

Dr. Mohammad Jahangir Khan

Personal Information

Experience : 15+ years (Academics, Management, Research)
Date of Birth : 4th February, 1987 Nationality: Pakistan
N.I. of Citizenship : 36601-9967536-9 Driving License: 36601-9967536-9 (575)
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oceanexpert.org/expert/jahangir.khan www.linkedin.com/in/dr-m-jahangir-khan-18091221
Permanent Address: House 123/10 K-Block, Burewala, District Vehari, Punjab

Qualification

Degree : Ph.D Geo-Physics (*Specialization: Seismology & GIS*)
Thesis Title : Integrated Study on Seismicity of Southern Pakistan
Major Domains : Spatial Data Mapping, Statistical Analysis, Geophysical Data Interpretation, Earthquake Prediction
University : Bahria University (Karachi Campus), Pakistan
Session : Spring 2016 to Fall 2021
Result : CGPA 3.83 / 4.0
Distinction : First PhD in Geophysics from BU; Honoured with 'Suma-Cum-Laude' Award

Degree : MS Geo-Physics (*Specialization: Seismology, Seismic and GIS*)
Thesis Title : Integrated Study on Seismicity of Makran Region over 100 years
Major Domains : Spatio-Temporal Analysis, GIS Mapping, Interpretation of Seismic Data
University : Bahria University (Karachi Campus)
Session : Fall 2012 to Spring 2014
Result : CGPA 3.54/4.0
Distinction : First position holder, Merit Scholarship

Degree : Post-Graduate Diploma Remote Sensing and GIS
Major Courses : Remote Sensing, GIS, Database & Programming
Institution : National Center for Remote Sensing and GIS (NCRG), SUPARCO, Karachi
Session : March 2012 to August 2012
Term Projects : Satellite Image Processing for mapping of surface features using Landsat 5 and 7
Mapping of earthquakes in Pakistan with ArcGIS (ArcMap, ArcScene)
Result : CGPA 3.20/4.0

Degree : M.Sc Geo Physics (Seismic and Petrophysics)
Thesis Title : 2D Seismic interpretation of seismic line GJN-52 and Petrophysical analysis of reservoir
Major Field : Geophysics (Seismic Interpretation and Petrophysical Analysis of Hydrocarbons Reservoir)
University : Quaid-i-Azam University, Islamabad, Pakistan
Session : Spring 2007-Fall 2008
Result : 74.5% (Annual System)

Degree : B.Sc Physics and Mathematics
Major Courses : Mathematics (A & B) and Physics
University : Bahaiddin Zakariya University, Multan, Pakistan
Session : 2004-2006
Result : 80 % (Annual System)
Distinction : Position holder in Govt Degree College, Highest marks in Physics

Trainings/Workshops/Certificate Courses

- Significance of Andragogy in Learning Process at HEI, Webinar Rashid Latif Khan Uni., NAHE-HEC, 30 Jun, 2025
- Effectiveness of Revised QA Framework in Institutional Development, Namal Uni., Mianwali, 21 Apr, 2025
- Professional Ethics and Productive Work Environment, Namal University, Mianwali, 19 Dec, 2024
- Grand Result Oriented Workshop (GROW), Aspire Group of Colleges, Lahore, 28 Oct, 2023
- GIS Applications in Hydrology using SuperMap, SuperMap Int., Bangladesh, 15 Nov, 2021
- Applications of GIS in Real World, E-Learning Institute of Geo-Informatics Technology, India, 11 Jul, 2021
- Applications of Remote Sensing & GIS in Hydrology, Institute of Science and Technology, Islamabad, 16-18 Jun, 2021
- Advance Earthquake Studies, National Center for Physics, Quaid-i-Azam, University, Islamabad, 10-11 Nov, 2020
- Advances in Geophysics and Earthquake Studies, 44th International Nathia Gali Summer College of Physics, National Center for Physics, Quaid-i-Azam University, Islamabad, 22-27 Jul 2019.
- Marine Geological Surveys & Coastal Environment, Chinese Geological Survey, China, 21 Sep to 11 Oct, 2019
- Current Earthquake Research, National Centre for Physics, Quaid-i-Azam, University, Islamabad, 24 Sep, 2018
- Faculty Retreat- Pedagogy, Bahria University Karachi Campus, 15-16 Aug, 2018
- GIS Applications in Urban Planning, Fed Urdu Uni. of Arts Science & Tech., 24 Apr, 2017
- Petroleum Production: The Bigger Picture, NED University, Karachi, 29 Dec, 2016
- Recent Advancements in Earthquake Engineering in South Asia, NED University, Karachi, 9-10 Aug, 2016
- Facilitators of Active Citizens, British Council, Karachi 18-22 Jan, 2016.
- Developing Industry Driven Technologies, PASTIC - Pakistan Sciences Foundation, 7 Jan, 2015
- Research Guidelines, Learning Innovation Division, Higher Education Commission, 16-19 Jun, 2014
- Demonstration of Hydrographic Surveys, SV Behr Paima, Pakistan Navy, 7 Apr, 2014
- Integrated Remote Sensing and GIS Solutions, NCRG, SUPARCO, Karachi, 25-29 Mar, 2013
- Health Safety Environment (HSE), Mehran University of Engineering & Technology, Jamshoro, 16 Feb-10 Mar, 2013
- Demonstration Marine Geological and Geophysical Surveys, SV Behr Paima, Pakistan Navy, 28 Jan, 2013
- Anti- Plagiarism Measures in Research Programs, Bahria University Karachi Campus, 13 Jul, 2012
- Use of Technology in Higher Education', Bahria Univ. Karachi Campus, 15-16 Aug, 2011
- Workshop of Teaching in Higher Education Master Trainers, NAHE - Higher Education Commission, 1-4 Nov, 2010
- Training course on 'Contaminant Hydrogeology', Quaid-i-Azam University, Islamabad, 12-19 Nov, 2008

