

## **CURRICULUM VITAE**



Name : Prof. Dr. Umar Fauzi  
NIP : 131 844 768  
Research Division : Physics of Erath and Complex Systems  
Institution : Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia  
Official Address : Jl. Ganesa 10 Bandung  
Private Address : Kompleks PPR-ITB No B2, Mekarwangi, Lembang, Bandung Barat, Indonesia

### **Education**

No	University	Degree	Graduate	Field
1	Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Drs	1988	Physics
2	Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	MSi	1992	Physics
3	Intitute for Geophysics and Meteorology, Faculty of Mathematics and Natural Sciences, Universitaet zu Koeln, Germany	Dr.rer.nat	1997	Geophysics

### **Official Position**

Institution	Position	Duration
Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Lecturer	1997 - now
Procurement scesion of Institut Teknologi Bandung	Member of facilities procurement section	1997 – 1998
Development Undergraduate Education (DUE-like TPB ITB) project	Secretary	1998 – 2000
Development Undergraduate Education (DUE-like TPB ITB) project	Project Administrator	2001
Quality Undergraduate Education (QUE-Dept. Of Physics, ITB)	Executive secretary	2001

Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Vice chair	2001 – 2004
Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Vice chair for academic and students affairs	2004 – 2005
Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Vice chair for graduate program	2006 – 2007
Research Division: Physics of Complex Systems, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung	Head of Research Division	2006-2007
Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Head of Department for Undergraduate program	2007 – 2009
Research Division: Physics of Complex Systems, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung	Head of Research Division	2007 – 2010
Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Vice dean for academic affairs	2010
Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia	Dean of Faculty of Mathematics and Natural Sciences	2011 - now

Mangement workshop/courses:

- International Deans Course "South East Asia" Program, Germany, 5-14 May 2008.
- University Administrators Enrichment Program, September 17-21, RWTH Aachen, Germany.

Research visit:

- Research visit at TU-Clausthal, 1995.
- Research visit at Ecole de Globe University of Strassbourg, French, 1995.
- Visiting scholars through International Research Linkages, University of Cologne, November 2000 – December 2001
- Network on Industrial Mathematics, University of Kaiserslautern, Desember - January, 2001.

Reviewer:

- American Geophysical Union, 2002
- Indonesian Journal of Physics

- Jurnal Geofisika, Himpunan Ahli Geofisika Indonesia
- Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Francis and Taylor, 2009-2011.
- Jurnal Matematika dan Sains, FMIPA, ITB.
- ITB Journal of Science.
- Journal of Applied Geophysics.

Activity in associations:

- Himpunan Ahli Geofisika Indonesia (HAGI: Indonesian geophysicists Association), Treasury II, 1998 – 2000.
- Himpunan Ahli Geofisika Indonesia (HAGI: Indonesian geophysicists Association), scholarship section, 1998 – 2000.
- Member of HAGI (Indonesian geophysicists Association).
- Member of European Geophysical Union (EGU), tahun 2006.
- Member of Society of Exploration Geophysicist of Japan (SEGJ), tahun 2007.

Publications and Seminars:

Journal/references:

1. Fauzi, U. , 1997, Untersuchungen zur Charakterisierung der Porengeometrie von Gesteinen zur Abschätzung der hydraulischen Permeabilität und des Formationsfaktors mit Hilfe von Bildanalysen, Dissertation, Exploration Geophysics, Institute of Geophysics and Meteorology, University of Cologne, Germany.
2. Fauzi, U., 1998, Permeability estimation of rocks with the help of image analysis and local porosity theory, Kontribusi Fisika Indonesia, vol. 9, no. 1.
3. Fauzi, U., A. Hoerdt and F. M. Neubauer, 2002, Influence of Coordination Number and Percolation Probability on Rock Permeability Estimation, Geophys. Res. Letters, Vol. 29, No. 8.
4. Fauzi, U., 2002, Permeability estimation based on pore radius and its distribution, Kontribusi Fisika Indonesia, Vol. 13, no. 1.
5. Zulaikah, S., Liong, T. H., Bijaksana, S., Fauzi, U., Yulita, N., 2003, Preliminary result of magnetic records in stalagmites, Jurnal Geofisika 2.
6. Zulaikah, S., Liong, T. H., Bijaksana, S., Fauzi, U., 2004, Rekaman variasi arah medan magnetik bumi selama  $\pm$  3000 tahun pada stalagmit dari Trenggalek dan perbandingan dengan data lain, Jurnal Geofisika 2, pp. 20-26.
7. Fauzi, U. And Sarwoto, 2004, Anisotropi permeabilitas skala mikro, Jurnal Geofisika, ISSN 0854-4352, Edisi THN 2004 No. 1, pp. 19-22.
8. Tezkan, B., Georgescu, P., Fauzi, U., 2005, A radiomagnetotelluric survey on an oil-contaminated area near the Brazi Refinery, Romania, Geophysical Prospecting, 53, pp. 311-323.
9. Fauzi, U., Mulyadi, Bachri A. S., Physical and Lattice Gas Automata Fluid Flow Modeling in Real Porous Media, Indonesian Journal of Physics, Vol 16, No 3, 2005.
10. Hamdi Rifai, Satria Bijaksana, Umar Fauzi, and Bagus E.B. Nurhandoko Challenges in the Measurement of LUSI's Physical Properties, Indonesian Journal of Physics, 18.4, October, 2007, pp. 87-90.

