



Editorial Note

## Navigating Fragmented Globalization: Local Content Policies in a New Trade Order

Yudan Whulanza<sup>1,\*</sup>, Eny Kusriani<sup>2,3,4</sup>, Akhmad Hidayatno<sup>5</sup>, Teuku Yuri M. Zagloel<sup>5</sup>

<sup>1</sup>Department of Mechanical Engineering, Universitas Indonesia, Kampus Baru UI, Depok 16424, Indonesia

<sup>2</sup>Department of Chemical Engineering, Universitas Indonesia, Kampus Baru UI, Depok 16424, Indonesia

<sup>3</sup>Green Product and Fine Chemical Engineering Research Group, Laboratory of Chemical Product Engineering, Universitas Indonesia, Kampus Baru UI, Depok, 16424, Indonesia

<sup>4</sup>Tropical Renewable Energy Research Center, Faculty of Engineering, Universitas Indonesia, Kampus Baru UI, Depok, 16424, Indonesia

<sup>5</sup>Department of Industry, Universitas Indonesia, Kampus Baru UI, Depok 16424, Indonesia

\*Corresponding author: [yudan.whulanza@ui.ac.id](mailto:yudan.whulanza@ui.ac.id); Tel.: +62-217270032; Fax.: +62-217270033

Global Value Chains (GVCs) have significantly transformed production geography in the last thirty years. They enable emerging countries to focus on tasks such as labor-intensive assembly or raw material extraction without requiring complete industrial ecosystems, which allows many emerging economies to engage in global trade. However, this form of integration has drawbacks, including minimal domestic value retention, limited industrial capacity, and increased susceptibility to external shocks (He et al., 2024; Waqas et al., 2024).

The COVID-19 pandemic starkly exposed these weaknesses. Supply disruptions, input shortages, and logistics bottlenecks crippled entire sectors, demonstrating the fragility of globally dispersed supply networks (Ali et al., 2022; Choksy et al 2022). At the same time, the escalating U.S.–China trade conflict, manifested through retaliatory tariffs, technology restrictions, and export controls, ignited broader geopolitical tensions. These developments have accelerated a new wave of industrial policies, guided less by economic efficiency and more by strategic imperatives such as national security, supply chain resilience, and technological sovereignty (Cui and Jiang, 2025; Ju et al., 2024; Whulanza, 2023).

This geopolitical shift has diminished the influence of established trade bodies such as the World Trade Organization (WTO), which in the past has become a symbol of the globalization of trade. As countries increasingly favour bilateral agreements and unilateral trade actions over multilateral discussions, tools like tariffs, export controls, and investment restrictions have regained prominence (Dang et al., 2024). Many nations now cite national security or public health issues to justify measures that would have previously faced obstacles under WTO regulations (Fan et al., 2025; Banga et al., 2022). At the same time, non-tariff barriers (NTBs), including data localization laws, certification requirements, and technical regulations, have become powerful instruments for advancing domestic policy goals under the guise of regulatory compliance. These shifts mark a profound transformation in global trade governance: from an era of liberalization and rule-based coordination to fragmentation, uncertainty, and strategic realignment (Dilyard et al., 2021).

Local Content Requirements (LCRs), once criticized under conventional trade theory, are gaining renewed relevance within this new policy landscape. Far from being crude protectionist measures, LCRs today serve as adaptive instruments for enhancing domestic participation in value chains (Vu et al., 2022; Boffa et al., 2021). LCRs can transform foreign direct investment (FDI) from a transactional presence into a foundation for sustained industrial capability by encouraging

localization of activities such as component manufacturing, packaging, workforce training, or software integration ([Ramakrishna et al., 2023](#)). Instead of permitting companies to import inputs and export final products with little local effects, LCRs require or encourage the localization of particular production phases, such as component manufacturing, packaging, software integration, or workforce development.

In several cases, such as in Indonesia's mobile device industry, LCR has facilitated domestic assembly and the increasing localization of vital components like casings, batteries, and accessories ([Hong et al., 2023](#)). This advancement sets the stage for greater growth in the electronics sector. Likewise, in India, the Production Linked Incentive (PLI) scheme connects financial support to local value addition, encouraging companies to establish local supplier networks and strengthen backward linkages ([Cherian et al., 2021](#)). These initiatives assist emerging economies in evolving from mere terminal assembly locations to engaged participants in regional and global supply chains. Local content regulations have allowed second-tier suppliers in Brazil's automotive industry to branch into electronics and engineering ([Sahoo et al., 2022](#)). Furthermore, government-imposed electronics localization ratios in Vietnam have encouraged local firms to transition from contract labour to component assembly and testing ([Dang et al., 2024](#)).