Distinguish Awards

- Best Performance Award [Academics & Campus Managements] -Aspire College Burewala, 2022-23
- Best Performance Award [Admission Campaign & Marketing] -Aspire College Burewala, 2022-23
- Best Researcher Award (Faculty) -Bahria University, Karachi Campus, 2019
- Research Publication Cash Awards -Impact Factor/HEC recognized Journals, 2015-22
- HEC Faculty Award for International Study Tour to China -Beijing & Qingdao, September to October, 2019
- HEC Research Publication Cash Awards -International Conference at American University Sharjah, 2013
- Merit Scholarships -Ph.D course work (2016-17), MS (2012-15), M.Sc (2007-09), B.Sc (2004-06), Primary (1997)

Thesis (M.Sc., M.S and Ph.D)

1. **Khan M. J., (2020).** *Integrated Study on Seismicity of Southern Pakistan.* PhD Thesis. Department of Earth & Env. Sci. Bahria University (Karachi Campus) Karachi, Pakistan (Spring 2016-Fall 2021).
2. **Khan M. J., (2014).** *Integrated Study on Seismicity of Makran over 100 Years.* MS Thesis Department of Earth & Env. Sci., Bahria University Karachi Campus, Karachi, Pakistan (Fall 2012-Spring 2014).
3. **Khan M. J., (2009).** *2D Interpretation of Seismic Line GJN-52 and Rock Physics Characterization of Chorgali Formation.* M.Sc. Thesis, Department of Earth Sci., Quaid-i-Azam Uni., Islamabad (Spring 2007-Fall 2008).

Experience

A) Administration/Management [2016- date]

1. **Manager QEC** -Namal University, Mianwali [19 May, 2025 – date]
2. **Assistant Manager ORIC** -Namal University, Mianwali [1 Nov, 2024 – date]
3. **Principal** -Aspire Group of Colleges (Burewala Campus) [1 Aug, 2022 – 31 Oct, 2024]
4. **Controller Exam** -Aspire College Burewala [1 Oct, 2022 – 31 Oct, 2024]
5. **Academic Coordinator** -Askari College of Education (BS Programs) [4 Aug, 2022- 31 Jan, 2023]
6. **Editor** -BU Research Journal of Earth Science–BURJES [1 Dec, 2015 – 30 Aug, 2022]
7. **QA Coordinator** -Department of Earth & Environmental Sciences, BUKC [4 Jan, 2010 –30 Aug, 2014]

A-1) Management Role / Duties Performed [October, 2009- October, 2024]

1. Manager QEC- Academic Audits, Member of IQC, Compliance to revised QA framework –PSG, RIPE & PREE
2. Assistant Manager ORIC- Assistance in management of activities towards Research, Innovation and Commercialization
3. Principal- Compliance to Policies, Standards and Guidelines of Aspire Group of Colleges at campus level
4. Campus Head- Supervision of Academics, Admission Campaign, Staff Management, Board Inspection, Vigilance.
5. Event Organiser- Social, Cultural events, PTMs, Public Awareness Seminars, Teachers Trainings, Blood Bank etc.
6. Editor of Research Journal- Initiated and established Editorial office, Policies, and journal got HEC recognition.
7. Head of Curriculum Development- New programs BS & MS in GIS & Remote Sensing as HEC guidelines
8. Member of Departmental Research Committee, Academic Committee and Exam Committee (2009-22)
9. Member of Quality Assurance (QA) Team- Annual Academic Audits of BS/MS/PhD programs (2010-22)
10. Member of Curriculum Development- BS Environmental Sciences, Geophysics, Geosciences with specializations
11. Career Counsellor- Job / Internship Placement Coordination for BS and FSc Students (2017-20)
12. University Event Organizer- Seminars, Symposia, Workshop, Earth Day, Water Day & Ocean Day (2010-21)
13. University Liaison Officer- Outreach/collaboration activities with other organizations/Industries (2011-14)
14. Community Services Coordinator- Created internship opportunities in industry and welfare projects (2013-22)
15. University Academic Coordinator- Set Timetable and Exam schedule for BS/MS/PhD Programs (2009-19)
16. Data Analyst - Prepared Departmental Data Presentations for Academic, Industrial, QA Audits, etc. (2012-22)
17. Coordinator Orientation Session- Entrance Test and Interviews of fresh candidates BS/MS programs (2009-22)
18. Admissions Advisor– Promotional activities (Webinars/Sessions on Social Media, Counselling with parents)
19. Lab In-Charge- Established GIS and Computer Lab, Trainings, Certificate Courses for students and industry (2016-22)
20. Invigilator- Midterm and Final Term Examinations (2009-2022)
21. Thesis Examiner- BS/MS Programs of Geophysics and Environmental Sciences

B) Teaching [2009-2024]

B-1) Faculty Member

1. **Senior Assistant Professor** -Bahria University, Karachi Campus [Aug, 2018 – Aug, 2022]
 2. **Senior Lecturer** -Bahria University, Karachi Campus [May, 2014 – Jul, 2018]
 3. **Lecturer** -National Center for Maritime Policy & Research [Oct, 2009 – Apr, 2014]
- Taught following courses to undergraduate (BS/MSc) and postgraduate (MS) classes at Bahria University
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|---|--|
| ▪ ENV-714 GIS Applications in Environmental Sciences | ▪ GEO-435 GIS & Remote Sensing |
| ▪ ENV-105 Introduction to Climate Change | ▪ ESC- 701 Research Methodology |
| ▪ ENV-465 Remote Sensing & GIS in Environments | ▪ GEO-420 Research Methodology |
| ▪ GEO-105 Physical & General Geology | ▪ GEO-420 Hydrogeology |
| ▪ ENV-420 Research Methods in Environmental Sciences | ▪ GEO-105 Introduction to Geophysics |
| ▪ GEO-365 Earthquake Seismology | ▪ PHY-110 Physics |
| ▪ GEO-335 Electrical & Radioactive Exploration Techniques | ▪ Thesis (GIS, Geophysics, Env Sciences) |

