PRODUCT INNOVATION CATALOG

2025





ITB Innovation Park (DKST) serves as a **hub** at ITB - connecting industry, government, and academia to address real world challenges.

DKST nurtures an ecosystem that drives **technology commercialization** and **accelerates startup** *growth*, empowering stakeholders to enhance *competitiveness* and *create lasting* ***impact***.

A Hub for Acceleration and Collaboration

A dynamic workspace empowering researchers, entrepreneurs, and industry professionals to drive innovation and create impact.

DKST ITB manages ITB Innovation Park, strategically located near ITB Ganesha Campus and the vibrant business district of Kawasan Summarecon Bandung. It fosters seamless collaboration between academia, industry, and entrepreneurs, providing an optimal environment for research and business growth.

With a strong foundation in research excellence, resource accessibility, and strategic partnerships, DKST ITB cultivates an ecosystem that supports cutting-edge research, startup incubation, and industry collaboration.

Equipped with co-working spaces, meeting rooms, advanced laboratories, and networking opportunities, DKST ITB connects businesses, researchers, and innovators to accelerate growth and success.

DIRECTORATE OF SCIENCE AND TECHNOLOGY PARK
Direktorat Kawasan Sains dan Teknologi

HEAD OFFICE
ITB Innovation Park Bandung Technopolis
Kawasan Summarecon Bandung,
Jl. Boulevar Utama no. 3, Gedebage, Bandung

ITB Innovation Park Ganesha
Jl. Ganesha no. 15E, Bandung

dkst.itb.ac.id | itbinnovationpark.id
@inkubator_itb | @dkst_itb
dkst@itb.ac.id
DKST ITB
DKST ITB

Welcome Note

Innovation and research-driven startups represent ITB's strong commitment to advancing the down-streaming of research and converting scientific excellence into solutions that deliver tangible value for society, industry, and national development. Through the Prime STeP 2025 program, ITB actively promotes the transition of research outcomes from laboratory scale development to validated technologies by encouraging innovators to address real world needs and establish sustainable, science-based ventures.

This innovation catalog presents a curated portfolio of research outputs and startups that have advanced through structured incubation and acceleration processes, demonstrating their technological maturity, market relevance, and readiness for commercialization. Beyond documenting institutional achievements, the catalog is intended to function as a strategic instrument to facilitate collaboration, attract industry and investment partnerships, and support the commercialization of innovation. Ultimately, ITB seeks to foster the growth of competitive, impactful, and globally recognized technology based enterprises that contribute to long-term economic development and societal well being.



Prof. Ir. Lavi Rizki Zuhal, Ph.D.
Vice Rector for Research and Innovation ITB

Welcome Note

This catalog reflects DKST ITB's commitment to advancing the transformation of research and innovation into solutions that are relevant, validated, and ready for real-world application. As the entity responsible for managing ITB's science and technology park, DKST ITB plays a strategic role in supporting innovators and startups throughout their journey—from early development to market engagement and sustainable growth.

The innovations presented in this catalog have progressed through structured incubation and acceleration programs that emphasize technology readiness, business development, and market alignment. Beyond their scientific and technological merit, these innovations demonstrate strong practical applicability and responsiveness to industry needs and societal challenges. This progress is supported by continuous mentoring, rigorous evaluation, and active engagement within the innovation ecosystem.

Looking ahead, DKST ITB remains committed to strengthening its ecosystem by enhancing the quality of startup development, expanding strategic partnerships, and fostering a culture of execution, accountability, and continuous improvement. It is hoped that this catalog will serve as a platform for meaningful connection and collaboration, supporting innovators and startups as they scale their solutions and contribute to sustainable economic and societal advancement.



Ir. R. Sugeng Joko Sarwono, M.T., Ph.D.
Director of DKST ITB

Table of Contens

i. ITB Innovation Park by DKST ITB ii. Welcome Notes iii. Table of Contents

Innovator

01 **GEOMECCA-AIQUAKE**
Dr. rer. nat. David Prambudi Sahara, S.T., M.T.

03 **MANTIC VTOL AGRICULTURE UAV**
Dr. Ing. Mochammad Agoes Moelyadi, S.T., M.Sc.

05 **MODULTRAX V3**
Dr. Bismo Jelantik Joyodiharjo, S.Sn., M.Ds.

07 **REAL TIME AIR QUALITY AND TEMPERATURE MONITORING IN MINE**
Dr. Eng. Nuhindro Priagung Widodo, M.T.

09 **DENVIT REAL-TIME PCR**
Azzania Fibriani, S.Si., M.Si., Ph.D.

11 **BIOFILTRATION TECHNOLOGY FOR NITROGEN WASTE MANAGEMENT IN AQUACULTURE**
Prof. Dr. Gede Suantika, S.Si., M.Si.

13 **BATTERYHUB**
Prof. Edi Leksono, M.Eng., Ph.D.

15 **BAMBU LAMINASI BLOK MODULAR**
Dr. Ir. Rudi, M.Si.

17 **APPLICATION OF INTEGRATED MODULAR AEROPONIC AUTOMATION SYSTEM (SAMTO) FOR MINI POTATO TUBER PRODUCTION AT PT. KENHOSE**
Prof. Sri Nanan B. Widiyanto, Ph.D.

19 **APPLICATION OF RECOMBINANT CARBOHYDRATE-DEGRADING ENZYME FROM MESOCARP TO IMPROVE PALM OIL EXTRACTION EFFICIENCY**
Prof. Dessy Natalia, Ph.D.

21 **DEVELOPMENT OF MICROBIAL STARTER CULTURE FROM CIVET FECES AS AN ETHICAL INNOVATION IN FERMENTED COFFEE PRODUCTION**
Intan Taufik, S.Si., M.Si., Ph.D.

23 **GANESHFIT ALFA**
Dr. apt. Amirah Adlia, S.Si., M.Si.

25 **DEVELOPMENT OF BALLISTIC-RESISTANT PANELS BASED ON LOCAL MATERIALS FOR TACTICAL AND CIVILIAN VEHICLES**
Dr. rer. nat. Mardiyati, S.Si., M.T.

