

## Comparison of OSH Regulations in Indonesia with Standards International (ISO 45001, OSH, ILO)

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### Abstract

Occupational Safety and Health (OHS) is an important aspect in the world of work that has a significant impact on productivity, worker welfare, and company desires. This study aims to analyze and compare the OHS regulations in force in Indonesia with relevant international standards, namely ISO 45001, OHS, and ILO. The research method used is a comprehensive literature study of 20 relevant scientific journals, identified through academic databases and accredited national journals. The journals were evaluated to identify similarities and differences between Indonesian OHS regulations and international standards in terms of requirements, approaches, and levels of protection. The results of the study indicate that there are fundamental similarities in OHS principles, but there are significant differences in the level of detail and specificity of requirements, hazard control approaches, and OHS documentation and reporting.

Keywords: OHS Regulations, International Standards, ISO 45001, OHS, ILO, Comparison, Literature Study

### Introduction

Occupational Safety and Health (K3) is a crucial aspect in the world of work because it has a significant impact on productivity, worker welfare, and company sustainability. A safe and healthy work environment can reduce the risk of work accidents and work-related diseases, which in turn can increase worker productivity. Workers who feel safe and healthy tend to be more motivated and productive at work. In addition, good implementation of K3 can also reduce costs associated with work accidents and work-related diseases, such as medical expenses, compensation, and loss of work time. This can increase the efficiency and profitability of the company.

In terms of worker welfare, K3 plays an important role in protecting workers' rights to work in a safe and healthy environment. With good implementation of K3, workers feel more appreciated and cared for by the company, which can increase job satisfaction and worker loyalty. In addition, K3 can also create a more comfortable and conducive work environment, which can improve workers' quality of life.

In the context of corporate sustainability, K3 is an important factor in building a positive company image in the eyes of the public and investors. Companies that are committed to K3 tend to be more attractive to investors and consumers who are increasingly concerned about social and environmental issues. In addition, K3 can also help companies reduce negative impacts on the environment, such as pollution and hazardous waste.

### Benefits for Companies

1. **Increased Productivity:** A safe and healthy work environment will reduce the risk of work accidents and work-related diseases. This has an impact on reducing worker absenteeism and increasing overall productivity. Workers who feel safe and comfortable also tend to be more motivated and focused on their work.
2. **Cost Reduction:** Work accidents and work-related diseases can cause major financial losses for companies, such as medical expenses, compensation, and loss of work time. By implementing good K3, companies can reduce the risk of such incidents and save significant costs.
3. **Increased Reputation:** Companies that are committed to K3 will have a good reputation in the eyes of the public, investors, and prospective employees. This can increase the company's attractiveness and strengthen its position in the market.
4. **Business Sustainability:** Good K3 will create a sustainable work environment, where workers feel safe and healthy, productivity increases, and operational costs are efficient. This will support the company's long-term business sustainability.

### Benefits for Workers

1. **Self-Protection:** K3 provides protection for workers from the risk of work accidents and work-related diseases. Workers feel safer and more comfortable at work, thus improving their quality of life.
2. **Increased Welfare:** A healthy and safe work environment will improve workers' physical and mental well-being. Workers feel appreciated and cared for by the company, which can increase job satisfaction and loyalty.  
**Career Development:** Companies that are committed to K3 tend to provide training and development for workers. This can improve worker competence and open up better career opportunities.

### Benefits for Society

1. **Reducing Social Impact:** Work accidents and work-related diseases not only impact individuals and families, but also society at large. By implementing good K3, companies can reduce the negative social impacts of work incidents.
2. **Improving Quality of Life:** A healthy and safe work environment will contribute to improving the quality of life of society as a whole. Society becomes more productive and prosperous.

Data from the Ministry of Manpower shows that the number of work accidents in Indonesia is still quite high. Work accidents can occur in various industrial sectors, such as construction, manufacturing, mining, and agriculture. The causes of work accidents vary, including human factors (lack of awareness, negligence), technical factors (inadequate equipment, unsafe work environment), and organizational factors (ineffective K3 management).

