

Asst. Prof. Yasir Bashir

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International Researcher IDs

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Biography

Dr. Yasir Bashir is an Assistant Professor in the Department of Geophysical Engineering, Faculty of Mines, İstanbul Technical University, İstanbul, Türkiye. He earned his Ph.D. in Petroleum Geosciences from Universiti Teknologi PETRONAS, Malaysia, Master's in Geophysics and Computer Science from Quaid-e-Azam University, and the University of Baluchistan, Pakistan respectively. He worked for 3 years as a Senior Lecturer/Assistant Professor at USM, 4.5 years as a Research Scientist and 2 years as a Graduate Research Assistant at Universiti Teknologi PETRONAS, Malaysia, and 1 year with OGDCL, Pakistan as Geophysicist. The technical background encompasses the development of algorithms, specifically in the areas of machine learning for seismic data processing, imaging, and the workflow development for seismic inversion and prospect evaluation. This experience also includes practical application and hands-on practice. He actively contributed both as team member and a leader in various research projects conducted by PETRONAS, Hitachi, UTP, and OGDCL. These projects consisted of a range of areas including seismic anisotropy imaging, seismic computing research, pre-image processing and diffraction imaging, as well as PSTM, PSDM, and QI techniques. Research outcomes have recognized and presented in international conferences (SEG, EAGE, OTC, IPTC, and APGCE) and international Journal publications. Problem solver with strengths in workflow development and quality control. Effective leadership skills in mixed-gender and multi-ethnic groups. He is a member of SEG, EAGE, PGN, GSM, and PAPG.

Education Information

Doctorate, Universiti Teknologi Petronas, Faculty of Science and IT, Geoscience, Malaysia 2014 - 2018

Postgraduate, Quaid-i-Azam University, Faculty of Natural Sciences, Earth Sciences, Pakistan 2010 - 2012

Postgraduate, University of Balochistan, Department of Computer Science & IT, Pakistan 2007 - 2009

Undergraduate, University of Balochistan, College of Sciences, Pakistan 2005 - 2007

Foreign Languages

English, C2 Mastery

Certificates, Courses and Trainings

Personal Evolution, Professional Technologist, Malaysia Board of Technologist, 2022
Vocational Training, PALEOSCAN™ 2022 - FUNDAMENTALS TRAINING COURSE, Paleoscan, 2022
Project Management, Data Management Tool for Researcher, Wiley, 2021
Vocational Training, Deep Learning in Computer Vision, Certifai, 2021
Vocational Training, Elsevier's Research Writing and Publication Workshop Webinar: How to get published in an international energy journal?, Elsevier, 2020
Vocational Training, Seismic Diffraction Modeling, Imaging and Application, European Association of Geoscientists and Engineers, 2019
Vocational Course, The Elastic Earth and Waves, Universiti Teknologi PETRONAS, 2019
Vocational Training, Advance Omega Course, Westren Geco Geosolutions, 2017
Vocational Training, Fundamental of Omega , Westren Geco Geosolutions, 2017
Vocational Training, SEISMIC IMAGING AND ANISOTROPIC VELOCITY MODEL BUILDING, European Association of Geoscientists and Engineers, 2016
Vocational Training, Xposim- Training Simulator , LMKR, 2016
Vocational Training, Gverse Attribute and Geographics, LMKR, 2016
Vocational Training, Introductory GPGPU Hands-on Workshop, Universiti Tunku Abdul Rahman, 2015

Research Areas

Geophysical Engineering, Applied Geophysics

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, Maden, Jeofizik Mühendisliği, 2023 - Continues
Assistant Professor, Universiti Sains Malaysia, The Faculty of Physics and Engineering, School of Physics, 2020 - 2023
Researcher, Universiti Teknologi Petronas, Institute of Hydrocarbon Recovery, Geoscience, 2015 - 2020
Research Assistant, Universiti Teknologi Petronas, Faculty of Science and IT, Geoscience, 2014 - 2015

Courses

Advanced Differential Equations, Postgraduate, 2023 - 2024
Reading in Geophysics, Undergraduate, 2023 - 2024
Probability and Statistics, Undergraduate, 2023 - 2024

