

Curriculum Vitae

Prof. Ir. Agus Mochamad Ramdhan, ST, MT, PhD.

Name : Agus Mochamad Ramdhan
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PROFILE

The professor of petroleum hydrogeology at The Department of Geology, Institut Teknologi Bandung. The petroleum hydrogeology covers pore pressure and geomechanic analyses, and its application to drilling (pre-drill prediction, while drilling, and post mortem) and to hydrocarbon exploration such as unconventional hydrodynamic trapping caused by overpressure bleed-off and trap integrity.

EDUCATIONS

2010: PhD in geology, Durham University, UK.
2002: Master in geology, Institute of Technology Bandung (ITB), Indonesia.
1998: Bachelor in geology, Institute of Technology Bandung (ITB), Indonesia

SPECIAL TRAININGS

2006: Understanding overpressure and its prediction (instructor: Prof. Richard Swarbrick).
2006: Internship at Total Indonesia for six months with the title: Overpressure and hydrodynamism in the Kutai Basin (supervisors: Dr. Jean-Michel Gaulier, Patrick Zaugg, and Ir. Noor Syarifuddin, MSc).

WORK EXPERIENCES

2010 – now: Lecturer at the Department of Geology and Department of Groundwater Engineering, Institute of Technology Bandung.
Classes:

- Geopressure (GL4081/undergrad.)
- Geofluids (GL2281/undergrad.)
- Geocomputation (GL3101/undergrad.)
- Mathematics and Statistics for Geology (GL2101/undergrad.)
- Introduction to Engineering and Design (KU1101/undergrad.)
- Introduction to Earth Sciences and Technology (KU1163/undergrad.)
- Geopressure and drilling (GL5019/master)
- Hydrodynamics of oil and gas (AT6013/master)
- Hydrogeology (AT5001/master)

2012 – now: Principal Researcher (Technical Team Leader) in a multi-sponsor overpressure research at Institute of Technology Bandung, Indonesia (www.inov-id.com)

2012 – now: Researcher at multi-sponsor advanced overpressure research at Durham University (GeoPOP3)

1996 – 2010: Lecture assistant at the Department of Geology, Institute of Technology Bandung for Computation Geology, Geofluids, and Hydrogeology

MANAGERIAL EXPERIENCES

2014 – 2017 Head of the Master Program in Hydrogeology, Institute of Technology Bandung
2014 – now Chairman of 'Perhimpunan Ahli Airtanah Indonesia (PAAI) – The Indonesian Groundwater Specialists Association'

PUBLICATIONS

Book:

1. Ramdhan, A.M., 2017. Overpressure in Indonesia's sedimentary basins, 153 pp. ITB Press.

Full paper: International Academic Journals

1. **Ramdhan, A.M.**, Hutasoit, L.M., and Slameto, E., 2018. Lateral reservoir drainage from some Indonesia's sedimentary basin and its implication to hydrodynamic trapping. Indonesian Journal of Geoscience
2. **Ramdhan, A.M.** and Goultly, N.R., 2018. Two-setp wireline log analysis of overpressure in the Bekapai Field, Lower Kutai Basin, Indonesia. Petroleum Geoscience (**one of the best papers in Petroleum Geoscience in the period of 2016-2017**).
3. Sargent, C., Goultly, N.R., Cicchino, A.M.P., and **Ramdhan, A.M.**, 2015. Budge-fudge method of pore pressure estimation from wireline logs with application to Cretaceous mudstones at Haltenbanken. Petroleum Geoscience, v. 21, No. 4, p. 219 – 232.
4. Cicchino, A.M.P., Sargent, C., Goultly, N.R., and **Ramdhan, A.M.**, 2015. Regional variation in Cretaceous mudstone compaction trends across Haltenbanken, offshore mid-Norway. Petroleum Geoscience, v. 21, p. 17-34 (**Award winning paper – The best paper in Petroleum Geoscience Journal 2015 - Norman Falcon Award**)
5. Goultly, N.R., **Ramdhan, A.M.**, and Jones, S.J., 2012. Chemical compaction of mudrocks in the presence of overpressure. Petroleum Geoscience, v.18, p. 471-497
6. Goultly, N.R., and **Ramdhan, A.M.**, 2012. The challenge of pore pressure estimation in diagenetically consolidated mudrocks. First Break 30, p. 31-36
7. **Ramdhan, A.M.** and Goultly, N.R., 2011. Overpressure and mudrock compaction in the Lower Kutai Basin – a radical reappraisal. AAPG Bulletin, v. 95, no. 10 (October 2011), p. 1725 – 1744.
8. **Ramdhan, A.M.** and Goultly, N.R., 2010. Overpressure generating mechanism and compaction in the Peciko Field, Kutai Basin. Petroleum Geoscience, v. 16, p. 367-376.