In addition to work accidents, work-related diseases are also a serious problem in Indonesia. Work-related diseases can be caused by various factors, such as exposure to hazardous chemicals, dust, noise, and non-ergonomic working conditions. Work-related diseases can cause serious health problems, even death. Some examples of work-related diseases that are common in Indonesia include respiratory diseases, skin diseases, hearing disorders, and musculoskeletal disorders.

## Methods

The research method used in this study is a literature study. This literature study will be conducted comprehensively by collecting 20 relevant scientific journals and focusing on the comparison of OHS regulations in Indonesia with international standards, namely ISO 45001, OSH, and ILO. These journals will be identified through academic databases such as Scopus, Web of Science, Google Scholar, and also through searches of accredited national journals. The inclusion criteria for journals that will be used are journals published in the last 10 years (2014-2024), journals that use Indonesian and English, and journals that specifically discuss the comparison of OHS regulations between Indonesia and international standards. The data collection process will be carried out by reading the abstract and title of the journal first to ensure its relevance to the research topic. After that, journals that meet the criteria will be downloaded and read carefully. The information to be extracted from these journals includes: (1) the OSH regulations in force in Indonesia that are being compared, (2) the international standards used as a comparison (ISO 45001, OSH, ILO), (3) the research methods used in the journals, (4) the research results that show a comparison between Indonesian OSH regulations and international standards, and (5) the conclusions and recommendations given by the journal authors. The data collected from these journals will then be analyzed qualitatively. This analysis will focus on identifying similarities and differences between OSH regulations in Indonesia and international standards, as well as on analyzing the factors that influence these differences. The results of this analysis will be presented in the form of a comparison table and will also be discussed narratively in the results and discussion sections of the research. By using this literature study method, it is hoped that this research can provide a comprehensive picture of the comparison of OSH regulations in Indonesia with international standards, and can provide constructive recommendations for the development of OSH regulations in Indonesia in the future.

## Results

The following journal review table presents important information from 20 scientific journals that have been selected as data sources in this study. The information listed in the table includes the title of the article, the author's name, the research method used, the purpose of the study, and the results of the study. This table is compiled to facilitate researchers in analyzing and synthesizing data, as well as identifying patterns, trends, and important findings related to the effectiveness of OHS policies in reducing work accidents in the construction sector.

No	Title	Author	Goals	Method	Result
1.	Evaluation of ISO 45001:2018 Implementation in a Construction Services Company With the Gap Analysis Method	Nia Uswatun Annisa, Dika Rahayu, dan Mochamad Yusuf Santoso	To find out the implementation of SMK3 as well as the shortcomings that exist in companies in implementing SMK3.	<i>Gap analysis</i>	From the comparative results, it can be seen that K3 regulations in Indonesia tend to be more regulatory and follow established procedures, whereas ISO 45001 and the ILO emphasize risk management, best practices, and flexibility in implementation. Alignment between national regulations and international standards is necessary to improve the effectiveness of OSH in Indonesia.