B-2) Surveys Supervisor / Field Work Coordinator (Geophysical/Geological Field work) [2010-2022]

- Magnetic Field Survey, various sites in Karachi city, Karachi coast, Mithi Thar Desert, and Kirana Hills, Chiniot
- Resistivity Survey (1D/2D) at various sites in Karachi city (Industrial towns, outcrops) and Islamabad city
- Seismic Data Acquisition (Refraction) in outcrops of Mubarak village, Karachi
- Mapping of Geo-hazard potential of coastal belt, Hammerhead, Gwadar
- Marine Geological Survey of Karachi Coast onboard SV BEHR PAIMA (Courtesy: Pakistan Navy)
- Geological study of Khewra Gorge, Nammal Gorge, Cape Monze, Sona Pass, Nangar Parkar, Thar Coal Blocks

- Geological visit of Ling Shan Island- Slumping of Cretaceous bed along Qingdao Coast, China

B-3) Professional Trainer (Management, GIS & Remote Sensing software) [2014- to date]

- Training Workshop ‘Newly Appointed Faculty Members’, Askari College of Education, 23 Nov, 2023
- Training Workshop ‘Use of IT tools in Teaching Methodologies’, Askari College of Education, 20 May, 2023
- Training course “Remote Sensing Applications in Marine Environments”, 6 July, 2022
- Training course “Integrated Analysis Techniques of *Remote Sensing & GIS*” HDIP (Isb off.), 28-31 March, 2022
- Training course “*Remote Sensing & GIS Applications in Minerals Exploration*” PPL (Khi, off), 6-10 Dec, 2021
- Training course “*GIS and Remote Sensing for Researchers*” Bahria Univ. Karachi, 8-17 Sep & 4-8 Oct, 2021
- Training course “*Applications of GIS in Multidisciplinary Sciences*” Univ. of Sindh, 16-18 Oct, 2019
- Training course “*GIS and Remote Sensing Solutions*” PCSIR Complex, Karachi 6-28 Apr, 2019
- Training course “*Learn GIS Applications in Earth Sciences*” Bahria Univ. Karachi, 26-29 Aug, 2017
- Training course “*Advance GIS Applications in Sciences*” Bahria University Karachi 26-29 Jan, 2017
- Training course “*GIS Solutions for Engineers and Scientists*” Bahria University Karachi 4-8 July, 2016
- Training workshop “*Learn ArcMap & SURFER for Mapping*” Bahria University Karachi, 10-11 Dec, 2015
- Training course “*GIS Solutions for Engineers and Scientists*” Bahria University Karachi 20-24 Aug, 2015
- Training workshop “*Getting to Know ERDAS IMAGINE and ArcGIS*” NCRG, Karachi, 23-24 Aug, 2014

C) Research [Expertise: Integrated Research in GeoPhysics, GIS, Geology and Environmental Sciences]

C-1) Research Papers (Intentional/National Journals Ranked according to HJRS) [2013-2025]

1. Ali M., and **Khan M. J.**, (2025). *H₂, an innovative, sustainable, and renewable energy source*. Modelling Earth Systems and Environment. Submission ID: MESE-D-24-00663
2. Rana, I. I., Rana, S. S., Saleem, R. M., **Khan, M. J.**, Waheed, N., & Irfan, H. (2024). *Prediction of flood and projection of crop depletion along the Satluj River section, Burewala*. Social Science Review Archives, 2(2), 1957-1972. <https://policyjournalofms.com/index.php/6/article/view/258>
3. Rana, S. S., Rana, I. I., **Khan, M. J.**, Habib, S., Saleem, R. M., Haroon, H. M., and Irfan, H. (2024). *Predicting and Identifying Land Features utilising Remote Sensing and Machine Learning Technique*. Kashf Journal of Multidisciplinary Research, 1(12), 17-35. <https://kjmr.com.pk/index.php/kjmr/article/view/141>
4. Rana I. I, Saleem R.M., **Khan M. J.**, (2024). *Land Features Identification and Prediction of Crops in Burewala Using Machine Learning*. J. of Comp. & Biomed. Info. vol.7 (1), 1-9. <https://jcbi.org/index.php/Main/article/view/407>
5. Rana I. I, Saleem R.M., **Khan M. J.**, (2024). *Mapping and Temporal Analysis of Wheat Crop Using Remote Sensing Imageries Burewala, Pakistan*. J. of Comp. & Biomed. Info. vol. 6 (2), 1-9 <https://jcbi.org/index.php/Main/article/view/279>
6. Khan H., A., Qadir S. A., **Khan M. J.**, Siddique F., H., Ahsan M., S., (2023). *Modelling of geomorphological features of fuvial systems in Eromanga Basin and North Sea using 3D seismic attributes*. Journal of Earth System Science. 132:62 <https://doi.org/10.1007/s12040-023-02076-3>
7. Khan H. A., Shahid A. A., **Khan M. J.**, Zouaghi T., Alvarez M. D., Naqvi.S. D. M. (2023). *Integration of Sequence Stratigraphic Analysis and 3D Geostatistical Modeling of Pliocene-Pleistocene Delta, F3 Block, Netherlands*. Acta Geologica Sinica Acta Geologica Sinica-English Edition, 97(1), 256-268. <https://onlinelibrary.wiley.com/doi/10.1111/1755-6724.14863>
8. **Khan M. J.**, Ehsan S. A., Nisar U. B., et al., (2022). *Delineating Weak zones in Limestone based on Borehole drilling and Electrical Resistivity Tomography*. Kuwait Journal of Science, Vol.49 (4) ,pp 1-16 <https://journalskuwait.org/kjs/index.php/KJS/article/view/14773>
9. **Khan M. J.**, Bokhari S. R. F., Nisar U. B., Ali F., (2022). *Integrated Geophysical and Geospatial approaches for delineating groundwater potential zones in Karachi, Pakistan*. Earth and Planetary Science, vol. 1(1), 1-9. <https://ojs.nassg.org/index.php/eps/article/view/520/552>
10. Das, A., Nergis, Y., Abdullah Butt, J., **Khan, M. J.** (2022). Spatial-Temporal Re-Analysis of Seasonal Air Quality