11. Fourier Dzar Eljabbar Latief and Umar Fauzi Performance Analysis of 2D and 3D Fluid Flow Modelling Using Lattice Boltzmann Method, Indonesian Journal of Physics. 18.2, April, 2007, pp. 47-52.
12. Umar Fauzi, Microstructure Characterization of Pigeon Hole Rock Models at Different Scale: A Preliminary Study, Indonesian Journal of Physics, 18.3, July, 2007, pp. 73-76.
13. Khumaedi Sastrawiharja, Satria Bijaksana, Umar Fauzi, and Linus Ampang Pasasa, Anisotropy of Magnetic Susceptibility and Elemental Compositions in Andesitic Rocks, Indonesian Journal of Physics 19.1, January, 2008, pp. 19-22.
14. Memoria Rosi, Fourier Dzar Eljabbar Latief, Umar Fauzi, Mikrajuddin Abdullah, dan Khairurrijal, Pengolahan Citra SEM dengan Matlab untuk Analisis Pori pada Material Nanopori, Jurnal Nanosains & Nanoteknologi ISSN 1979-0880 Edisi Khusus, Agustus 2009.
15. F. D. E. Latief, B. Biswal, U. Fauzi, R. Hilfer, Continuum reconstruction of the pore scale microstructure for Fontainebleau sandstone, Physica A: Statistical Mechanics and its Applications, Volume 389, Issue 8, 15 April 2010, Pages 1607-1618
16. Fourier Dzar Eljabbar Latief, M.Sc; Umar Fauzi, Dr. rer. nat; Satria Bijaksana, Dr.; Yazid Bindar, Dr., Pore Structure Characterization of 3D Random Pigeon Hole Rock Models, International Journal of Rock Mechanics and Mining Sciences, Volume 47, Issue 3, April 2010, Pages 523-531
17. Fauzi, U. , Estimation of rock permeability and its anisotropy from thin sections using renormalization group approach, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, vol 33 no. 6, 2011.
18. Feranie S., U. Fauzi dan S. Bijaksana, 3D fractal dimension and flow properties in the pore structure of geological rocks, fractals, vol. 19, no. 3 (2011) 1-7.
19. Fourier Dzar Eljabbar Latief & Umar Fauzi, Kozeny-Carman and Empirical Formula for Permeability Calculation of Computer Rock Models, International Journal of Rock Mechanics and Mining Sciences, 2012, Volume 50, Pages 117-123.
20. Fourier Dzar Eljabbar Latief, Umar Fauzi and Selly Feranie, Digital isolation technique for reconstruction and visualization of cracks in micro-CT images of geothermal reservoir rocks, Microscopy and Analysis, issue 103, March/April 2014.
21. Gerald Tamuntuan, Satria Bijaksana, John King, James Russell, Umar Fauzi, Khoiril Maryunani, Nurul Afa, La Ode Safiuddin, Variation of Magnetic Properties in Sediments from Lake Towuti, Indonesia, and Its Paleoclimatic Significance, Palaeogeography, Palaeoclimatology, Palaeoecology, 2014.