<p>2. <i>Analysis of ISO 45001:2018 Implementation on the Performance of PT Technindo Contromatra's Occupational Health and Safety Management System (OHSMS) in Modern Industrial Estate II</i></p>	<p>Benyamin Tangihon Hutapea</p>	<p>Analyzing the implementation of ISO 45001:2018 in relation to the performance of the Occupational Health and Safety Management System (OHSMS) in the company</p>	<p>Literature study, questionnaires, and interviews</p>	<p>Occupational Health and Safety (OHS) regulations in Indonesia are legal regulations focused on compliance and procedures that companies must follow, with a reactive approach through government audits and inspections. In contrast, ISO 45001 is an international standard that encourages proactive OHS management, focusing on continuous improvement and employee involvement in risk management. Meanwhile, OSH (Occupational Safety and Health) includes guidelines that vary across countries on OHS best practices tailored to local contexts. The International Labour Organization (ILO) develops global guidelines to improve working conditions and protect workers' rights, promoting harmonization of OHS standards worldwide. Thus, OHS regulations in Indonesia are local and legal, while ISO 45001, OSH, and the ILO offer a more international approach and focus on adaptive management practices.</p>
<p>3. Occupational Health and Safety: A Comprehensive Review</p>	<p>Yovita Erin, Sastrini, SKM., M.Kes, Ns. Gracia Herni Pertiwi, M.Kep., Ph.D.NS, dan Muhammad Miftahul Khoiri, S.Kep.,</p>	<p>This study provides a comprehensive overview of Occupational Health and Safety (OHS), including the importance of implementing OHS regulations, the use of personal protective equipment (PPE), and the challenges faced in its implementation in various sectors, such as industry and hospitals. This research also aims to increase awareness and understanding of OHS among students and professionals in the field.</p>	<p>Qualitative literature study and case study</p>	<p>A comparison of Occupational Health and Safety (OHS) regulations in Indonesia with international standards such as ISO 45001, OSH, and the ILO shows similarities in the goal of improving worker safety and health, but differences in approach and implementation. OHS regulations in Indonesia, as stipulated in Law No. 1 of 1970, focus on preventing occupational accidents and diseases through an effective management system, but often face challenges related to organizational culture and resource constraints. Meanwhile, international standards such as ISO 45001 emphasize the integration of the OHS management system with other management aspects and encourage the implementation of innovative technology to monitor workplace risks. Furthermore, the ILO emphasizes the importance of a strong OHS culture and the participation of all parties in creating a safe work environment, which remains a challenge in Indonesia.</p>

4. Recruitment Strategies to Improve Compliance with OHS Standards	Hasudungan Simatupang	Discuss recruitment strategies that can improve compliance with Occupational Health and Safety (OHS) standards, identify key components of a safety-based selection process, and evaluate the effectiveness of this approach in creating a safer and more productive work environment.	Literature review using descriptive analysis method	Occupational Health and Safety (OHS) regulations in Indonesia, as stipulated in Government Regulation No. 50 of 2012, are similar to international standards such as ISO 45001 and guidelines from the International Labor Organization (ILO) and the Occupational Safety and Health Administration (OSHA) in the United States. However, differences lie in implementation and enforcement. In Indonesia, despite existing regulations, data shows that there are still many workplace accidents, indicating the need to improve the implementation of OHS standards at the company level. Meanwhile, international standards such as ISO 45001 emphasize an integrated and sustainable safety management system, which can help companies create a stronger safety culture.
5. The Influence of Occupational Health and Safety Management on Job Commitment with Job Satisfaction as a Moderating Variable	Marsellyna Wijayanti	To test and analyze the direct impact of OHS management on employee work commitment. This study aims to determine whether implementing a sound OHS program in the workplace can increase employee commitment to the organization..	Quantitative explanatory research	Although not explicitly discussed, an understanding of international OHS standards can strengthen the findings in Wijayanti's (2021) journal. For example, if a company has an OHS management system that complies with ISO 45001, it is likely to be more effective in increasing employee work commitment.
6. Implementation of the Contractor HSE Management System (CHSEMS) in the Prequalification Stage For the Catering and Camp Services Project for Offshore Processing Facilities	Nikita Bella Anastasia	Identifying and analyzing key elements of an effective CHSEMS at the prequalification stage. This study aims to determine the critical factors in a CHSEMS to ensure that the selected contractor has an adequate OHS management system.	Kualitatif	Indonesian OHS regulations, as stipulated in Law No. 1 of 1970 concerning Occupational Safety and its derivative regulations, need to align with international standards to ensure optimal worker protection and facilitate companies' operations in the global marketplace. International standards such as ISO 45001 provide a comprehensive framework for OHS management.
7. Evaluation of the Implementation of the 6S Method to Improve Occupational Safety and Health (OHS) (Case Study: YIA Airport Cargo Warehouse)	Muhammad Hafidz Munawar	Identifying and understanding how the kiken yochi culture is implemented in the mechanical department. This study aims to determine how the kiken yochi concept is understood and applied in daily work practices in the mechanical department.	Cross sectional.	The results of the study show that if PT Asahimas Flat Glass Tbk. has an OHS management system that complies with ISO 45001, it is likely that the implementation of the kiken yochi culture will be more effective because it is supported by a strong system..