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Soft Sedimentary Deformations Structures (SSDS) in Neoproterozoic Sharaban Formation, Kirana Complex, Pakistan: Regional Tectonic Implications**
Ahmad B., Ali S., Wahid A., Bashir Y., Shoukat N., Qadri S., Ali A., Siddiqui N., Abioui M., Yaseen A.
Doklady Earth Sciences, vol.510, no.2, pp.371-386, 2023 (SCI-Expanded)
- II. **Diagenesis and Sequence Stratigraphy of Miocene, Nyalau Formation, Sarawak, Malaysia: A case study for clastic reservoirs**
Shoukat N., Ali S. H., Siddiqui N. A., Wahid A., Bashir Y.
KUWAIT JOURNAL OF SCIENCE, vol.1, no.2, pp.1-13, 2023 (SCI-Expanded)
- III. **Eocene Kohat Formation suitability as an aggregate from Kohat Range, Sub-Himalayas, Pakistan, based on outcrop, petrographic and geotechnical properties**
Rehman N., Ullah A., Ali S. H., Shoukat N., Ibad S. M., Wahid A., Bashir Y., Mehmood M., Ahmad B.

Acta Montanistica Slovaca, vol.28, no.2, pp.277-288, 2023 (SCI-Expanded)

- IV. **4D seismic co-processing pre-stack depth migration for scarce acquisition repeatability**
Mahgoub M., Bashir Y., Bery A. A., Noufal A. W.
Journal of Petroleum Exploration and Production Technology, vol.13, no.1, pp.135-149, 2023 (SCI-Expanded)
- V. **Four-Dimension Seismic Analysis in Carbonate: A Closed Loop Study**
Mahgoub M., Bashir Y., Bery A. A., Noufal A.
Applied Sciences (Switzerland), vol.12, no.19, 2022 (SCI-Expanded)
- VI. **Source rock geochemical assessment and estimation of TOC using well logs and geochemical data of Talhar Shale, Southern Indus Basin, Pakistan**
Khalil Khan H., Ehsan M., Ali A., Amer M. A., Aziz H., Khan A., Bashir Y., Abu-Alam T., Abioui M.
Frontiers in Earth Science, vol.10, 2022 (SCI-Expanded)
- VII. **Practical workflows for monitoring saturation and pressure changes from 4D seismic data: A case study of Malay Basin**
Babasafari A. A., Rezaei S., Sambo C., Bashir Y., Ghosh D. P., Salim A. M. A., Yusoff W. I. W., Kazemeini S. H., Kordi M.
Journal of Applied Geophysics, vol.195, 2021 (SCI-Expanded)
- VIII. **Facies, diagenesis and secondary porosity of a Miocene reefal platform of Central Luconia, Malaysia**
Ali S. H., Poppelreiter M. C., Saw B. B., Shah M. M., Bashir Y.
Carbonates and Evaporites, vol.36, no.3, 2021 (SCI-Expanded)
- IX. **Automated fault detection and extraction under gas chimneys using hybrid discontinuity attributes**
Imran Q. S., Siddiqui N. A., Latiff A. H. A., Bashir Y., Khan M., Qureshi K., Al-Masgari A. A., Ahmed N., Jamil M.
Applied Sciences (Switzerland), vol.11, no.16, 2021 (SCI-Expanded)
- X. **Sedimentary facies, depositional environments and conceptual outcrop analogue (Dam Formation, early Miocene) Eastern Arabian Platform, Saudi Arabia: a new high-resolution approach**
Ali S. H., Abdullatif O. M., Babalola L. O., Alkhalidi F. M., Bashir Y., Qadri S. M. T., Wahid A.
Journal of Petroleum Exploration and Production, vol.11, no.6, pp.2497-2518, 2021 (SCI-Expanded)
- XI. **Seismic expression of miocene carbonate platform and reservoir characterization through geophysical approach: application in central Luconia, offshore Malaysia**
Bashir Y., Faisal M. A., Biswas A., Babasafari A. a., Ali S. H., Imran Q. S., Siddiqui N. A., Ehsan M.
Journal of Petroleum Exploration and Production, vol.11, no.4, pp.1533-1544, 2021 (SCI-Expanded)
- XII. **Seismic wave propagation characteristics using conventional and advance modelling algorithm for d-data imaging**
Bashir Y., BABASAFARI A. A., ALASHLOO S. Y. M., MUZTAZA N. M., ALI S. H., IMRAN Q. S.
Journal of Seismic Exploration, vol.30, no.1, pp.21-44, 2021 (SCI-Expanded)
- XIII. **Application of microgravity and electrical resistivity imaging techniques to identify ground subsidence prone zone**
Mohammed M. A., Mohd Muztaza N., Sabiu Bala M., Almgtof Trepil F. M., Saad R., Ahmad F., Bashir Y.
Acta Geodynamica et Geomaterialia, vol.18, no.2, pp.157-163, 2021 (SCI-Expanded)
- XIV. **Inspiration for seismic diffraction modelling, separation, and velocity in depth imaging**
Bashir Y., Muztaza N. M., Alashloo S. Y. M., Ali S. H., Ghosh D. P.
Applied Sciences (Switzerland), vol.10, no.12, 2020 (SCI-Expanded)
- XV. **Influence of seismic diffraction for high-resolution imaging: applications in offshore Malaysia**
Bashir Y., Ghosh D. P., Sum C. W.
Acta Geophysica, vol.66, no.3, pp.305-316, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Delineation of Groundwater Potential Zones Using 2-Dimensional Electrical Resistivity Imaging at Universiti Sains Malaysia, Penang, Malaysia**
Mohd Muztaza N., BASHIR Y.
JOURNAL OF MINES, METALS AND FUELS, 2023 (Scopus)