Startup Companies

27 GREENLABS
PT. Inovasi Hijau Indonesia

29 NASHO
PT. Runesha Artha Sejahtera

31 RESERVOAIR
PT. Reservoair Konservasi Indonesia

33 INDERA AGRI
PT. Teknologi Presisi Membumi

35 EBM SCITECH
PT. EBM Saintifk dan Teknologi

37 CURAWEDA
PT. Curaweda Palagan Innotech

39 BELL LIVING LAB
PT. Kurva Lonceng Khatulistiwa

41 ALGATEK
PT. Algatek Karbon Nusantara

43 AGROBOT
PT. Agrobot Bangun Nusantara

45 URBANSOLV.ID
PT Multimedia Solusi Prima

47 PELIHARA
PT. Pelihara Hewan Bahagia

49 LEAD AI
PT. Lead AI Indonesia

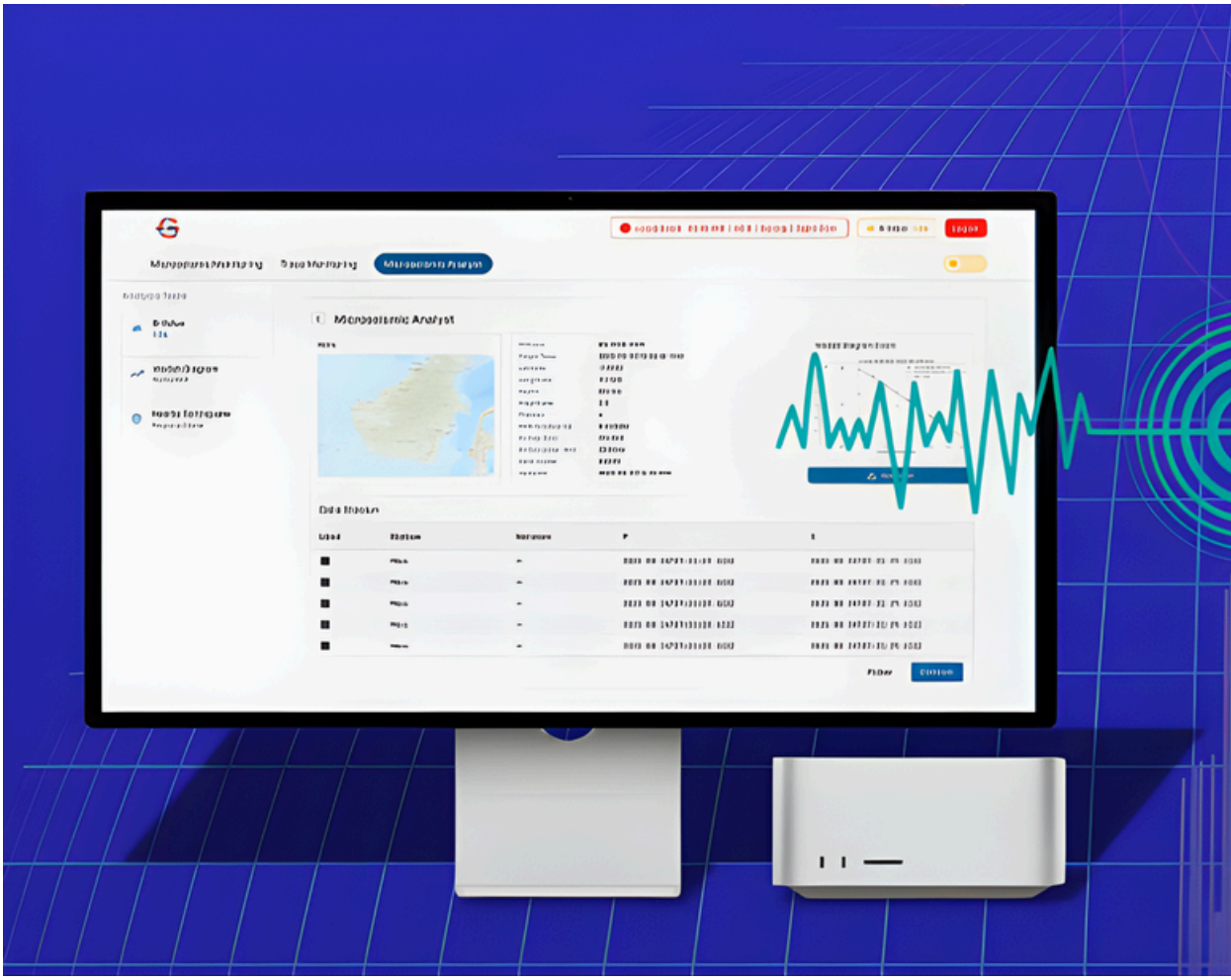
51 HAMASA LAB
PT. Hamasa Inovasi Teknologi

53 GOOPO INDONESIA
PT. Goopo Inovasi Indonesia

55 DAGO KINEMATIC
Spin of from Riset.ai



INNOVATOR & STARTUP



GEOMECCA-AIQUAKE

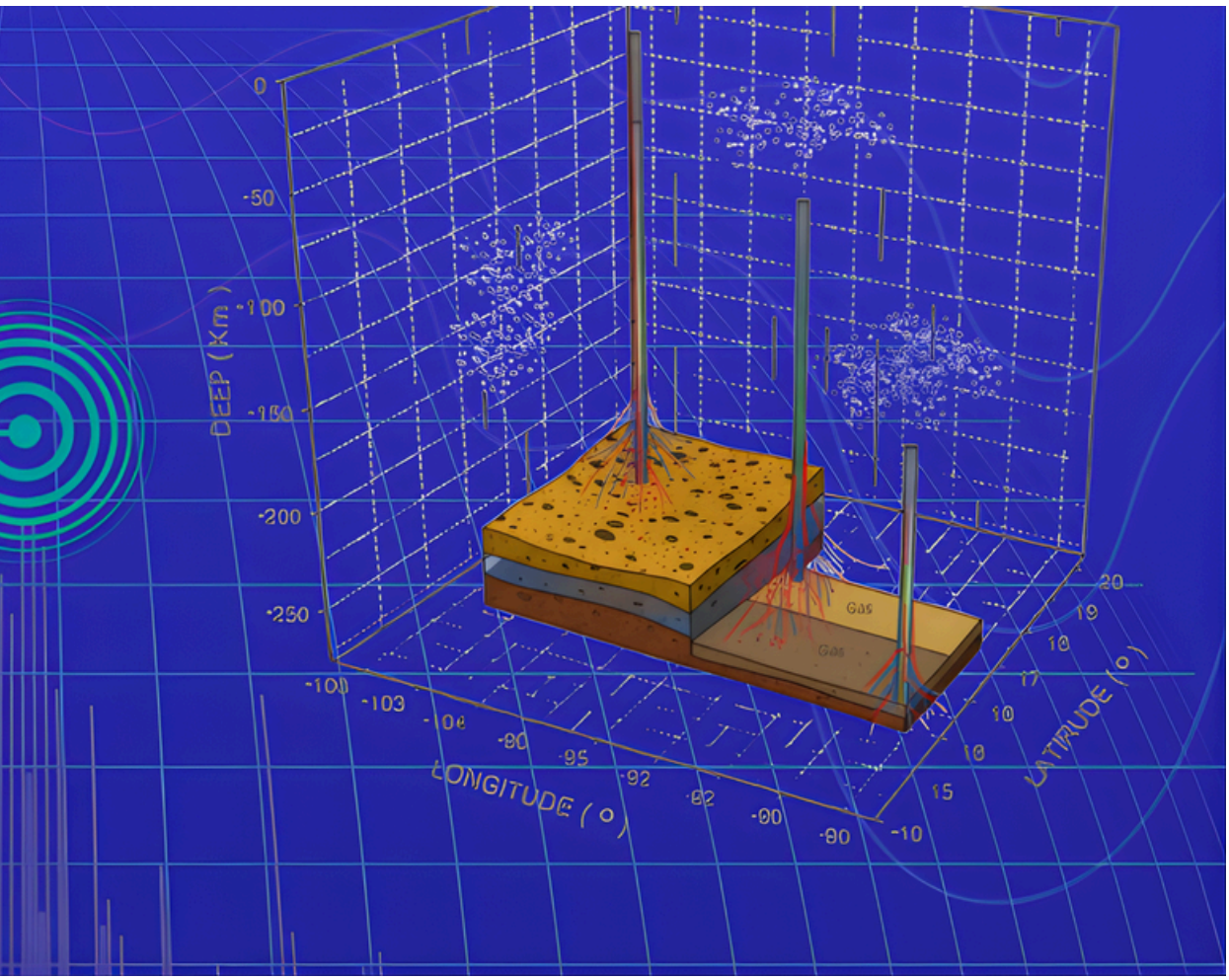
TKT8

Dr. rer. nat. David Prambudi Sahara, S.T., M.T.
Prof. Ir. Sri Widiyantoro, M.Sc., Ph.D. | Dr. Shindy Rosalia, S.T., M.T. | Bondan Febriarta

KI: ***Modular Deep Learning Based Earthquake Early Warning System*** (EC002025193523).

https://geomecca.com/ hello@geomecca.io

GeoMecca-AIQuake is an artificial intelligence-based seismic monitoring and analysis system developed to support geothermal reservoir and underground mining monitoring, delivering accurate, adaptive, and real-time analysis with greater ease of use compared to conventional systems.



Developed collaboratively by a research team and GeoDipa, the system has been built in stages following the Technology Readiness Level (TRL) framework, encompassing machine learning research, real-time streaming architecture integration, field data testing, and the development of seismic analysis modules and user interfaces. This process has resulted in a stable, intelligent, and user-friendly seismic platform that is ready for operation and commercialization.