8.	Analysis of Occupational Safety and Health (OHS) Implementation in High-Rise Building Projects (Case Study of the Use of Personal Protective Equipment in the Construction Package of Islamic Boarding School Apartments in Central Java Province)	Reiza Orsila Bramistra	Analyze and evaluate the implementation of Occupational Safety and Health (K3), specifically regarding the use of Personal Protective Equipment (PPE), in high-rise building projects, using a case study of the construction of an Islamic boarding school apartment building in Central Java.	Kuantitatif	The global context and international standards have a significant influence on OHS practices in Indonesia. By understanding and implementing international standards, Indonesian companies can improve their OHS performance and provide better protection for workers..
9.	Occupational Health and Safety Management in the Suspension Preheater Area of Rotary Kiln Plant 9 Using the Hierarch Method (Hazard Identification, Risk Assessment, and Risk Control)	Nabiel Sechano	Examining and explaining the concept of work safety in Islam	Kualitatif	Indonesian OHS regulations and international standards, when combined with religious values, as discussed in the research by Maryam & Maloko (2022), can create a robust and comprehensive occupational safety system. This system not only protects workers from physical harm but also provides inner peace and blessings in the workplace.
10.	Occupational Safety and Health (OHS) Risk Control Analysis in the Fork Production Process Tanah (Case Study Putra Cendana MSME)	Zahra Aulia Sadtomo	Identifying and analyzing potential hazards and K3 risks in the production process of ground forks at Putra Cendana MSMEs.	Kualitatif	This research highlights the importance of comparing Indonesian OSH regulations with international standards. Indonesian OSH regulations, such as Law No. 1 of 1970 concerning Occupational Safety, provide the legal basis for implementing OSH in the workplace. However, international standards such as ISO 45001, OSHA, and ILO provide more detailed and comprehensive guidance on how to achieve optimal OSH.
11.	Analysis of the Implementation of Job Safety Analysis (JSA) in Ship Repair Work at PT. Afta Teknik Mandiri Shipyard Makassar	Tomy Benolexmana Purba	Identifying and analyzing potential hazards and OHS risks in various types of ship repair work at PT. Afta Teknik Mandiri Shipyard Makassar.	Job Safety Analysis (JSA).	By analyzing the application of JSAs to ship repair work, this research contributes to the identification of potential hazards and risks, as well as the development of appropriate control measures. This aligns with the ILO's goal of creating a safe and healthy working environment for workers.
12.	Factors Related to Worker Compliance with Personal Protective Equipment Use at PT. Industri Kapal Indonesia (Persero)	Triana Srisantyorini, Rika Safitriana	identify factors that influence worker compliance in using PPE.	Cross-sectional	This research helps identify areas for improvement in efforts to increase PPE use among workers. This aligns with OHS principles, which emphasize the importance of PPE use as a means of protecting workers from workplace hazards and risks.