#### Seminar/Proceedings:

##### International:

1. Fauzi, U., 1992, Erfolgreiche Anwendungen der VLF am ITB, Indonesien, German geophysicist Association (DGG), Kiel, Germany
2. Fauzi, U., 1994, Zusammenhänge zwischen hydraulischer Permeabilität und elektrischer Leitfähigkeit, Petrophysics Seminar, Bucha Leipzig, Germany.
3. Fauzi, U., Vozoff, K., Neubauer, F. M., und Hördt, A., 1994, Zusammenhänge zwischen hydraulischer Permeabilität und elektrischer Leitfähigkeit: in Bahr, K.

- und Junge A., (Hrsg.), Protokoll über das 15. Kolloquium „Elektromagnetische Tiefenforschung“, Höchst, Germany.
4. Fauzi, U., 1995, Permeabilitätsmessung mittels lokaler Porositätstheorie, Arbeitsseminar 'Petrophysik und Umwelt, Bucha Leipzig, Germany.
  5. Fauzi, U., 1996, Untersuchung hydraulischer Permeabilität und elektrischer Leitfähigkeit von Gesteinen durch Bildverarbeitung und lokale Porositätstheorie, German geophysicist Association (DGG), Freiberg, Germany.
  6. Fauzi, U., Horndt, A., Neubauer, F. M. and Vozoff, K., 1996, Permeability estimation of rocks using local porosity theory, 58th Mtg.: Eur. Assn. Geosci. Eng., Session:C029, Amsterdam, The Netherland.
  7. Fauzi, U., Hoerdt, A., Neubauer F. M., Vozoff, K., The application of local porosity theory for hydraulic estimation of real rocks, Workshop on wave propagation in rocks, Society of Exploration Geophysicist (SEG) and EAGE, Montana, USA, 1996.
  8. Fauzi, U. And Harsawardana, Sumbangan Ilmuwan Muslim di Bidang Optika Geometri pada Zaman Keemasan Islam dan Contoh Kemanfaatan Praktis di Bidang Pertanian dan Fisika Batuan, IPASOSTEK seminar, Institute for science and technology studies, representation of Europe, Frankfurt, Germany, 1996.
  9. Tezkan, B. and Fauzi, U., 2001, Detecting and monitoring of oil-contamination using radimagnetotellurics, Annual meeting of German Association of Geophysicists (DGG), Frankfurt, Germany.
  10. Fauzi, U., 2001, Digital Image Processing for Rock Characterization, Indonesia-German Conference, Bandung – Indonesia.
  11. J. Padmono, B. Sugiyanto, U. Fauzi, Loektamaji, R. Wawan, 2004, Seismic physical parameters of sands and carbonate reservoirs at Tambun Oil-field, ext. Abstract, EAGE meeting 2004, Paris, French.
  12. Fauzi, U., Eddy, I., Syaiful, I., 2004, Measurements study of antenna height variations in GPR records: case study of field experiments at Bukit Asam Coal Mining field, The 32nd International Geological Congress (32IGC) August 20 to 28, Florence, Italy.
  13. Eddy, I., Hendrajaya, L., Handayani, G., Fauzi, U., 2004, Determination of geometry and bedding plane orientation in coal seam use of GPR method, The 32nd International Geological Congress (32IGC) August 20 to 28, Florence, Italy
  14. Eddy, I., Syaeful, I., Fauzi, U., Handayani, G, Hendrajaya, L., 2004, Influence of application of height of different antenna to quality data by GPR (Evaluation by experiment at data seal caol outcrop), The 32nd International Geological Congress (32IGC) August 20 to 28, Florence, Italy.
  15. Fourier Dzar Eljabbar and Umar Fauzi, The effect of water saturation on the complex seismic attribute, Asean Physics Symposium, Bandung, 2005.
  16. Fourier Dzar Eljabbar and Umar Fauzi, Model based acoustic impedance inversion, , Asean Physics Symposium, Bandung, 2005.
  17. Afdal and U. Fauzi, Characterization of Rock Fracture by Digital Image Analysis, Asean Physics Symposium, Bandung, 2005.
  18. Z. Irayani and U. Fauzi, Estimating Effective Permeability Using Image Analysis and Renormalized Effective Medium Approximation (REMA), Asean Physics Symposium, Bandung, 2005.
  19. Dharmawan. A. I., Fauzi, U., Prastowo, T., Numerical permeability estimation of real fractures using Lattice Boltzmann Method, Asean Physics Symposium, Bandung, 2005.

