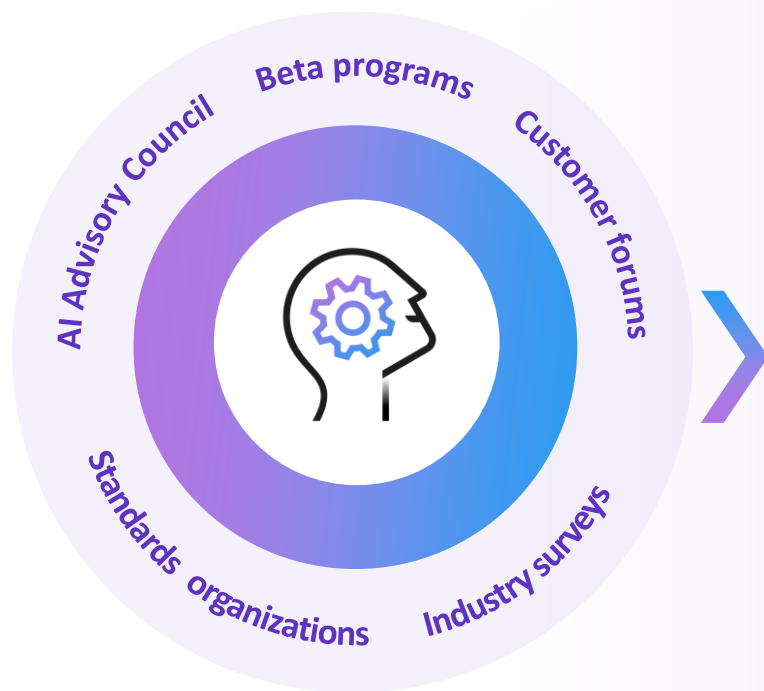


Web of Science Research Assistant

Inteligentnější výzkum



Zásady odpovědné umělé inteligence, vycházející z poznatků akademické obce



Opportunities:

- Objevování obsahu
- Poznanky z dat
- Personalizované učení
- Produktivita zaměstnanců

Obavy:

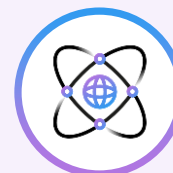
- Zaujatost a halucinace
- Zkratky ve vzdělávání
- Nekalé subjekty (např. Papírny na články, tzv. "papermills!")
- Plagiátorství

Rámec umělé inteligence



Transparentní

- Jasně informace o použitých zdrojích obsahu
- Správné uvedení zdrojů a snadný přístup k citovaným dílům



Etický

- Opatření ke snížení množství nesprávných informací
- Spolupráce s vydavateli za účelem zajištění jasných práv k použití



Bezpečný

- Lidský factor
- Dodržování standardů ochrany soukromí a bezpečnost
- Dodržování měnících se globálních předpisů

Jak umělá inteligence mění výzkum?

Jaké výzvy AI pomáhá překonat?

- Pomáhá výzkumníkům rychle se seznámit s novými oblastmi výzkumu
- Poskytuje přirozený výchozí bod pro objevování vědeckých informací
- Automatizuje a zjednodušuje úkoly, které nevyžadují odborné vědecké znalosti

