INŻYNIERIA MINERALNA

CZASOPISMO POLSKIEGO TOWARZYSTWA PRZERÓBKI KOPALIN

2(52) 2023

NR 2(52) 2023, LIPIEC – GRUDZIEŃ

PL ISSN 1640 - 4920

JOURNAL OF THE POLISH MINERAL ENGINEERING SOCIETY

NO. 2(52) 2023, JULY – DECEMBER

INŻYNIERIA MINERALNA

Czasopismo Polskiego Towarzystwa Przeróbki Kopalin

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CZASOPISMO POLSKIEGO TOWARZYSTWA PRZERÓBKI KOPALIN

Distinguished participants,

As we gather for the prestigious POL-VIET 2023 — the 7th International Conference POL-VIET, dedicated to fostering scientific and research cooperation between Vietnam and Poland, we embark on a journey of discovery, collaboration, and innovation in the realms of Industry and Earth Sciences.

This conference stands as a beacon of opportunity for scientists and experts alike, offering a platform for the exchange of knowledge and experiences that span the breadth of these fields. At the core of our discussions will be subjects that delve into the heart of contemporary scientific and technological advancements, all of which are intrinsically tied to the pursuit of sustainable and responsible industry practices.

At POL-VIET 2023, we bring together not just expertise but also a collective determination to address the challenges that lie before us. It is here that we will explore the frontiers of innovation, forge collaborations, and lay the groundwork for a future where industry practices align harmoniously with environmental preservation.

We are providing a collection of papers that were submitted to the conference and successfully reviewed and we invite you to engage with us in thoughtful deliberation and exchange of ideas. Each presentation and discussion will contribute to the set of insights that will shape the future of mining and Earth sciences.

Thank you for being a part of POL-VIET 2023, and we look forward to the valuable contributions and enriching discussions that await us.

Sincerely,

Marek Borowski
Conference Chair
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AGH

Promoting Gender Equality and Awareness in the Vietnamese Mining Sector: Perceptions, Challenges, and Policy Recommendations

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http://doi.org/10.29227/IM-2023-02-36

Submission date: 21-08-2023 | Review date: 28-09-2023

Abstract

Females in the industry nowadays have been offered many opportunities to develop their careers. However, the chances are not the same in different areas or sectors. This study investigated the perceptions and understanding of gender-related issues in the mining sector among potential young workers and industry experts in Vietnam. The study employs Oxfam's Gender Impact Assessment Guidelines for extractive industries and the Convention on the Elimination of All Forms of Discrimination Against Women - CEDAW's Women's Economic and Social Rights Framework to assess gender-related issues in the mining sector. A survey of 207 students in Hanoi was conducted, besides focus group discussions and in-depth interviews with gender and mining experts.

Findings reveal significant differences in knowledge and awareness of gender issues between students, emphasizing the need to integrate gender knowledge into specialized fields such as mining. In addition, professionals working solely in the mining sector demonstrated a lack of sensitivity to gender issues. Consequently, the study recommends capacity building, seminars, and exchanges to help mining professionals incorporate a gender perspective into their activities.

Current policies exhibit gender neutrality, indirectly excluding women's participation and compromising men's safety in the mining sector. The study proposes policy recommendations for enhancing the protection of workers in the mining industry and promoting gender equality. These include incorporating gender perspectives into relevant laws, raising awareness of gender issues among policymakers and professionals, and increasing the mining sector's presence in the media to encourage youth to pursue careers in this field.

Keywords: *Gender equality, gender knowledge, gender perspectives, extractive industries, mining sector*

1. Introduction

The mining industry plays a crucial role as one of the main sources of revenue for many countries and is a focal point for economic growth and social development, particularly in resource-rich nations (Abrahamsson & Johansson, 2021; Johansson et al., 2020). However, in the natural resource extraction sector, social welfare, cultural preservation, local livelihoods, and polluted environment. Mining activities lead to land transfers, forced relocations, increased poverty among local communities, unstable security, violence, and crime (Hicks, 2011; Khoáng Sản – Phát Triển – Môi Trường: Đối Chiếu Giữa Lý Thuyết và Thực Tiễn | Trung Tâm Con Người và Thiên Nhiên, n.d.; Why Extractive Industry Gender Advocates Should Ask For Contract Transparency | Natural Resource Governance Institute, n.d.; T. K. T. Nguyen, 2020). Women and children in affected communities become landless laborers, often falling victim to human trafficking, violence, and health issues such as reproductive health, malnutrition, and poverty (Camey et al., n.d.-a, n.d.-b; Ringblom & Johansson, 2020). Additionally, the voices of women are not adequately heard by policymakers, and their participation in mining-related policy-making processes is not addressed (Abrahamsson & Johansson, 2021; Camey et al., n.d.; Johansson & Ringblom, 2017; Ringblom & Johansson, 2020). Gender inequalities in employment and women's participation can harm business operations, as well as have negative impacts on society and the local economy (Eftimie et al., 2009; Fernandez-Stark et al., 2019; Women, Business and the Law 2020., 2020). Conversely, enhancing gender equality by empowering women can improve the labor force, bring business benefits, and result in long-term outcomes for health, education, and local development. Raising awareness of gender aspects in mining can help ensure that women are supported and have positive outcomes in this industry (Camey et al., n.d.; Eftimie et al., 2009; Fernandez-Stark et al., 2019; Hicks, 2011; Mundoli, 2013; N. Nguyen et al., 2018; T. K. T. Nguyen, 2020).