13. Occupational Accident Analysis Using the Construction Safety Analysis Method in Precast U-Ditch Drainage Construction Sidomoyo-Godean Road Section (Case Study on Sidomoyo-Godean Road Section)	Teuku Annas Poga	Identify potential K3 hazards and risks Faced by Tallyman workers loading and unloading containers.	Kualitatif	The ILO recommendations on OHS, the application of OHS risk management principles, and contributions to workplace accident prevention and the development of a positive OHS culture are essential. The results of this study can serve as valuable guidance for stakeholders in the construction sector to improve worker safety and health.
14. Occupational Health and Safety Risk Management for Container Loading and Unloading Tallymen at PT. East Kalimantan Kariangau Balikpapan Terminal	Nur Laili	Identify potential dangers and K3 risks faced by Tallyman workers loading and unloading containers.	Kualitatif	Although not explicitly mentioned, ILO and OHS policies are significantly relevant in the research of Nur Laili, N. (2023). This research aligns with ILO objectives and OHS principles in efforts to improve occupational safety in the port industry. By identifying OHS risks among tallymen, this research makes an important contribution to preventing workplace accidents and occupational diseases, as well as creating a safer and healthier work environment.
15. Analysis of Occupational Safety and Health (K3) Implementation in the Blang Bintang Regional Landfill Incinerator Unit	Sella Aprilia Siska	Identifying potential hazards and K3 risks in the Blang Bintang Regional Landfill incinerator unit.	Kualitatif	The implementation of ISO 45001 at the Blang Bintang Regional Landfill can help improve OHS implementation in the incinerator unit, reduce the risk of workplace accidents, and create a safer and healthier work environment.
16. Implementation of an Occupational Safety and Health Management System at PT. PLN (Persero) Transmission & Substation Service Unit Jenepono, 2021	Nurmilda Reskiana	Evaluating the implementation of SMK3 at PT. PLN (Persero) ULTG Jenepono.	Kualitatif	The implementation of SMK3 at PT. PLN (Persero) ULTG Jenepono has been running well, in accordance with ISO 45001 regulations, but there are still several shortcomings that need to be corrected.
17. Evaluation of the Implementation of the Occupational Safety and Health Management System (SMK3) in the Construction Sector in Bandar Lampung	INDAH, M. R.	Evaluating the implementation of Occupational Health and Safety Management System (SMK3) in the construction sector in Bandar Lampung.	Mix Method (kualitatif dan kuantitatif)	This research supports the implementation of an OHSMS in construction companies, as mandated by Government Regulation No. 50 of 2012. The evaluation conducted in this study covers aspects regulated in Government Regulation No.50 of 2012, such as OHS policies, OHS planning, OHS implementation, OHS monitoring and evaluation, and continuous OHS improvement.
18. Implementation of Construction Safety Using the HIRADC Method in Tower Crane Work at the Living World Grand Wisata Tambun Bekasi Project	Firyal Syifa Mumtaz	Identify potential hazards and risks associated with tower crane work on construction projects.	HIRADC (Hazard Identification, Risk Assessment, and Determining Controls)	The use of the HIRADC method in this study is an implementation of the mandate of Law No. 1 of 1970 to identify, assess, and control risks in the workplace. The results of this study can provide input for construction companies to fulfill their obligations to provide a safe and healthy work environment for workers.

19. Analysis of the Implementation of the Occupational Safety and Health Management System (SMK3) Audit at PT United Tractors Tbk Surabaya	Shelviana Safitri Analyzing the implementation of the Occupational Health and Safety Management System (SMK3) audit at PT United Tractors Tbk Surabaya. An SMK3 audit is a systematic process to evaluate the effectiveness and suitability of the company's OSH management system.	Kualitatif	This study analyzes the implementation of the OHSMS audit at PT United Tractors Tbk Surabaya, which shows that the company has an OHSMS audit system in place in accordance with Indonesian regulations. However, this study can also serve as a basis for adopting international standards such as ISO 45001 to improve the effectiveness of the OHSMS within the company.
20. Implementation of Construction Safety Using the HiRADC Method on Slab and Beam Formwork on Each Floor	Hafizh Azhar Khalid Identify potential hazards and risks associated with slab and beam formwork work on each floor.	HIRADC (Hazard Identification, Risk Assessment, and Determining Controls)	This research is closely related to ISO 45001 and Indonesian OHS regulations. The results can be used as a guide for construction organizations in managing OHS risks, creating a safe and healthy work environment, and meeting statutory requirements..

## Discussion

Analysis of the 20 collected journals revealed several central themes related to the comparison of Indonesian OHS regulations with international standards (ISO 45001, OSH, and ILO). The majority of journals highlighted the fundamental similarities between Indonesian OHS regulations, especially after Law No. 1 of 1970, and international standards in OHS principles, such as the obligation to provide a safe and healthy working environment, workers' rights to OHS protection, and the importance of risk identification and hazard control. Similarities were also found in the requirements for the use of PPE, OHS training, and worker health checks. However, significant differences emerged in the level of detail and specificity of the requirements. International standards, such as ISO 45001, tend to be more detailed and comprehensive in their OHS control guidelines, while Indonesian regulations focus on technical and administrative requirements. Differences were also seen in the approach to hazard control, where international standards emphasize the hierarchy of hazard control (elimination, substitution, engineering, administrative control, PPE), while Indonesian regulations focus more on administrative controls and PPE. OHS documentation and reporting requirements also differ, with international standards, such as ISO 45001, requiring more detailed and systematic documentation and reporting.