The efficacy of LCRs lies not in rigid enforcement, but in smart alignment with GVC realities. Sectoral complexity, firm strategies, lead-firm governance, and compliance with global standards influence whether content thresholds yield meaningful development outcomes. Well-designed LCRs, supported by SME development, vocational training, and technical standards, can help build resilient industrial ecosystems beyond shallow integration. It also encompasses functional diversification, which includes developing local logistics, after-sales support, software integration, design, and branding capabilities. LCRs that effectively target these areas could expedite this process ([Che et al., 2025](#)).

Importantly, LCRs must be seen not as instruments of exclusion but as tools of inclusion. They should be seen as a mechanism to ensure that the benefits of globalization are more widely distributed, and that technological diffusion, job creation, and industrial learning are not left to market forces alone ([Chen et al., 2024](#)). By leveraging LCRs, governments can motivate foreign companies to set up more sophisticated operations within their borders, particularly when these requirements are combined with support for small and medium-sized enterprises, compliance with technical standards, and vocational training ([Sudan et al., 2025](#)).

As globalization fragments, emerging economies can no longer afford to be passive participants. Regional industrial integration—through platforms like ASEAN, AfCFTA, and MERCOSUR—offers an opportunity to consolidate supplier networks, harmonize content policies, and build economies of scale ([Wang and Xie, 2025](#)). Emerging economies can create coordinated infrastructure investments, regulatory alignments, and digital integration to transform regional blocs into competitive industrial clusters rather than disjointed markets. No longer is it sufficient to "plug into" GVCs; nations must actively shape the terms of integration to ensure domestic capability development and strategic autonomy ([Peng et al., 2025](#)). LCRs can be pivotal by being standardized or mutually recognized across borders, reducing compliance burdens and encouraging cross-border investments and technology partnerships. They serve not as rigid protectionist devices, but as adaptive levers for technology diffusion, economic resilience, and developmental upgrading ([Zagloel et al., 2023](#)).

The future of global supply chains is not merely about cost and speed; in the face of constant uncertainties, it is about control, resilience, and inclusivity. The ability of nations to retain, create, and govern value locally will increasingly define national prosperity. As such, emerging markets must not retreat from industrial policy but must refine and modernize it to reflect the complexity of 21st-century value chains. With flexibility in mind when designing and embedding LCR in broader development strategies, local content policies offer one of the most effective pathways to economic upgrading and strategic autonomy. Their success will depend on context-sensitive

implementation, dynamic governance, and a willingness to continuously adapt as technologies, trade patterns, and geopolitical alliances evolve.

### This issue

This volume presents findings that explore the interconnectedness of technology, energy, the environment, and their collective impact on human well-being. The research also emphasizes the creation of a proof of concept that integrates both industrial applications and considerations for human health.

The first study, conducted by Jiang et al., introduces PriDUS, a Privacy-preserving Data Uploading Scheme for the Internet of Vehicles (IoV) based on the Threshold Secret Sharing Algorithm (TSSA). The research emphasizes dynamic vehicle grouping and sub-ID distribution to enhance identity anonymity in mobile environments. The findings reveal that PriDUS reduces privacy leakage probability to approximately 2.5% while maintaining transmission latency between 100–150 ms, outperforming CE-IoV and K-Anonymity in both privacy and efficiency metrics (Jiang et al., 2025).

The second study, authored by Dung et al., focuses on the development of white light-emitting diodes (WLEDs) using  $\text{K}_3\text{Lu}(\text{PO}_4)_2\text{:Tb}^{3+}\text{Eu}^{3+}$  nanophosphors embedded in  $\text{SiO}_2$ . The research emphasizes high-temperature solid-state synthesis and doping ratio optimization to achieve efficient dipole–dipole energy transfer and colour tuning. The findings reveal that the fabricated WLED reaches a high colour rendering index of 91.4 and a warm correlated colour temperature of 3678 K, making it suitable for near-UV solid-state lighting applications (Dung et al., 2025).