Data in Karachi City. *International Journal of Economic and Environmental Geology*, 13(3), 38–44.
<https://doi.org/10.46660/ijeeg.v13i3.41>

11. Khan H., A., Mehdi D., Abbas A., **Khan M. J.**, Faisal M., Gabol M. F., (2022). *An Integrated Evaluation Approach on Dry Hole Analysis of Ballat Anticline Naccowlah Block, Eromanga Basin, Queensland, Australia*. *Geological Journal*, vol. 57 (5), 1-13.
<https://onlinelibrary.wiley.com/doi/full/10.1002/gj.4468>
12. Khan M. Y., Zaina F., Abedin u. Z., Tariq S., **Khan M. J.**, (2022). *Evaluation of risks to UNESCO World Heritage (WH) sites in Taxila, Pakistan using ground-based and satellite remote sensing techniques*. *Journal of Cultural Heritage*, vol. 55, 195-209
<https://www.sciencedirect.com/science/article/pii/S1296207422000644>
13. **Khan M. J.**, Lamessa G., Ali M., Khan M., (2022). *An updated catalog of earthquakes for southern Pakistan and surrounding offshore region of Arabian Sea*. *Arabian Journal for Science and Engineering*, vol. 47 (1), 601-617
<https://link.springer.com/content/pdf/10.1007/s13369-021-05575-x.pdf>
14. Nisar U. B., **Khan M. J.**, Imran M., Khan M., R., Farooq M., Ehsan S. A., Ahmad A., Qazi H., H., Rashid N., Manzoor T., (2021). *Groundwater Investigations in the Hattar Industrial Estate and its Vicinity, Haripur District, Pakistan: An integrated Approach*. *Kuwait Journal of Science*, vol. 48 (1), 51-61
<https://journalskuwait.org/kjs/index.php/KJS/article/view/7820>
15. Khan, S., Nisar, U. B., Ehsan, S., Farid A., Shahzad, S., Qazi, H., **Khan M. J.**, Ahmed T. (2021). *Aquifer vulnerability and groundwater quality around Brahma Bahtar Lesser Himalayas Pakistan*. *Environmental Earth Sciences*, vol. 80 (13), 1-13 (454)
<https://doi.org/10.1007/s12665-021-09739-8>
16. Hassan M., **Khan M. J.**, Ali S. S., (2021). *Groundwater Quality Assessment in Industrial Zones of Central Punjab, Pakistan*. *Pakistan Journal of Science*, vol. 73 (1), 177-185
<http://paas-pk.com/SubPages/Journal/ResearchPaper.aspx?fcso=2&menuid=1006&manid=6820>
17. **Khan M. J.**, Ali M. (2020). *Depth Distribution Analysis of Seismicity in Southern Pakistan*. *Arabian Journal of Geosciences*, vol. 13 (22), 1177
<https://link.springer.com/article/10.1007/s12517-020-06160-6>
18. **Khan M. J.** (2020). *Modelling of Seismicity in Southern Pakistan using GIS Techniques*. *Earth Science Informatics*, vol. 13 (4), 1327-1340
<http://link.springer.com/article/10.1007/s12145-020-00515-z>
19. **Khan M. J.**, Ali M., Xu M., Khan M. (2020). *Seismicity analysis of selected faults in Makran Southern Pakistan*. *Acta Geophysica*, vol. 68, 965–978
<http://link.springer.com/article/10.1007/s11600-020-00447-8>
20. **Khan M. J.**, Hasan A. S., (2020). *GIS- Based Screening Model of Coastal City Karachi for Plantation of Biofuel Source*. *Scientific Reports*, vol. 10: 4666
<https://www.nature.com/articles/s41598-020-61052-9>
21. **Khan M. J.**, Shakir U., Mahmood M. F., Hussain R., Bokhari S. R. F., Khaskheli M.R. (2020). *Petrophysical Analysis for Geological Implications at Sawan Gas Field, Sindh, Pakistan*. *The Nucleus*, vol. 57 (3), 106-111
<http://www.thenucleuspak.org.pk/index.php/Nucleus/article/view/1101/751>
22. **Khan M. J.**, Zeeshan M., Ali S. S., (2020). *GIS-Based Change Detection of Coastal Features along Karachi Coast, Pakistan*. *Pakistan Journal of Science*, vol. 72 (2), 124-133
<http://www.paas-pk.com/SubPages/Journal/ResearchPaper.aspx?fcso=2&menuid=1006&manid=6759>
23. **Khan M. J.**, Shah B., Nasir B. (2020). *GIS- Based Groundwater Quality Assessment for Drinking Purpose: A Case Study of Sindh Industrial Trading Estate (SITE), Karachi, Pakistan*. *Modeling Earth Systems and Environment*, vol. 6, 263-272.
<http://link.springer.com/article/10.1007/s40808-019-00676-x>
24. **Khan M. J.**, Ali S., (2020). *Delineation of Uncertainties in Anisotropic Shallow Subsurface by Integrated Geophysical and Geotechnical Examination*. *Pakistan Journal of Science*, vol. 72 (1), 61-67
<http://paas-pk.com/SubPages/Journal/ResearchPaper.aspx?fcso=2&menuid=1006&manid=6750>

