013.

THESIS/DISSERTATION SUPERVISION

	Completed	Under Progress
BS/M.Sc.	38	3
MS/M.Phil.	25	8
Ph.D.	1	4

Ph.D. THESIS COMPLETED

1. **Muhammad Irfan Ehsan** (May 2016) Seismic Characterization of gas hydrates bearing sediments, Makran Accretionary Prism, Offshore Pakistan.

Ph.D. UNDER PROGRESS

1. **Mr. Asam Farid** (Submitted) Geophysical Characterization of Late Quaternary Basin Deposits and Hydrogeophysical Modeling of Lakki Marwat and Domail Plains, Khyber Pakhtunkhwa, Pakistan.

2. **Mr. Sher Muhammad** Geophysical and hydrogeological investigations to characterize the potential groundwater aquifers of Nowshera area, Khyber Pakhtunkhwa, Pakistan.
3. **Mr. Nisar Ahmed** Numerical Simulation of Upscaling Effects due to Wave Induced Fluid Flow (WIFF) in Porothermoelastic Media.
4. **Mr. Shamshad Akhtar** Integrated Sequence Stratigraphy and Basin Modeling To Identify Conventional and Unconventional Petroleum Resources Of Punjab Platform and Suleiman Foredeep, Middle Indus Basin, Pakistan.

M.Phil. THESIS COMPLETED

1. **Zia Ud Din (2012)** Structural and stratigraphic insights in the late Paleocene and Early Eocene of the Dhulian and Khaur Oil Fields, Potwar Sub-basin, Upper Indus Basin, Pakistan.
2. **Nisar Ahmed (2013)** Rock physics modeling and sensitivity analysis of AVO derived indicators to discriminate fluid and lithologies of Penobscot Area, Nova Scota, Canada.
3. **Kashif Arif (2013)** A comparative study to find out relationship between shear wave velocityand standard penetration test of Khobar Dammam, Saudi Arabia.
4. **Wasim Akhtar (2013)** Integrated seismic interpretation and attributes analysis for prospect identification of Minwal Field Kohat-Potwar Plateau, Pakistan.
5. **Shahbaz Muhammmad (2013)** Seismic hazard analysis of Koragh Paraith hydropower district Chitral, KPK, Pakistan**.**
6. **Qamar Yasin (2014)** Elastic and petrophysical properties of Shale Gas reservoir rocks and their relations to organic richness in Patala Shale of Upper Indus Basin, Pakistan.
7. **Muhammad Haroon Afzal (2014)** Effect of organic contents on seismic and rock physics properties of Sembar Shale in Lower and Middle Indus Basin, Pakistan**.**
8. **Muhammed Kamran (2015)** An application of rock physics modeling and seismic attributes for optimum field development.

9. **Haseeb Ahmed (2015)** Subsidence analysis of the Middle Indus Foreland Basin using backstripping of well data.
10. **Tanzil ur Rehman Sabir (2015)** Detection of subsurface karastic features using electrical resistivity tomography, Al-Ain, United Arab Emirates.
11. **Muhammad Maqsood (2015)** Integrated seismic interpretation, rock physics and attributes analysis for prospect identification in southern Punjab Platform, Pakistan.
12. **Shah Muhammad Imran (2015)** Petroleum play analysis and rock physics modeling of reservoirs of Joya Mair Oilfield, Eastern Potwar, Punjab, Pakistan .
13. **Sardar Mussadiq Iqbal (2016)** Source rock evaluation of Mughal-Kot Shales and petrophysical analysis by using well logs data and seismic profiles of Middle Indus Basin Pakistan.
14. **Nafees Ali (2016)** Shale gas potential and effects of organic content on seismic and rock physics properties of Palaeocene Patala Formation, Upper Indus Basin Pakistan.
15. **Muhammed Tahir Jamil (2016)** Seismic attribute analysis and characterization of unconventional Talhar Shale gas reservoir.
16. **Taqdus Ali (2016)** Effect of reservoir inhomogenities on frequency dependent seismic attenuation, velocity dispersion and AVO attributes
17. **Shehzada Khuram (2016)** Engineering Site Characterization Through Geotechnical And Geophysical Investigation For Nishat Chunian Power Plant.
18. **Ata Ul Mohsin (2016)** A Modified Rock Physics Model And Fluid Substitution For Reservoir Diagnosis And Characterization.
19. **Saif Ullah (2017)** Investigation of ground water potential and mapping of fresh and saline water aquifers in Karak Valley, Khyber Pakhtunkhwa, Pakistan.
20. **Zahid Iqbal (2017)** Geophysical and geotechnical investigation for site characterization and seismic hazard assessment of Islamabad area, Pakistan.
21. **Salman Ali (2017)** Seismic Interpretation and Petrophysical Analysis of Parihaka 3-D Seismic Survey with Special Emphasis on Giant Foresets Formation in Taranaki Basin, Newzealand.

22. **Mr. Azhar Mehmood (2017)** An integrated study for petrophysical analysis and reservoir mechanics of Eocene carbonates in Myal field, Potwar Pleateau, Pakistan.
23. **Hafiz Muhammad Bilal Shafi (2017)** Application of rock physics modeling and geostatical analysis for sand reservoir characterization sparsely distributed in Indus Basin, Pakistan.
24. **Muhammad Yasin Shafique (2017)** Impact of Rock physics attributes on seismic attenuation and velocity dispersion in gas hydarates bearing sediments.
25. **Muhammad Ahsan (2017)** Delineation of fresh and saltwater layers and geophysical investigations of aquifer in Southewestern part of District Nowshera, Khyber Pakhtunkhwa, Pakistan.

M.Sc. THESIS COMPLETED

1. **Khalid Mehmood (2013)** DEM based analysis of hazardous zone, HinduKush using multisource data.
2. **Shehzada Khurrem, Muhammed Waqar, Kashif Mushtaq (2013)** Seismic hazard analysis of Diamer bhasha Dam.
3. **Muhammad Usman, Syed Hussnain Shah, Amir Rasheed (2013)** Subsurface structural interpretation of 2D seismic data of Khaur area, Potwar Plateau, Upper Indus Basin, Punjab Province.
4. **Sardar Hussain, Asif Ali Bajwa (2014)** The study of seismicity and source mechanism of some significant earthquakes of Northern/Southern areas of Pakistan.
5. **Bilal Tariq, Zubair Afzal (2014)** Subsurface structural interpretation of 2D seismic data of Dhulian area, Potwar Plateau, Upper Indus Basin, Punjab Province.

PROFESSIONAL AFFILIATIONS

- American Association of Petroleum geologists (AAPG)
- American Geophysical Union (AGU)
- Acoustical Society of America (ASA)
- Society of Exploration Geophysicists (SEG)
- European Association of Geoscientists & Engineers (EAGE)
- Society of Petroleum Engineers (SPE)
- GeoScience Club, France.
- Pakistan Association of Petroleum Geoscientists (PAPG)
- Punjab Geological Society (PGS)