

Maghfira “Afi” Ramadhani

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Education

Ph.D. Economics, Georgia Institute of Technology, expected 2027.

Committee: Dylan Brewer (co-chair), Bobby Harris (co-chair), Casey Wichman

M.S. Petroleum Engineering, Institute of Technology Bandung, 2021.

B.S. Petroleum Engineering, Institute of Technology Bandung, 2017.

Research Interests

Energy and Environmental Economics, Applied Microeconomics, Empirical Industrial Organization

Working Paper

1. “Managing Intermittent Renewable Energy: Review and Synthesis of the Engineering, Economics, and Policy.”
(with Daniel Matisoff, Matthew Oliver, Santiago Grijalva, Oliver Chapman, and Amanda West)
Under Review
2. “Digital Dispatch and Demand Response in Grid Emergencies: Evidence from Household Cooling in California’s Flex Alerts”
(with Dylan Brewer and Soren Anderson)
Winner of Georgia Tech CRIDC Poster Competition 2025

Work In Progress

3. “Air Pollution and Avoidance Behavior”
(with Bobby Harris)
4. “Battery Storage Entry and Generator Markups”

Peer Reviewed Publications

5. “[National oil companies and fossil fuel subsidy regimes in transition: The case of Indonesia](#)”
(with Muhammad Ichsan and Matthew Lockwood).
The Extractive Industries and Society. 2022.

Other Publication

6. “[Is cheap fuel policy a \(short-term\) remedy for costly transportation in rural Indonesia?](#)”
(with Muhammad Ichsan, Yusuf Martak, Chitra Septyandrica, and Purnomo Yusgiantoro)
Proceeding of Medan International Conference on Energy and Sustainability 2020. 2021

Petroleum engineering subject

* indicates student advised

7. “Optimization of hydraulic fracturing and economic analysis using production sharing contract and gross split for well-X on a naturally fractured volcanic reservoir: A case study of geothermal well Y in Indonesia”
(with Prasandi Abdul Aziz, Willy Dharmawan*, Steven Chandra, and Wijoyo Daton)
Proceeding of 4th International Conference on Earth Science, Mineral and Energy 2021. 2023.
8. “Comparative Study on Fixed-Price Contract versus Incentive-Based Contract in Indonesias Oil and Gas Industry”
(with Stephen Salomo*, Muhammad Rahmadhani*, Asep Permadi, and Ari Iskandar)
Proceeding of the 46th Indonesia Petroleum Association Convention and Exhibition. 2022.
[Final Draft Version]
9. “CO₂ sink and source matching for better CO₂ utilization in increasing oil production: Case study of field X and Y in Indonesia”
(with Prasandi Abdul Aziz, Steven Chandra, and Wijoyo Daton)
Proceeding of 3rd International Conference on Earth Science, Mineral, and Energy 2020. 2021.

Honor, Fellowships, and Awards

Georgia Tech CRIDC Award (\$1000), 2025

Omicron Delta Epsilon Conference Travel Award (\$500), 2025

School of Economics Graduate Fellowship, Georgia Institute of Technology, 2022 - 2027

Richard House Fellowship, Georgia Institute of Technology, 2022 - 2024

Best Master Graduate, Institute of Technology Bandung, 2021

Society of Petroleum Engineers Undergraduate Scholarship, 2015 - 2017

Dean’s List, Faculty of Mining & Petroleum Engineering, Institute of Technology Bandung, 2013 - 2017

Conference, Workshops, and Training

* indicates scheduled presentation

- 2025 AERE Summer Conference (Albuquerque, NM)*; Georgia Tech CRIDC (Atlanta, GA); Empirical Method in Energy Economics (Washington, DC)
- 2024 BREAD-IGC PhD course on Urban Economics (Virtual); Southeastern Workshop on Energy & Environmental Economics & Policy at Georgia Tech (Atlanta, GA); CU Environmental and Resource Economics Workshop (Vail, CO); Energy Policy and Innovation Center (EPICenter) at Georgia Tech (Atlanta, GA)
- 2022 South East Asia Energy Transition Partnership - Roundtables Executive Training, Australian National University (Virtual)

Professional Membership

Associations of Environmental and Resources Economics (AERE)

International Association of Energy Economics (IAEE), U.S. Association of Energy Economics (USAEE)

Professional Activities

AERE Summer Conference Abstract Reviewer, 2025

Founder and Organizer Georgia Tech Economics PhD Research Workshop, 2025

Teaching Experience

Georgia Institute of Technology

Centre for the Integration of Research, Teaching, and Learning Associate Certificates, 2024

Completion of foundational courses: CETL8713 Teaching and Learning in Higher Education and CETL8717 Course Design for Inclusive Economics Classroom

Head Teaching Assistant

ECON 7103: PhD Environmental Economics II. *Instructor: Dylan Brewer*, Spring 2025

ECON 4440: Environmental Economics. *Instructor: Dylan Brewer*, Spring 2025

ECON 2250: Statistics for Economists. *Instructor: Haoqian Zou*, Fall 2024

ECON 4440/6380: Environmental Economics. *Instructor: Matthew Oliver*, Summer 2023, 2024

ECON 4170: Mathematical Economics. *Instructor: Matthew Oliver* Spring 2023, 2024

ECON 3110: Advanced Microeconomic Analysis. *Instructor: Matthew Oliver*, Fall 2023

ECON 3300: International Energy Markets. *Instructor: Matthew Oliver*, Fall 2023

ECON 4170: International Financial Economics. *Instructor: Tibor Besedes*, Spring 2023

ECON 3161: Econometric Analysis. *Instructor: Shatakshee Dhongde*, Fall 2022

Institute of Technology Bandung

Instructor

TM4215: Petroleum Economics and Project Management. 2022

TM4021: Energy Economics. 2021-2022 (×3)

Head Teaching Assistant

TM6051: Energy Policy and Planning. *Instructor: Purnomo Yusgiantoro*, 2018 - 2022 (×5)

TM4021: Energy Economics. *Instructor: Purnomo Yusgiantoro*, 2018 - 2020 (×5)

TM4025: Optimization & Operation Research in Oil and Gas. *Instructor: Silvy Rahmawati*, 2017

Previous Employment

Academic Professional, Petroleum Engineering Dep., Institute of Technology Bandung 2017-2022.

Internal Affiliations:

Drilling, Production, and Oil and Gas Management Research Group, Center for Research on Energy Policy, Institute for Research and Community Services, Indonesia Center of Excellence on Carbon Capture and Storage

External Affiliations:

Fellow, Carbon and Environmental Research Indonesia, 2021-2022; Expert Staff in Energy, Office of the West Java Governor, 2019-2020; Consultant, Indonesia Strategic Institute (INSTRAT), 2018

Additional Information

Software: Stata, R, Python, L^AT_EX, Julia (basic)

Language: English (fluent), Bahasa Indonesia (native)

Citizenship: Indonesia (F-1 Visa)