Naše vize využití AI ke zlepšení objevování vědomostí ve Web of Science

Tradiční vyhledávání

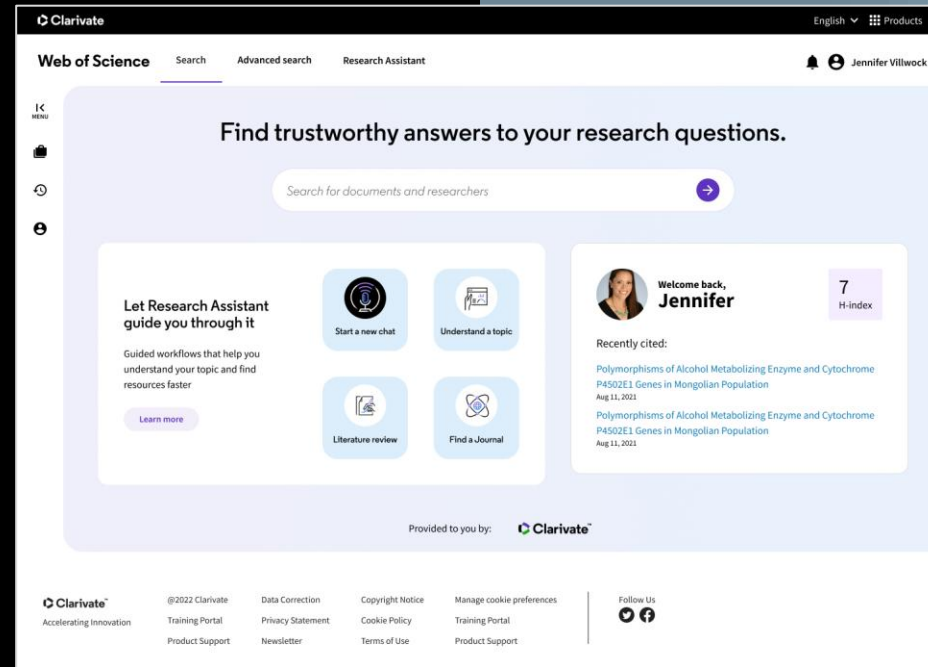
Sémantické objevování

Oprava pravopisu

Návrh klíčových slov

Kombinované vyhledávání

dokumentů a výzkumníků



Objevování a porozumění obsahu na základě umělé inteligence

Research Assistant

Mateřský jazyk

Vícejazyčný

Otázky -> odpovědi

Shrnutí článků

Předdefinované scénáře

Jedinečné vizualizace

Web of Science Research Assistant

✦ Accelerate Your Research with a Smart Assistant

Choose an agentic AI guide to help you advance your research goals

🔍 Topic Explorer

Explore topics, identify related subtopics, and visualize trends.

📄 Literature Review

Synthesize the literature, uncover research gaps and hotspots, and formulate hypotheses.

📖 Find a Journal

Match your manuscript or topic to relevant, trusted journals.

Have a research question?

✦ Ask a research question

Example questions:

How does climate change impact biodiversity?



Who are the most cited authors in genetics?



Which institutions published the most on covid in the last 12 months?



¿Cuáles son las consecuencias físicas de seguir una dieta vegana?



Can you find recent studies on super-resolution microscopy?



线粒体在癌症中扮演什么角色?



