Tuhin G. M. Al Mamun

Ph.D. in Economics | Econometrics | Statistical Modeling

Daejeon, South Korea | +82 10-2193-2106 | tuhin.hnu@gmail.com

Profiles: Website | Google Scholar | Scopus | ORCID | GitHub | ResearchGate | LinkedIn | Zenodo

Education

2022–2026 **Doctor of Philosophy (PhD) in Economics**, *Hannam University*, South Korea.
Dissertation: *Three Essays on Monetary Policy Transmission in Bangladesh* (**Full Dissertation Link**)

2026–Present **Master of Science (M.Sc.) in Mathematics**, *Manipal University Jaipur*, Rajasthan, India.

2018–2019 **Master of Social Science (MSS) in Labor Studies**, *Institute of Social Welfare and Research, University of Dhaka*, Dhaka, Bangladesh.

2012–2017 **Bachelor of Business Administration (BBA) in Finance**, *East West University*, Dhaka, Bangladesh.

Employment

2023–2025 **Course Instructor (Teaching Faculty), Department of Economics**, *Hannam University*, South Korea.
Courses Taught: Econometrics, Statistics. Independently designed and delivered undergraduate lectures. Prepared syllabi, assignments, and examinations. Conducted assessments and supervised student projects.

2024–2025 **Research Assistant (RA), Department of Economics**, *Hannam University*, South Korea.
Assisted in macroeconomic and applied econometrics research projects. Conducted data collection, cleaning, and econometric analysis. Supported manuscript preparation, conference presentations, and research proposal development.

2022–2024 **Teaching Assistant (TA), Department of Economics**, *Hannam University*, South Korea.
Assisted in undergraduate economics courses. Conducted tutorial and problem-solving sessions. Graded assignments and examinations and provided academic support.

2020–2022 **Assistant Manager – R&D (Finance & Feasibility)**, *Confidence Power Holdings / ASA Engineering*, Bangladesh.
Conducted financial and economic analysis for investment and feasibility studies. Prepared quantitative analyses, financial models, and research-based reports.

2018–2019 **R&D Researcher (Finance & Feasibility)**, *Confidence Power Holdings / ASA Engineering*, Bangladesh.
Conducted quantitative research and financial analysis for feasibility studies. Analyzed economic and financial data and supported project evaluation.

Research Interests

Dynamic Stochastic General Equilibrium (DSGE) Models; Heterogeneous-Agent Macroeconomics; Stochastic Dynamic Systems;

Bayesian Inference; Markov Chain Monte Carlo (MCMC); State-Space Modeling; Markov-Switching and Regime-Dependent Processes;

Structural Identification in VAR/SVAR Frameworks; Structural Break and Threshold Models; Causal Inference in Time-Series and Panel Data;

Monetary, Fiscal, and Environmental Policy under Uncertainty.

Research Projects & Outputs

Research Project 1: Monetary Policy Transmission and Regional Heterogeneity in Bangladesh

2026 **Tuhin G. M. Al Mamun,** JongYun Lee, Jinyoung Hwang, Md Aminul Islam, and Mohd Faizal Bin Yusof, Regional Monetary Policy Transmission in Bangladesh Using Bayesian VECM and Taylor Rule Framework, In *Frontiers in Political Science*. https://doi.org/10.3389/fpos.2026.1894199. (Scopus Q1).

2026 **Tuhin G. M. Al Mamun**, Replacing ARDL? Introducing the NSB-ARDL Model for Structural and Asymmetric Forecasting, Accepted for publication in *Journal of Contemporary Eastern Asia* (Scopus-indexed)..

Research Project 2: Macroeconomic Volatility and Heterogeneous-Agent Models

2025 **Tuhin G. M. Al Mamun**, Ehsan Ullah, and Rahim Md. Abdur, Understanding macroeconomic volatility in South Korea: A heterogeneous-agent New Keynesian model with sticky prices framework, In *Journal of Applied Economics*. https://doi.org/10.1080/15140326.2025.2570243. (SSCI; Scopus Q2; IF: 2.0; ABDC: B).

2025 **Tuhin G. M. Al Mamun**, Ehsanullah, Adjustment cost on investment and under-utilization of maximum installed capacity in South Korean business cycle – A Bayesian New Keynesian model, In *Economics – Innovative and Economics Research Journal*, 13(1), 1–24. https://doi.org/10.2478/eoik-2025-0026. (Scopus Q1; CiteScore: 4.1).

