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Pusat Kajian Pembangunan Infrastruktur Berkelanjutan

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Accelerating Infrastructure Development in Indonesia

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Infrastructure development is important to promote growth and economic development in Indonesia. Both components of infrastructure, physical and social infrastructures, are required to provide the necessary services for public interests.

Center for Sustainable Infrastructure Development (CSID)

established in Faculty of Engineering, University of Indonesia to respond the need for infrastructure development in Indonesia. CSID research focuses on infrastructure design and planning, financial and business management and innovative use of technologies, coupled with emerging best practice approaches applied to infrastructure development.

By having well-planned infrastructures, we believe that potential breakthroughs will make infrastructure project development more efficient, effective and, therefore, more beneficial for the public and more profitable for the private sectors.

OUR VISION

The CSID is established to be international center of excellence in sustainable infrastructure development

THE MISSION

The center is an entrepreneurial environment in which researchers, skilled professionals and potential stakeholders from both academia and business can work side-by-side, ensuring that infrastructure in Indonesia can be successfully developed and accelerated to achieve the targeted national economic growth

SELECTED PUBLICATION

Berawi, A. R. B., Delgado, R., Calçada, R., & Vale, C. (2010). Evaluating Track Geometrical Quality Through Different Methodologies. *International Journal of Technology*, 1(1), 38-47.

Surjandari, I., Rachman, A., Dianawati, F., & Wibowo, R. P. (2011). Petrol Delivery Assignment With Multiproduct, Multi-depot, Split Deliveries and Time Windows. *International Journal of Modeling and Optimisation*, 1, 375-379.

Atmadiwirjo, P., & Yatmo, Y. A. (2011). Occupants 'Perception of 'Healthy Housing' in High-Density Urban Housing. *MAKARA of Social Sciences and Humanities Series*, 15(1).

Susantono, B., & Berawi, M. A. (2013). Perkembangan Kebijakan Pembiayaan Infrastruktur Transportasi Berbasis Kerjasama Pemerintah Swasta di Indonesia. *Jurnal Transportasi*, 12(2).

Susantono, B. (2013). *Transportasi dan Investasi : Tantangan dan Perspektif Multidimensi*. Jakarta : Penerbit Buku Kompas

Zagloel, T. Y., & Nurcahyo, R. (2013). *TQM Manajemen Kualitas Total dalam Perspektif Teknik Industri*. Jakarta : Indeks

Berawi, M. A., Susantono, B., Suyono Dikun, T., Ilyas, H. Z., Berawi, A. R. B., Zagloel, T. Y., Miraj, P., & Petroceany, J. S. (2014). Improving Feasibility of Mega Infrastructure Project Development Using Value Engineering Method. *Projects (VEAS)*, 37(1), 32-38.

Berawi, M. A. (2014). *Aplikasi Value Engineering: Pada Industri Konstruksi Bangunan Gedung*. Jakarta : Universitas Indonesia Press (UIP)

Susantono, B. (2014). *Revolusi Transportasi*. Jakarta : Gramedia Pustaka Utama

RESEARCH CLUSTER

1. Financial and Asset Management Research Cluster

This cluster conducts research activities that focus on engineering (design), infrastructure financing management and asset management. The research has the objective to accelerate infrastructure development in the fields of transportation, water, and energy resources.

2. Sustainable Energy Research Cluster

The cluster focuses on the infrastructure of energy management and development. This cluster conducts activities to improve the sustainability of energy supply, reduce subsidies and greenhouse gases emissions, and increase the use of renewable energy as an alternative energy.

3. Sustainable Mobility Research Cluster

The research activities focus on the development and sustainability of urban planning, the development of public transport infrastructure to improve accessibility and logistics efficiency.

4. Sustainable Water Management Research Cluster

The cluster is a field of research that concerned with the development of water and wastewater infrastructure. The research activities focus on producing clean water supply and projects to secure the infrastructures required to support food security, controlling flooding and treating waste.

BACKGROUND

Indonesia is a vast archipelago country with large and dynamic economic activities reflected by an average economic growth reaching 6% per annum. Infrastructure development plays an important role to stimulate the nation's economic growth; during last few years, infrastructure industry has contributed about 5.5% to the GDP of Indonesia. In an effort to boost economic growth, the Government of Indonesia is targeting a gradual increase of economic growth towards two digits in the next 5 years.

CSID was initiated by scholars and professionals who were focusing on Indonesian infrastructure development in Integrated Design and Technology (IDTech) Research Group. Since 2008, the research group has continuously received research grants from various institutions.

HIGHLIGHT PROJECT

INNOVATIVE DESIGN OF SUNDA STRAIT BRIDGE

An alternative design of Sunda Strait Bridge (SSB) is proposed to increase and improve the project's feasibility. Additional functions identified from Value Engineering study for SSB include:

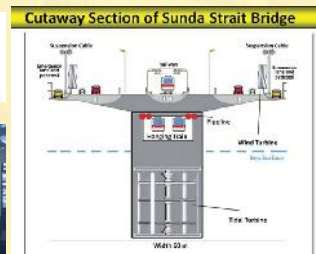
- 1) Renewable kinetic energy generated by tidal current;
- 2) Integration of oil, gas and utility pipelines;
- 3) Tourism industrial development in Sangiang Island;
- 4) Development of industrial areas in Banten and Lampung. The estimated construction cost for SSB is about US\$ 18.8 billion with prospective financial feasibility and positive NPV.



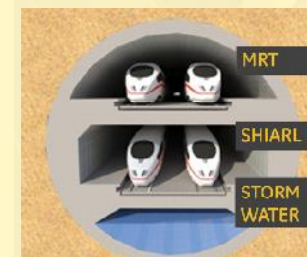
Oil & Gas Pipelines



Tidal Power Plants



Cutaway Section of Sunda Strait Bridge



INNOVATIVE DESIGN PRASTI TUNNEL

Public Railways and Stormwater Infrastructure (PRASTI) Tunnel is an underground infrastructure proposed as a solution for land limitation by integrating public transports and flood tunnel that would be used to solve Jakarta's traffic congestion and annual flood problems. The multifunction tunnel brings in innovative solution through additional functions: 1) Transportation function consist of MRT and Airport Rail, 2) Flood Control function, 3) Commercial Area function and 4) Utility (e.g. telecommunication) function. Initial cost for the integrated function will cost about US\$ 2.2 billion and produces a positive NPV and significant Internal Rate of Return (IRR).

for more information on CSID's highlight project please access www.csidui.org