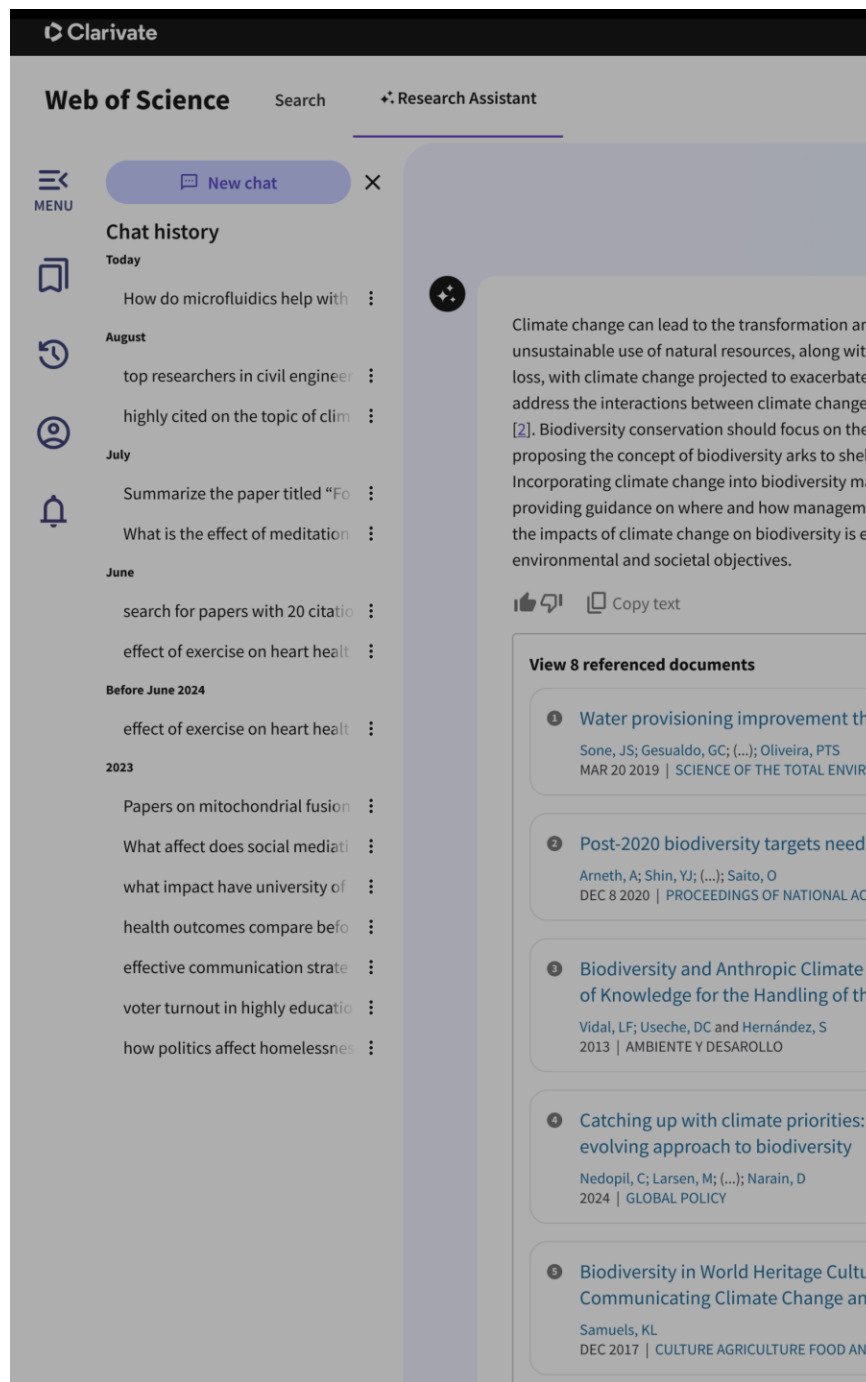
Mnohem víc než chatbot

Nástroj s umělou inteligencí, který pomáhá výzkumným pracovníkům na všech úrovních lépe využívat interakci s nejdůvěryhodnější citační databází Web of Science Core Collection.

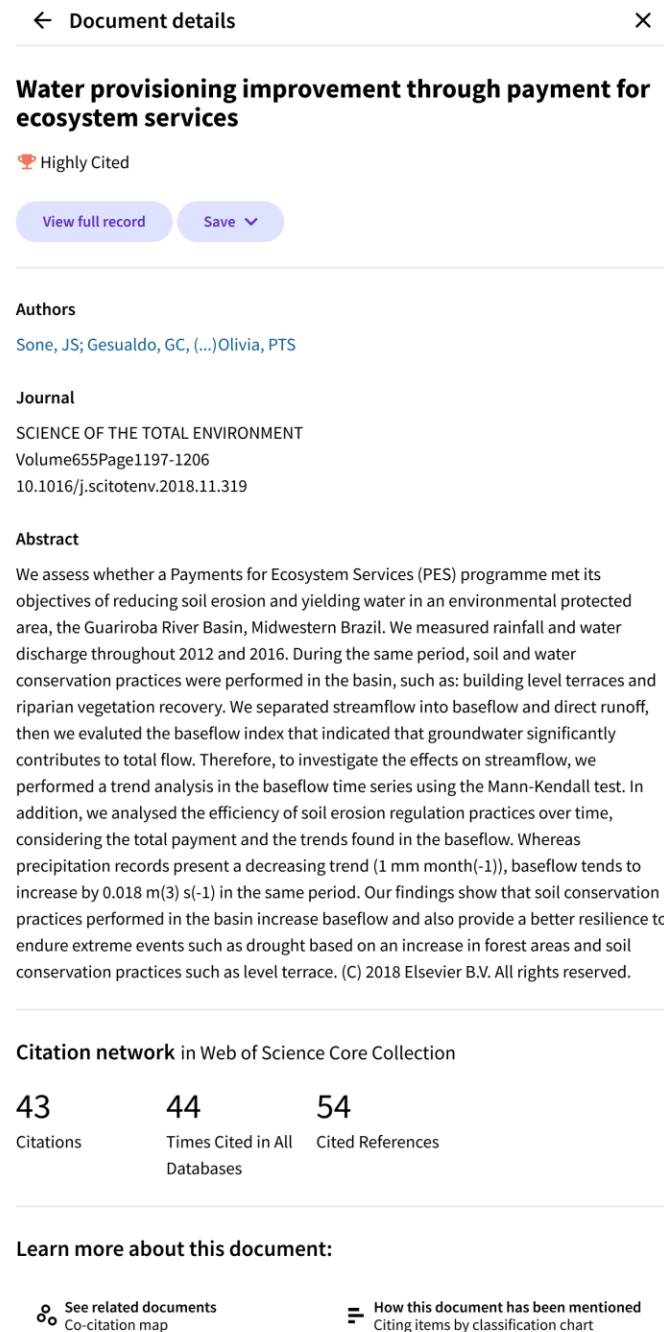
- ✓ *Generativní AI, agenti AI*
- ✓ *Intelligentní objevování*
- ✓ *Úkolově orientované pokyny*
- ✓ *Zodpovědná AI*