Research Project 3: Fiscal Policy, Regime Switching, and Household Saving

2025 **Tuhin G. M. Al Mamun**, Ehsan Ullah, Md Sharif Hassan, Mohd Faizal Yusof, Md Aminul Islam, and Naharin Binte Rab, Fiscal policy and household savings in Central Europe: A Markov switching VAR with COVID shock, In *Cogent Economics & Finance*. https://doi.org/10.1080/23322039.2025.2537233. (ESCI; Scopus Q2; ABDC: B).

2025 **Tuhin G. M. Al Mamun** and Rahim Md. Abdur, Fiscal policy, crisis response, and household savings in Hungary, Slovenia, and the Czech Republic: A Markov switching VAR and machine learning approach, In *Journal of Applied Economic Sciences*, 20(2(88)), 167–191. https://doi.org/10.57017/jaes.v20.2(88).01. (Scopus Q4; ABDC: C).

Research Project 4: Environmental Policy, Energy, and Climate Economics

2025 Ehsanullah Ehsanullah, **Tuhin G. M. Al Mamun**, and Rahim Md. Abdur, Environmental effects of renewable and non-renewable energy: Data from a few selected group states, In *International Journal of Energy Economics and Energy Policy*, 15(2), 521–528. https://doi.org/10.32479/ijeep.18233. (Scopus Q2; ABDC: C).

2026 **Tuhin G. M. Al Mamun**, Ehsanullah Ehsanullah, Mohammad Bin Amin, Veronika Fenyves, and Judit Oláh, Structural impacts of global climate agreements on CO_2 emissions and economic growth in 106 middle-income countries, In *International Journal of Energy Economics and Policy*, 16(1), 890–901. https://doi.org/10.32479/ijeep.21399. (Scopus Q2; ABDC: C).

2026 Ehsanullah, **Tuhin G. M. Al Mamun**, Mohammad Bin Amin, and Péter Miklós Kőmíves, Econometric Analysis of the Environmental Kuznets Curve in Pakistan Using Multiple Environmental Indicators, Accepted for publication in *Acta Innovations* (Scopus Q2)..

Research Project 5: Demographic Aging, Fiscal Sustainability, and Sovereign Risk

2026 Kang, Minsang, **Tuhin G. M. Al Mamun**, and Jinyoung Hwang, Intergenerational Patterns of Economic Activity under Population Aging, In *The Journal of Korean Public Policy*, https://doi.org/10.37103/KAPP.28.2.5..

Research Project 6: Fiscal Policy, Crisis Response, and Labor-Market Outcomes

2026 **Tuhin G. M. Al Mamun**, Assessing the COVID-19 shock: The influence of fiscal policy on gender-specific unemployment trends in Poland, In *Ekonomika*, https://doi.org/10.15388/Ekon.2026.105.2.8. (Scopus Q2).

2024 **Tuhin G. M. Al Mamun** and Ehsanullah, Understanding Unemployment Dynamics and Labor Market Behavior in South Korea: Employing McCall Dynamic Programming Approach, In *International Journal of Multidisciplinary Research and Analysis*, 7(5), 1957–1963. https://doi.org/10.47191/ijmra/v7-i05-18..

Research Project 7: Corporate Governance, ESG, and Sustainability

2026 Aso Abdullah, Md Aminul Islam, Assim Ibrahim Mohammad Abdel-Razzaq, **Tuhin G. M. Al Mamun**, and Mohammad Fakhrul Islam, Board governance characteristics and ESG performance in GCC listed firms, In *Discover Sustainability*, 7(1), Article 3273. https://doi.org/10.1007/s43621-026-03273-y. (Scopus Q2; Springer).

Book Chapter

2026 **Tuhin G. M. Al Mamun**, Mohammad Bin Amin, József Popp, and Judit Oláh, How Demographic Aging Shapes Fiscal Sustainability and Sovereign Risk in Korea , In *Springer Proceedings in Business and Economics*. (Springer; `https://doi.org/10.1007/978-981-95-6415-6_178`) .

Conferences & Presentations

2026 **"Elderly Labor, Youth Employment, and Pension-Growth Dynamics in Korea"**, *Korea's Allied Economic Associations Annual Meeting*.

2025 **"The Impact of Demographic Aging on Fiscal Health and Productivity Growth in South Korea: An Extended DSGE Model Analysis" (Sole Author)**, *Econometric Society World Congress (`https://www.econometricsociety.org/regional-activities/conference-papers/view/282/700`)* .

2025 **"Aging-Induced Transfer Shocks, Public Debt, and Sovereign Risk" (First Author)**, *EEEU 2025 Conference, Springer Proceedings in Business and Economics*.