20. Dharmawan. A. I., Fauzi, U., Prastowo, T., Lattice Boltzmann Method for simulating fluid flow through porous media, Asean Physics Symposium, Bandung, 2005.
21. U. Fauzi, Application of local porosity theory and renormalization group approach to estimate permeability anisotropy of sandstone, Geophysical Research Abstracts, Vol. 8, 01473, 2006, Vienne, Austria.
22. Parnadi, W., Ibrahim E., Islam, S., Hendrajaya, L., Handayani, G., Fauzi, U., Application of multi-configuration ground-penetrating radar to estimate quality and structure of coal seams, Proceeding of International Geosciences Conference and Exhibition, Jakarta, 2006.
23. Ibrahim, E., Hendrajaya, L., Handayani, G., Fauzi, U., Layered characterization using multi-configuration antenna, Proceeding of International Geosciences Conference and Exhibition, Jakarta, 2006.
24. Ibrahim, E., Hendrajaya, L., Handayani, G., Fauzi, U., Laboratory experiments for coal rank characterization using 1 GHz GPR antenna, Proceeding of International Geosciences Conference and Exhibition, Jakarta, 2006.
25. Umar Fauzi and Ismail Hamzah, Reconstruction of Microstructure Using Pigeon-hole Model as a Preliminary Study to Investigate Relationship between Porosity and Hydraulic Radius with Fractal Dimension International Conference on Mathematics and Natural Sciences, 2006, Bandung.
26. Umar Fauzi and Tungky Ariwibowo, Tortuosity and Coordination Number of Highly Porous Artificial Rocks Created Using Random Number Generator, International Conference on Mathematics and Natural Sciences, 2006, Bandung.
27. Sastrawiharja, K., Bijaksana, S., Fauzi, U., Pasasa, L. A., Magnetic Grain Size of Andesitic Rocks from the Island of Java, International Conference on Mathematics and Natural Sciences, Bandung 29-30 November 2006.
28. Hamdi Rifai, Satria Bijaksana, Umar Fauzi, Bagus E . B. Nurhandoko, Challenge in the Measurement of LUSIs Physical properties, Asian Physics Symposium, Bandung, 2007.
29. Khumaedi Sastrawiharja, Satria Bijaksana, Umar Fauzi, Linus Ampang Pasasa, Anisotropy of Magnetic Susceptibility and Elemental Compositions in Andesitic Rocks. Asian Physics Symposium, Bandung, 2007.
30. Fitriani, I.A. Dharmawan, K. Susanto, U. Fauzi, S. Bijaksana, Microgeometry Analysis of Porous Rock using Two Point Correlation Functions, Asian Physics Symposium, Bandung, 2007.
31. Enjang Jaenal, Mustopa, Wahyu Srigutomo, Doddy Sutarno, Umar Fauzi, Asep Harja, CSAMT Measurement in Kamojang Geothermal Field, Garut. Asian Physics Symposium, Bandung, 2007.
32. S.Feranie, U.Fauzi, S.Bijaksana, Microgeometry Analysis of Two Dimensional-Random Sierspinski Carpets (RSCs), Asian Physics Symposium, Bandung, 2007.
34. Fauzi, U., Microstructure characterization of pigeon hole rock models at different scale: a preliminary study, Asian Physics Symposium, Bandung, 2007.
35. Umar Fauzi dan Hamami Nomeira\*, Reconstruction of 3-dimenisonal real rocks and its tortuosity estimation, The 2<sup>nd</sup> International Conference on Mathematics and Natural Sciences (ICMNS), Bandung, 2008.
36. Enjang, J.M., Nurhasan, D. Sutarno, W. Srigutomo, U. Fauzi; Two Dimensional Electromagnetic Image of The Kamojang Geothermal field, Indonesia by CSAMT Data; The 19<sup>th</sup> IAGA Workshop on EM Induction in the earth; Beijing; October ; 2008.