The third study, conducted by Yashin et al., focuses on modelling import substitution potential in Russia's regional radio electronics industry using an evolutionary neural simulation framework. The research integrates ANFIS with Particle Swarm Optimization to analyse quasi-time series data from 2012 to 2022 across 83 regions. This approach demonstrates the value of hybrid AI techniques in strategic industrial planning and regional policymaking (Yashin et al., 2025).

Koshevarova et al., in the fourth study, focus on identifying key financial potential factors that influence regional economic development in Russia, using Gross Regional Product (GRP) per capita as the dependent variable. Analysing data from 82 regions between 2009 and 2022, the research applies regression analysis and selecting the Fixed Effects Model for its precision. The study offers a comprehensive framework for understanding financial potential as a driver of regional growth from nine factors such as budgetary efficiency, investment levels, credit load and others (Koshevarova et al. 2025).

The fifth study, conducted by Wajanawichakon et al., focuses on developing a multi-criteria decision-making framework for sustainable crop selection in Northeast Thailand using the Analytic Hierarchy Process (AHP). The research evaluates six crop alternatives against eight sustainability criteria based on input from seven stakeholder groups. The findings reveal climate suitability (33.32%) and cultural acceptance (23.47%) as the most influential factors, with jasmine rice ranked highest at 30.87%, followed by shallots and cassava (Wajanawichakon et al., 2025).

Singgih et al., in the sixth study, emphasise on reviewing smart campus applications with an emphasis on transportation systems and big data integration. Using the PRISMA framework, the research analyses 43 studies and categorizes them into ten domains, including energy monitoring, class management, and people flow analysis. The findings highlight significant gaps in transportation solutions, such as parking allocation and real-time routing, and recommend operations research and machine learning approaches for improvement (Singgih et al., 2025).

The seventh study, conducted by Arbianti et al., focuses on evaluating the anti-tuberculosis potential of quercetin and catechin—flavonoids derived from *Strobilanthes crispus* L.—using molecular docking simulations. The research uses AutoDock Vina to assess their binding affinities against three key *Mycobacterium tuberculosis* proteins. The findings reveal that quercetin exhibits the strongest inhibitory activity, outperforming catechin and standard drugs like rifampicin and isoniazid in docking scores and inhibition constants (Arbianti et al., 2025).

The eighth study, conducted by Gómez et al., focuses on modelling Facebook user purchase behaviour based on perceived security and advertising appeal. Using survey data from 663 Colombian users and applying exploratory factor analysis with logistic regression, the research reveals that perceived security and attention to promotional and payment details significantly influence purchase frequency. The findings show that demographic factors contribute little, while features like verified sellers and cash-on-delivery options are strong predictors of buyer type (Gómez et al. 2025).

In the ninth study, Halim et al., focuses on assessing health performance among Malaysian academicians using the Mahalanobis-Taguchi System (MTS). Through classification and optimization methods, the research analyses 17 biomedical and psychological parameters to distinguish normal from abnormal health conditions. The findings reveal that systolic pressure, body fat, and waist circumference are key indicators of health deviation (Halim et al., 2025).

The tenth study, conducted by Mastrisiswadi et al., focuses on mapping the evolution and research potential of 3D printing in Indonesia through bibliometric analysis. Using Scopus-indexed data and tools like VOSviewer and Biblioshiny, the research reveals a 14.6% annual growth rate in publications, with strong emphasis on FDM/FFF techniques and PLA-based mechanical studies (Mastrisiswadi et al., 2025).

The next study, authored by Idris et al., focuses on evaluating the environmental impacts of internal combustion engine vehicles (ICEVs) and electric vehicles (EVs) through a systematic review and bibliometric analysis of life-cycle assessment (LCA) studies. By examining emission trade-offs across vehicle types, energy sources, and grid carbon intensity, the research highlights that EVs generally offer lower operational emissions. The findings reveal that these benefits depend heavily on electricity mix and battery manufacturing, prompting the proposal of a cradle-to-cradle LCA framework to ensure consistent comparisons and support sustainable transport transitions (Idris et al., 2025).

The twelfth study, conducted by Moya et al., focuses on designing and validating a low-cost automated assembly line system for educational and light industrial use. Integrating a 2D Cartesian robot, pneumatic gripper, and conveyor belt controlled via wireless PLC-HMI, the system automates colour-based sorting of PLA parts with 100% task success. The findings reveal high precision and critical damping in motion control, supported by PID tuning and functional validation (Moya et al., 2025).