2025 **"Projecting Korea's Fiscal Outlook Under Demographic Aging: A DSGE-Based Evaluation" (Sole Author)**, *Departmental Research Seminar, Department of Economics, Hannam University*.

Training & Workshops

2025 **Advanced DSGE Modeling and Bayesian Estimation Workshop**, *Department of Economics, Hannam University*, South Korea.
Focused on Bayesian estimation techniques, Dynare implementation, and macroeconomic policy simulations.

2024 **Causal Inference and Structural Break Analysis in Macroeconomics**, *Economics Research Workshop Series*, South Korea.
Covered regime-switching models, time-series structural break detection, and applied macroeconometric methods.

2023 **Macroeconomic Dynamics and Policy Modeling Workshop**, *Department of Economics, Hannam University*, South Korea.
Advanced training in stochastic processes, Markov dynamics, and computational macroeconomic modeling.

Professional Certifications

2026 **Diploma in Python with Data Science and Machine Learning**, *Global Education Foundation*.
Professional certification covering Python programming, data science, machine learning, data manipulation, visualization, and applied analytics.

2026 **Data Science Using R**, *IIBM Institute of Business Management*.
Professional certification covering statistical computing, data visualization, predictive analytics, and machine learning using R.

2024 **Introductory Course to DSGE Models in MATLAB Dynare**, *Udemy*.
Training in DSGE model implementation, Bayesian estimation, and macroeconomic simulations using MATLAB and Dynare.

Professional Memberships

2025–Present **Member, The Econometric Society**.
An international scholarly society dedicated to the advancement of economic theory in relation to statistics and mathematics. Engages in promoting high-quality research in econometrics and quantitative economics.

2024–Present **Member, Korean Economic Association (KEA)**.
The principal academic association of economists in South Korea, fostering research, policy dialogue, and scholarly exchange in economics.

Technical Skills

Programming & Scientific Computing	Python (NumPy, SciPy, pandas, statsmodels); Julia; MATLAB (Dynare); implementation of DSGE, state-space, and simulation-based macroeconomic models.
Econometric & Statistical Modeling	Bayesian estimation (MCMC, Metropolis-Hastings); VAR/SVAR; Markov-Switching and regime-dependent models; Structural break and threshold models; Panel and time-series econometrics.
Optimization & Numerical Methods	Newton and quasi-Newton methods (L-BFGS-B); nonlinear optimization; likelihood-based estimation; posterior maximization; numerical solution of dynamic equilibrium systems; impulse response and simulation analysis.
Software	Stata; EViews.
Development Environment	VSCode; reproducible research workflows.

Fellowships & Awards

2026 ***Dissertation Fellowship***, Hannam University, South Korea. Competitive funding awarded in support of doctoral dissertation research on monetary policy transmission.

2026 ***Conference Travel Grant***, Hannam University, South Korea. Financial support to present research at the Korea's Allied Economic Associations Annual Meeting (February 2026).

2025 ***Conference Travel Grant***, Hannam University, South Korea. Financial support to present research at the Econometric Society World Congress.

2024 ***Graduate Research Assistantship***, Department of Economics, Hannam University, South Korea.

2009 ***Grameen Bank Scholarship***, Bangladesh. Awarded for outstanding academic performance in the Secondary School Certificate (SSC) examination.

Review & Editorial Service

Editor-in-Chief, *Asian Journal of Business and Society (AJBS)*, an open-access, peer-reviewed interdisciplinary journal published by the Centre for Integrated Research for Business and Society (CIRBAS), based at the University of Rajshahi, Bangladesh.

Ad-hoc Reviewer for the following peer-reviewed journals:

Quality & Quantity (Springer)

The Journal of Policy Studies (Scopus Indexed)

SN Business & Economics (Springer)

Economic Analysis and Policy (Elsevier)

Postgraduate Supervision

Kang Min Sang. *Elderly Labor, Youth Employment, and Pension-Growth Dynamics in Korea*. Co-Advisor. Master's Thesis, Department of Economics, Hannam University, South Korea.

Referees

Dr. Md Sharif Hassan
Senior Lecturer
School of Accounting and Finance
Taylor's University, Malaysia
☎ +60-132202713
✉ mdsharif.hassan@taylors.edu.my

Dr. Md Aminul Islam
Department of Accounting and Finance
College of Business Administration
Prince Mohammad Bin Fahd University, Saudi Arabia
✉ mislam@pmu.edu.sa

Dr. Mohammad Bin Amin
Associate Professor
Army University
Doctoral School of Management and Business
Faculty of Economics and Business
University of Debrecen, Hungary
✉ binamindu@gmail.com
✉ binaminbd@mailbox.unideb.hu