This research is important as it focuses on the roles and participation of both men and women in the mining industry. By exploring gender aspects in this field, the study helps us gain a deeper understanding of the social differences imposed on men and women and the impacts of mining activities on different groups. The research provides essential information to promote sustainable development in the mining sector and ensure gender equality within it.

This research contributes to the existing body of knowledge on the roles of gender in the mining industry. Previous studies have primarily focused on issues related to women in this field (Abrahamsson & Johansson, 2021; Camey et al., n.d.; Lahiri-Dutt & Burke, n.d.; Mundoli, 2013; Ringblom & Johansson, 2020; Women in Mining Towards Gender Equality, 2021). However, this research expands the scope to study both men and women and also examines the perspectives and awareness of the younger generation regarding gender equality in mining. By doing so, this study offers a comprehensive view of the subject and sheds light on the multifaceted nature of gender roles in the mining industry.

The research seeks to make practical contributions by designing appropriate intervention programs to develop the mining industry based on gender equality, ultimately benefiting communities and society. Moreover, the study expands our understanding of gender roles in the mining sector and their impacts on communities and society.

We next review the animosity literature to develop our conceptual model. We then provide our research methodology, followed by the results of our survey. We conclude by discussing the implications, limitations, and future research directions of our work.

2. Conceptual background and conceptual framework

Gender equality refers to equal opportunities and conditions for women and men to unleash their potential, exercise human rights, and participate in the process of social development. Gender mainstreaming is a method aimed at promoting gender equality and the rights of women and girls in the industrial mining environment. Although policies and regulations in Vietnam affirm equal rights and non-discrimination towards women, the reality shows that women participating in the mining sector still face numerous difficulties. There is gender discrimination in occupational segregation and access to resources and information, which impacts the participation and contributions of women in the mining industry.

However, previous studies on gender equality in the mining sector in Vietnam have been incomplete and lacking information about the different impacts on men and women (EITI International Secretariat, n.d.; Why Extractive Industry Gender Advocates Should Ask For Contract Transparency | Natural Resource Governance Institute, n.d.; Women in Artisanal and Small-Scale Mining: Challenges and Opportunities for Greater Participation, 2014; Fernandez-Stark et al., 2019; Hicks, 2011). Therefore, research on gender equality in mining activities is necessary to gain a better understanding of the roles and impacts of the industry on both genders. From there, appropriate policies and measures can be formulated to promote gender equality and ensure the rights of both men and women in the development of the mining sector in Vietnam.

The research and enhanced awareness of gender equality in mineral exploitation in Vietnam are crucial to guarantee equal rights and fair treatment for women and men. This requires the promotion of policies and regulations that support gender equality, as well as the strengthening of awareness and a shift in community perspectives regarding the roles and contributions of women in the mining sector.

3. Research methodology

3.1. Measures and questionnaire development

The research will employ an approach and construct a toolkit based on Oxfam's Impact Assessment Guidance for Extractive Industries and the Women's Economic and Social Rights Framework of the CEDAW Convention.

The questionnaires are categorized into four dimensions:

1. Work division
2. Employment opportunities
3. Wage level
4. Decision-making

To suit the target audience, the research team conducted four focus group discussions (with eight participants in each group) with students to adjust the questionnaire accordingly.

After obtaining survey results, the study conducted ten in-depth interviews: three with gender experts and seven with professionals working in the mining sector, including three lecturers teaching in the field of mining, to address gender equality issues in the mining industry.

3.2. Sample and data collection

The research conducted a survey and collected data from 207 students currently studying in the education organizations of mining and geology in Vietnam. They are those who understand about mining and expected to work in the mining industry later. Responses included 95 males, 108 females, and 4 individuals identifying with other genders.

Data processing with the questionnaire information was collected online through Google Form and analyzed using SPSS software.

4. Results

Labor Division: When asked about the roles of women in the mining industry, in the survey, 140 students (68%) stated that women mainly perform administrative and office work; 102 students (49.5%) chose women for cleaning and cooking tasks in the mine; 96 students (46.6%) opted for women working in service business areas. 90 students (43.7%) agreed that women could take up specialized technical jobs such as engineers and experts. Only 18 students (8.7%) selected women for jobs like drilling, mining, and rock blasting.

Similarly, in group discussions and in-depth interviews, both students and experts agree that labor allocation depends on the nature of mining. Additionally, some experts believe that many women are hired in mines to retain male employees, as the mining life is tough and unstable, leading some men to quit and return to their hometowns. If an employee has an accident at work, the company will recruit his wife to work in the mine, if she is willing to, as a form of compensation.

Women can work as engineers and in open-pit mining areas, but they are not recruited for underground mining. In some regions, such as Ha Giang province, job advertisements explicitly state that they only hire men, excluding women. Even in cases where women are already working in a plant and want to transfer to positions related to machinery, human resources, or leadership, they are not allowed.