The thirteenth study, conducted by Rajalakshmi M and Wahab, focuses on developing a hybrid AI-based design strategy for a bi-directional C2LC DC-DC resonant converter used in electric vehicle (EV) charging systems. By combining Teaching-Learning-Based Optimization and Particle Swarm Optimization, the research aims to reduce power losses and simplify transformer design through automated electromagnetic analysis. The findings reveal that the optimized 48V-3kW charger achieves 1% higher efficiency compared to conventional approaches under varying load conditions (Rajalakshmi M and Wahab, 2025).

The fourteenth study, conducted by Jayadi et al., focuses on synthesizing micro-carbon from pine resin via spray pyrolysis for use as a protective coating in face masks. By adjusting solid-to-solvent ratios, pyrolysis temperatures, and nitrogen flow rates, the research identifies optimal conditions producing nanocarbon particles (~139 nm) with purity reaching 97.15% wt. The findings reveal that coated masks significantly enhance hydrophobicity and droplet resistance, outperforming both uncoated and commercial carbon-coated alternatives (Jayadi et al., 2025).

The fifteenth study, conducted by Yulianto et al., focuses on determining the diffusivity coefficient of shogaol degradation into paradol during the reactive extraction of ginger dregs using subcritical water. Through modelling and experimental analysis, the research quantifies diffusivity for gingerol, shogaol, and paradol, and establishes a reaction rate constant for the degradation process. This model provides a basis for optimizing extraction selectivity and minimizing byproduct formation in bioactive compound recovery (Yulianto et al., 2025).



The sixteenth study, authored by Subagja et al., focuses on synthesizing nano-encapsulated phase change materials (PCMs) using polyethylene glycol (PEG) 1000 and a PEG-paraffin composite for enhanced thermal comfort in textiles. Through in-situ polymerization with urea-formaldehyde shells, the composite capsules achieved a high latent heat of 653.22 J/g and a decomposition temperature near 38.77 °C. The findings reveal superior thermal performance and stability compared to PEG-only capsules ([Subagja et al., 2025](#)).

The seventeenth study, conducted by Cifriadi et al., focuses on developing biomass-based biocarbon fillers from cassava starch and tamarind wood as sustainable alternatives to petroleum-derived carbon black (CB N990) in natural rubber composites. Using pyrolysis and ball milling, the biocarbon particles were reduced to 130–220 nm and assessed for structural and mechanical properties. The findings reveal that tamarind wood biocarbon achieves tensile and tear strength comparable to CB N990, highlighting its viability as a green filler for rubber products ([Cifriadi et al., 2025](#)).

The eighteenth study, authored by Wijaya et al., focuses on improving asphalt resilience by functionalizing natural rubber (NR) with glycidyl methacrylate (GMA), maleic anhydride (MA), and divinylbenzene (DVB). Through grafting and blending processes, the research enhances the physical, rheological, and thermal characteristics of the asphalt-rubber composites. The findings reveal that NR-g-GMA achieves the highest ductility, while NR-g-MA delivers superior post-aging shear modulus ([Wijaya et al. 2025](#)).

The nineteenth study, conducted by Rahman et al., focuses on developing a non-enzymatic electrochemical sensor for dopamine detection using a glassy carbon electrode modified with an Al<sub>2</sub>O<sub>3</sub>–TiO<sub>2</sub>–PEDOT/PSS nanocomposite. Using cyclic voltammetry, the sensor demonstrated high electrocatalytic activity with a detection range of 50–1000 µM and a low detection limit of 6 µM. The findings confirm improved conductivity, selectivity, and stability, supporting its potential as an affordable diagnostic tool for neurological disorder screening ([Rahman et al., 2025](#)).

The twentieth study, authored by Pangesty et al., focuses on developing an injectable alginate–collagen hydrogel infused with propolis for myocardial infarction therapy. By optimizing propolis and calcium gluconate concentrations, the research achieves desirable gelation at 37°C and demonstrates tuneable rheological, swelling, and degradation characteristics. The findings reveal that higher propolis content enhances antioxidant activity while modulating the hydrogel's structural behaviour, supporting its potential as a minimally invasive biomaterial for cardiac tissue repair ([Pangesty et al., 2025](#)).

