From the Editor

In this current issue, five papers are published focusing on mining technology, mineral processing, techno-economics and environmental issues.

In mining engineering, analysis of rock slope stability is an important study and a mandatory to be carried out, especially in geotechnical projects. The main objectives of the stability analysis are the determination of rock slope stability conditions, study of potential failure mechanisms, determination of the factors that affect the slope stability, and performing the optimum and safe slope designs. In this issue, the studies talk about assessment and analysis of rock stability through the method and results of the Q-Slope. Beside that, the studies also comparing the results with the limit equilibrium method to have data for appropriate comparison and engineering analysis.

In mineral processing part, two studies are presented related to manganese extraction and lithium extraction. Manganese can be used as catalysts, sensors, supercapacitors, photocatalyst materials and image improvement of MRI. Generally, manganese can be extracted from manganese ore using hydrometallurgy or pyrometalllurgy techniques. In this issue, we will learn about manganese extraction from East Nusa Tenggara by leaching process, one of the hydrometallurgy method. This study also includes optimization aspect using H_2O_2 as a reducing agent.

Currently, lithium is one of the most favorable minerals in the world. The demand of lithium is rapidly increasing due to its use as battery component to support electric vehicles industry. Lithium can be extracted from pegmatite rocks, continental brines, and sedimentary deposits. In this issue, the study discusses about litihium extraction from geothermal brines. This is an interesting study due to Indonesia is blessed with geothermal resources in many areas. The steps and parameters that influence the extraction process is also described in this study.

Study of supply-demand of Indonesia Buton asphalt is discussed in techno-economics part of this issue. This study aims to answer the problem of asphlt demand in Indonesia, which is still fulfilled by import domination. Buton asphalt (Asbuton) is one of the resources asphalt in Indonesia, but the contribution only 1.74% of all asphalt demand in Indonesia. Therefore, it is necessary to study the optimization of Asbuton utilization from the aspects of resources and reserves, processing, and economy. The results of this study are expected to provide an overview of the role of Asbuton in the development of road infrastructure in Indonesia and hopefully it can reduce Indonesia's dependence on imported asphalt.

Finally, in environmental issue presents exploration of indigenous arbuscular mycorrhizal fungi (AMF) on *Arenga pinnata* merr in post-mining land. Microorganism is widely used in post-mining land to help the absorption of nutrients by plants and to increase the growth and yield of plant products. The use of alternative treatments and technology can help the plant growth on post-mining critical lands. This study focusing on examination of the AMF found in sugar palm local plants in the post-mining land. Indigenous AMF has a high potential to form extensive infections because it is more adaptive and has a higher tolerance for environmental conditions with extreme conditions. AMF exploration and identification is an important step in a reclamation strategy, particularly on post-mining soils.

Enjoy read.