- II. **4D seismic least square migration in carbonates: A case of successful matching**
Mahgoub M., Bery A. A., Bashir Y., Kirstetter O.
First Break, vol.41, no.3, pp.65-74, 2023 (Scopus)
- III. **Preface**
Bashir Y.
Seismic Imaging Methods and Applications for Oil and Gas Exploration, 2022 (Scopus)
- IV. **Lithofacies and Sedimentology of Baghanwala Formation (Early-Middle Cambrian), Eastern Salt Range, Pakistan**
Ali S. H., Shoukat N., Bashir Y., Qadri S. M. T., Wahid A., Iqbal M. A.
Pakistan Journal of Scientific and Industrial Research Series A: Physical Sciences, vol.65, no.2, pp.159-168, 2022 (Scopus)
- V. **Integrated well data and 3d seismic inversion study for reservoir delineation and description**
Imran Q. S., Siddiqui N. A., Latif A. H. A., Bashir Y., Ali A. A. S., Jamil M.
Bulletin of the Geological Society of Malaysia, vol.70, pp.209-220, 2020 (Scopus)
- VI. **A new approach to petroelastic modeling of carbonate rocks using an extended pore-space stiffness method, with application to a carbonate reservoir in Central Luconia, Sarawak, Malaysia**
Babasafari A. A., Bashir Y., Ghosh D. P., Salim A. M. A., Janjuhah H. T., Kazemeini S. H., Kordi M.
Leading Edge, vol.39, no.8, 2020 (Scopus)
- VII. **Time lapse (4D) seismic for reservoir fluid saturation and monitoring: Application in Malaysian Basin**
Rezaei S., Babasafari A. A., Bashir Y., Sambo C., Ghosh D., Salim A. M. A.
Petroleum and Coal, vol.62, no.3, pp.712-719, 2020 (Scopus)
- VIII. **Seismic Interpretation and Petrophysical Analysis of a Cretaceous Reservoir in Lower Indus Basin, Pakistan**
Ullah M., Asim S., Bashir Y.
Petroleum and Coal, vol.62, no.4, pp.1405-1419, 2020 (Scopus)
- IX. **Diffraction enhancement through pre-image processing: Applications to field data, sarawak basin, East Malaysia**
Bashir Y., Ghosh D. P., Janjuhah H. T., Sum C. W.
Geosciences (Switzerland), vol.8, no.2, 2018 (Scopus)
- X. **Application of multi attributes for feasibility study of fractures and structural anomalies in Malaysian Basin**
Hamidi R., Bashir Y., Ghosh D. P., Akhtar S., Sheikh M. I.
International Journal of Engineering and Technology(UAE), vol.7, no.3, pp.84-87, 2018 (Scopus)
- XI. **New approach towards the classification of microporosity in Miocene carbonate rocks, Central Luconia, offshore Sarawak, Malaysia**
Janjuhah H., Alansari A., Ghosh D., Bashir Y.
Journal of Natural Gas Geoscience, vol.2, no.3, pp.1-25, 2018 (Peer-Reviewed Journal)
- XII. **Influence of Error in Estimating Anisotropy Parameters on VTI Depth Imaging**
Moussavi Alashloo S., Ghosh D., Bashir Y., Wan Ismail W.
International Journal of Geophysics, vol.2016, 2016 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Reducing uncertainties in hydrocarbon prediction through seismic inversion**
Imran Q. S., Siddiqui N. A., Latif A. H. A., Bashir Y., Saeed Ali A. A. A., Jamil M., Ahmad N.
2nd International Conference on Earth Resources 2020, ICER 2020, Sarawak, Virtual, Malaysia, 13 - 15 July 2021, vol.1003
- II. **Machine Learning Applications of 4D Seismic in Carbonate: Case Study Offshore Abu Dhabi**
Mahgoub M. A., Bashir Y., Berry A. A.