25. Khan H., A., Sultan M., **Khan M. J.**, Alvarez M. D., Javed M. A., Mehdi D. S., (2020). *A Case Study of 3D Geo modelling of Frontier Formation Second Wall Creek Sand, Teapot Dome, Wyoming, USA*. Journal of Applied Geophysics, vol. 180, 104114
<https://www.sciencedirect.com/science/article/pii/S0926985119308869?via%3Dihub>
26. **Khan M. J.**, Umar M., Khan M., Das A., (2019). *2D Seismic Interpretation to Understand the Structural Geometry of Cretaceous Sand Packages, Jabo Field, Pakistan*. The Nucleus, vol. 56 (2), 78-85
<http://www.thenucleuspak.org.pk/index.php/Nucleus/article/view/347/275>
27. Sarwar F., Anjum Z., Fatima N., **Khan M. J.**, Jamil S. U., Mansoor F., Saleem A. R., (2019). *Computing the Parametric Geo-Accumulation and Ecological Risk Indices of Selected Heavy Metals, Charsadda Road Peshawar, Pakistan*. International Journal of Economic and Environmental Geology, vol. 10 (3), 109-117
<https://www.econ-environ-geol.org/index.php/ojs/article/view/319>
28. Khan H. A., Zoughi T., Iftikhar S., **Khan M. J.**, Irfan M., (2019). *Plio-Pleistocene Stratigraphic Sequences and Depositional Model using 3D Seismic Interpretation Constrained by Well Logs in Central Graben, North Sea*. Journal of Earth System Science, vol. 128 (4), 85
<http://link.springer.com/article/10.1007/s12040-019-1113-x>
29. Ali M., **Khan M. J.**, Ali M., Iftikhar S., (2019). *Petrophysical Analysis of Well Logs for Reservoir Evaluation: A Case Study of 'Kadanwari' Gas Field, Middle Indus Basin, Pakistan*. Arabian Journal of Geosciences, vol. 12 (6)
<http://link.springer.com/article/10.1007/s12517-019-4389-x>
30. Nergis Y., **Khan M. J.**, Mughal N.A, Sharif M., Butt J.A. (2018). *Management of Ground Water Hazard: A Case Study of Thar Coal Mine, Pakistan*. International Journal of Economic and Environmental Geology, vol. 9 (4): 68-73
<https://www.econ-environ-geol.org/index.php/ojs/article/view/191>
31. **Khan M. J.**, Khan H. A., (2018). *Petrophysical Logs Contribute in Appraising Productive Sands of Lower Goru Formation, Kadanwari Concession, Pakistan*. Journal of Petr. Exp. and Production Tech., vol. 8 (4), 1089–1098
<http://link.springer.com/article/10.1007/s13202-018-0472-1>
32. Khan M., **Khan M. J.**, Kakar M. I., Mahmud K., (2018). *Geology and Tectonic Settings of Nal Ophiolite, District Khuzdar, Balochistan, Pakistan*. American Journal of Earth and Environmental Sciences, vol. 1 (3), 115-123.
<http://www.aascit.org/journal/archive2?journalId=810&paperId=6503>
33. Nergis Y., **Khan M. J.**, Mughal N.A, Sharif M., Butt J.A. (2018). *Environmental Impacts and Mitigation of TLC Mine Dewatering Operation, Sindh, Pakistan*. Bahria Univ. Res. Jour. of Earth Sci., vol. 3, 12-16
34. Khan M., **Khan M. J.**, Kakar M. I., Mahmud K., (2018). *Geology and Petrology of Crustal Section of Bela Ophiolite, Balochistan, Pakistan*. Bahria Univ. Res. J. of Earth Sci., vol. 3, 1-5
35. **Khan M. J.**, Ali M., Khan M., (2017). *Gamma Ray-Based Facies Modelling of Lower Goru Formation: A Case Study in Hakeem Daho Well Lower Indus Basin Pakistan*. Bahria Univ. Res. J. of Earth Sci., vol. 2, 40-45.
36. Khan M., **Khan M. J.**, (2017). *Geology and Petrography of Peridotites (Mantle Section) From Bela Ophiolite Balochistan, Pakistan*. Bahria Univ. Research J. of Earth Sci., vol. 2, 16-22
37. Khan M. A., Raza S., Hussain J., Ali B., Ali S., **Khan M. J.**, Mehmood S. (2017). *Microfacies Analysis and Depositional Settings of The Late Permian Wargal Limestone Exposed at Nammal Gorge, Western Salt Range, Pakistan*. Bahria Univ. Research J. of Earth Sci., vol. 2, 46-51.
38. **Khan M. J.**, Ali M. (2016). *A Review of Research on Gas Hydrates in Makran*. Bahria Univ. Research Journal of Earth Science, vol. 1: 28-35
39. Ali M., **Khan M. J.**, (2015). *GIS-Based Study on Seismicity of Makran Over 100 Years*. International Journal of Economic and Environmental Geology, vol. 6 (2), 11-16
<https://www.econ-environ-geol.org/index.php/ojs/article/view/100/93>
40. Ali M., **Khan M. J.**, (2014). *Invisible Fault Lines Ruin the Development of Urbanization*. NFC-IEFR J. of Engineering & Scientific Research, vol. 2, 26-30
<http://nijosr.iefredu.pk/journalFolder/7/34c4d.pdf>

41. Ali M., **Khan M. J.**, (2013). *Geophysical Hunt for Chromite in Ophiolites*. International Journal of Economic and Environmental Geology, vol. 4 (2), 22-28
<https://www.econ-environ-geol.org/index.php/ojs/article/view/124>