37. Enjang, J.M., W. Srigutomo, D. Sutarno, , U. Fauzi, Asep Harja, Imaging Kamojang Geothermal Reservoir by CSAMT Method, The 2<sup>nd</sup> International Conference on Mathematics and Natural Sciences ICMNS, Bandung, 2008
38. Enjang, J.M., W. Srigutomo, D. Sutarno, , U. Fauzi, Asep Harja, CSAMT Measurement in Tangkuban Parahu, West Java, The 2<sup>nd</sup> International Conference on Mathematics and Natural Sciences ICMNS, Bandung, 2008.
39. Fauzi, U, T. Ariwibowo, S. Feranie. Dependence of Tortuosity on Porosity of Rock Models, Society of Exploration Geophysicists of Japan, SEGJ, Hokkaido, Japan, 2007.
40. Fourier D. E. Latief, Umar Fauzi: Pore structure characteristics of rock models with various grain shape, the 8<sup>th</sup> Euroconference 2009 of rock physics and geomechanics, Ascona, Switzerland.
41. Alamta Singarimbun, Wahyu Srigutomo, Umar Fauzi, Adhitya Sumardi Sunarya, An Application of Numerical Simulation in a Seismoelectric Phenomena by Using Transfer Function, The 3<sup>rd</sup> Asian Physics Symposium, Bandung, 2009.
42. Fourier Dzar Eljabbar Latief and Umar Fauzi, Flow Properties of 3D Pigeon Hole Models, The 3<sup>rd</sup> Asian Physics Symposium, Bandung, 2009.
43. Umar Fauzi, Sparisoma Viridi, and Qisthina Ghaisani; Two Dimension Numerical Modeling and Laboratory Experiment of Slope Change in Granular Piles Due to Water Content, AIP (American Institute of Physics) Conf. Proc. 1325, 124 (2010).
44. Sparisoma Viridi, Umar Fauzi, and Adelia; To Divide or not to Divide: Simulation of Two-Dimensional Stability of Three Grains using Molecular Dynamics, AIP (American Institute of Physics) Conf. Proc. 1325, 175 (2010).
45. U. Fauzi, Permeability estimation of rock models, DGG-Tagung, Koeln, Germany, 2011.
46. Umar Fauzi, Sparisoma Viridi and Nurhasan, Molecular Dynamics Simulation on Particular grain Weighting in a Granular Pile: An Attempt to Induce an Artificial micro Landslide, International Conference on Physics and Applied Physics, 2011.
47. Pury Sundari, Umar Fauzi, Zaroh Irayani, and Sparisoma Viridi, Two dimension porous media reconstruction using granular model under influence of gravity, , International Conference on Physics and Applied Physics, 2011.
48. F. D. E. Latief, U. Fauzi, Z Irayani, Modeling and Characterization of Laminated Granular Rocks., International Conference on Physics and Applied Physics, 2011.
49. F.D.E. Latief , Z. Irayani, U. Fauzi, Resolution Dependency of Sandstone's Physical Properties, SkyScan User Meeting 2012, Brussels.
50. U Fauzi, M R Arbie<sup>1</sup>, and F D E Latief<sup>1</sup>. Computer Rock Model to Study Influence of Clays and Lamina on Fluid Permeability, 2012, Conference on Computational Physics (CCP2012), Kobe, Japan.
51. U Fauzi, and F D E Latief<sup>1</sup>, Pore Space Characterization and Fluid Flow Properties Estimation of 'Digital Porous Materials', 2012, Conference on Computational Physics (CCP2012), Kobe, Japan.
52. U. Fauzi, CHARACTERIZATION OF 'DIGITAL MATERIALS' (CASE STUDY: DIGITAL ROCK PHYSICS), 2012, Asian Physics Symposium, Bandung.
53. U. Fauzi, MODELING OF POROUS MATERIALS (CASE STUDY: POROUS ROCKS), International Conference on Mathematics and Natural Sciences, Bandung, 2012.
54. U. Fauzi<sup>a</sup>, Z. Irayani<sup>a</sup>, F. D. E. Latief<sup>a</sup>, S. Viridi, Micro-anisotropy of Permeability with the Help of Renormalization Group Approach, 2nd International Workshop on Rock Physics, Southampton, August, 2013.

55. Fourier D. E. Latief, Umar Fauzi, Zaroh Irayani, The Effect of Spatial resolution on X-Ray micro-CT data of Porous Rock, 2nd International Workshop on Rock Physics, Southampton, August, 2013.
56. Latief, F.D.E. , Fauzi, U. , Pore shape characterization of Fontainebleau sandstone and its models using Fourier descriptor, AIP Conference Proceedings, Volume 1589, 2014, Pages 72-75.

