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**REVIEW**

on the thesis of the master’s student: Nussipova Fariza Erikovna

Kazakh-British Technical University

Major: 7M06106 Software Engineering

**“SENTIMENT ANALYSIS OF SOCIAL MEDIA MESSAGES ON DISASTER RESPONSE”**

The thesis focuses on enhancing disaster management strategies through the integration of sentiment analysis of social media and Smart Grid data. This work demonstrates advanced knowledge and skills in data science, natural language processing, and disaster management, showcasing a high level of interdisciplinary training in software engineering.

The thesis consists of an introduction, four chapters, a conclusion, as well as an abstract, and a list of sources. The introduction establishes the relevance of the topic and the objectives of the research, emphasizing the innovative approach of combining sentiment analysis with smart grid data to improve disaster response capabilities. The first chapter provides a theoretical justification, reviewing existing literature on sentiment analysis, smart grid technologies, and their application in disaster management. The second chapter details the methodology, including data collection from social media and smart grids, preprocessing techniques, and the use of machine learning models for predictive analysis. The third chapter examines the implementation of these methodologies in practical scenarios, illustrating how data integration can enhance real-time responses to disasters. The fourth chapter evaluates the effectiveness of the implemented strategies through case studies and feedback from real-world applications, demonstrating the practical impacts and improvements in disaster management. Throughout the thesis, F. Nussipova demonstrates an excellent application of various data science methodologies and advanced analytical techniques, indicative of her deep understanding and capability in handling complex datasets to improve societal safety and disaster responsiveness. The practical implementations from her research, particularly the integration of diverse data sources, stand out for their innovation and direct applicability to enhancing disaster management practices.

In conclusion, F. Nussipova has exhibited a high level of expertise in both the theoretical and practical applications of data science tools within the field of disaster management. Her work not only meets all academic requirements but also adds significant value to the field, making it highly relevant for current and future disaster management strategies. The thesis can be recommended to final defence and is eligible to be rated for a grade “excellent”.

Research advisor \_\_\_\_\_\_\_\_\_\_\_ A.Zh.Kartbayev

PhD, SITE, KBTU, Associate Professor

**“\_\_\_” \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2024**