Full paper: National Academic Journals

1. **Ramdhan, A.M.**, 2017. The importance of geological and hydrogeological knowledge in justifying pore pressure prediction: the case study of the Peciko Field, Lower Kutai Basin. Scientific Contribution Oil and Gas (in press).
2. Sinulingga, Y.R. and **Ramdhan, A.M.**, 2017. Karakteristik tekanan luap dan penyebabnya pada daerah lepas pantai Selat Madura. Bulletin of Geology, v.1, no. 1, p. 19-39.
3. Surdaudaja, R., **Ramdhan, A.M.**, and Gunawan, I., 2017. Analisis mekanisme terjadinya tekanan-luap dan prediksi tekanan pori pada Lapangan BD, Cekungan Jawa Timur. Bulletin of Geology, v.1, no. 2, p.86-93
4. Gurning, J.H.C. and **Ramdhan, A.M.**, 2017. Metoda seismic pore pressure untuk penyebaran tekanan luap di Blok Aru, Cekungan Sumatra utara. Bulletin of Geology, v.1, no. 2, p.123-133.

5. Juhatta, T., **Ramdhan, A.M.**, and Fatkhan, F., 2017. Prediksi tekanan pori dengan data seismik 3D dan data log sumur menggunakan Metoda Eaton (studi kasus di Cekungan Bonaparte Utara). Bulletin of Geology, v.1, no. 2, p.107-122.
6. Tribuana, I.Y., Mulyadi, U., **Ramdhan, A.M.**, Rustam, A.H., Durrahman, Y., Sudija, P.U., Yogi, A., and Prabowo, 2016. Pore pressure estimation in hard unloading overpressure zone using single compaction equation, case study: Lower Kutai Basin. Scientific contribution Oil and Gas, v. 39, no. 2.

Full paper: Conference Proceedings

1. **Ramdhan, A.M.**, Moris, A., Atarita, T.C., Ardjuna, A., Titaley, G.S., and Hutasoit, L.M. The application of double normal compaction trends (NCT) into sonic log to improve overpressure estimation on the onshore part of the East Java Basin. Second EAGE Workshop on Pore Pressure Prediction, May 2019, Amsterdam.
2. Reksalegora, S.W., Hutasoit, L.M., Harsolumakso, A.H., and **Ramdhan, A.M.**, 2017. Stress determination in overpressure zone of East Java Basin. 41th Annual Convention and Exhibition, Indonesian Petroleum Association.
3. Putra, P.P., Tasiyat, Sapiie, B., and Ramdhan, A.M., 2017. Pore pressure prediction and its relationship to structural style in offshore Tarakan Sub-basin, Northeast Kalimantan. 41th Annual Convention and Exhibition, Indonesian Petroleum Association.
4. Cichino, A.M.P., Sargent, C., Goultly N.R., and **Ramdhan, A.M.**, 2017. Compaction of Cretaceous mudstones across Haltenbanken and implications for pore pressure estimation. 79rd EAGE Conference and Exhibition incorporating SPE EUROPEC.
5. Sitinjak, E.S., Sapiie, B., **Ramdhan, A.M.**, Harianto, M., Somantri, W., and Nurchayo, M., 2016. Wellbore stability in soft sediment and overpressure environment, case study in Tanggulangin, Northeast java Basin. EAGE/SPE Workshop on Integrated Geomechanics in Exploration and Production.
6. Cichino, A.M.P., Sargent, C., Goultly N.R., and **Ramdhan, A.M.**, 2014. Cretaceous mudrock compaction trends across Haltenbanken, offshore mid-Norway. 76rd EAGE Conference and Exhibition incorporating SPE EUROPEC, Amsterdam, The Netherlands, 16 – 19 June 2014.
7. **Ramdhan, A.M.** and Goultly, N.R., 2014. Overpressure in the shelfal area of the Lower Kutai Basin. 38th Annual Convention and Exhibition, Indonesian Petroleum Association. (**Award winning paper: the best for geology and overall categories in the conference**)
8. Hutasoit, L.M. and **Ramdhan, A.M.**, 2014. Similarities of overpressuring in some western Indonesia's sedimentary basins. 38th Annual Convention and Exhibition, Indonesian Petroleum Association.
9. Syaiful, M., Hutasoit, L.M., **Ramdhan, A.M.**, and Widayat, A.H., 2014. Shifting of compaction trend in the North Sumatra Basin and its implication to overpressure estimation. 38th Annual Convention and Exhibition, Indonesian Petroleum Association.
10. **Ramdhan, A.M.**, Hakim, F., Hutasoit, L.M., Goultly, N.R., Sadirsa, W., Arifin, M., Bahesti, F., Endarmoyo, K., Firmansyah, R., and Zainal, R.M., 2013. The importance of understanding geology in overpressure prediction: case study from East Java Basin. 37th Annual Convention and Exhibition, Indonesian Petroleum Association.
11. Hutasoit, L.M., Siahaan, D., Suseno, W., **Ramdhan, A.M.**, Syaiful, M., Bachtiar, A., Hendarmawan, W., Goultly, N., Sadirsan, W., Arifin, M., Bahesti, F., Endarmoyo, K., 2013. Overpressure characteristics in Pertamina's area in North Sumatra Basin. 37th Annual Convention and Exhibition, Indonesian Petroleum Association.
12. **Ramdhan, A.M.**, Hutasoit, L.M., and Bachtiar, A., 2012. Some Indonesia's Giants: 'unconventional' hydrodynamic trap? Proc. of 36th Annual Convention and Exhibition, Indonesian Petroleum Association.
13. Goultly, N.R, and **Ramdhan, A.M.**, 2011. Limitations on disequilibrium compaction as a mechanism of overpressure generation, 73rd EAGE Conference and Exhibition incorporating SPE EUROPEC 2010, Vienna, Austria, 23 – 26 May 2011