Based on survey results, group discussions, and in-depth interviews, the participants believe that the gender disparity in labor participation in the mining industry is influenced by societal beliefs, biological differences between men and women, and policies. The mining industry is perceived as demanding, hazardous, physically taxing, and potentially affecting women's reproductive health. Superstitions also lead to the belief that women bring bad luck, so they are discouraged from working underground. Social beliefs dictate that accounting and bookkeeping jobs, requiring meticulousness and attention, are more suitable for women, while specialized and physically demanding jobs are suited for men. Women also lack confidence and physical strength for technical jobs, so they avoid applying for such positions.

"Women are often involved in jobs like nursing, accounting, healthcare, and cleaning, while men are mostly in charge of mining operations, drilling, and driving heavy machinery. In Vietnam, it's uncommon for women to drive heavy machinery like trucks or excavators. Gender-based labor allocation in society

tends to direct women to lighter, office-related jobs, resulting in fewer women choosing to become engineers or participating in innovative work", explains an expert.

"In fact, in the current mining enterprises, the employment positions for women are relatively suitable. It takes into account gender-specific characteristics that may influence work quality and working conditions for the health of the workers", explains other expert.

Job opportunities: Regarding job opportunities, nearly half of the responses (41%) believe that mining increases job opportunities for women. In contrast, only 27.7% of students think that mining adds to the workload for women.

Interviews with students and mining experts also agree that prioritizing local labor has helped both local people and women in the mining areas to have more job opportunities and increase their income. However, some experts argue that the inconsistent implementation of local labor prioritization results from a lack of specialized training. Local people often do manual labor or establish food services or accommodations for miners. In many places, due to poor labor safety conditions leading to frequent workplace accidents, many companies avoid recruiting locals, leading to more migration of male workers to other areas, leaving more workloads on women and the elderly. This trend also affects the care and education of children.

Wages level: The average income between male and female labor in the mining sector is the same, 65 students agreed, while 46 students disagreed. Some argue that men in the mining industry work more and engage in more physically demanding and technically complex tasks, which may lead to higher income. However, the difference in income is due to the value placed on men's tasks, higher wages for specific jobs, and formal positions rather than wage discrimination between genders. If men and women hold the same position, they would have the same income.

An expert added: "Typically, there is no difference in income and benefits if a woman works at a company with foreign investment or a state-owned company; they will enjoy the same policies as men, including all allowances. However, if the payment is based on productivity, the better physical health of men may lead to higher earnings for them".

Decision-making: Overall, the decision-making process in the mining industry involves male participation more frequently than female participation in environmental impact assessment meetings. Two main reasons were given for this choice. Firstly, 63 students thought that representatives should attend, so the head of the household would go (among them, 36 students chose the head of the household to be male, and 8 chose female). Secondly, 50 students cited that those with better understanding of relocation and compensation matters should participate (among them, 20 students believed that males had better understanding, and 11 believed that females had better understanding).

However, this result contrasts with the agreement of 69 students who believe that women should be the ones participating in community meetings to represent the family, while 42 students disagree. Experts explain that the level of participation depends on the content of the meetings. Women often attend meetings where they have no significant contributions, while men attend meetings involving issues outside the community, such as working in remote areas. In many cases, women are more knowledgeable about the actual situation in the local area.

"Who gets interviewed and how it is structured depends on the perspectives and capabilities of the interviewer, team, or interview panel. If the local officials do not enforce strict criteria, situations may arise where they specifically call the household head for the interview, and that household head may be a male. However, if they only require one representative per family, then sometimes women also have the opportunity to participate. I must admit that at the local level, women, especially those who stay at home, understand the impact of mining activities on the environment and their family's life the most. For instance, if they are responsible for cleaning the house every day, they know how the mining activities create dust and affect their home. In contrast, men may not be aware, or they might be the ones who go to the market, knowing that prices are high in the area due to mining activities development, as more people come, and demand increases, will enlarge the prices", explains the expert.

5. Discussion and conclusion

5.1. Discussion

- There is a need for additional evidence to demonstrate gender issues in mining, particularly the impacts and effects on the communities living and affected in the mining areas at each stage/phase of the mining chain.
- Gender should be consider a matter to be integrated into the Mineral Law, Environmental Protection Law, Tax Law, fees, charges, and related documents, especially integrating gender into the process of conducting environmental impact assessments, compensations for land clearance, and community monitoring to promote women's participation in labor and decision-making rights.
- Awareness among experts need to be enhanced for drafting the Mineral Law, Environmental Protection Law, Tax Law, fees, charges, and related documents about gender in the mining industry, including knowledge about gender/equality, differences in labor, wages, decision-making rights, social prejudices, etc., affecting the labor force and long-term economic prospects.
- It is essential to strengthen the presence of the mining industry in the media, showcasing the contributions and relevance of mining to people's lives, the employment opportunities it offers to all genders, and especially encouraging young women to pursue careers in mining.
- Students, lecturers, and mining experts need to increase their awareness of gender in the mining industry through various approaches, such as extracurricular activities, seminars, media materials, artistic performances, etc. For example, in mining schools, gender-related topics can be integrated into lectures and research projects to allow students to observe the realities, write essays on ongoing situations, and analyze their impacts.