Abu Dhabi International Petroleum Exhibition and Conference 2022, ADIPEC 2022, Abu Dhabi, United Arab Emirates, 31 October - 03 November 2022

- III. **Machine Learning and Seismic Structural Attributes Hybrid Approach to Map Complex Fault System**
Khan M., BASHIR Y., Dossary S.
Second EAGE Subsurface Intelligence Workshop, Saudi Arabia, 13 October 2022
- IV. **Seismic Interpretation and Inversion leading to an accurate Reservoir Characterization in a Central Luconia Carbonate Field, Offshore Sarawak, Malaysia**
BASHIR Y., Mohd Muztaza N., Bery A. A.
Geological Society of Malaysia (GSM), Malaysia, 01 April 2021
- V. **Enhanced Crustal-scale depth imaging using least-squares RTM of short-streamer seismic data**
Mossavi Alashloo S. Y., Górszczyk A., Malinowski M., BASHIR Y.
SEG Technical Program Expanded Abstracts 2020, United States Of America, 14 October 2020
- VI. **Wave propagation characteristics using advance modelling algorithm for D-data imaging**
Bashir Y., Ghosh D. P., Babasafari A.
Society of Exploration Geophysicists International Exposition and Annual Meeting 2019, SEG 2019, Texas, United States Of America, 15 - 20 September 2019, pp.3795-3799
- VII. **Seismic wave features in anisotropic modeling and effects in imaging complex subsurface structure**
Bashir Y., Mousavi Alashloo S. Y., Abdul Latiff A. H., Mahgoub M., Hermana M., Ghosh D.
International Petroleum Technology Conference 2020, IPTC 2020, Dhahran, Saudi Arabia, 13 - 15 January 2020
- VIII. **Seismic diffraction imaging in laterally varying velocity media for frequency bandwidth expansion - Application in carbonate field Sarawak, Malaysia**
Bashir Y., Latif A. H. A., Rezaei S., Mahgoub M., Alashloo S. Y. M., Hermana M., Ghosh D. P., Sum C. W.
Abu Dhabi International Petroleum Exhibition and Conference 2019, ADIP 2019, Abu Dhabi, United Arab Emirates, 11 - 14 November 2019
- IX. **Cohesive approach for high-resolution seismic using inversion & Imaging in Malaysian carbonate field**
Bashir Y., Babasafari A. A., Biswas A., Hamidi R., Alashloo S. Y. M., Janjuah H. T., Ghosh D. P., Sum C. W.
International Petroleum Technology Conference 2019, IPTC 2019, Beijing, China, 26 - 28 March 2019
- X. **Cohesive approach for high-resolution seismic using inversion & Imaging in Malaysian carbonate field**
Bashir Y., Babasafari A., Biswas A., Hamidi R., Alashloo S., Janjuah H., Ghosh D., Sum C.
International Petroleum Technology Conference 2019, IPTC 2019, Beijing, China, 22 - 26 March 2019, pp.1-7
- XI. **Comparative Analysis of Essential and Toxic Elements in Water and Blood Samples of Kidney Patients in Quetta, Pakistan**
Nasir K., Khan M., Chandio T. A., Bashir Y.
5th International Conference on Fundamental and Applied Sciences, ICFAS 2018, Kuala-Lumpur, Malaysia, 13 - 15 August 2018, vol.1123
- XII. **Enhanced Depth Imaging for Subsurface Faults, Fracture and Karst: Application in Malaysian Carbonate field**
BASHIR Y., Ghosh D. P., Mossavi Alashloo S. Y., Babasafari A. a., Sum C. W.
Geological Society of Malaysia (GSM), Malaysia, 01 July 2018
- XIII. **A new approach to fractured damage zone evaluation using wavelet transform and variance attribute**
Hamidi R., Ghosh D., Bashir Y.
1st EAGE Reservoir Geoscience Conference, ResGeo 2018, Kuala-Lumpur, Malaysia, 3 - 05 December 2018
- XIV. **Least-squares reverse time migration using generalised diffraction-stack imaging condition**
Moussavi Alashloo S., Ghosh D., Bashir Y.
Offshore Technology Conference Asia 2018, OTCA 2018, Kuala-Lumpur, Malaysia, 20 - 23 March 2018
- XV. **Depth imaging using innovative algorithm for high-resolution seismic**
Bashir Y., Ghosh D. P., Sum C. W., Mahgoub M.
SEG/AAPG/EAGE/SPE Research and Development Petroleum Conference and Exhibition 2018, RDP 2018, Abu