Rychlejší a jednodušší vyhledávání

- ✓ Vyhledávání v přirozeném jazyce, vícejazyčné vyhledávání
- ✓ Stručné, odborně podložené přehledy ve vašem jazyce vyhledávání
- ✓ Ověřitelné odpovědi pro zajištění transparentnosti
- ✓ Více než 120 let výzkumu k dispozici

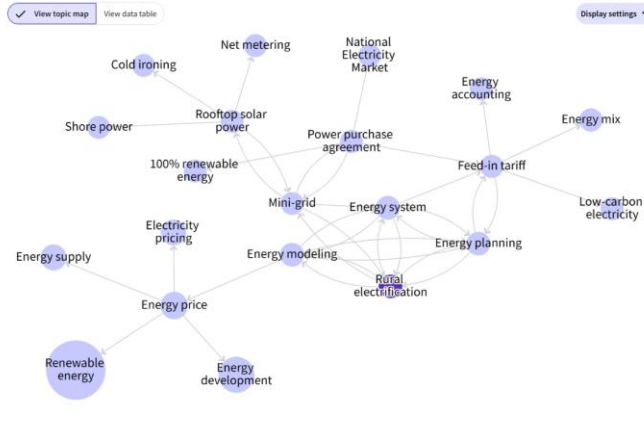


The screenshot shows the Clarivate Web of Science interface. On the left, there's a 'Chat history' sidebar with a 'New chat' button and a list of chat topics categorized by date (Today, August, July, June, Before June 2024, 2023). The main area displays a document preview for 'Water provisioning improvement through payment for ecosystem services'. It includes the title, authors (Sone, JS; Gesualdo, GC, (...); Oliveira, PTS), journal (SCIENCE OF THE TOTAL ENVIRONMENT), and an abstract. Below the abstract, there's a section for 'View 8 referenced documents' with a list of related papers.

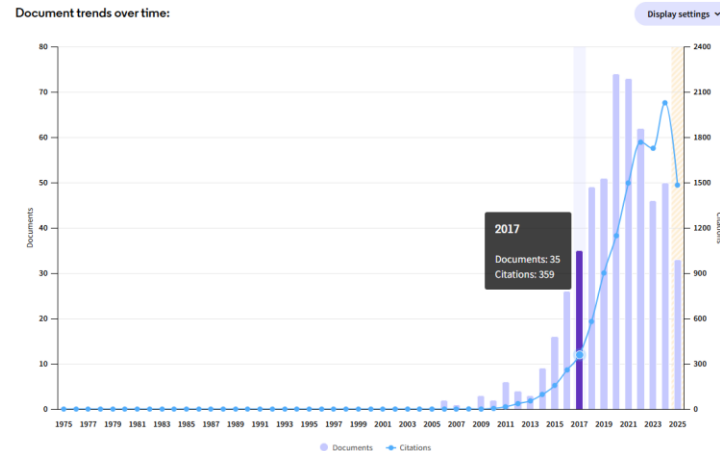


The 'Document details' page for the article 'Water provisioning improvement through payment for ecosystem services'. It shows the title, a 'Highly Cited' badge, and buttons for 'View full record' and 'Save'. The 'Authors' section lists 'Sone, JS; Gesualdo, GC, (...)Olivia, PTS'. The 'Journal' section lists 'SCIENCE OF THE TOTAL ENVIRONMENT', 'Volume655Page1197-1206', and the DOI '10.1016/j.scitotenv.2018.11.319'. The 'Abstract' section provides a summary of the study. The 'Citation network' section shows the document's position in the Web of Science Core Collection with 43 Citations, 44 Times Cited in All Databases, and 54 Cited References. At the bottom, there are links to 'See related documents' and 'How this document has been mentioned'.