5.2. Conclusion

Gender equality is the Goal 5 among the 17 goals of sustainable development by the United Nations. It is essential to integrate gender knowledge into specialized fields, particularly mining, through various forms, such as lectures, practical internships, extracurricular activities, training programs, etc. For experts solely working in the mining industry, they may lack aware-

ness about gender issues (gender insensitivity). Hence, training sessions, workshops, and exchanges should be conducted to provide mining experts with a gender lens in their activities.

Enduring gender stereotypes are one of the barriers leading to the lack of female participation in the mining industry, especially in technical, specialized, and leadership positions. Therefore, media support, counseling in enrollment, career guidance, etc., are required to promote the participation of young women in mining, by showing them the opportunities, career prospects, labor protection policies, etc., in the mining sector.

Regarding policies: The current policies are gender-neutral, indirectly excluding the participation of women while also not ensuring the safety of men when assuming that hazardous and toxic tasks are designated for men. Hence, policies should focus on enhancing measures for labor protection and safety in the mining industry, aiming at the use of tools and equipment to replace human involvement.

Environmental impact assessments should incorporate gender perspectives to recognize the profound effects of mining on women.

As an exploratory study, this research has some limitations:

i) Initiative and suggestive research on Gender in Mining from the perspective of young people and experts.

(ii) The study was only conducted on a small sample size (207 students in Hanoi); therefore, the study cannot guarantee representativeness of all students or young people.

(iii) The study only focuses on phase 1 of the mining value chain. As a result, the research content only addresses issues related to the impact of mining, division of labor, participation in the mining industry, claim process, and environmental impact assessment. It does not delve into later-stage issues such as taxes, fees, monitoring of activities, or compensation/return, etc.

(iv) The study was conducted during the Lunar New Year, when the response to the online data collection was not a priority.

Acknowledgments

This research was supported financially by Oxfam Vietnam.

The paper was presented during the 7th VIET - POL International Conference Scientific-Research Cooperation between Vietnam and Poland.

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2(52)
2023

Kontrole geologiczne zmian kanałów podmorskich w dorzeczu Song Hong w Wietnamie 7
Anh Ngoc LE, Hoa Minh NGUYEN, Muoi Duy NGUYEN, Ngan Bui THI

Symulacja na odłamkach skalnych powstałych w wyniku odstrzału z wykorzystaniem hydrodynamiki cząstek wygładzonych (SPH) z oprogramowaniem LS-Dyna 13
Bao Tran DINH, Trieu Do VAN, Viet Pham VAN, Nguyen Dinh AN

Bieżąca sytuacja polityki państwa w zakresie górnictwa mineralnego w północno-wschodnim Wietnamie oraz propozycja zadań w zakresie działań audytowych 23
BUI Thi Thu Thuy, Pham Thu Huong, DUONG Quang Chinh, DUONG Duc Trung

Nowe podejście do poprawy działania przekaźników nadprądowych w sieciach górniczych 6kV QuangNinh w Wietnamie 29
BUN Ho Viet, THANH Le Xuan

Prognozowanie pola przekroju poprzecznego tunelu po wykonaniu strzelania 39
Chi Thanh NGUYEN, Nghia Viet NGUYEN

Badania wpływu składowiska odpadów kopalnianych na stabilność tuneli położonych poniżej w obszarze węglowym Quangninh metodą numeryczną 49
Dang VAN KIEN, Vo TRONG HUNG, Bui XUAN NAM, Nguyen HUU SA

Symbioza przemysłowa zastosowana w wietnamskim przemyśle wydobywczym węgla w celu promowania modelu gospodarczego o obiegu zamkniętym na rzecz celów zrównoważonego rozwoju 57
DINH CHIEU Le, NGA Nguyen, THI BICH Dong, MINH THONG Le

Wpływ jakości energii na pracę transformatorów przeciwwybuchowych w górnictwie w Wietnamie 65
DO Nhu Y, NGO Xuan Cuong, NGUYEN Thi Hong

Wyznaczanie współczynników korekcyjnych dla przewodów napowietrznych 6kV w kompleksie górniczym QuangNinh w Wietnamie z uwzględnieniem wpływu harmonicznych mocy 71
GIANG Vu Hoang, THANH Le Xuan

Algorytmy uczenia maszynowego do wzbogacania danych: obiecujące rozwiązanie zwiększające dokładność przewidywania wibracji gruntu wywołanych wybuchem w kopalniach odkrywkowych 79
Hoang NGUYEN, Xuan-Nam BUI, Carsten DREBENSTEDT

Badania numeryczne wpływu parametrów przepływu powietrza na temperaturę powietrza w ścianie zmechanizowanej kopalni Mongduong 89
Hong NGUYEN THI, Quang NGUYEN VAN

Segmentacja jednorodnych regionów właściwości pola grawitacyjnego metodą uczenia maszynowego w centralnym obszarze Wietnamu 97
Hong Phan THI, Phuong Do MINH, Huu Tran VAN

Zderzenie bloków Indochin i południowych Chin w północno-zachodnim Wietnamie i związane z nim kontrowersje 103
Khuong The HUNG, Jan GOLONKA, Nguyen Khac DU

Wyzwania rozwoju niekonwencjonalnych źródeł gazu ziemnego – przypadek gazu łupkowego 113
LE Minh Thong, TRAN Van Hiep, DO Huu Tung