National:

57. Fauzi, U., 1989, VLF-EM method, 14<sup>th</sup> annually HAGI meeting (PIT HAGI), Jakarta.
58. Fauzi, U., 1990, Seminar geofisika untuk guru-guru IPA-SMA, as a speaker, University of Indonesia.
59. Fauzi, U., 1990, Measurement of simple models by Abem Wadi VLF instrument, 15<sup>th</sup> PIT-HAGI, Yogyakarta.
60. Fauzi, U., 1991, One day seminar on electromagnetic methods, as a speaker, Bandung.
61. Fauzi, U. , 1997, Estimation of permeability by means of effective medium approximation, Proceeding PIT-HAGI, Bandung.
62. Fauzi, U., 1998, Influence of percolation probability on permeability estimation, Department of physics ITB intern seminar.
63. Irfan, M, Fauzi, U., Bijaksana, S., dan hendrajaya, L., 1998, Relasi antara kecepatan perambatan gelombang elastik dengan konduktivitas panas batuan, Proceeding PIT-HAGI, Yogyakarta.
64. Syukri, M., Fauzi, U., Bijaksana, S., Santoso, D., 1998, Radargram sintetik untuk studi kontaminasi, Proceeding PIT-HAGI, Yogyakarta.
65. Fauzi, U., Influence of coordination number on permeability estimation, Proceeding PIT-HAGI, Surabaya, 1999.
66. Fauzi, U., 2000, Modified effective medium approximation for permeability estimation, Annual Physics meeting, Bandung, August.
67. Distrik, I. W., Fauzi, U., 2000, Pemodelan geolistrik untuk lapisan miring, Annual HAGI meeting, Proceeding PIT HAGI ke-25, Bandung.
68. Nurheriawan, M., Fauzi, U., and Handayani, G., 2000, Studi kualitas batubara berdasarkan sifat dielektrik, Annual HAGI meeting, Proceeding PIT HAGI ke-25, Bandung.
69. Irham, M, Fauzi, U., and Handayani, G., 2000, Permeability of loose sands: image analysis, sieve analysis, falling head method, Annual HAGI meeting, Proceeding PIT HAGI ke-25, Bandung.
70. Fauzi, U., Sumentadireja, P. A., Kukuh, 2000, Digital image analysis for permeability estimation of rock samples, IAGI, Bandung.
71. Fauzi, U. and Syuhada, 2001, Micropermeability of rocks, Proceeding PIT HAGI ke-26, Jakarta.
72. Is Mardianto, Umar Fauzi, Benyamin Kusumoputro, 2002, Teknik Migrasi Citra Ground Penetrating Radar dalam Domain T-K, Prosiding Ilmu Komputer dan Teknologi Informasi, Vol. 3, No. 1.
73. Eddy Ibrahim, Umar Fauzi, Gunawan Handayani, Syaiful Islam, 2003, Studi estimasi variabilitas kandungan air total (VKAT) di lapisan batubara menggunakan metoda GPR, Joint Convention IAGI dan HAGI, Jakarta.