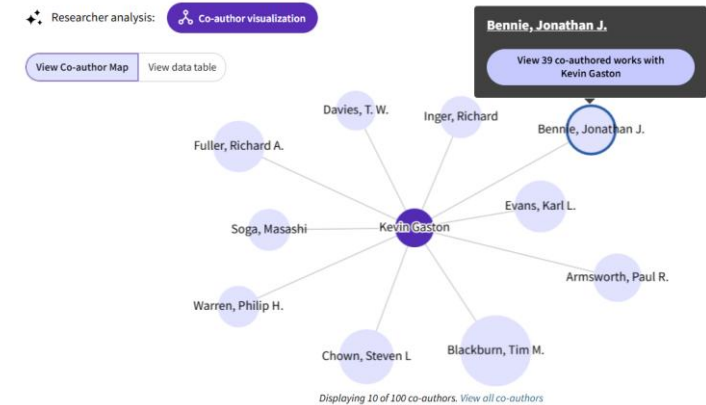
Objevte smysluplné souvislosti pomocí dynamických vizualizací



Prozkoumejte související témata a zúžte nebo rozšiřte vyhledávání



Identifikujte trendy v dané oblasti, které vám pomohou definovat směr vašeho výzkumu



Vytvářejte sítě pro vizualizaci spojení mezi lidmi a dokumenty

Provedte komplexní výzkumné úkoly rychleji



- ✓ Řešte klíčové výzkumné úkoly s podporou AI agentů



- ✓ Ušetřete čas díky kontextovým pokynům, které se zobrazují během práce



- ✓ Vypracujte strategie pro společné výzkumné projekty

Intelligentní průvodci výzkumnými úkoly

AI agenti ve Web of Science Research Assistant

Další vlna [akademické] umělé inteligence je tady

Vlna 3

AI Agenti

- Uvažování a plánování
- Cílem řízené akce
- Syntéza více zdrojů
- Automatizace víceetapových procesů

Příklad: Přehled literatury, WoS RI

Vlna 2

Generativní AI

- AI Asistenti
- Kontextualizované znalosti
- Řízené pracovní postupy

Příklad: Research Assistants

Vlna 1

AI/Strojové učení

- Automatizace úkolů
- Personalizované doporučení

Příklad: Extrakce citací

2021

2025

Zjednodušení klíčových fází výzkumného procesu

AI agenti ve Web of Science Research Assistant



Topic Explorer

Rozčleňte témata, ponořte se do souvisejících oblastí a vizualizujte trendy



Literature Review

Syntetizujte výzkum do strukturovaného výstupu, který je přizpůsobený vašim potřebám



Find a Journal

Najděte pro svůj rukopis nebo téma relevantní a důvěryhodné časopisy

Spolupráce s AI agenty pro flexibilní průzkum témat

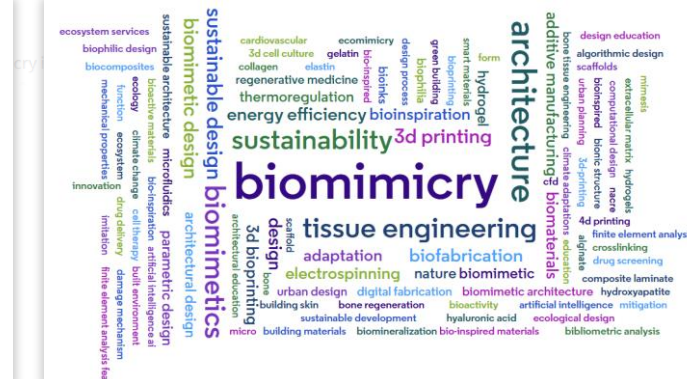
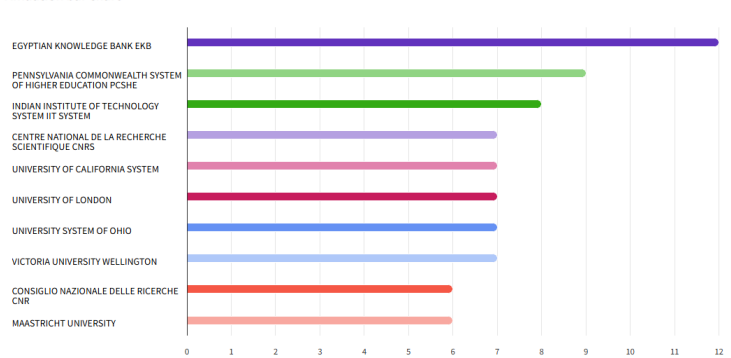
What is biomimicry in architecture?