14. **Ramdhan, A.M** and Goultly, N.R., 2010. Overpressure and compaction in the Peciko Field, Kutai Basin. 72nd EAGE Conference and Exhibition incorporating SPE EUROPEC, Barcelona, Spain, 14 – 17 June 2010.
15. **Ramdhan, A.M.**, Goultly, N.R., and Hutasoit, L.M., 2011. The challenge of pore pressure prediction in Indonesia's warm Neogene Basin, Proc. of 35th Annual Convention and Exhibition, Indonesian Petroleum Association.
16. **Ramdhan, A.M.**, Swarbrick, R.E., and Hutasoit, L.M., 2007. Hypothetical analysis of hydrodynamic trap at Kutai Basin and its opportunity. Proc. of Joint Convention IAGI – HAGI – IATMI.

Conference Abstracts

1. Cicchino, A.M.P., Goultly, N.R., and **Ramdhan, A.M.**, 2011. Compaction trends in Mesozoic mudrocks at Haltenbanken and their relationship to overpressure, Devex Conference at Aberdeen.
2. **Ramdhan, A.M.**, N.R. Goultly, and L.M. Hutasoit, 2011. Outstanding questions about overpressure and compaction in the Lower Kutai Basin, AAPG Overpressure Workshop at Galveston, Texas.

Newsletter

1. **Ramdhan. A.M.** and Goultly, N.R., 2014. Some insights into overpressure from Indonesia. AAPG Asia Pacific Newsletter, November 2014.

CURRENT PHD STUDENTS

- M. Syaiful (Dept. of Geology ITB) – just graduated
- Sena Reksalegora (Dept. of Geology ITB)
- Hotma Yusuf (Dept. of Geology ITB)
- Ecep Suryana (Dept. of Geology ITB)

INVITED SPEAKERS

1. Invited presenter at 80th EAGE Annual Conference. Title: . Two-setp wireline log analysis of overpressure in the Bekapai Field, Lower Kutai Basin, Indonesia (2018)
2. Speaker at AAPG ITB Student Chapter. Title: Introduction to overpressure (2010)
3. Speaker at ITB graduate student forum. Title: Ovepressure and hydrodynamics (2010)
4. Speaker at AAPG ITB Student Chapter. Title: Ovepressuring in the Lower Kutai Basin: Radical Reappraisal (2011)
5. Speaker at half day seminar of Indonesian Geological Survey. Title: Overpressure in the Kutai Basin and some other basins in Indonesia (2011)
6. Speaker at AAPG ITB Student Chapter. Title: Ovepressuring in the Lower Kutai Basin: Radical Reappraisal (2014)
7. Speaker at AAPG ITB Student Chapter: how to write a good paper in academic journals (2016)