MANTIS VTOL AGRICULTURE UAV

TKT8

Dr. Ing. Mochammad Agoes Moelyadi, S.T., M.Sc.
Raisa Madania Daryono | Afardhan Putra Fashadani | Ghifary Maryulson | Avila Khadhibyan

Pesawat Nirawak MANTIS Berkonfigurasi Bi-Plane dengan Ekor Berbentuk V (P00202514328).

https://mantisuas.com/ mantis.agritech@gmail.com

MANTIS UAV is developed as an advanced aerial solution for precision farming, combining aerodynamic excellence with intelligent IoT-based control systems to enhance agricultural productivity and sustainability. Designed through a research-driven approach, MANTIS bridges the gap between aerospace innovation and real-world agricultural application.

Inspired by the structure and agility of the praying mantis, the vehicle adopts a hybrid configuration — integrating fixed-wing efficiency with vertical takeoff and landing (VTOL) capability. This fusion enables flexible deployment in diverse terrains, offering both long-range endurance and precise low-altitude operation without the need for complex launch infrastructure.



The biplane wing architecture and V-tail design enhance lift capacity, directional stability, and maneuverability at varying speeds and altitudes. This allows the UAV to carry heavier payloads with aerodynamic efficiency — making it ideal for crop spraying, mapping, soil assessment, and high-accuracy field monitoring.

Equipped with real-time data processing, terrain-adaptive flight algorithms, and modular payload systems, MANTIS dynamically responds to field conditions and mission requirements. Its lightweight composite structure ensures operational safety, endurance, and efficiency across various agricultural environments.

As part of the next generation of hybrid UAV systems, MANTIS represents a strategic advancement toward smart, data-driven, and sustainable farming — empowering farmers, researchers, and agribusinesses to achieve higher yields with fewer resources.



MODULTRAX V3

TKT9

Dr. Bismo Jelantik Joyodiharjo, S.Sn., M.Ds.
Fadhil Ahmad | Audrey Cornelya Zefanya Siregar
KI: ***Modultrax V3*** (A00202505768).
https://www.modultrax.com/ modultrax@gmail.com

MODULTRAX (Modular Utility Transport - Exo Terrain) is a sustainable mobility platform with adaptive design morphology and local industries manufacturing. Designed for optimized usability in a wide range of applications, MODULTRAX's technical specifications such as power, range and capacity can be matched to personal or commercial usage requirements.

MODULTRAX uses the MPS design method that are part of sustainable approaches being developed during Inventor's doctoral study, namely Mimicry (Behavior, Functional), Process and System (Modular where all forms follow their function first (Form Follows Function). The details of the cavity in the space frame and its supporting components have a strength function with thick but thin or hollow material on parts that need to be light. The tubing morphology on the frame is inspired by bamboo mimicry (tight cavities on the outside, tenuous on the inside) but considering the capabilities of industrial machines (cnc-bending 4 axis) with easily weldable parts (argosil) with effective and efficient materials. Natural honeycomb and golden ratio inspiration is alse spread across all parts and details of body components, with functions that consider the use of all terrain (off-road) and ease of production, for example parts that can be printed without support or stamped metal 1 way. With some of these morphological approaches, MODULTRAX has a strong masculine and purposeful feel.

Modultrax V3 represents a further development of the previous version, with a strong emphasis on production system efficiency, design, and technology. Key improvements include enhanced precision in frame fabrication, the use of appropriate tools and materials, and the implementation of a sustainable production process. In parallel, Modultrax V3 establishes a downstream development structure that encompasses production partners, licensing partners, and early engagement with potential investors. The outcome of the Primestep program is not merely a physical product, but a comprehensive production system, multidisciplinary collaboration, and a strategic roadmap and readiness for the next phase—strengthening national innovation resilience.



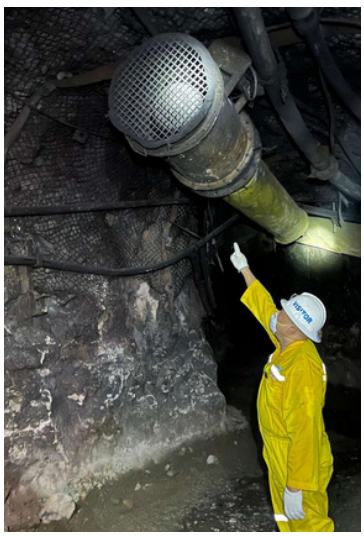
TKT8

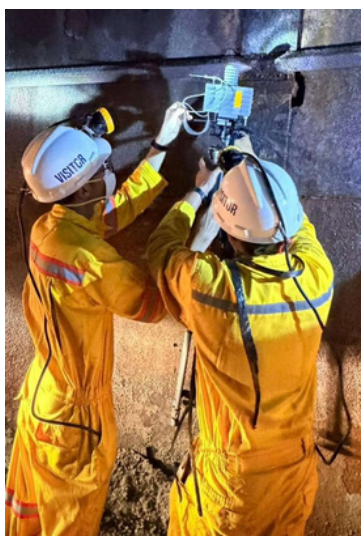
REAL TIME AIR QUALITY AND TEMPERATURE MONITORING IN MINE

Dr. Eng. Nuhindro Priagung Widodo, M.T.
Ririn Yulianti, S.T., M.T | Utin Tasya Awliya S.T. |
Adinda Pratiwi Fitrianingsih S.T. | Deksarina S.T.

KI: **SISTEM PEMANTAUAN DAN PENGENDALIAN TERMAL OTOMATIS DALAM PEMODELAN INTERAKSI BATUAN-UDARA DI TEROWONGAN TAMBANG: VALIDASI DAN PERCOBAAN SKALA LABORATORIUM** (EC002025188621)

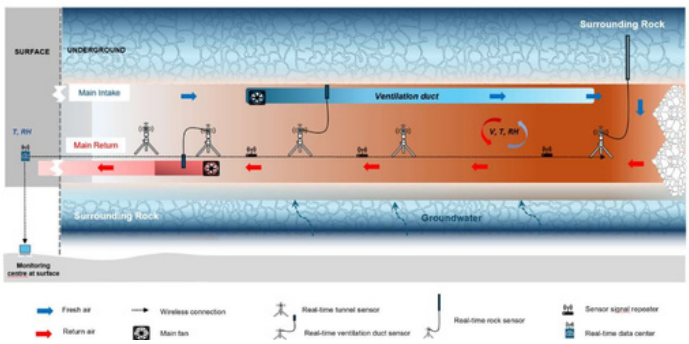
npw@itb.ac.id | ahmad.ihsan@itb.ac.id



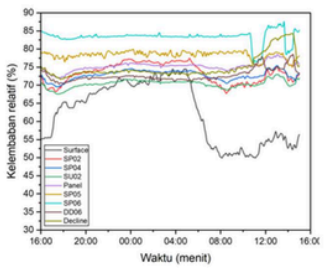


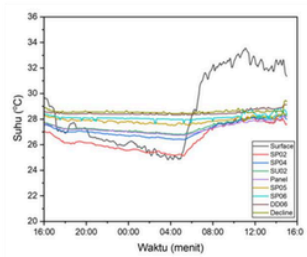
The Smart Monitoring System for Underground Mine Ventilation is an advanced safety and environmental control solution designed to enhance operational reliability in underground mining. Developed by the Center of Research Excellence in Underground Mining and Mine Safety (CoRE UMMS) at Institut Teknologi Bandung (ITB) in collaboration with Marnov Electronics and Engineering, the system leverages Internet of Things (IoT) and Big Data technologies to deliver real-time, data-driven monitoring in challenging mine environments.

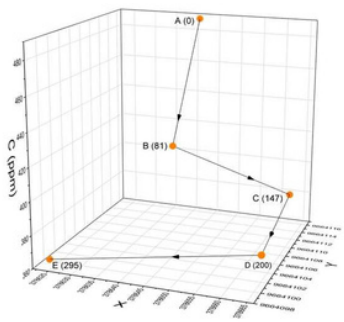
Engineered to withstand the dynamic conditions and extremely high humidity levels typical of Indonesian underground mines, the system utilizes a robust multi-sensor network to continuously measure key ventilation parameters, including differential pressure, airflow velocity, temperature, and humidity. It also integrates gas sensors to detect critical blasting-related gases such as carbon monoxide (CO), carbon dioxide (CO_2), nitrogen monoxide (NO), and nitrogen dioxide (NO_2), which pose significant health and safety risks at elevated concentrations.