Biomimicry in architecture is an interdisciplinary design approach that draws inspiration from nature's forms, processes, and systems to solve challenges in the built environment, especially those related to sustainability and energy efficiency. Instead of simply imitating natural shapes (biomorphosis), biomimicry goes further by emulating how living organisms function and adapt, aiming to create buildings and urban spaces that are regenerative and responsive. Applications range from materials and facades that mimic biological strategies for thermoregulation, water management, and daylighting, to structural solutions inspired by natural efficiency. This approach integrates ecological principles to address environmental concerns such as carbon footprint reduction, resource optimization, and climate adaptation. Biomimicry in architecture also encourages participatory, ecological, and feminist perspectives, promoting diverse and inclusive solutions for regenerative built environments. Challenges in mainstreaming biomimicry include abstract definitions, lack of implementation knowledge, and the need for interdisciplinary collaboration to bridge gaps between academia and practice.

Topics and Subtopics:

- **Biomimicry in Architecture** (sustainable design, regenerative architecture, biomimetic materials)
- **Biomimetic Materials and Facades** (thermoregulation, water management, daylighting)
- **Biomimicry in Urban Planning** (regenerative cities, nature-inspired urban policies, participatory design)
- **Biomimicry in Interior Design** (eco-materials, curriculum integration, visualization)
- **Landscape Architecture and Biomimicry** (ecological responsibility, sustainable landscape, esthetic integration)
- **Biomimicry in Education** (design curriculum, experiential learning, student projects)
- **Historical Biomimicry** (biomorphosis, traditional architecture, sustainability pioneers)
- **Biomimicry and Energy Efficiency** (building envelopes, passive cooling, climate adaptation)
- **Biomimicry and Digital Design** (algorithmic design, computational modeling, 3D printing)
- **Challenges and Opportunities** (interdisciplinary collaboration, knowledge gaps, policy integration)

Affiliation bar chart



- **Objevte klíčové koncepty a podtémata**, abyste rychle porozuměli struktuře výzkumné oblasti.
- **Vizualizujte obor**, abyste identifikovali trendy a příležitosti.
- **Interaktivně zpřesňujte směr výzkumu** díky návrhům poháněných umělou inteligencí.

Řešení výzev literárních rešerší pomocí AI agentů

- **Zpřesněte svou výzkumnou otázku** a vytvořte efektivní strategii vyhledávání
- **Rychle a s jistotou syntetizujte literaturu**
 - Odhalte mezery ve znalostech
 - Identifikujte nové trendy
- **Formulujte hypotézy**, které posouvají váš obor vpřed



I have gathered the necessary data for 50 articles related to the economic impacts of microgrids for power in South America. I will now proceed to create a detailed literature review based on these articles. Please give me a moment to compile this information into a comprehensive review.

Literature Review on the Economic Impacts of Microgrids for Power in South America

Introduction

Microgrids are increasingly recognized as a viable solution for enhancing energy access and sustainability in South America. These systems, which integrate renewable energy sources with local energy storage and management, offer potential economic benefits such as cost savings, improved energy security, and economic development in off-grid and rural areas. This review synthesizes recent research on the economic impacts of microgrids in South America, highlighting key findings, common themes, gaps in research, and future research directions.