The next study, conducted by Safitri et al., focuses on understanding the motivational factors influencing research commercialization among Indonesian academics through the lenses of proself and prosocial behaviour. Based on survey data from ten public universities, the research finds that proself motivations—such as personal gain, recognition, and curiosity—significantly affect the intention to commercialize, though not the actual execution. The findings reveal a disconnect between high entrepreneurial intent and low commercialization outcomes, with prosocial motivations showing no notable influence on behaviour ([Safitri et al., 2025](#)).

The twenty-second study, conducted by Muratov et al., focuses on assessing rural welfare in Uzbekistan by analysing the effects of nonfarm employment and access to service infrastructure using data from 1,428 households in Samarkand. Applying factor analysis and latent class analysis, the research develops Social and Economic Welfare Indices to evaluate well-being. The findings reveal that proximity to markets, schools, and health centres significantly boosts welfare scores, while nonfarm employment strengthens household resilience and income stability ([Muratov et al. 2025](#)).

The twenty-third study, authored by Numan and Yusoff, focuses on enhancing real estate appraisal accuracy through a hybrid model combining Geographically Weighted Regression (GWR) and Extreme Gradient Boosting (XGBoost). Using data from 2,354 residential units in Al Bireh, Palestine, the model integrates spatial nonstationary and nonlinearity, with Cook's Distance

added to capture influential data points. The findings reveal that the hybrid GWR-XGBoost model outperforms traditional and component models (Numan and Yusoff, 2025).

Recent technological breakthroughs and scientific advancements have opened up new opportunities to tackle complex problems across multiple disciplines. As innovation continues to accelerate, its role in shaping the future becomes ever more significant. In light of this, IJTech warmly invites you to share your research with our readership. We look forward to receiving your submissions and are committed to providing a platform for your work to reach a wider audience.

## References

- Ali, I, Arslan, A, Chowdhury, M, Khan, Z & Tarba, SY 2022, 'Reimagining global food value chains through effective resilience to COVID-19 shocks and similar future events: A dynamic capability perspective', *Journal of Business Research*, vol. 141, pp. 1–12, <https://doi.org/10.1016/j.jbusres.2021.12.006>
- Arbianti, R, Latifah, LP, Sisila, G, Utami, TS, Hidayatullah, IM, Riyadi, FA & Muharam, Y 2025, 'Molecular docking analysis of flavonoid from *Strobilanthes crispus* L. as potential inhibitors of *Mycobacterium tuberculosis* targeted proteins', *International Journal of Technology*, vol. 16, no. 3, pp. 825–834, <https://doi.org/10.14716/ijtech.v16i3.5620>
- Banga, K 2022, 'Impact of global value chains on total factor productivity: The case of Indian manufacturing', *Review of Development Economics*, vol. 26, no. 2, pp. 704–735, <https://doi.org/10.1111/rode.12867>
- Boffa, M, Jansen, M & Solleder, O 2021, 'Participating to compete: Do small firms in developing countries benefit from global value chains?', *Economies*, vol. 9, no. 1, article 12, <https://doi.org/10.3390/economies9010012>
- Che, Y, Lin, D & Zhang, Y 2025, 'Pains or gains: trade war, trade deficit, and tariff evasion', *Journal of International Economics*, vol. 155, article 104090, <https://doi.org/10.1016/j.jinteco.2025.104090>
- Chen, L, Huang, Q & Xu, J 2024, 'On the prisoner's dilemma of order timing in a cross-border and co-competitive supply chain', *Transportation Research Part E: Logistics and Transportation Review*, vol. 185, article 103529, <https://doi.org/10.1016/j.tre.2024.103529>
- Cherian, JJ, Rahi, M, Singh, S, Reddy, SE, Gupta, YK, Katoch, VM, Kumar, V, Selvaraj, S, Das, P, Gangakhedkar, RR & Dinda, AK 2021, 'India's road to independence in manufacturing active pharmaceutical ingredients: Focus on essential medicines', *Economies*, vol. 9, no. 2, article 71, <https://doi.org/10.3390/economies9020071>
- Choksy, US, Ayaz, M, Al-Tabbaa, O & Parast, M 2022, 'Supplier resilience under the COVID-19 crisis in apparel global value chain (GVC): The role of GVC governance and supplier's upgrading', *Journal of Business Research*, vol. 150, pp. 249–267, <https://doi.org/10.1016/j.jbusres.2022.05.068>
- Cifriadi, A, Sugita, P, Wismogroho, AS, Kemala, T, Nikmatin, S, Widayatno, WB, Amal, MI, Jayadi, Firdharini, C & Kinasih, NA 2025, 'Development and characterization of biomass-based biocarbon fillers for natural rubber composites', *International Journal of Technology*, vol. 16, no. 3, pp. 982–992, <https://doi.org/10.14716/ijtech.v16i3.6809>
- Cui, L & Jiang, Y 2025, 'Quantitative analysis of the US chip embargo and China's export controls on GaGe and graphite', *Computers & Industrial Engineering*, vol. 200, article 110860, <https://doi.org/10.1016/j.cie.2025.110860>
- Dang, QT, Rammal, HG, Ghauri, PN, Jasovska, P & Velasquez, S 2024, 'Caught in the middle: Effects on and reactions of Vietnamese timber exporters in the context of US-China economic sanctions', *Journal of World Business*, vol. 59, no. 6, article 101583, <https://doi.org/10.1016/j.jwb.2024.101583>
- Dilyard, J, Zhao, S & You, JJ 2021, 'Digital innovation and Industry 4.0 for global value chain resilience: Lessons learned and ways forward', *Thunderbird International Business Review*, vol. 63, no. 5, pp. 577–584, <https://doi.org/10.1002/tie.22229>
- Dung, NV, Khiem, NH & Le, PX 2025, 'White light-emitting diode coated with  $K_3Lu(PO_4)_2: Tb^{3+}, Eu^{3+}$  nanocrystal films enveloped by  $SiO_2$ ', *International Journal of Technology*, vol. 16, no. 3, pp. 748–757, <https://doi.org/10.14716/ijtech.v16i3.6022>
- Fan, J, Hua, X, Wang, M, Wang, Y & Zhang, H 2025, 'The impacts of US Section 337 investigations on Chinese technology firms', *Research Policy*, vol. 54, no. 5, article 105210, <https://doi.org/10.1016/j.respol.2025.105210>