Wpływ zarządzania cyfrowego na wyniki organizacji: badanie przeprowadzone w wietnamskich spółkach wydobywczych węgla 121
Le VAN CHIEN, Nguyen DUC THANG, Pham KIEN TRUNG, Nguyen THI HOAI NGA

Rozwój zarządzania cyfrowego w celu zwiększenia efektywności zarządzania państwem w Wietnamie 131
Chu Thi Khanh LY, Nguyen Quynh NGA, Nguyen Van HAU, Tran Thi Huong HUE

Wykrywanie hydratów gazu na podstawie danych sejsmicznych o wysokiej rozdzielczości w południowo-wschodnim Wietnamie 137
Mai Thanh TAN, Mai Thanh HA, Nguyen Quoc HUY, Nguyen Nhu TRUNG

Optymalizacja szerokości i wytrzymałości na ściskanie sztucznego filaru ochronnego w eksploatacji średniogrubych pokładów węgla w Quang Ninh z wykorzystaniem modelu numerycznego 143
BUI Manh Tung, DINH Van Cuong

Analiza facjalna i interpretacja środowiska depozycyjnego górnego oligocenu, Blok 09-2/10, basen Cuu Long 155
Muoi Duy NGUYEN, Anh Ngoc LE, Hoa Minh NGUYEN, Ngan Thi BUI

Identyfikacja potencjalnych zastosowań technologii bezzałogowych dronów na składowiskach odpadów kopalnianych 163
Ba Dung NGUYEN

Utworzenie mapy ruchu pionowego rzeki Cuu Long Delta na podstawie danych GNSS 173
NGUYEN Gia Trong, NGUYEN Viet Nghia, LY Lam Ha, VU Trung Dung, NGUYEN Quoc Long, KIM Thi Thu Huong, PHAM Ngoc Quang, NGUYEN Viet Quan

Opracowanie kryteriów oceny stabilności modeli zaopatrzenia w wodę w górach i obszarach z zagrożeniem wodym 179
NGUYEN Manh Truong, DINH Anh Tuan, NGUYEN Tiep Tan, U Thi Hong Nghia, DO Van Binh

Zrównoważony rozwój przemysłowy w Wietnamie 187
NGUYEN Ngoc Son

Budowa społeczeństwa cyfrowego w celu zwiększenia efektywności zarządzania krajowego w Wietnamie 195
NGUYEN Quynh Nga, CHU Thi Khanh Ly, NGUYEN Van Hau

Teoria Y we współczesnym zarządzaniu: zalety, wady i związek z Teorią X 203
NGUYEN Thanh Ha, NGUYEN Thi Thanh Huyen, NGUYEN Thi Lan Huong

Zwiększanie bezpieczeństwa w miejscu pracy: kompleksowy plan działania dla spółki węglowej Duong Huy (2021–2025) 205
Nguyen THI HOAI NGA, Nguyen DUC THANG, Le DINH CHIEU, Le VAN CHIEN, Pham KIEN TRUNG

Badania nad zabezpieczeniem upływowym prądu elektrycznego w celu poprawy bezpieczeństwa elektrycznego w górnictwie podziemnym w Wietnamie 209
NGUYEN Truong Giang, NGUYEN Thac Khanh, NGO Xuan Cuong, DO Nhu Y

Badanie osadów morskich za pomocą systemu profilerów poddennych na zachodnim wybrzeżu Camau w Wietnamie 215
DUNG NGUYEN Quang, GIANG NGUYEN Van, THANH LE Ngoc

Integracja technologii mobilnych i Meb GIS w celu promowania inteligentnej i zrównoważonej turystyki w Wietnamie 225
Mai Dung NGUYEN, Xuan Ban TO, Hong Anh LE

Badanie rozwiązań technologicznych zwiększających odzysk i jakość koncentratu miedzi w zakładzie wzbogacania Ta Phoi w Wietnamie 231
NHU Thi Kim Dung, PHAM Thi Nhung, VU Thi Chinh, LE Viet Ha

Promowanie równości płci i świadomości w wietnamskim sektorze górniczym: spostrzeżenia, wyzwania i zalecenia polityczne 235
Pham MINH HANG, Pham THI LUONG, Nguyen THI HOAI NGA, Pham KIEN TRUNG

Optymalizacja wydobycia kamienia blocznego poprzez zintegrowane modelowanie cięcia: studium przypadku w kamieniołomie kamienia Tan Long Dimension w południowo-środkowej prowincji Binh 239
PHAM Van Viet, NGUYEN Anh Tuan, PHAM Van Hoa, TRAN Dinh Bao

Rozmyty, wieloatrybutowy model decyzyjny dla optymalnej opcji zamknięcia kopalni w celu realizacji celów zrównoważonego rozwoju w prowincji Binh Duong w Wietnamie 249
PHAN Hong Viet, DO Ngoc Tuoc, BUI Xuan Nam

Badania nad stworzeniem receptury mieszania skały odpadowej i popiołu lotnego jako materiału do rekultywacji w obszarze Mongduong-Cocsau, Quang Ninh, Wietnam 257
Phi Hung NGUYEN, CaoKhai NGUYEN, Thi Kim Thanh NGUYEN

Dobór parametrów do projektowania wentylacji pomocniczej w kopalni podziemnej 267
Phuong Thao DANG