C-2) Conference Presentations/Abstracts/Magazine Articles (International/National Conferences)

1. **Khan M. J.**, (2021). *Geohazards Potential of southern Pakistan and Arabian Sea*. Thematic webinar on Natural Hazards and Risks Management, China-Pakistan Joint Research Center, China, 22 July, 2021.
2. **Khan M. J.**, Hashmi S., (2021). *Research opportunities in Environmental Sciences*. Webinar on BU live Streaming-Social Media Channel, 6 July 2021.
3. **Khan M. J.**, Hashmi S., (2021). *Scope and Career opportunities of Geosciences and Environmental Sciences Programs*. Webinar on BU live Streaming-Social Media Channel, 6 July 2021.
4. **Khan M. J.**, (2021). *Geospatial Technology is an Emerging Trend in Applied Research*. Prodigy- Bahria University Magazine, vol. 2 (March Issue), Pages 39-41
5. **Khan M. J.**, Hashmi S., (2021). *Morphological Changes of Indus River Section from Sukkur to Dadu using Geospatial Techniques*. International Conference on Energy, Water and Environment, 31st March 2021, UET Lahore.
6. Hashmi S., **Khan M. J.**, (2021). *Spatial Distribution of Carbon Monoxide in Karachi, Pakistan*. International Conference on Energy, Water and Environment (ICEWE-2021), 31st March 2021, UET Lahore.
7. **Khan M. J.**, (2021). *Exploration Surveys For Potential Mineral Resources of Pakistan*. SGS Pvt. Limited. National Webinar, 28 January 2021
8. **Khan M. J.**, (2020). *Analytical Analysis of Seismicity using an Updated Catalogue for Southern Pakistan*. Oral Presentation (Online), 3rd Conference of the Arabian Journal of Geosciences (CAJG), Springer, 2–5 November 2020, Sousse, Tunisia (Conference Paper Reference: 274), Extended Abstract - Accepted
9. **Khan M. J.**, Lamessa G, Butt M., N., (2020). *Revised Catalogue of Earthquakes in Southern Pakistan*. Oral Presentation (Online), 3rd Conference of the Arabian Journal of Geosciences (CAJG), Springer, 2–5 November 2020, Sousse, Tunisia (Conference Paper Reference: 1033), Extended Abstract- Accepted
10. **Khan M. J.**, Tariq A., Khan H. A., Nazeer A., (2020). *Hydrocarbon Potential of New Gas Leads in Cretaceous Sands of Lower Goru*. Oral Presentation (Online), AAPG/EAGE 5th Myanmar Oil and Gas Conference, 12-14 May 2020, Yangon, Myanmar, Abstract - Accepted
11. **Khan M. J.**, Yasmin N., Jamil R., Amanullah (2018). *Geo-informatics Techniques Contributed to Study The Impact of Climate Changes On Indus River Morphology*. Oral Presentation, National Conference on “Climate Change”, Department of Earth and Environmental Sciences, Bahria University, Islamabad Campus, Pakistan, 27 Dec 2018.
12. **Khan M. J.**, Khan M., Yasmin N., (2018). *GIS-based Mapping for Minerals to Expose Peridotite Rocks using Spectral Bands of Landsat, Balochistan, Pakistan*. Oral Presentation, National Conference on “Mineral Resources Utilization for Sustainable Environment & Economic Development” PCSIR Lab Complex, Karachi, 17 October 2018
13. Tariq A., **Khan M. J.**, (2018). *Geophysical Studies (Seismic Delineation and Petrophysical Evaluation) Exposed the Gas Leads in Massive Sands of Lower Goru, Sinjhoru Block, Pakistan*. Poster Presented, 2nd National Students Conference and Exhibition- Pakistan Association of Petroleum Geoscientists, 8 Sep 2018.
14. **Khan M. J.**, Ali M. (2018). *Modelling Seismicity of Karachi Using GIS Methods*. Oral Presentation, International Symposium on Earthquake Studies, National Center for Physics, QAU Islamabad, 24 September 2018
15. Khan H. A., **Khan M. J.**, Qureshi A. M., Naqvi, D., Safdar A., Ahmed U., (2018). *A Review of Research on Revolution of 3D Seismic Geomorphology of Fluvial System*. Abstract published: In AAPG Europe Regional Conference, Global Analogues of the Atlantic Margin. Lisbon, USA. May 2-3, 2018; AAPG Article #90325
16. **Khan M. J.**, Sajid M. A. (2018). *Geospatial Technology Appraising the Plantation of Biofuel Source in Pakistan*. Abstract published, In Conference Proceedings, International Conference on Environment and Sustainable Development’ G.C. University Lahore, 13-14 March, 2018
17. **Khan M. J.**, Irshad M., Ali M., Kainat P. (2017). *A Simple Model of Earthquake Waves Propagation and Earthquake Energy*. Oral Presentation, 1st National Science Conference, The Govt. Sadiq College for Women University, Bahawalpur, 4-6 May, 2017
18. **Khan M. J.** (2016). *Geological Insight of Cape Monze and Mapping of Potential Earthquake Hazard in Karachi region*. Oral Presentation, A Series of Geosciences Seminar, Deptt. Earth & Env. Sci. BUKC, 18 June 2016