Gómez, YAC, Duque, PMT, Orjuela, LCA, Guerrero, LMB & Rozo, JJP 2025, 'Predictive factors of purchase behaviors on facebook', *International Journal of Technology*, vol. 16, no. 3, pp. 835-845, <https://doi.org/10.14716/ijtech.v16i3.6432>

Halim, NAM, Abu, MY, Razali, NS, Aris, NH, Sari, E, Jaafar, NN, Ghani, ASA, Ramlie, F, Muhamad, WZAW & Harudin, N 2025, 'Impact of mahalanobis-taguchi system on health performance among academicians', *International Journal of Technology*, vol. 16, no. 3, pp. 846-864, <https://doi.org/10.14716/ijtech.v16i3.7226>

He, C, Li, J, Wang, W & Zhang, P 2024, 'Regional resilience during a trade war: The role of global connections and local networks', *Journal of World Business*, vol. 59, no. 5, article 101567, <https://doi.org/10.1016/j.jwb.2024.101567>

Hong, LJ, Li, J, Wu, X & Yi, S 2023, 'Future research of supply chain resilience: Network perspectives and incorporation of more stakeholders', *Fundamental Research*, vol. 5, no. 2, pp. 486-495, <https://doi.org/10.1016/j.fmre.2023.07.012>

Idris, M, Garniwa, I, Soesilo, TEB, Utomo, SW & Asyari, MZ 2025, 'Environmental impacts of internal combustion engine vs electric vehicle: life-cycle assessment review', *International Journal of Technology*, vol. 16, no. 3, pp. 882-913 <https://doi.org/10.14716/ijtech.v16i3.7347>

Jayadi, J, Widayatno, WB, Wismogroho, AS, Mulya, MAJ, Maddu, A & Sari, YW 2025, 'The effect of gas flow rate, solid-to-solvent ratio, and temperature on micro-carbon synthesis from pine resin using spray pyrolysis and the application as masks coating material', *International Journal of Technology*, vol. 16, no. 3, pp. 949-959, <https://doi.org/10.14716/ijtech.v16i3.6252>

Jiang, Z, Chua, F-F & Lim, AH-L 2025, 'Privacy-preserving data uploading scheme based on threshold secret sharing algorithm for internet of vehicles', *International Journal of Technology*, vol. 16, no. 3, pp. 731-747, <https://doi.org/10.14716/ijtech.v16i3.7260>