74. Eddy Ibrahim, Lilik Hendrajaya, Gunawan Handayani, Umar Fauzi, Syaiful Islam, 2003, Studi penentuan ketebalan lapisan batubara menggunakan GPR, Joint Convention IAGI dan HAGI, Jakarta.
75. Fauzi, U., 2003, Estimation of porosity and permeability with the help of seismics, one-day discussion on seismic wave propagation in rocks, Jakarta.
76. Zulaikah, S., Bijaksana, S., Liong, T. H., Fauzi, U., Yulita, N., 2003, Magnetic records in stalagmites as proxy indicators of paleoclimate, HAGI-IAGI Joint Convention, Jakarta.
77. Zulaikah, S., Bijaksana, S., Liong, T. H., Fauzi, U., Yulita, N., 2003, Paleoclimatic study using magnetic susceptibility data in speleothems, Seminar Nasional Fisika, HFIY ke XII, Semarang.
78. Edisar.M, Hendrajaya. L, Handayani. G, Fauzi. U, Ngkomani. L.O, Yarmanto, (2005), 4D seismic and rock physics modeling responses to reservoir steam flood, Proceedings, Indonesian Petroleum Association, thirtieth annual convention & exhibition, 11-23.
79. Hamdi Rifai<sup>1,2</sup>, Satria Bijaksana<sup>1</sup>, Umar Fauzi<sup>1</sup> dan Linus Ampang Pasasa<sup>1</sup>, 2005, Degree of Magnetic Anisotropy and Porosity of Deep Sea Sediments, Kentingan Physics Forum.
80. Dharmawan. A. I., Fauzi, U., Soewono, E., and Brotosiswojo, B. S., 2006, Fluid flow in rough surfaces, Proceeding of workshop on nonlinearity 2K6, Institut Pertanian Bogor, Bogor.
81. Fauzi, U. dan Hendro, 2006, Pengembangan awal kamera lubang bor, Seminar Instrumentasi berbasis fisika, Bandung.
82. Irwan Ary Dharmawan , Umar Fauzi, Edy Soewono and B.S. Brotosiswojo, Lattice-Boltzmann and Finite Difference simulations for the permeability of two-dimensional hydrocarbon fractured, 31st Annual Scientific Meeting (PIT) HAGI 2006, Semarang.
83. Umar Fauzi<sup>1</sup> and Fourier Dzar Eljabbar Latief<sup>1</sup> Physical and Computer Modeling for 3-D Pore Structure of Rocks and Its Characterization, HAGI-Annual meeting, 2009.
84. F. D. E. Latief<sup>1</sup>, U. Fauzi<sup>1</sup>, S. Bijaksana<sup>1</sup>, Y. Bindar<sup>2</sup>, S. Viridi<sup>3</sup> , The Effect of Grain Size Distribution to the Pore Structure of Non-Spherical Granular Model, HAGI-Annual meeting, 2009.
85. Nurhasan<sup>1</sup>, D. Sutarno<sup>1</sup>, W. Srigutomo<sup>1</sup>, E J Mustopa<sup>1</sup>, U. Fauzi<sup>1</sup>, Y. Ogawa<sup>2,3</sup> Three Dimensional Resistivity Structure of Papandayan Volcano, Indonesia derived from Magnetotelluric Data, The 34th HAGI Annual Convention, Exhibition and 2nd Geophysics Education Symposium Yogyakarta, 10-12 November 2009.
86. Alamta Singarimbun, Wahyu Srigutomo, Umar Fauzi, Harry Mahardika dan Adhitya Sumardi S, Aplikasi Metode Pengurangan Sinusoid dan Metode Pengurangan Blok dalam Pengolahan Data Seismoelektrik, The 34th HAGI Annual Convention, Exhibition and 2nd Geophysics Education Symposium Yogyakarta, 10-12 November 2009.
87. Alamta Singarimbun, Anne R A, Wahyu Srigutomo, Umar Fauzi, Harry Mahardika dan Adhitya Sumardi S, Simulasi Numerik Fenomena Gelombang Seismoelektrik Menggunakan Fungsi Transfer, The 34th HAGI Annual Convention, Exhibition and 2nd Geophysics Education Symposium Yogyakarta, 10-12 November 2009.
88. U. Fauzi, Annisa, F. D. E. Latief, EFFECTIVE PERMEABILITY OF LAYERING SIMPLE GRAIN PACKINGS, PROCEEDINGS PIT HAGI 2012, 37th HAGI Annual Convention & Exhibition, Palembang, 10-13 September 2012.

89. F.D.E. Latief<sup>1</sup>, Z. Irayani<sup>1,2</sup>, U. Fauzi<sup>1</sup>, Digital Characterization of Loose Sandstone Using Image Analysis and Simulation of Fluid Flow, , PROCEEDINGS PIT HAGI 2012, 37th HAGI Annual Convention & Exhibition, Palembang, 10-13 September 2012.
90. Z. Irayani<sup>1,2</sup>, U. Fauzi<sup>1</sup>, F.D.E. Latief<sup>1</sup>, H. Atmoko<sup>3</sup>, Microstructure Characterization of Reservoir Sandstone Using X-Ray Microtomography, PROCEEDINGS PIT HAGI 2012, 37th HAGI Annual Convention & Exhibition, Palembang, 10-13 September 2012.
91. Fourier Dzar Eljabbar Latief, Umar Fauzi and Selly Feranie, Analysis of Crack in Geothermal Reservoir Rock Using Reconstructed Micro-CT Images, Proceeding, HAGI-IAGI Joint Convention Medan, October, 2013.
92. Fourier Dzar Eljabbar Latief and Umar Fauzi, Characterization of Gravity Driven Sedimentation Model and random Penetrable Model of Sedimentary Rock, Proceeding, HAGI-IAGI Joint Convention Medan, October, 2013.
93. Z. Irayani, U. Fauzi, S. Viridi nad B. Priadi, Anisotropy Permeability Estimation of reservoir rock Using Micro-CT Images Data, Proceeding, HAGI-IAGI Joint Convention Medan, October, 2013.
94. T. F. Niyartama, U. Fauzi, Fatkhan, Biot Response to the Effect of Elastic Properties Variation in Reservoir Rock, Proceeding, HAGI-IAGI Joint Convention Medan, October, 2013.