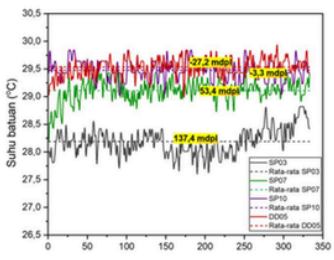


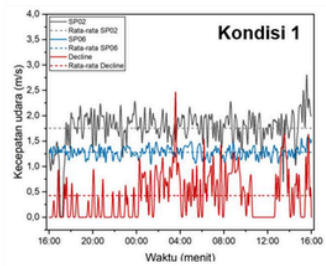


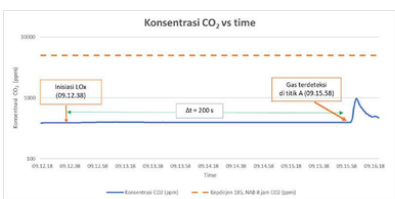


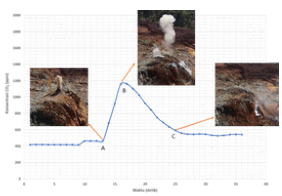












The platform combines wireless communication infrastructure, including repeaters and data collectors, with long-range LoRa-based transmission to enable reliable data transfer without extensive cabling. Collected data are stored in the cloud and visualized through dedicated software that provides online, real-time insights. An integrated early warning system supports rapid risk detection and response, contributing to improved mine safety, worker protection, and operational efficiency.

TKT8

DENVIT REAL-TIME PCR: EARLY DETECTION OF DENGUE VIRUS TO REDUCE DENGUE FEVER CASES IN INDONESIA

Azzania Fibriani, S.Si., M.Si., Ph.D.
Intan Taufik, S.Si., M.Si., Ph.D. | Rosalina Fajriani

KI: PRODUK TES DIAGNOSTIK BERASIS TAQMAN PROBE REAL-TIME PCR UNTUK DETEKSI DENGUE DI INDONESIA, KOMPONEN BUFFER REAKSI DAN BUFFER STORAGE MOLONEY MURINE LEUKEMIA VIRUS REVERSE TRANSCRIPTASE (MMLV-RT) FUSI SIS7A

afibriani@itb.ac.id

DENVIT Real-Time PCR Kit is an in vitro diagnostic solution designed for the qualitative detection of Dengue virus (DENV) RNA using real-time PCR technology. Developed to deliver rapid, sensitive, and reliable detection, this kit supports accurate dengue diagnosis while contributing to Indonesia's diagnostic self-reliance through the use of locally produced enzymes.



The kit leverages high-quality, domestically manufactured Reverse Transcriptase and Taq Polymerase, resulting in strong TKDN (local content) value and reduced dependence on imported reagents. It is capable of detecting all four dengue virus serotypes (DENV-1 to DENV-4) with high sensitivity and specificity, ensuring dependable clinical performance.
DENVIT is provided in a ready-to-use format with an internal control included, simplifying laboratory workflows and minimizing handling errors. Its robust analytical performance is reflected in a Limit of Quantification (LoQ) of 10.107 copies/mL and a 95% Limit of Detection (LoD) of 482 copies/mL.

Performance comparisons demonstrate strong diagnostic value, with high specificity and predictive values when benchmarked against gold-standard TaqMan probe methods. This makes DENVIT suitable for clinical laboratories, research institutions, and public health facilities requiring accurate and efficient dengue diagnostics.
By combining scientific rigor, local biotechnological capability, and user-friendly design, DENVIT Real-Time PCR Kit represents a strategic innovation in molecular diagnostics for dengue surveillance and control.



BIOFILTRATION TECHNOLOGY FOR NITROGEN WASTE MANAGEMENT IN AQUACULTURE

TKT9

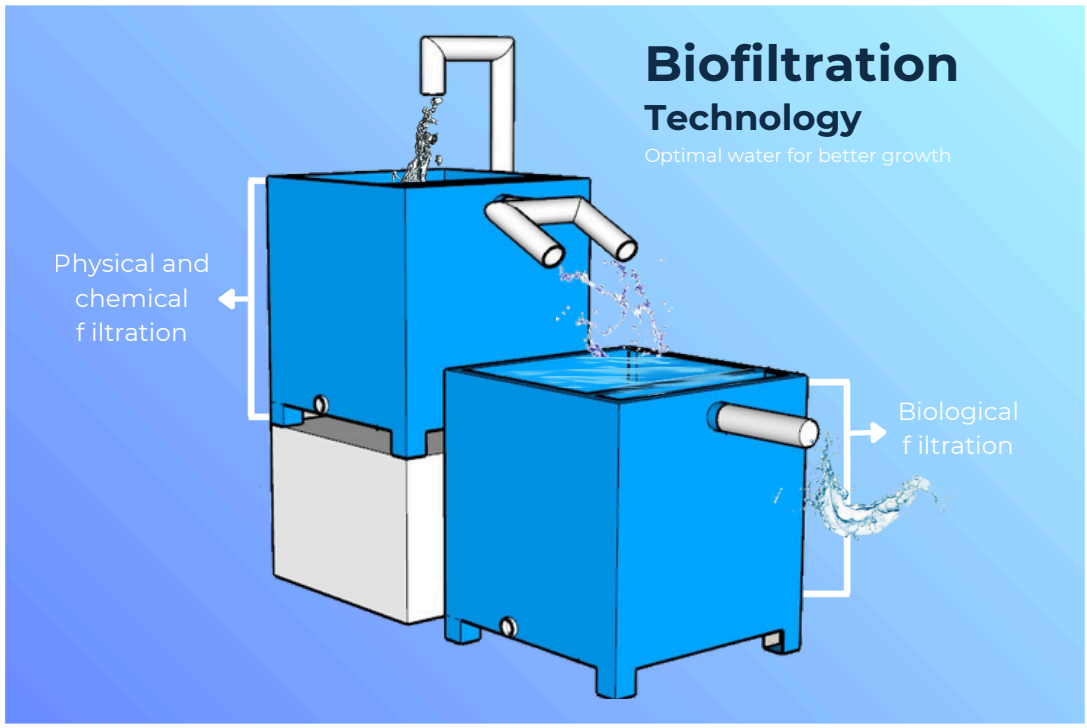
Prof. Dr. Gede Suantika, S.Si, M.Si
Prof. Dr. Pingkan Aditiawati, M.S. | Dr. Eng. Kamarisima, S.Si., M.Si.
Agus Mawardi Hendrawan, S.Si.

KI: Paten Sederhana - METODE BIOFILTRASI UNTUK PENANGANAN LIMBAH NITROGEN TERLARUT DALAM BUDIDAYA PERIKANAN

gsuantika@itb.ac.id



The biofilter developed by the Aquaculture Team at SITH ITB, improves intake water quality in aquaculture systems by combining physical, biological, and chemical filtration in a compact unit. It processes up to 1 ton of water with a flow rate of 500 liters per hour and is built from corrosion-resistant materials for durability and easy installation.



Designed for intensive operations, the biofilter reduces ammonia concentrations until they become nitrate by up to 40 ppm per day, enhancing water stability and supporting healthier culture conditions. Field results in the Pantura region indicate survival rates may improve by up to 10% compared to ponds without the biofilter.



Optimal Aquaculture Conditions

Maintains stable water quality and supports sustainable aquaculture practices.



Higher Survival Rate

Enhances fish and shrimp health, increasing survival rates by up to 10%.



Easy Installation & Maintenance

Biofilter is designed for practicality, allowing for easy installation and simple maintenance to ensure consistent performance over a longer period.