Common Themes/Key Findings

- **Cost-Effectiveness and Financial Models:** Many studies emphasize the cost-effectiveness of microgrids, particularly in remote areas where traditional grid extension is economically unfeasible. For instance, Aguilar-Jimenez et al. (2025) demonstrated the viability of photovoltaic microgrids with battery storage in rural Mexican communities, achieving significant cost savings compared to grid extension [Aguilar-Jimenez et al., 2025].
- **Integration with Renewable Energy:** The integration of renewable energy sources, such as solar and wind, into microgrids is frequently highlighted as a key factor in reducing operational costs and enhancing sustainability. Ahmad and Zhang (2021) explored the techno-economic feasibility of renewable integration in grid-connected and islanded microgrids, showing substantial cost reductions through optimized renewable energy configurations [Ahmad and Zhang, 2021].
- **Economic Sustainability and Policy Implications:** Studies like those by Arango-Manrique et al. (2021) focus on the role of policy in ensuring the economic sustainability of microgrids. They propose business models that integrate government incentives to attract private investment and support rural electrification efforts in Colombia [Arango-Manrique et al., 2021].
- **Market Dynamics and Energy Trading:** Research by Madler et al. (2023) highlights the economic benefits of peer-to-peer energy trading within microgrids, which can lower electricity costs and enhance economic resilience. This approach is particularly beneficial in decentralized energy markets [Madler et al., 2023].

Gaps in Research

- **Long-term Economic Impact Studies:** While many studies provide short-term economic analyses, there is a lack of longitudinal studies assessing the long-term economic impacts and sustainability of microgrids in South America.
- **Diverse Geographical Settings:** Research predominantly focuses on specific regions, leaving a gap in understanding the economic impacts across diverse geographical settings within South America.
- **Integration with National Grid Systems:** The economic implications of integrating microgrids with existing national grid systems remain underexplored, particularly in terms of regulatory challenges and economic benefits.
- **Comprehensive Policy Evaluations:** There is a need for comprehensive evaluations of existing policies and their economic impacts on microgrid development and deployment in the region.

Conclusion

Microgrids present a promising solution for addressing energy access and sustainability challenges in South America. The economic benefits, particularly when integrating renewable energy sources, are well-documented. However, further research is needed to understand long-term impacts, optimize integration strategies, and evaluate policy frameworks comprehensively.

Potential Hypotheses

1. Integration of microgrids with renewable energy sources significantly reduces operational costs compared to traditional energy systems.
2. Government incentives and supportive policies are crucial for the economic sustainability of microgrids in rural South American communities.
3. Peer-to-peer energy trading within microgrids enhances economic resilience and reduces electricity costs.
4. The economic benefits of microgrids are maximized when integrated with national grid systems, provided regulatory challenges are addressed.
5. Long-term economic impacts of microgrids vary significantly across different geographical and socio-economic contexts in South America.

Referenced Documents

- Aguilar-Jimenez, J. A., Islas-Pereda, S., & Perez de Alva, N. A. (2025). Technical and Economic Analysis of an Off-Grid Microgrid with Solar PV and Battery Storage: A Case Study for Rural Communities in Mexico. *Proceedings of the VII Ibero-American Congress of Smart Cities, ICSC-CITIES 2024*. [Aguilar-Jimenez et al., 2025]
- Ahmad, T., & Zhang, D. D. (2021). Renewable energy integration/techno-economic feasibility analysis, cost/benefit impact on islanded and grid-connected operations: A case study. *Renewable Energy*. [Ahmad and Zhang, 2021]
- Arango-Manrique, A., Lopez-Garcia, D., & Carvajal-Quintero, S. X. (2021). Business Model Proposal for Energy Transition towards Operational and Economic Sustainability for Rural Electrification: Colombian Case. *Sustainability*. [Arango-Manrique et al., 2021]
- Madler, J., Harding, S., & Weibelzahl, M. (2023). A multi-agent model of urban microgrids: Assessing the effects of energy-market shocks using real-world data. *Applied Energy*. [Madler et al., 2023]

Note: Some articles used for background information and context were not directly cited in this review but contributed to the comprehensive understanding of the topic.

Upřesněte a zpřesněte svou otázku pomocí Literature Review

 Create a detailed literature review about microgrids for power in south america 



To create a detailed literature review on microgrids for power in South America, let's first refine your query to ensure we capture all relevant aspects of the topic. Microgrids can encompass various subtopics such as renewable energy integration, technological advancements, economic impacts, policy frameworks, and social implications.