19. **Khan M. J.**, (2015). *Recent Seismicity in Hindukush Region-26 Oct 2015 Event*. Oral Presentation, One-day Seminar on Recent Earthquake Activity in Pakistan, Deptt. Earth & Env. Sci. BUKC, 10 Nov 2015.
20. Ali M., **Khan M. J.**, (2015). *A way towards Innovative Technology to store Earthquake Energy*. Abstract Accepted, 10th International Conf. on Earthquake Resistant Engineering Structures, Wessex Institute, UK. 4-7 Feb 2016
21. Ali M., **Khan M. J.**, (2014). *Invisible Fault Lines Ruin the Development of Urbanization*. Oral Presentation, 1st International Conference on Infrastructure Management and Rehabilitation Techniques, American University of Sharjah, UAE, 2-4 March 2014.
22. **Khan M. J.**, (2013). *Access to Low-Cost Satellite Data*. Oral Presentation, Training Workshop, “Satellite Remote Sensing & GIS for Beginners”, Institute of Space Technology (NCRG, SUPARCO) Karachi.
23. **Khan M. J.**, (2013). *Getting to Know Computer Image Processing of Landsat Images by Erdas Imagine*. Oral Presentation, Training Workshop, “Satellite Remote Sensing for Beginners”, Institute of Space Technology (NCRG, SUPARCO), Karachi.
24. Ali M., **Khan M. J.**, (2012). *Analytical Analysis of Seismicity Over 100 years in southern Pakistan*: Abstract submitted to NABGG Conference, Washington DC. USA.

C-3) Author of Book Chapters (published in Australia and China)

1. Inam A., Clift P. D., Liviu G., **Khan M. J.**, Kidwai, S., Alizai A., Ali S. S., Shaheen A., Qadri R., (2022). *The Geographical, Geological and Oceanographic Settings of Indus River – An Update*: In Gupta, A. (Ed.). Large Rivers: Geomorphology and Management. John Wiley & Sons. Chapter 17, pp. 488-520
<https://onlinelibrary.wiley.com/doi/pdf/10.1002/9781119412632.ch17>
2. Liao G. J., Zhen J. S., **Khan M. J.**, Inam A., Khalid M., (2022). Study on Gas Hydrates in Makran Accretionary Wedge in Northwest Indian Ocean. Monograph by Chinese Academy of Science. *In- Production*

C-4) Thesis Supervisor [2010- 2022]

- Supervised 90 BS/MSc Thesis/Final Year Projects/Field Reports since 2010
- Supervised 04 MS Thesis of Geophysics Program (BUKC)
- Supervised 01 MS Thesis of Virtual University, Burewala Campus (Biotechnology Program)
- Supervised 15 Social Action Projects (SAP), British Council Certified Facilitator- Active Citizen
- Co-supervised 01 MS Thesis of Environmental Sciences Program, BUKC
- Co-supervised 02 MSc Thesis of University of Karachi (Geology Program)
- Co-supervised 01 MPhil Thesis of University of Balochistan Quetta (Geology Program)
- Co-supervised 03 BS Thesis SZABIST, Karachi (Bioscience Program)
- Co-supervised 03 BCE Thesis Deptt. Comp. Engineering, BUKC (Computer Engineering Program)
- Co-supervised American Association of Petroleum Geologists Team (IBA Competition 2020, 2021)
- Supervised: American Association of Petroleum Geologists Team (IBA Competition 2019)
- Team Lead: American Association of Petroleum Geologists Team (IBA Competition 2017)

C-5) Significant Role in Research & Development (R&D) [2015- to date]

1. Pioneer & Editor: Bahria University Research Journal of Earth Science (BURJES, Pakistan)
2. Editorial Board Member: Anthropology, Geography and the Earth (UK)
3. Editorial Board Member: SCIREA Journal of Geosciences (Europe)
4. Editorial Board Member: Earth and Planetary Science (Singapore)
5. Editorial Board Member: Pakistan Journal of Science (Pakistan)
6. Editorial Board Member: Kashf Journal of Multidisciplinary Research (Pakistan)
7. Reviewer: American Journal of Earth & Environmental Sciences (Science Publications, USA)
8. Reviewer: Current Research in Geoscience (Science Publications, USA)
9. Reviewer: Natural Hazards (Springer Nature, Netherlands)
10. Reviewer: Arabian Journal of Geoscience (Springer Nature, Kingdom of Saudi Arabia)
11. Reviewer: Geomechanics and Geophysics for Geo-Energy and Geo-Resources (Springer Nature, Switzerland)
12. Reviewer: Earth Sciences Research Journal (Colombia)
13. Reviewer: American Journal of Applied Sciences (UAE)
14. Reviewer: International Journal of Economic & Environmental Geology (Pakistan)
15. Reviewer: The Nucleus (Pakistan)

16. Reviewer: Environmental Processes (Springer Nature, Europe)
17. Reviewer: Journal of Environmental Management (Elsevier, USA)
18. Reviewer: Current World Environment (India)
19. Reviewer: Rudarsko-geološko-naftni zbornik (Croatia)

C-6) Selected Consultancy Services for National Projects [Ministry of Defence, Pakistan]

- Pakistan Navy- PNS Akram (Balochistan), Hemmer-Head, Jabal-e-Nooh, Site visit on 26 November 2019 Reconnaissance Survey; Seismological Hazard Assessment of Site before construction of New Blocks
- Pakistan Air Force - Air Base Bholari (Sindh), Geological/Geophysical Work (Feb 2019- Nov 2020) Planning of Geophysical Survey and Boreholes Drilling, Interpretation of Electrical Resistivity Tomography, Drainage network mapping using Satellite Images, Proposal of Safe Zones and alternate Run-Way/Air Port.