Mechanizm pękania stropu i określanie szerokości filarów węgla podczas wydobywania płasko położonych pokładów węgla 271
Quang Phuc LE, Van Chi DAO, Phi Hung NGUYEN, Thai-Tien Dung VU

Zrozumienie mechanizmów pochodzenia słonej wody w przybrzeżnych warstwach wodonośnych obszaru Da Nang (środkowy Wietnam) 281
Thao Bach NGUYEN, Nhan Dang DUC, Bang Duc DAO

Redukcja emisji w procesie wydobycia ropy i gazu za pomocą modułu AI/ML 289
Thuy Nguyen Thi THANH, Samie LEE, The NGUYEN, Le Quang DUYEN

Skuteczność zastosowania aplikacji mobilnej w celu poprawy stanu wiedzy i praktyki na temat krzemicy wśród pracowników wysokiego ryzyka narażenia na pył w północnej prowincji Wietnamu 295
Nguyen Thi THU HUYEN, Ta Thi KIM NHUNG, Pham Thi QUAN, Nguyen THANH THAO, Nguyen NGOC ANH, Nguyen Thi LIEN HUONG, Le Thi HUONG, Luong MAI ANH, Le Thi THANH XUAN

Modelowanie 3d LoD3 budynku wysokiego z wykorzystaniem naziemnego skanowania laserowego i dronów: studium przypadku z miasta Halong w Wietnamie 303
Le Thi THU HA, Nguyen QUOC LONG

Charakterystyka geologiczna i geochemiczna złóż złota Pac Lang w północno-wschodnim Wietnamie oraz ich potencjalne perspektywy 311
KHUONG The Hung, NGUYEN Van Dat, NGUYEN Thi Cuc, PHAM Nhu Sang

Badanie i modelowanie matematyczne zagrożeń geologicznych w ocenie ryzyka powodziowego: studium przypadku rzeki Hoang Long, prowincja Ninh Binh, Wietnam 319
Nhu Y NGUYEN, To Xuan BAN, Dang Dinh KHA

Radonowo-radowa termalna woda mineralna na obszarze projektu ekoturystycznego Vo Am, gmina Ngoc Luong, dystrykt Yen Thuy, prowincja Hoa Binh, Wietnam 327
BAN To Xuan, DUNG Le Tien, DUC Tran Van, TRONG Nguyen Huu, TUAN Truong Duc

Przewidywanie osiadania dróg spowodowanego podziemną działalnością górniczą za pomocą sztucznych sieci neuronowych 335
Hung Viet NGUYEN, Duyen Quang LE, Long Quoc NGUYEN, Tomasz LIPECKI

Ocena wskaźnika jakości powietrza w Annabie 341
Salem BADJOUDJ, Aissa BENSELHOUB, Souad NARSIS, Nadiia DOVBASH, Abdelaziz IDRES, Khadouja Marame BENGHADAB, Fares BOUTARFA, Mohamed BOUNOUALA, Stefano BELLUCCI

Charakterystyka mineralogiczna i chemiczna fosforanów ze złóż Djebel Onk (Tebessa, Algieria) 351
Tourkia TAHRI, Souad NARSIS, Nacer BEZZI, Abdellali BOUZENZANA, Omar SEKIOU, Tabet TRIRAT, Theziri AMRANE, Aissa BENSELHOUB

Optymalizacja ultradrobnego mielenia talku na sucho w Attritor Mill 361
S.E. EL-MOFTY, A.M. ELBENDARI, A.A. EL-MIDANY, M.K. ABDEL-RAHMAN

Stabilność nasypów kopalni odkrywkowej wraz z propozycją nowej metody wydobycia w celu jej ponownego otwarcia (Kef Essennoun, Algieria) 367
M.C. MEZAM, M.A. BACHAR ASSED, M. OULD HAMOU, S. NARSIS, A. BENSELHOUB

Analiza statystyczna wybranych cech węgla i związków toksycznych dla separacji powietrzno-wibracyjnej FGX 377
Waldemar MIJAŁ, Tomasz NIEDOBA, Daria POLEK, Ireneusz BAIC, Wiesław BLASCHKE

INŻYNIERIA MINERALNA
CZASOPISMO POLSKIEGO TOWARZYSTWA PRZERÓBKI KOPALIN

2(52)
2023

Geological Controls on Evolution of Submarine Channels in Song Hong Basin, Offshore Vietnam 7
Anh Ngoc LE, Hoa Minh NGUYEN, Muoi Duy NGUYEN, Ngan Bui THI

Simulation on Flyrock due to Blasting Using Smoothed Particle Hydrodynamics (SPH) with LS-Dyna software 13
Bao Tran DINH, Trieu Do VAN, Viet Pham VAN, Nguyen Dinh AN

Current Situation of State Management on Mineral Mining in The North Eastern Vietnam and Tasks Proposal for Audit Activities 23
BUI Thi Thu Thuy, Pham Thu Huong, DUONG Quang Chinh, DUONG Duc Trung

A New Approach on Improving The Operation of Over-Current Relays in 6kV Mining Grids of QuangNinh, VietNam 29
BUN Ho Viet, THANH Le Xuan

Prediction of Tunnel Cross-Sectional Area After Blastin 39
Chi Thanh NGUYEN, Nghia Viet NGUYEN