Ju, J, Ma, H, Wang, Z & Zhu, X 2024, 'Trade wars and industrial policy competitions: Understanding the US-China economic conflicts', *Journal of Monetary Economics*, vol. 141, pp. 42-58, <https://doi.org/10.1016/j.jmoneco.2023.10.012>

Koshevarova, A, Ekaterina, B, Suloeva, S, Kozhina, K & Makhmudova, G 2025, 'Impact of the significant financial potential factors on economic development of the region', *International Journal of Technology*, vol. 16, no. 3, pp. 769-779, <https://doi.org/10.14716/ijtech.v16i3.7407>

Mastriswadi, H, Herliansyah, MK, Sari, WP, Tontowi, AE & Herianto 2025, 'The bibliometric analysis of 3D printer research development and opportunities in Indonesia', *International Journal of Technology*, vol. 16, no. 3, pp. 865-881, <https://doi.org/10.14716/ijtech.v16i3.6059>

Moya, V, Maldonado, M, Váscenez, JP, Abedrabbo, F, Pozo-Espin, D & Moya, M 2025, 'Automated assembly line with 2D cartesian robot and conveyor belt', *International Journal of Technology*, vol. 16, no. 3, pp. 914-932, <https://doi.org/10.14716/ijtech.v16i3.7287>

Muratov, S, Burova, E, Suloeva, S, Hasanov, S, Pardaev, K & Isroilov, B 2025, 'The role of nonfarm employment and service industries in enhancing rural welfare' *International Journal of Technology*, vol. 16, no. 3, pp. 1042-1059, <https://doi.org/10.14716/ijtech.v16i3.7410>

Numan, JAA & Yusoff, IM 2025, 'Real estate appraisal performance improvement by adapting a hybrid model: geographically weighted regression and extreme gradient boosting in Al Bireh, Palestine', *International Journal of Technology*, vol. 16, no. 3, pp. 1060-1084, <https://doi.org/10.14716/ijtech.v16i3.7196>

Pangesty, AI, Kamila, RA, Schlumbergerina, ACPB, Faizurrizqi, MD, Fakhri, RW, Sunarso, S, Zakaria, MN, Nuraini, L & Azwani, W 2025, 'Injectable alginate-collagen hydrogel with propolis: a potential cardioprotective biomaterial', *International Journal of Technology*, vol. 16, no. 3, pp. 1019-1029, <https://doi.org/10.14716/ijtech.v16i3.7366>

Peng, S, Ni, H, Zhong, D & Fan, Z 2025, 'Does deglobalization affect the withdrawal of foreign-invested enterprises? Evidence from the US-China trade conflicts', *Economic Analysis and Policy*, vol. 85, pp. 1676-1698, <https://doi.org/10.1016/j.eap.2025.02.012>

Rahman, SF, Hardi, GW, Yulianti, ES, Hanafiah, S, Maras, MAJ, Whulanza, Y & Park, DH 2025, 'Enhancing dopamine detection using a glassy carbon electrode modified with aluminum oxide, titanium dioxide, and poly(3,4-ethylenedioxythiophene)-poly(4-styrene sulfonate)', *International Journal of Technology*, vol. 16, no. 3, pp. 1004-1018, <https://doi.org/10.14716/ijtech.v16i3.7374>

Rajalakshmi M & Wahab, RS 2025, 'Artificial intelligence-based optimal design of Bi-directional capacitor-inductor-inductor-capacitor converter for electric vehicle applications', *International Journal of Technology*, vol. 16, no. 3, pp. 933-948, <https://doi.org/10.14716/ijtech.v16i3.7486>

Ramakrishna, S, Kusrini, E, Nurhayati, RW & Whulanza, Y 2023, 'Advancing green growth through innovative engineering solutions', *International Journal of Technology*, vol. 14, no. 7, pp. 1402–1407, <https://doi.org/10.14716/ijtech.v14i7.6869>

Safitri, N, Huseini, M & Kusumastuti, R 2025, 'Proself or prosocial? the Indonesian academics motive to commercializing university research', *International Journal of Technology*, vol. 16, no. 3, pp. 1030-1041, <https://doi.org/10.14716/ijtech.v16i3.6104>

Sahoo, D, Harichandan, S & Kar, SK 2022, 'An empirical study on consumer motives and attitude towards adoption of electric vehicles in India: Policy implications for stakeholders', *Energy Policy*, vol. 165, article 112941, <https://doi.org/10.1016/j.enpol.2022.112941>