PROFESIONAL COURSE INSTRUCTOR

1. Instructor in industrial workshop on “Introduction to overpressure: mechanism and prediction” (in collaboration with IAGI) (2011)
2. Instructor in workshop on “Introduction to overpressure: mechanism, prediction, and application (in-house workshop of INOV/Indonesian Overpressure Research) (2012)
3. Instructor in industrial workshop on “Overpressure in sedimentary basins: mechanisms, predictions, application to petroleum system analysis, and some case studies from Indonesia's sedimentary basins” (in collaboration with IPA) (2012)

4. Instructor in industrial workshop on “The geology of overpressure: mechanisms and prediction” (in house training for Energi Mega Persada) (2012)
5. Instructor in industrial workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in collaboration with IAGI, 2012).
6. Instructor in workshop on “Introduction to overpressure: mechanism, prediction, and application (in-house workshop of INOV/Indonesian Overpressure Research) (2013).
7. Instructor in industrial workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in collaboration with IPA, 2013).
8. Instructor in workshop on “Comprehensive overpressure analysis: mechanism, prediction, and its application to drilling program and petroleum system analysis” (in collaboration with HAGI) (2013)
9. Instructor in industrial workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in collaboration with IAGI, 2013).
10. Instructor in industrial workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in-house training for BOB Pertamina – Bumi Siak Pusako) (2013).
11. Instructor in industrial workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in-house training for Petrochina) (2013).
12. Instructor in industrial workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in collaboration with IPA) (January 2014).
13. Instructor in workshop on “Overpressure and wellbore stability” (in collaboration with HAGI (March 2014).
14. Instructor in workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in-house training for Ephido) (May 2014)
15. Instructor in workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in collaboration with IAGI) (June 2014)
16. Instructor in workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in collaboration with PGSC) (August 2014)
17. Instructor in workshop on “Overpressure and wellbore stability” (in collaboration with HAGI (May 2015).
18. Instructor in workshop on “Overpressure in sedimentary basins: mechanisms, predictions, and its application to drilling hazard and petroleum system analyses, and some case studies from Indonesia’s sedimentary basins” (in collaboration with PGSC) (August 2015)

ONLINE OPEN COURSE LINKS

Online course discussing Overpressure in Sedimentary Basin:

<https://www.youtube.com/c/amrschoolofthought>

30 overpressure videos for free, discussing basic principles of overpressure, overpressure generating mechanism, overpressure prediction and estimation, and application of overpressure in petroleum exploration (in Indonesian Language, slides in English)

AWARDS

- Bronze Medal, Alumni Category, Table Tennis ITB (2020)

- Newton Fund – Java Flood One: collaborative research between ITB and Durham University, funded by NERC UK and Ristekdikti (2019 – now)
- One of the best papers in Petroleum Geoscience in the period of 2016-2017 (2018)
- Norman Falcon Award from EAGE for the best paper in Petroleum Geoscience (2015)
- Innovation Award from Institute of Technology Bandung for overpressure research (2015)
- The best paper for geoscience category and overall category in the 38th Annual Convention and Exhibition, Indonesian Petroleum Association. Paper title: “**Ramadhan, A.M.** and Goult, N.R., 2014. Overpressure in the shelfal area of the Lower Kutai Basin”. (2014)
- ‘Dosen berprestasi FITB – ITB’ (2014)
- Certified lecturer – Ministry of Education and Culture, Government of Indonesia. (2013).
- ‘Dosen berprestasi FITB – ITB’ (2012)
- Scholarship from Total Indonesia worth USD 220,000 for PhD program at Durham University, UK (2007)
- The champion of ITB Open (Badminton/male double) (1998)

REFERENCES

- Prof. Lambok M. Hutasoit (Dept. of Geology, Institute of Technology Bandung)
- Prof. Richard J. Davies (Newcastle University, UK)
- Prof. Simon Matthias (Durham University, UK)
- Prof. Richard E. Swarbrick (Dept. of Earth Sciences, Durham University, UK)

Bandung, May 2023

Agus M. Ramadhan, PhD