Research on the Effect of the Mine Waste Dump on the Stability of Tunnels Below in the Quangninh Coal Area by Numecical Method 49
Dang VAN KIEN, Vo TRONG HUNG, Bui XUAN NAM, Nguyen HUU SA

Industrial Symbiosis Applied to Vietnam Coal Mining Industry to Promote the Circular Economic Model towards Sustainable Development Goals 57
DINH CHIEU Le, NGA Nguyen, THI BICH Dong, MINH THONG Le

Effect of Power Quality on the Performance of Explosion-Proof Transformers in Mining in Vietnam 65
DO Nhu Y, NGO Xuan Cuong, NGUYEN Thi Hong

Determining the Correction Factors of Overhead-Conductors in 6kV Mining System of QuangNinh, VietNam with the Consideration of Power Harmonic Impact 71
GIANG Vu Hoang, THANH Le Xuan

Machine Learning Algorithms for Data Enrichment: A Promising Solution for Enhancing Accuracy in Predicting Blast-Induced Ground Vibration in Open-Pit Mines 79
Hoang NGUYEN, Xuan-Nam BUI , Carsten DREBENSTEDT

Numerical Study on Effects of Airflow Parameters on the Air Temperature the at Mechanized Longwall of Mongduong Coal Mine 89
Hong NGUYEN THI, Quang NGUYEN VAN

Segmentation of Homogeneous Regions of Gravity Field Properties by Machine Learning Method in Central Area of Vietnam 97
Hong Phan THI, Phuong Do MINH, Huu Tran VAN

The Collision Between Indochina and South China Blocks in Northwestern Vietnam and its Controversy 103
Khuong The HUNG, Jan GOLONKA, Nguyen Khac DU

Challenges to the Development of Unconventional Natural Gas – The Case of Shale Gas 113
LE Minh Thong, TRAN Van Hiep, DO Huu Tung

The Impact of Digital Leadership on Organizational Performance: A Study in Vietnam's coal Mining Companies 121
Le VAN CHIEN, Nguyen DUC THANG, Pham KIEN TRUNG, Nguyen THI HOAI NGA

Developing Electronic Government Towards Digital Government to Enhance the Efficiency of State Governance in Vietnam 131
Chu Thi Khanh LY, Nguyen Quynh NGA, Nguyen Van HAU, Tran Thi Huong HUE

Gas Hydrate Detection Based on High Resolution Seismic Data in the Southeastern Offshore of Vietnam 137
Mai Thanh TAN, Mai Thanh HA, Nguyen Quoc HUY, Nguyen Nhu TRUNG

Optimizing the Width and Compressive Strength of Artificial Protective Pillar in the Mining of Medium-Thick Coal Seams in Quang Ninh Using the Numerical Model 143
BUI Manh Tung, DINH Van Cuong

Facies Analysis and Depositional Environmental Interpretation of The Upper Oligocene, Block 09-2/10, Cuu Long Basin 155
Muoi Duy NGUYEN, Anh Ngoc LE, Hoa Minh NGUYEN, Ngan Thi BUI

Identifying the Potential Application of Unmanned Aerial Vehicle Technology in Mine Waste Dumps 163
Ba Dung NGUYEN

Establishing the Vertical Movement Map of Cuu Long Delta River by GNSS Data 173
NGUYEN Gia Trong, NGUYEN Viet Nghia, LY Lam Ha, VU Trung Dung, NGUYEN Quoc Long, KIM Thi Thu Huong, PHAM Ngoc Quang, NGUYEN Viet Quan

Developing Criteria for Assessing The Stability of Water Supply Models in High Mountains and Water-Scare Areas 179
NGUYEN Manh Truong, DINH Anh Tuan, NGUYEN Tiep Tan, U Thi Hong Nghia, DO Van Binh

Sustainable Industrial Development in Vietnam 187
NGUYEN Ngoc Son

Building a Digital Society to Enhance the Efficiency of National Governance in Vietnam 195
NGUYEN Quynh Nga, CHU Thi Khanh Ly, NGUYEN Van Hau

Theory Y in Modern Management: Advantages, Disadvantages, and the Relationship with Theory X 203
NGUYEN Thanh Ha, NGUYEN Thi Thanh Huyen, NGUYEN Thi Lan Huong

Enhancing Workplace Safety: A Comprehensive Action Plan for Duong Huy Coal Company (2021–2025) 205
Nguyen THI HOAI NGA, Nguyen DUC THANG, Le DINH CHIEU, Le VAN CHIEN, Pham KIEN TRUNG

Research on Electric Leakage Protection to Improve Electrical Safety in Underground Mining in Vietnam 209
NGUYEN Truong Giang, NGUYEN Thac Khanh, NGO Xuan Cuong, DO Nhu Y

Investigation of Marine Sediments with a Sub-bottom Profilers System in West Coast of Camau, Vietnam 215
DUNG NGUYEN Quang, GIANG NGUYEN Van, THANH LE Ngoc

Integration of Mobile and Meb GIS Technologies to Promote Smart and Sustainable Tourism in Vietnam 225
Mai Dung NGUYEN, Xuan Ban TO, Hong Anh LE