Could you please specify if you are interested in any particular subtopics or aspects of microgrids in South America? This will help in tailoring the search strategy to your interests.

 economic impacts 



Great! We'll focus on the economic impacts of microgrids for power in South America.

Here's a proposed search strategy to ensure we cover all relevant aspects:

- 1. Main Topic:** Microgrids
- 2. Subtopics:**
 - Economic impacts
 - Cost-benefit analysis
 - Economic sustainability
 - Financial models
 - Economic evaluation
- 3. Region Focus:** South America
- 4. Synonyms and Related Terms:**
 - Decentralized energy
 - Distributed energy systems
 - Renewable energy economics
 - Energy transition economics

Here's how the search query might look:

`(microgrids OR decentralized energy OR distributed energy systems) AND (economic impacts OR cost-benefit analysis OR economic sustainability OR financial models OR economic evaluation) AND (South America OR Latin America)`

Does this search strategy align with your expectations, or are there additional terms or topics you'd like to include?



Náš AI agent vám pomůže:

- Definovat vyhledávání
- Určit parametry
- Formulovat dotaz
- Určit požadovaný výstup
- Provést vyhledávání

Získejte klíčové informace o časopisech pomocí Find a Journal

- **Přiřadte rukopisy** k relevantním časopisům pomocí inteligentní analýzy obsahu.
- **Prozkoumejte možnosti časopisů** podle tématu, i když nemáte k dispozici detaily rukopisu.
- **Filtrováním podle publikačních kritérií** zacílte na časopisy, které splňují vaše požadavky.



SUSTAINABILITY

 OPEN ACCESS

MDPI

 SWITZERLAND

2071-1050 / 2071-1050

 Semi-monthly

JOURNAL CITATION REPORTS 2024 [View impact](#)



Journal Impact
Factor™

0.67

Journal Citation
Indicator™

Web of Science Core Collection Science Citation Index Expanded | Social Sciences Citation Index

Additional Indexes Current Contents Agriculture, Biology & Environmental Sciences | Current Contents Social And Behavioral Sciences | Essential Science Indicators

LAND USE POLICY

 OPEN ACCESS

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0264-8377 / 1873-5754

 Bi-monthly

JOURNAL CITATION REPORTS 2024 [View impact](#)



Journal Impact
Factor™

1.41

Journal Citation
Indicator™

Web of Science Core Collection Social Sciences Citation Index
Additional Indexes Current Contents Social And Behavioral Sciences | Essential Science Indicators

WORLD DEVELOPMENT

 OPEN ACCESS

WATER RESOURCES RESEARCH

 OPEN ACCESS

AMER GEOPHYSICAL UNION

 UNITED STATES OF AMERICA

0043-1397 / 1944-7973

 Article-by-article

JOURNAL CITATION REPORTS 2024 [View impact](#)



Journal Impact
Factor™

1.2

Journal Citation
Indicator™

Web of Science Core Collection Science Citation Index Expanded

Additional Indexes Current Contents Agriculture, Biology & Environmental Sciences | Current Contents Engineering, Computing & Technology | Essential Science Indicators

Here are several journals closely aligned with your manuscript topic, including their profiles, impact factors, and subject categories.

Would you like to apply any preferences for your next search?

- Country or region
- Preferred language
- Open access journals only
- Filter by the latest Journal Impact Factor (only the most recent JCR year is supported for filtering)
- Web of Science category (e.g., Environmental Sciences, Development Studies, etc.)
- Publication frequency

Additionally:

- Would you like to see some documents published in any of these journals related to your research area?
- Would you like to see some of the authors who have published in these journals on similar topics?

Please let me know which options you would like to explore next.

Využijte důvěryhodný AI nástroj vyvinutý s vědci a pro vědce



Poskytuje kurátorsky
vybraná data z redakčně
vybraných zdrojů



Vyvinuto ve spolupráci s
výzkumnou komunitou



Optimalizováno pro
použití v
akademickém
výzkumu



V souladu s vyvíjejícími
se licenčními a
uživatelskými právy v
oblasti umělé
inteligence



Think forward™

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About Clarivate

Clarivate™ is a leading global provider of transformative intelligence. We offer enriched data, insights & analytics, workflow solutions and expert services in the areas of Academia & Government, Intellectual Property and Life Sciences & Healthcare. For more information, please visit clarivate.com.

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