TKT9

DEVELOPMENT AND DOWNSTREAM STRATEGY OF SMART BATTERY ENERGY STORAGE SYSTEM (SBESS) FOR STATIONARY APPLICATION TO SUPPORT SUSTAINABLE ENERGY SYSTEMS

Prof. Edi Leksono, M.Eng., Ph.D.
Dr. Irsyad Nashirul Haq, S.T., M.T. | Dr.-Ing. Justin Pradipta, S.T., M.T. | Dr.Ing. Thomas Budiarto, S.T., M.T. | Meditya Wasesa, S.T., M.Sc., Ph.D. | Trendy Prima Wijaya, S.T. M.T. | Lohdaya Perkasa, S.T., M.T.

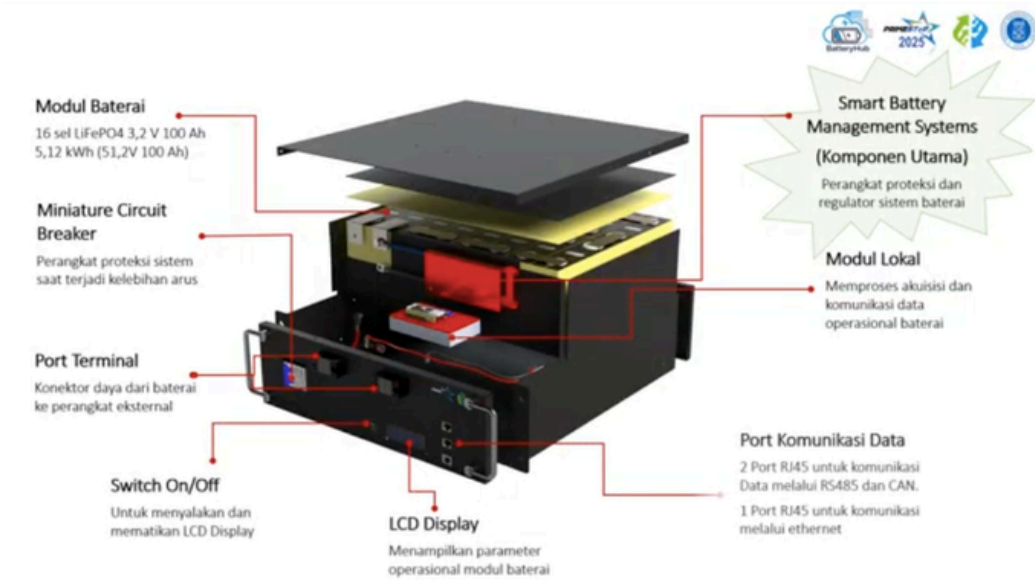
KI: Merek BatteryHub.ID info@inersia.co.id

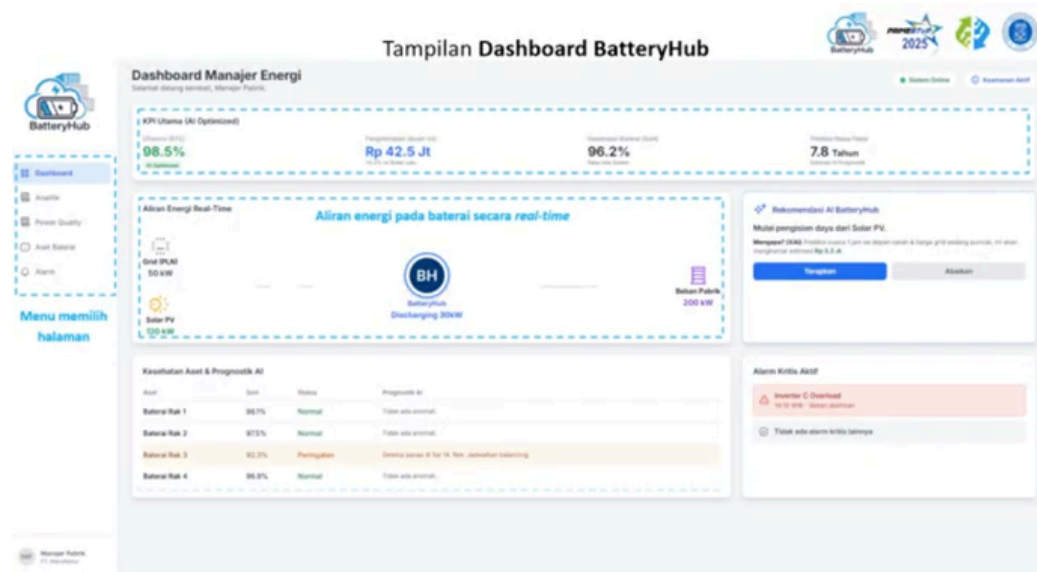
BatteryHub.ID is an intelligent battery asset management platform that serves as the core of a Smart Battery Energy Storage System (SBESS). The platform provides advanced capabilities including real-time condition monitoring, fault diagnostics, maintenance optimization, battery replacement management, and operational efficiency optimization. These features enable more reliable, efficient, and data-driven battery energy storage operations.

Designed for multi-scale deployment, BatteryHub.ID supports applications across industrial, residential, and remote or off-grid areas that require dependable and integrated energy storage solutions. The platform is built on the integration of a Smart Battery Management System (Smart BMS), an edge-cloud computing platform, and a Human-Machine Interface (HMI). This technology stack is engineered to achieve Level 4 (Optimization) within the Smart Grid Architecture Model (SGAM) maturity framework.

Artificial Intelligence (AI) plays a central role in BatteryHub.ID, driving overall system performance improvements—particularly in energy efficiency, battery lifetime extension, and data-driven decision-making. AI-based analytics enable predictive insights and smarter operational strategies, reducing downtime and lifecycle costs.

The underlying system and platform development for BatteryHub.ID began in 2013, with formal product development initiated in 2018 through LPIK ITB funding and research collaboration with PT Pertamina until 2024. These efforts have produced prototypes reaching Technology Readiness Level (TRL) 9 by 2025. In 2024, PT PLN joined the collaboration to further develop and implement BatteryHub.ID for remote-area applications, reinforcing its role as a scalable and nationally relevant energy innovation.





TKT8

INNOVATION IN LAMINATED BAMBOO UTILIZATION FOR MODULAR BLOCK HOUSING AS A SUSTAINABLE MASS HOUSING SOLUTION IN INDONESIA

Dr. Ir. Rudi, M.Si.
Permana, S.T, M.T. | Dr. Yoyo Suhaya, S.Hut., M.Si.

KI: HAKI - Desain Industri/Judul: Bambu Laminasi Sebagai Material bambu Komposit Terpadu Membentuk Karakteristik Material Bambu Yang Kokoh, Kuat, Stabil, Mudah dibentuk dan Serbaguna/Status: Permohonan pendaftaran HAKI dari tim peneliti ke konsultan HAKI dengan No. Surat E-018/S.MHN-HK/MSN/XII-2025

rudi67@itb.ac.id

This innovation focuses on the use of laminated bamboo as a primary material for modular housing systems to support sustainable mass housing development in Indonesia. The initiative aligns with the Indonesian government's target to build millions of affordable homes for low-income communities, where challenges such as land limitations, high construction costs, and environmental impact remain critical concerns.

Bamboo offers a renewable, fast-growing, and locally available resource. Through advanced processing techniques, bamboo is transformed into engineered laminated bamboo, a high-performance construction material with strong mechanical properties, dimensional stability, and durability. This makes it suitable for structural and modular building applications.

The laminated bamboo system is designed for prefabricated modular construction, enabling faster installation, improved precision, and reduced on-site labor. Compared to conventional materials, it can lower construction costs, minimize environmental impact, and contribute to a reduced carbon footprint.