Study on Technological Solutions to Increase the Recovery and Quality of the Copper Concentrate at Ta Phoi Beneficiation Plant in Vietnam 231
NHU Thi Kim Dung, PHAM Thi Nhung, VU Thi Chinh, LE Viet Ha

Promoting Gender Equality and Awareness in the Vietnamese Mining Sector: Perceptions, Challenges, and Policy Recommendations 235
Pham MINH HANG, Pham THI LUONG, Nguyen THI HOAI NGA, Pham KIEN TRUNG

Dimension-Stone Quarrying Optimization through Integrated Modelling between Joint Sets and Cutting Grid: a Case Study at Tan Long Dimension Stone Quarry in Southcentral Coastal Province of Binh... 239
PHAM Van Viet, NGUYEN Anh Tuan, PHAM Van Hoa, TRAN Dinh Bao

Fuzzy Multi-Attribute Decision Model for the Optimal Mine Closure Option to Contribute to Sustainable Development in Binh Duong Province, Vietnam 249
PHAN Hong Viet, DO Ngoc Tuoc, BUI Xuan Nam

Research of Building the Reasonable Mixing Ratio between Waste Rock and Fly Ash as Backfill Material in Mongduong-Cocsau Area, Quang Ninh, Vietnam 257
Phi Hung NGUYEN, CaoKhai NGUYEN, Thi Kim Thanh NGUYEN

Selecting Parameters to Design Auxiliary Ventilation in Underground Mine 267
Phuong Thao DANG

Fracture Mechanism of Hard Main Roof and Determining the Width of Coal Pillars when Extracting Flat-lying Coal Seams 271
Quang Phuc LE, Van Chi DAO, Phi Hung NGUYEN, Thai-Tien Dung VU

Understanding Saltwater Origins and Mechanisms in the Coastal Aquifers of Da Nang Area (Central Vietnam) 281
Thao Bach NGUYEN, Nhan Dang DUC, Bang Duc DAO

Emission Reduction in Oil & Gas Subsurface Characterization Workflow with AI/ML Enabler 289
Thuy Nguyen Thi THANH, Samie LEE, The NGUYEN, Le Quang DUYEN

Effectiveness of a Mobile Application-Based Intervention to Improve Knowledge and Practice Regarding Silicosis Among High-Risk Workers of Dust Exposure in a Northern Province of Vietnam 295
Nguyen Thi THU HUYEN, Ta Thi KIM NHUNG, Pham Thi QUAN, Nguyen THANH THAO, Nguyen NGOC ANH, Nguyen Thi LIEN HUONG, Le Thi HUONG, Luong MAI ANH, Le Thi THANH XUAN

3D LoD3 Modeling of High Building Using Terrestrial Laser Scanning and Unmanned Aerial Vehicle: A Case Study in Halong City, Vietnam 303
Le Thi THU HA, Nguyen QUOC LONG

Geological and Geochemical Characteristics of the Pac Lang Gold Deposits, Northeastern Vietnam and Their Potential Prospects 311
KHUONG The Hung, NGUYEN Van Dat, NGUYEN Thi Cuc, PHAM Nhu Sang

Geological Hazard Investigation Combined with Mathematical Modeling in Flood Risk Assessment: A Case Study of Hoang Long River, Ninh Binh Province, Vietnam 319
Nhu Y NGUYEN, To Xuan BAN, Dang Dinh KHA

Radon-Radium Thermal Mineral Water in Vo Am Ecotourism Project Area, Ngoc Luong Commune, Yen Thuy District, Hoa Binh Province, Vietnam 327
BAN To Xuan, DUNG Le Tien, DUC Tran Van, TRONG Nguyen Huu, TUAN Truong Duc

Prediction of Road Subsidence Caused by Underground Mining Activities by Artificial Neural Networks 335
Hung Viet NGUYEN, Duyen Quang LE, Long Quoc NGUYEN, Tomasz LIPECKI

Assessment of Air Quality Index in Annaba 341
Salem BADJOUDJ, Aissa BENSELHOUB, Souad NARSIS, Nadiia DOVBASH, Abdelaziz IDRES, Khadouja Marame BENGHADAB, Fares BOUTARFA, Mohamed BOUNOUALA, Stefano BELLUCCI

Mineralogical and Chemical Characteristics of Phosphates from the Djebel Onk Deposits (Tebessa, Algeria) 351
Tourkia TAHRI, Souad NARSIS, Nacer BEZZI, Abdellali BOUZENZANA, Omar SEKIOU, Tabet TRIRAT, Theziri AMRANE, Aissa BENSELHOUB

Optimizing Dry Ultrafine Grinding of Talc in Attritor Mill 361
S.E. EL-MOFTY, A.M. ELBENDARI, A.A. EL-MIDANY, M.K. ABDEL-RAHMAN

Embankments Stability of an Opencast Mine with the Proposal of a New Mining Method For its Reopening (Kef Essennoun, Algeria) 367
M.C. MEZAM, M.A. BACHAR ASSED, M. OULD HAMOU, S. NARSIS, A. BENSELHOUB

Statistical Analysis of Selected Coal Charateristics and Toxic Compounds for FGX Air-Vibrating Separation 377
Waldemar MIJAŁ, Tomasz NIEDOBA, Daria POLEK, Ireneusz BAIC, Wiesław BLASCHKE