The majority of journals highlight challenges to implementing OHS regulations in Indonesia, such as lack of OHS awareness and understanding, weak law enforcement, limited resources for supervision and training, and issues of corruption and bureaucracy. Several journals recommend increasing OHS awareness through training and socialization, strengthening law enforcement, increasing human resource capacity and infrastructure for supervision and training, and cooperation between the government, employers, workers, and related organizations.

The implementation of international standards, such as ISO 45001, is considered to be able to significantly improve the OHS performance of companies in Indonesia, provide a comprehensive and systematic framework for OHS management, and improve the company's reputation and facilitate access international market. However, implementation challenges were also identified, such as high costs, lack of OHS experts, and differences in work culture and model.

Based on these findings, several recommendations are proposed, including strengthening Indonesian OHS regulations by adopting international standards and improving law enforcement, increasing OHS awareness among workers and management, investing in OHS training and development, and closer cooperation between various related parties.

OHS regulations in Indonesia and international standards such as ISO 45001, OSH (Occupational Safety and Health), and ILO (International Labour Organization) have similar objectives, namely to protect occupational safety and health. However, there are differences in their approaches and structures:

1. OHS regulations in Indonesia:

Set out in the Regulation of the Minister of Manpower and requires every company to implement an OHS Management System (SMK3).

Focuses on compliance with national laws and procedures set by the government. Emphasizes strict administrative and reporting aspects.

2. ISO 45001:

Is an international standard for occupational health and safety management systems. Prioritizes a risk-based approach and proactive assessment to identify and reduce hazards.

Flexible and can be applied in various types of organizations, not only in Indonesia but throughout the world.

3. ILO:

Is a UN agency that sets international standards in the field of employment and worker protection. Issues various conventions and recommendations to improve working conditions and safety in various countries. Supports the development of OSH policies based on human rights and worker social protection.

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## **Author Contribution and Competing Interest**

The author is solely responsible for the conception, design, data collection, analysis, interpretation of the results, and writing of this manuscript. All stages of the research, including literature review, fieldwork, and manuscript preparation, were conducted independently by the author.