Skill Set

a) Interpersonal Skills

- Effective Communication & Presentation skills
- Innovative thinking and Creative writing
- Adaptable/ flexible attitude - 'can do'
- Organizational skills as Individual/ Team Member

b) Technical Skills

➤ Geophysical Skills

- Earthquake Data Processing and Interpretation
- Gravity, Magnetic and Geoelectric Data Acquisition, Processing and Interpretation
- Seismic Refraction Data Acquisition and Interpretation
- Seismic Reflection Data Interpretation (2D / 3D)
- Interpretation and Modelling (2D/3D) of integrated datasets
- Field Surveys: Magnetometer (Proton Precession); Seismograph (24 Channel) and Terrameter

➤ Geological Skills

- Mapping of geological structures and features measurement (dip angle and strike, bed thickness bedding styles etc)
- Identification of minerals / rocks and understanding of geomorphic features in land topography
- Field work in different geological settings (sedimentary basins, coastal belt, hard/basement rocks)

➤ GIS & Remote Sensing Skills

- Spatial Data acquisition, analysis and mapping
- Collection of GPS data and Management of Spatial Database
- Integration of multiple data variables in Vectors and Raster format
- Handling and Processing of satellite images (Landsat TM, ETM, OLI, TIRS, MODIS, ASTER, InSAR etc.)
- Interpretation of Satellite Images for features extraction (Minerals index, Urban, Water, Vegetation,)
- Designing of specialized algorithms using multi-spectral satellite images/optical sensors
- Mapping of geological structures and topographical features using DEM

➤ IT Skills

- Preparation of professional presentations, reports and spread sheets
- Use of online resources for education, meetings, webinars

➤ Software Skills

- | | |
|-----------------------|---------------------------------------|
| ▪ ArcGIS | ▪ GM SYS |
| ▪ Google Earth Engine | ▪ IPI Win |
| ▪ ERDAS Imagine | ▪ GeoGraphix |
| ▪ SURFER | ▪ Techlog |
| ▪ ZMap | ▪ MINITAB |
| ▪ MapSeis | ▪ Coral Draw |
| ▪ MATLAB | ▪ MS Office (PowerPoint, Word, Excel) |

➤ **Management Skills**

- Team Leader, overall office management
- Mock Audits, Supervise Inspections, Budgeting
- Cost effective approaches in organizing events
- Policy making, Record keeping, Future Planning
- Implementation of Instructions and Protocols

Collaboration with Universities

- GC University Lahore- Member of Organising Committee, International Conference -APICEE [2025]
- Askari School System, Burewala -Trainer/Teachers Hiring Committee Member [2022- 2024]
- Askari College of Education, Burewala -Academic Coordinator [Fall 2022]
- Bahria University Islamabad Campus -Research collaboration in the fields of Geophysics and Env. Sciences [2015-date]
- University of Peshawar -Reviewer/Examiner, MPhil Geology Thesis [Spring 2021 and Fall 2021]
- University of Karachi -Co-Supervisor, BSc (Hons) Geology Thesis [Spring 2021]
- University of California (USA) -Research collaboration in the field of Earthquake Seismology (2010-21)
- Virtual University, Burewala Campus -Supervisor of MS Thesis [Fall 2019]
- University of Karachi -Invited Guest Speaker, Need of Geophysical Surveys, (24-25 Dec 2020)
- SZABIST University, Karachi -Visiting Faculty Member, Department of Bioscience (Spring 2020)
- University of Sindh, Jamshoro -Trainer, Centre of Excellence in Mineralogy, (Sep, 2019)
- SZABIST University, Karachi -Visiting Faculty Member, Department of Biosciences, (Spring and Fall 2018)
- University of Karachi -Visiting Faculty Member, Department of Geology (Fall 2017)
- Federal Urdu University, Karachi -Speaker, Role of Geophysical Surveys in Civil Engineering Projects, 24 Oct, 2017
- Federal Urdu University, Karachi -Organized Workshop on Environmental Impact Assessment, 1-4, Jan, 2015

Collaboration with Organizations

- Pak Alert HD [YouTube Chanel) - Invited Expert-Seismologist, Frequent earthquakes in Karachi, 21 June 2025
- BOL News -Invited Expert-Geologist, Changes in Earth's Interior. Morning Show, 31 January 2023 ((9-11 AM)
- K21 News -Expert, Predictions about Earthquakes in Pakistan, Karachi2Day, 7 February 2023 (11 PM)
- SGS Pakistan Pvt Limited -Invited Speaker, Webinar on Scope of Minerals Exploration in Pakistan (2020- 21)
- PAPG -Technical Quiz Competition of 1st & 2nd Students Exhibition 2017 & 2018, 8 September 2017-18
- British Council -Conducted Training -Active Citizens Program (Social Action Projects), 25-29 July 2016
- K21 News -Invited Expert, Water Crises in Karachi. Live Program Karachi 2 Day, 11 July 2016 (10-11 PM)
- AJJ News -Invited Expert, Discussion on 26 October Earthquake-Afghanistan, Morning show -27 Oct 2015 (9-11 AM)
- K21 News -Expert, Insight on 26 October Earthquake-Afghanistan, NEWS IN LINE, 26 October 2015 (8-9 PM)
- Environmental Research Center -Organized Drinking Water Quality Testing Campaign, 6-8, May 2014

Active Member of Organizations

- American Association of Petroleum Geologists (AAPG) - Member ID 10069555
- Society of Exploration Geophysicist (SEG) - Member ID 178779
- Pakistan Geophysical Network (PGN) - Member ID Q2008-1591
- Geological Society of America (GSA) - Member ID 922615
- Society of Petroleum Engineers (SPE) - Member ID 3583434
- American Association for Science and Technology (AAST)
- Pakistan Association of Petroleum Geoscientists (PAPG)
- Society of Economic Geologists Mineralogists Industrial Technological Experts (SEGMITE)

Hobbies

- Social networking and collaboration for growth of integrated projects in emerging technologies
- Learning Software/Computer Applications to master skills specially focused on geospatial sciences
- Reading and Writing on emerging trends in Geophysics, Geology, GIS and Environmental Science
- Traveling for Field work/Surveying/Research/Education Projects