B02
PRIMAITB
B03
PRIMAITB
B02
PRIMAITB
Inovasi Pemanfaatan Bambu
Laminasi pada Rumah Blok
Modular untuk Solusi
Hunian Massal
Berkelanjutan di Indonesia
#technologyexhibition
#technologyexhibition

TKT8

APPLICATION OF INTEGRATED MODULAR AEROPONIC AUTOMATION SYSTEM (SAMTO) FOR MINI POTATO TUBER PRODUCTION AT PT. KENHOSE

Prof. Sri Nanan B. Widiyanto, Ph.D.
Ir. Estiyanti Ekawati, M.T, Ph.D. | Dr. Ir. Mia Rosmiati, M.P. | Dr. Ir. Eri Mustari, M.P.| Ir. Yeyet Setiawati, M.P. | Novi Tri Astutiningsih, S.Si. M.Sc. | Aquila Kafka, S.T.| Mohammad Prakarsa Hidayatullah

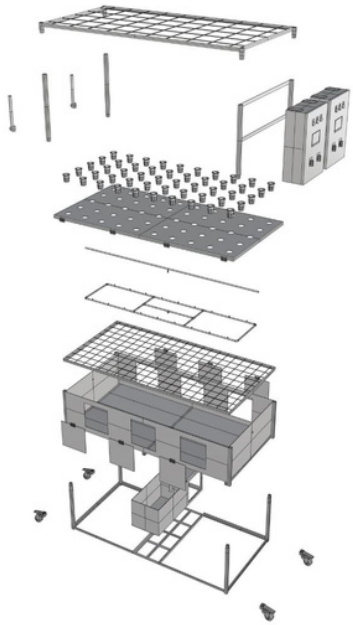
KI: **Desain Industri Sistem Aeroponik Modular Terintegrasi Otomatı (SAMTO)** A00202406251

srinanan@itb.ac.id

SAMTO (Smart Automated Modular Aeroponic System) is an integrated, automation-based modular aeroponic system developed to enhance the production of mini potato tubers at PT Kentang Hollando Sejahtera (KENHOSE). The system represents an advanced soil-less cultivation technology that operates in a controlled environment to improve efficiency, consistency, and yield in seed potato production.

Originally initiated by ITB researchers in 2018, the technology evolved into the SAMTO system in 2024 as a response to the need for more reliable and precise aeroponic production. SAMTO utilizes a sensor-driven automation system capable of regulating temperature, humidity, pH, and electrical conductivity (EC), and is equipped with camera-based monitoring to observe shoot and root development. The system enables precise misting control, ensuring optimal plant growth conditions.

This initiative aims to deliver a validated prototype at Technology Readiness Level (TRL) 8-9, supported by a Business Model Canvas, intellectual property protection, and marketing communication materials. The implementation of SAMTO is expected to strengthen the university innovation ecosystem, reduce dependency on imported seed potatoes, and contribute to sustainable agricultural development.



Desain Industri

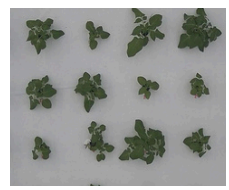


Implementasi











Uji Coba Skala Produksi

Future development is directed toward commercialization through adaptive business models and the integration of digital technologies to support precision agriculture at an industrial scale. The project also opens opportunities for incubation and spin-off creation in precision agriculture through the ITB Science and Technology Park ecosystem.

GANESHFIT ALFA

TKT8

Dr. apt. Amirah Adlia, S.Si., M.Si.

Dr. apt. Nova Suliska, S.Farm., M.Si. | Nila Armelia Windasari, S.A., M.B.A., Ph.D.
Dr. apt. Rika Hartati, S.Si., M.Si. | Liana Oktaviani, S.Farm

KI: International Journal of Pharmaceutical and Healthcare Marketing Cover Image
International Journal of Pharmaceutica and Healthcare Marketing **(Emerald Insight)**

amirah.adlia@itb.ac.id | farmasi@itb.ac.id

GaneshFit Alfa is a science-based botanical supplement formulated to support cognitive resilience, memory, and mental focus. Developed through the Prime STeP 2025 research program, this product translates academic research into a practical cognitive health solution.

GaneshFit Alfa combines carefully selected natural ingredients with established pharmacological mechanisms, including Centella asiatica (gotu kola), Curcuma longa (turmeric), Piper nigrum (black pepper), and Hericium erinaceus (lion's mane mushroom). These ingredients are widely recognized for their neuroprotective, antioxidant, and anti-inflammatory properties, as well as their potential roles in supporting BDNF modulation, NGF stimulation, neuroplasticity, and overall brain function.

Manufactured under herbal industry quality standards, GaneshFit Alfa represents a collaboration between research institutions and industry partners to ensure product safety, consistency, and efficacy. Designed for daily use, it offers a natural, research-informed approach to maintaining long-term cognitive performance and mental clarity.


PHARMA-V
Center for Pharma Valorisation - ITB
PT. Industri Jamu
BOROBUDUR
Natural Herbal Industry
REKACIPTA
INOVASI ITB
Daun Pegagan/
Gotu Kola
Mendukung BDNF,
fokus, dan neurogenesis
Modulates BDNF, supporting
focus and neurogenesis
Kunyit
Antioksidan, menekan
jalur inflamasi NF-κB
Antioxidant support and
NF-κB inhibition
KAPSUL
GANESHFIT
ALFA
Jamur Surai Singa
/ Lion's Mane
Merangsang NGF,
mendukung neuroplasticity
dan kejernihan mental
Stimulates NGF, promoting
neuroplasticity and mental
clarity.
Lada Hitam
(Kombinasi dengan kunyit)
Antioksidan, menekan
jalur inflamasi NF-κB
Antioxidant support and
NF-κB inhibition

TKT8

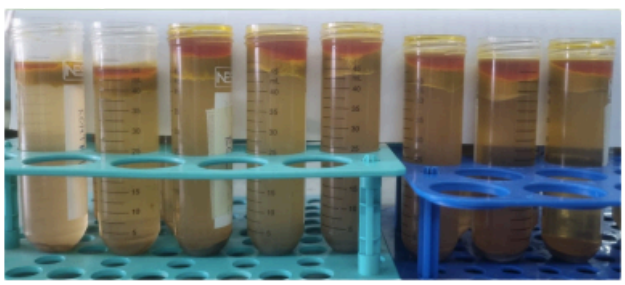
APPLICATION OF RECOMBINANT CARBOHYDRATE-DEGRADING ENZYME FROM MESOCARP TO IMPROVE PALM OIL EXTRACTION EFFICIENCY

Prof. Dessy Natalia, Ph.D.
Dr. Ihsanawati, S.Si., M.Si. | Ir. V. Sri Harjati Suhardi, Ph.D. | Dr. Reza Aditama, S.Si., M.Si.
Ozi Jumadila | Aprijal Ghiyas Setiawan

KI: *In review*

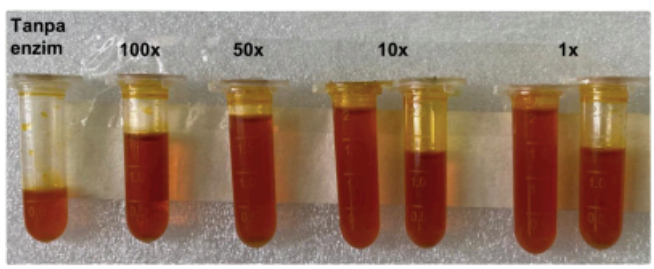
dessynatalia@itb.ac.id

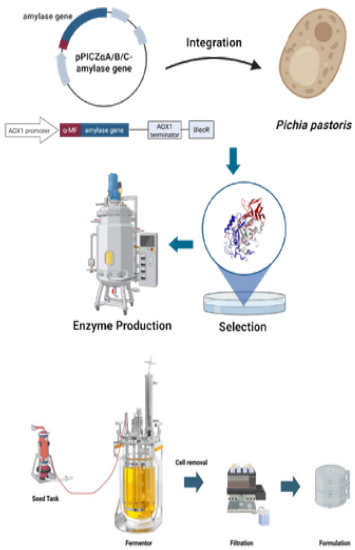
This innovation focuses on the application of recombinant carbohydrate-degrading enzymes to enhance the efficiency and sustainability of palm oil mesocarp extraction. As a strategic commodity, Indonesia's palm oil industry contributes nearly 60% of global production. However, national productivity remains constrained by suboptimal oil extraction rates (OER), where conventional milling typically recovers only 23-24% of available oil, leaving significant losses in processing residues.