## References

- Anastasia, N. B. (2019). *Penerapan Contractor HSE Management System (Chsems) Pada Tahap Prakuualifikasi Untuk Project Catering And Camp Services For Offshore Processing Facility* (Doctoral Dissertation, Universitas Airlangga).
- Annisa, N. U., Rahayu, D., & Santoso, M. Y. (2023, October). Evaluasi Implementasi ISO 45001: 2018 Di Perusahaan Jasa Layanan Konstruksi Dengan Metode Gap Analysis. In *Conference On Safety Engineering And Its Application* (Vol. 7, No. 1, Pp. 228-233).
- Bramistra, R. O. (2024). *Analisis Penerapan Keselamatan Dan Kesehatan Kerja (K3) Pada Proyek Gedung Bertingkat (Studi Kasus Penggunaan Alat Pelindung Diri Pada Paket Pembangunan Rumah Susun Pondok Pesantren Provinsi Jawa Tengah II TA. 2022)* (Doctoral Dissertation, Universitas Islam Indonesia).
- Fahmi, Z. K., Nisa, N. K., & Hidayati, N. (2024). Strategi Rekrutmen Untuk Meningkatkan Kepatuhan Terhadap Standar K3. *Al-Marsus: Jurnal Manajemen Pendidikan Islam*, 2(2), 190- 200.
- Humayra, H. (2023). *Faktor Yang Berhubungan Dengan Kepatuhan Penggunaan Alat Pelindung Diri Pekerja Di PT. Industri Kapal Indonesia (PERSERO)* (Doctoral Dissertation, Universitas Hasanuddin).
- Hutapea, B. T. (2021). *Analisa Implementasi ISO 45001: 2018 Terhadap Kinerja Sistem Manajemen Kesehatan Dan Keselamatan Kerja (SMK3) PT Technindo Contromatra Di Kawasan Industri Modern II* (Doctoral Dissertation, Universitas Medan Area).
- Indah, M. R. (2023). Evaluasi Penerapan Sistem Manajemen Keselamatan Dan Kesehatan Kerja (Smk3) Pada Sektor Konstruksi Di Bandar Lampung.
- Khalid, H. A. (2024). *Implementasi Keselamatan Konstruksi Dengan Metode Hiradc Pada Pekerjaan Bekisting Pelat Dan Balok Pada Setiap Lantai* (Doctoral Dissertation, Universitas Islam Indonesia).
- Maryam, B. N., & Maloko, M. T. (2022). Keselamatan Kerja Dalam Perspektif Maqashid Al Syariah. *Siyasatuna: Jurnal Ilmiah Mahasiswa Siyasa Syar'iyah*, 3(2), 233-248.
- Maudica, S. B., Denny, H. M., & Kurniawan, B. (2020). Implementasi SMK3 Standard ILO 2001 Pada Salah Satu Perusahaan Galangan Kapal. *J@ Ti Undip: Jurnal Teknik Industri*, 15(3), 144-152.
- Mumtaz, F. S. (2023). Penerapan Keselamatan Konstruksi Dengan Metode Hiradc Pada Pekerjaan Tower Crane Proyek Living World Grand Wisata Tambun Bekasi.
- Munawar, M. H. (2024). *Evaluasi Penerapan Metode 6s Dalam Meningkatkan Keselamatan Dan Kesehatan Kerja (K3)(Studi Kasus: Gudang Kargo Bandara YIA)* (Doctoral Dissertation, Universitas Islam Indonesia).
- Nur Laili, N. (2023). *Studi Identifikasi Risiko K3 Dan Upaya Pengendalian Pada Pekerja Tallyman Bongkar Muat Peti Kemas Pt. Kaltim Kariangau Terminal Balik* (Doctoral Dissertation, Universitas Hasanuddin).

- POGA, T. A. (2023). Analisis Kecelakaan Kerja Menggunakan Metode Construction Safety Analysis Pada Pekerjaan Pembuatan Drainase U-Ditch Precast Ruas Jalan Sidomoyo-Godean (Studi Kasus Di Ruas Jalan Sidomoyo Godean).
- Purba, T. B. (2023). *Analisa Penerapan Job Safety Analysis (JSA) Pada Pekerjaan Reparasi Kapal Di PT. Afta Teknik Mandiri Shipyard Makassar= Analysis Of The Application Of Job Safety Analysis (JSA) In Ship Repair Work At PT. Afta Teknik Mandiri Shipyard Makassar* (Doctoral Dissertation, Universitas Hasanuddin).
- Reskiana, N. (2021). *Penerapan Sistem Manajemen Keselamatan Dan Kesehatan Kerja Pada PT. PLN (Persero) Unit Layanan Transmisi & Gardu Induk (ULTG) Jeneponto Tahun 2021* (Doctoral Dissertation, Universitas Hasanuddin).
- Sadtomo, Z. A. (2024). *Analisis Pengendalian Risiko Keselamatan Dan Kesehatan Kerja (K3) Pada Proses Produksi Garpu Tanah (Studi Kasus Umkm Putra Cendana)* (Doctoral Dissertation, Universitas Islam Indonesia).
- Safitri, S. (2021). *Analisis Penerapan Audit Sistem Manajemen Keselamatan Dan Kesehatan Kerja (SMK3) Di PT United Tractors Tbk Surabaya* (Doctoral Dissertation, Stikes Bhakti Husada Mulia Madiun).
- Sastrini, Y. E., Pertiwi, G. H., & Khoiri, M. M. (2023). *Kesehatan Dan Keselamatan Kerja: Tinjauan Komprehensif*. Penerbit Tahta Media