Singgih, IK, Prabowo, AR, Soegiharto, S, Singgih, ML & Dharma, FP 2025, 'Smart campus applications: a literature review on transportation research and big data', *International Journal of Technology*, vol. 16, no. 3, pp. 796-824, <https://doi.org/10.14716/ijtech.v16i3.6803>

Subagja, T, Adhika, DR, Kurniawan, R, Sumarlan, A, Nugraha & Saraswaty, V 2025, 'Nano-encapsulated PEG 1000 and paraffin composite as phase change material for thermal comfort enhancement', *International Journal of Technology*, vol. 16, no. 3, pp. 972-981, <https://doi.org/10.14716/ijtech.v16i3.5749>

Sudan, T & Taggar, R 2025, 'Assessing trade supply chain vulnerability and trade participation of SMEs in India: Insights from a comprehensive analysis', *International Journal of Productivity and Performance Management*, vol. 74, no. 1, pp. 250–303, <https://doi.org/10.1108/IJPPM-12-2023-0645>

Vu, NH, Bui, TA, Hoang, TB & Pham, HM 2022, 'Information technology adoption and integration into global value chains: Evidence from small- and medium-sized enterprises in Vietnam', *Journal of International Development*, vol. 34, no. 2, pp. 259–286, <https://doi.org/10.1002/jid.3591>

Wajanawichakon, K, Srisurin, K & Ongkunaruk P 2025, 'Multi-criteria decision analysis for sustainable crop selection in northeast Thailand: an analytical hierarchy process approach', *International Journal of Technology*, vol. 16, no. 3, pp. 780-795, <https://doi.org/10.14716/ijtech.v16i3.7118>

Wang, M & Xie, Z 2025, 'International trade barriers, export and industrial resilience: An empirical study based on the EU and USA antidumping and countervailing policies on photovoltaic products', *Energy Policy*, vol. 201, article 114556, <https://doi.org/10.1016/j.enpol.2025.114556>

Waqas, M, Khan, AR & Tahir, AH 2024, 'When and how green transformational leadership leads to green technology innovation: The mediation effect of green innovation capability', *International Journal of Innovation Management*, vol. 28, no. 03n04, article 2450010, <https://doi.org/10.1142/S1363919624500105>

Whulanza, Y 2023, 'Cohering existing technology with greener and modern innovation', *International Journal of Technology*, vol. 14, no. 2, pp. 232–235, <https://doi.org/10.14716/ijtech.v14i2.6435>

Wijaya, NR, Tamrin, Eddiyanto, Laksmono, JA & Ritonga, AH 2025, 'Enhancement of asphalt resilience through functionalization of natural rubber with glycidyl methacrylate, maleic anhydride, and divinylbenzene', *International Journal of Technology*, vol. 16, no. 3, pp. 993-1003, <https://doi.org/10.14716/ijtech.v16i3.6816>

Yashin, S, Koshelev, E, Ivanov, A, Borisov, S, Karimov, D & Babkin, I 2025, 'Evolutionary neural simulation of import substitution in the radio electronics industry in the regions using adaptive network-based fuzzy inference system', *International Journal of Technology*, vol. 16, no. 3, pp. 758-768, <https://doi.org/10.14716/ijtech.v16i3.7402>

Yulianto, ME, Jos, B & Budiyo 2025, 'Diffusivity coefficient of shogaol degradation into paradol in the reactive extraction of ginger dregs through subcritical water', *International Journal of Technology*, vol. 16, no. 3, pp. 960-971, <https://doi.org/10.14716/ijtech.v16i3.6512>

Zagloel, TM, Nugraha, AR, Wibowo, R, Wibisono, MA, Saputra, E, Pahlevi, A, Whulanza, Y & Dharmawan, A 2023, 'Developing models and tools for exploring the synergies between energy transition and the digital economy', *International Journal of Technology*, vol. 14, no. 8, pp. 1615-1622, <https://doi.org/10.14716/ijtech.v14i8.6906>



Greetings from Jakarta,



Prof. Dr. Yudan Whulanza  
*Editor in Chief*



Dr. Eny Kusrini  
*Managing Editor*



Prof. Dr. Akhmad Hidayatno  
*Editorial Board*



Prof. Dr. Ir. Teuku Yuri M. Zagloel  
*Editorial Board*