#### Research grants:

1. Penggunaan peralatan geofisika untuk mengukur parameter penyebab terjadinya longsor daerah Pasirmuncang PPR-ITB Dago, Research report, O&M-ITB, 1989.
2. Pengembangan cara prospeksi EM-VLF dengan memanfaatkan sumber gelombang kuat, SPP-DPP ITB, 1989.
3. Perancangan peralatan pengukuran kerentanan awal magnetik dan magnetisasi remanen batuan, OPF-ITB, 1990.
4. Fauzi, U., 1998, Relasi antara kecepatan perambatan gelombang elastik dengan konduktivitas panas batuan, SPP-DPP ITB.
5. Fauzi, U., Pengembangan analisa citra digital untuk estimasi permeabilitas batuan, RUT VI, 1998 – 2000.
6. Fauzi, U., Influence of coordination number and percolation probability on permeability estimation by means of digital image analysis, Young Academics batch III, URGE, 1998 – 2000.
7. Djamal, M., Fauzi, U, Rena, W., Evaluasi kurikulum dan sistem evaluasi (policy study QUE-Fisika), 1999.
8. Fauzi, U., Arif, I., Budiman, M., Reposisi jurusan Fisika (Policy study QUE-Fisika), 2000.
9. Fauzi, U., kajian kurikulum berbasis kompetensi untuk mata pelajaran IPA Sekolah Dasar, Direktorat TK-SD, pendidikan dasar menengah, 2002.
10. Fauzi, U., Uji coba kurikulum berbasis kompetensi untuk mata pelajaran IPA Sekolah Dasar, Direktorat TK-SD, pendidikan dasar menengah, 2003.
11. Nurhasan, Fauzi, U., 2003, Pemodelan inversi elektromagnetik 2-D dan penerapannya untuk menginterpretasi data CSAMT Gunung Merapi, Jawa Tengah, Research Report from JBPTITBPP / 2003-07-16

12. Fauzi, U. dan Hendro, 2005-2006, Borehole camera untuk investikasi sumur/lubang bor, Hibah Bersaing.
13. Srigutomo, W., Enjang, J. M., Fauzi, U., Metoda EM untuk studi cekungan Bandung, Riset ITB, 2005.
14. Bijaksana, S. dan U. Fauzi, 2005-2007, Kajian anisotropi pada batuan untuk keperluan eksplorasi dan lingkungan, Hibah Penelitian Tim Pascasarjana angkatan III.
15. U. Fauzi, 2007, Kajian up-scaling berdasarkan struktur ruang pori batuan, Riset KK.
16. Enjang J. M., Sutarno D., Srigutomo, W., Fauzi, U., 2007, Riset terapan, KNRT.
17. Alamta Singarimbun, Wahyu srigutomo, Umar fauzi, 2008, riset insentif knrt.
18. Fauzi, U., Simulasi aliran fluida dalam model batuan pigeon hole 3-dimensi menggunakan metode kisi boltzmann untuk estimasi besaran fisis aliran fluida, Riset KK ITB, 2009.
19. Fauzi, U., Sparisoma Viridi, Nurhasan, Pemodelan dinamika molekuler dan struktur resistivitas pada bahan butiran tanah untuk prediksi longsor, Hibah Kompetensi, 2009.
20. Fauzi, U., Pemodelan batuan berlapis, Riset KK-ITB, 2010.
21. Fauzi U., KAJIAN ANISOTROPI MODEL BATUAN BERLAPIS, Riset KK, ITB, 2011
22. Fauzi, U., Riset KK, pemodelan mikrostruktur batuan dengan pengaruh gravitasi, 2012.
23. Fauzi, Riset Desentralisasi, pengaruh pengotor lempung pada permeabilitas, 2012.
24. Fauzi, Riset KK-ITB, micro-anisotropy of permeability, 2013.
25. Fauzi, Asahi Glass, Kaolinite Identification in Rock Based on Microscope, SEM and Micro-tomography Images, 2013.

Bandung, April 2015



Prof. Dr.rer.nat. Umar Fauzi, MSi