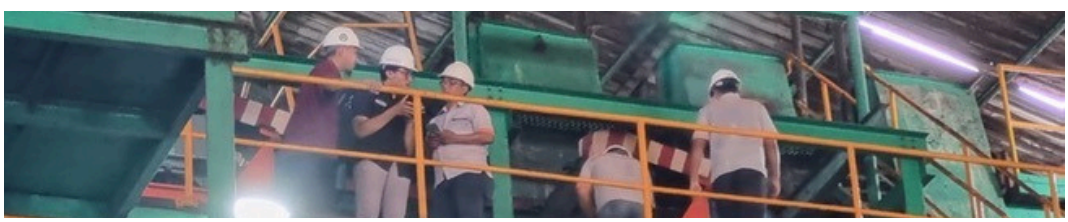


To address this challenge, this research develops and applies two recombinant enzymes—CellaTech (cellulase) and AmyTech (α-amylase)—produced at medium scale using optimized bioprocess parameters, including inoculum composition, genetic stability, inducer selection, and filtration methods. These enzymes are designed to degrade complex carbohydrates in palm fruit cell walls, thereby facilitating greater oil release.

Performance evaluations were conducted through laboratory and field-scale trials. Field implementation at Lamandau Mill, PT Bumitama Gunajaya Agro (Central Kalimantan), under routine milling conditions demonstrated that the combined application of CellaTech and AmyTech significantly reduced oil retention in solid residues and improved overall oil recovery. Compared with commercial enzymes and untreated controls, the enzyme formulations showed consistent gains in extraction efficiency.

This enzyme-based approach offers a sustainable alternative to conventional extraction improvements, as it increases yield without requiring land expansion, additional energy input, or hazardous chemicals. The technology supports environmentally responsible production practices and aligns with national sustainability targets as well as RSPO standards.

Research outputs include the development of two recombinant enzyme products (CellaTech and AmyTech), a market study, a patent draft, and a scientific manuscript for publication. The innovation presents strong potential for industrial adoption, contributing to higher competitiveness and sustainability in Indonesia's palm oil sector.



TKT8

DEVELOPMENT OF MICROBIAL STARTER CULTURE FROM CIVET FECES AS AN ETHICAL INNOVATION IN FERMENTED COFFEE PRODUCTION

Intan Taufik, S.Si., M.Si., Ph.D.
Dr. Ir. Mia Rosmiati, MP | Anriansyah Renggaman, M.Sc., Ph.D

KI: Paten 1 - **FORMULASI BAHAN PENGERINGAN UNTUK PRODUKSI STARTER MIKROBA FERMENTASI KOPI TERISOLASI DARI FESES LUWAK BERBENTUK BUBUK DENGAN STABILITAS DAN DAYA SIMPAN TINGGI** (P06200514572).
PATEN 2 - **METODE FERMENTASI BUAH ATAU BIJI KOPI MENGGUNAKAN STARTER MIKROBA TERISOLASI DARI FESES LUWAK UNTUK PRODUKSI KOPI FERMENTASI ETIS DENGAN PROFIL SENSORIK TERKONTROL**

itaufik@itb.ac.id | info@catur.coffee

This innovation introduces a proprietary, standardized microbial starter developed from carefully selected civet (luwak) fecal isolates, designed to enable ethical, controlled, and high-precision coffee fermentation. The starter leverages specific enzymatic and metabolic capabilities to degrade coffee mucilage efficiently while generating key metabolites and aromatic compounds that shape the distinctive sensory profile traditionally associated with civet coffee. This approach reproduces signature attributes such as enhanced aroma complexity, balanced acidity, smooth mouthfeel, and reduced bitterness, without involving animal digestion.

Engineered for process reliability and scalability, the technology delivers consistent fermentation performance across different coffee varieties, production scales, and locations. Controlled microbial activity improves flavor predictability, quality stability, and food safety, while simplifying fermentation workflows for producers. By addressing long-standing ethical, consistency, and sustainability challenges in conventional civet coffee production, this innovation positions itself as a next-generation fermentation platform for premium and specialty coffee, ready for pre-commercial adoption and industrial downstreaming.


How to use
Civora

TKT8

DEVELOPMENT OF BALLISTIC-RESISTANT PANELS BASED ON LOCAL MATERIALS FOR TACTICAL AND CIVILIAN VEHICLES

Dr. rer. nat. Mardiyati, S.Si., M.T.
Dr. Eng. Ir. Agung Wibowo, M.T. | Dr. Steven, S.T, M.T.| Pramudita Satria Palar, S.T, M.T, Ph.D.
Ditho Ardiansyah Pulungan, S.T., M.Sc., Ph.D.| Silvia Mar'atus Shoimah, S.T., M.T.

KI: **PATEN BERJUDUL "MATERIAL KOMPOSIT TAHAN BALISTIK BERBAHAN DASAR SILIKON KARBIDA, KARET ALAM, SERAT RAMI, SERAT GELAS, RESIN EPOKSI, DAN ALUMINIUM SERTA METODE PEMBUATANNYA"** (P00202513413)

mardiyati@itb.ac.id

The safety of tactical vehicles operated by national security forces plays a critical role in maintaining national stability and ensuring the success of strategic missions, including military operations and disaster response. These missions require ballistic protection systems that are not only effective and efficient, but also lightweight, allowing vehicles to operate optimally under extreme conditions. However, most ballistic protection systems currently rely on imported materials, which increases production costs, heightens dependence on foreign technology, and limits the self-reliance of the domestic automotive and defense industries.

To address these challenges, the Faculty of Mechanical and Aerospace Engineering, Institut Teknologi Bandung (FTMD ITB) has developed a ballistic-resistant panel prototype that integrates a range of innovative materials, including ramie fiber, silicon carbide, glass fiber, vulcanized natural rubber, and aluminum plates. The panel has successfully met military ballistic testing standards EN 1522/1523 (FB6 level) and has reached Technology Readiness Level (TRL) 7. To advance to TRL 8, further development was required, including product-scale testing, system integration into PT Pindad vehicles, and market studies conducted in collaboration with industry partners (DUDI) to ensure market readiness.



Progres proses integrasi prototipe panel dalam pintu kendaraan



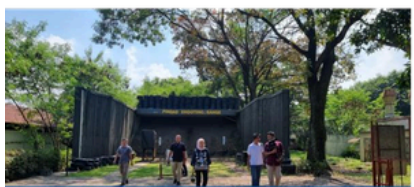
Hasil Pengujian Tembak Panel Tahan Balistik



Pengujian Tembak Panel Tahan Balistik



Hasil Pengujian Tembak Panel Tahan Balistik



Lapangan Uji Tembak PT Pindad (Bandung)



Prototipe GMI



Serah terima pintu di PT Pindad (Bandung)



Pintu depan prototipe GMI (Tampak depan)



Pintu depan prototipe GMI (Tampak belakang)

All targeted research outputs have been fully achieved (100%). The product's technology readiness has been successfully elevated from TRL 7 to TRL 8, supported by a comprehensive feasibility study and market analysis. In addition, intellectual property protection in the form of a patent application has been filed, and confidential innovation communication materials including photographs, posters, and videos—have been developed to support future commercialization and industrial adoption.

GREENLABS

Advancing Sustainable Environments Through Bio-Based Chemicals

2nd Year Acceleration Phase

PT. Inovasi Hijau Indonesia
https://glabsindonesia.com/
info@glabsindonesia.com

Greenlabs is a startup dedicated to building a sustainable economy by positioning itself at the forefront of bio-based chemical production. The company focuses on transforming biomass into bio-based specialty chemicals and polymers, offering renewable and environmentally responsible alternatives to conventional, non-renewable chemical products.

One of Greenlabs' key innovations addresses the replacement of carcinogenic plasticizers—polymer additives widely used to modify the flexibility and performance of plastics. These additives are commonly applied in polyvinyl chloride (PVC)-based industries, including wires and cables, toys, food packaging, medical devices, and flooring. By developing safer, bio-based plasticizers derived from renewable resources, Greenlabs aims to reduce health and environmental risks while supporting the transition toward sustainable materials across multiple industrial sectors.