Dhabi, United Arab Emirates, 9 - 10 May 2018, pp.20-23

- XVI. **Enhanced Wave Modeling for High-Resolution Seismic Imaging: Application in GOM**
BASHIR Y., Ghosh D. P., Sum C. W., Mossavi Alashloo S. Y., Hamidi R.
SEG 2018 Workshop: SEG Seismic Imaging Workshop, Beijing, China, China, 14 November 2018
- XVII. **Depth Imaging Enhancement Using Reverse Time Migration**
Alashloo S. M., Ghosh D., Bashir Y., Yusoff W. W.
5th International Conferences on Geological, Geographical, Aerospace and Earth Sciences 2017, AeroEarth 2017, Kuta, Bali, Indonesia, 20 - 21 May 2017, vol.88
- XVIII. **Importance of Seismic Diffractions for Fractures Imaging**
Bashir Y., Ghosh D., Alashloo S. Y. M., Sum C.
5th International Conferences on Geological, Geographical, Aerospace and Earth Sciences 2017, AeroEarth 2017, Kuta, Bali, Indonesia, 20 - 21 May 2017, vol.88
- XIX. **Preservation of Seismic Diffraction to Enhance the Resolution of Seismic Data**
Bashir Y., Ghosh D., Sum C. W.
Society of Exploration Geophysicists International Exposition and 87th Annual Meeting, SEG 2017, Texas, United States Of America, 24 - 29 September 2017, pp.1038-1043
- XX. **Enhancement in Seismic Imaging using Diffraction Studies and Hybrid Traveltime Technique for PSDM**
Bashir Y., Ghosh D., Alashloo S. M., Sum C.
4th International Conference on Geological, Geographical, Aerospace and Earth Science 2016, AeroEarth 2016, Kuta, Bali, Indonesia, 4 - 05 June 2016, vol.38
- XXI. **Effect of Frequency and Migration Aperture on Seismic Diffraction Imaging**
Bashir Y., Ghosh D., Alashloo S. M., Sum C.
3rd International Conference on Geological, Geographical, Aerospace and Earth Science, AeroEarth 2015, Jakarta, Indonesia, 26 - 27 September 2015, vol.30
- XXII. **A comparison on initial-value ray tracing and fast marching eikonal solver for VTI traveltime computing**
Alashloo S. M., Ghosh D., Bashir Y., Yusoff W. W.
3rd International Conference on Geological, Geographical, Aerospace and Earth Science, AeroEarth 2015, Jakarta, Indonesia, 26 - 27 September 2015, vol.30
- XXIII. **Improving Thin Bed Identification in Sarawak Basin Field using Short Time Fourier Transform Half Cepstrum (STFTHC) method**
Nizarul O., Hermana M., Bashir Y., Ghosh D.
3rd International Conference on Geological, Geographical, Aerospace and Earth Science, AeroEarth 2015, Jakarta, Indonesia, 26 - 27 September 2015, vol.30
- XXIV. **Application of VTI fast marching eikonal solver to improve seismic imaging**
Alashloo S., Ghosh D., Bashir Y.
Offshore Technology Conference Asia 2016, OTCA 2016, Kuala-Lumpur, Malaysia, 22 - 25 March 2016, pp.328-333
- XXV. **Seismic modeling and imaging using wave theory for fault and fracture identification**
Bashir Y., Ghosh D. P., Yaser S., Alashloo M., Sum C. W.
Offshore Technology Conference Asia 2016, OTCA 2016, Kuala-Lumpur, Malaysia, 22 - 25 March 2016, pp.3914-3920
- XXVI. **Detection of Fault and Fracture using Seismic Diffraction and Behavior of Diffraction Hyperbola with Velocity and Time**
BASHIR Y., Ghosh D. P., Sum C. W.
Seismic Driven Reservoir Characterization and Production Management, Malaysia, 10 April 2015

Activities in Scientific Journals

Journal of Petroleum Technology, Editor, 2023 - Continues

Journal of Earth Sciences and Technology, Editor, 2019 - Continues
FRONTIERS IN EARTH SCIENCE, Assistant Editor/Section Editor, 2022 - 2023

Memberships / Tasks in Scientific Organizations

Geological Society Of Malaysia, Member, 2020 - Continues, Malaysia
American Association of Petroleum Geologists, Member, 2015 - Continues, United States Of America
European Association of Geoscientists and Engineers, Member, 2015 - Continues, Netherlands
Society of Exploration Geophysicists, Member, 2014 - Continues, United States Of America
European Union of Geosciences (EUG), Member, 2014 - Continues, Germany

Scientific Refereeing

EXPLORATION GEOPHYSICS, SCI Journal, December 2023
IEEE GEOSCIENCE AND REMOTE SENSING LETTERS, SCI Journal, December 2023
IEEE GEOSCIENCE AND REMOTE SENSING LETTERS, SCI Journal, December 2023
COMPUTERS & GEOSCIENCES, SCI Journal, December 2023
GEOPHYSICAL JOURNAL INTERNATIONAL, SCI Journal, November 2023
CANADIAN GEOTECHNICAL JOURNAL, SCI Journal, November 2023
Acta Geophysica, SCI Journal, November 2023
EARTH SCIENCES RESEARCH JOURNAL, SCI Journal, October 2023
PURE AND APPLIED GEOPHYSICS, SCI Journal, October 2023
CANADIAN GEOTECHNICAL JOURNAL, SCI Journal, October 2023
GEOPHYSICS AND GEOPHYSICAL EXPLORATION, SCI Journal, September 2023
PETROLEUM SCIENCE AND TECHNOLOGY, SCI Journal, September 2023
CONTRIBUTIONS TO GEOPHYSICS AND GEODESY, SCI Journal, August 2023
OPEN GEOSCIENCES, SCI Journal, August 2023
PROCEEDINGS (MDPI), SCI Journal, July 2023
PROCEEDINGS (MDPI), SCI Journal, July 2023
MARINE AND PETROLEUM GEOLOGY, SCI Journal, July 2023
PROCEEDINGS (MDPI), SCI Journal, July 2023
PURE AND APPLIED GEOPHYSICS, SCI Journal, June 2023
PROCEEDINGS (MDPI), SCI Journal, June 2023
IEEE GEOSCIENCE AND REMOTE SENSING LETTERS, SCI Journal, June 2023
INTERNATIONAL JOURNAL OF GEOPHYSICS, SCI Journal, May 2023
PURE AND APPLIED GEOPHYSICS, SCI Journal, April 2023
PURE AND APPLIED GEOPHYSICS, SCI Journal, April 2023
INTERPRETATION (Tulsa), SCI Journal, March 2023
IEEE GEOSCIENCE AND REMOTE SENSING LETTERS, SCI Journal, March 2023