PRODUCT

Greenlabs advanced bio-materials are made from biofatty oils, clove oils, & biomass based-furfural. Our bio-materials are suitable for PVC, adhesive, paint & coating industries.

SERVICE

Researchers from industry or academia may access our advanced characterizations to foster science in Indonesia. The high quality, quick service, and affordability are of our priorities.



NASHO

Smart Surface Care Powered by Nanotechnology

2nd Year Acceleration Phase

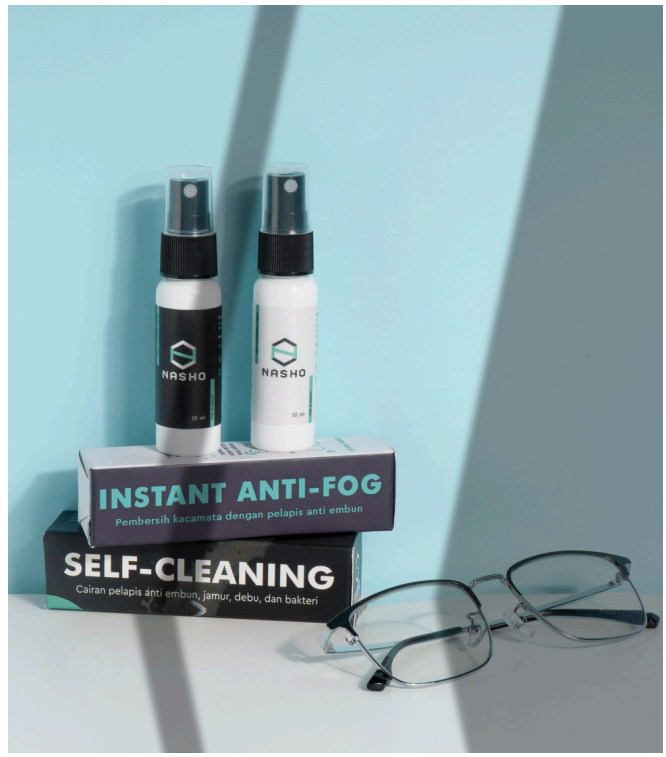
PT. Runesha Artha Sejahtera
https://nasho.id/
info@nasho.id

Nasho is a nanochemical company established in Bandung in 2019, specializing in consumer goods coatings and cleaning products made with safe materials. Its formulations are designed as multifunctional cleaners, offering anti-fog, anti-fungal, anti-dust, and antibacterial properties for eyewear.



Nasho currently offers three products in the market: a self-cleaning liquid for eyewear, a hand and surface sanitizer, and Nasho Hygiene Perfume.

Looking ahead, Nasho aspires to become a sustainable company by redefining the cleaning industry. To realize this vision, the company has established four key objectives: delivering superior product performance, transitioning toward the use of clean energy, achieving zero-waste operations, and creating positive social impact.





RESERVOAIR

Leading the Way in Water Conservation

1st Year Acceleration Phase

PT. Reservoair Konservasi Indonesia
https://www.reservoair.id/
hello@reservoair.id



Reservo Air is an eco-focused advanced material company providing end-to-end solutions for sustainable water management. We design integrated systems that capture rainwater, reduce flood risk, recharge groundwater, and help communities remain resilient during drought.

By combining material innovation, system design, and environmental insight, we work across the entire water cycle, from collection and infiltration to storage and reuse. Our solutions are designed to be scalable, durable, and adaptable, supporting urban, industrial, and community-scale water resilience.

Poreblock - Porous Concrete Block

Poreblock is a high-performance porous concrete block designed to absorb, store, and channel rainwater efficiently for sustainable water management. With a water infiltration rate of up to 5,000 mm/hour, Poreblock absorbs rainwater up to 100 times faster, reducing surface runoff and easing pressure on urban drainage systems.

Manufactured with Class B structural concrete (K-250), Poreblock combines durability with high permeability, helping reduce flood risk across residential, commercial, and public areas.



INDERA AGRI

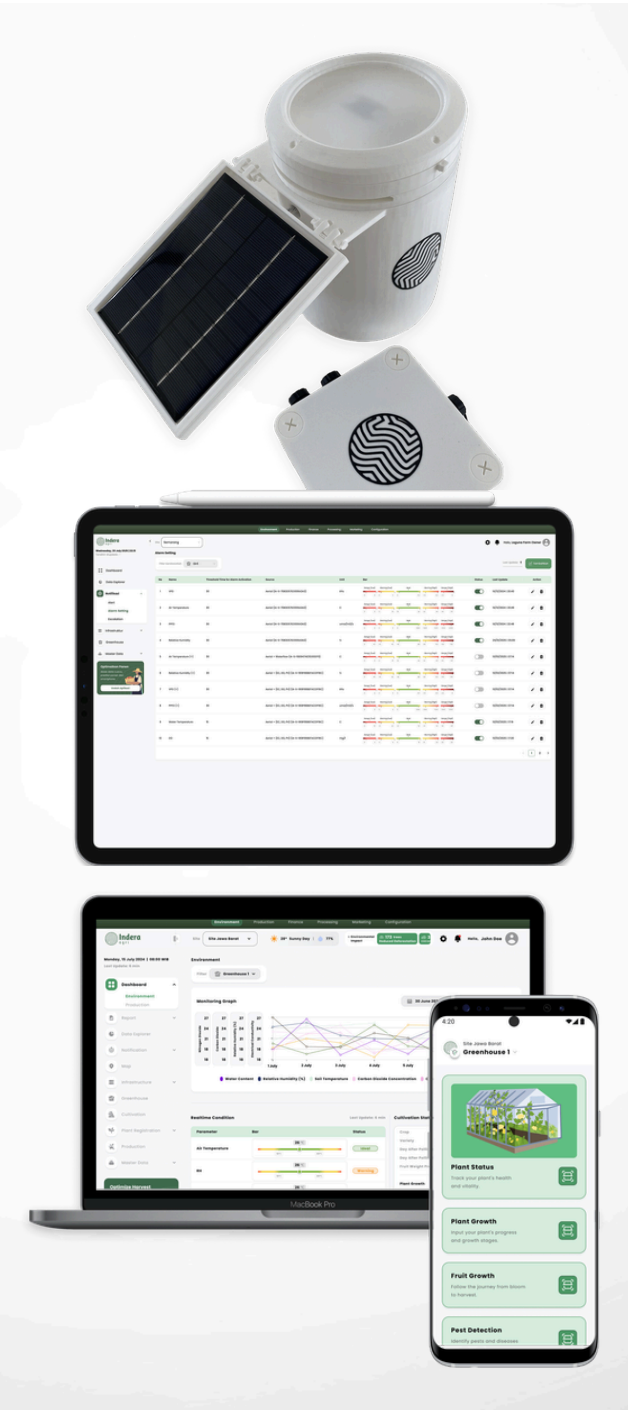
End-to-End Digital Infrastructure for Sustainable Precision Agriculture

1st Year Acceleration Phase

PT. Teknologi Presisi Membumi
https://www.inderaagri.id/
bagoes@inderaagri.id



Indera Agri is a company based in Indonesia, founded in 2023. It enables data-driven farming in Indonesia by deploying smart IoT and AI-driven digital platforms that drive higher yields, operational efficiency, and informed decision-making.



PRODUCTS AND SERVICES

SOLAR POWERED SMART IOT SENSORS

Monitor your microclimate, nutrient levels, and soil conditions in real time to optimize cultivation, enhance plant growth, and minimize plant mortality. Our durable long-range sensor is designed for easy installation, operates in remote areas without electricity, and covers large areas efficiently

AI POWERED END-TO-END FARM MANAGEMENT PLATFORM

Boost your farm's productivity and resilience with our AI-driven smart farm management platform. Accurately forecast yields, reduce plant mortality, proactively prevent disease outbreaks and adapt farm's financial and planning decisions instantly

FARM CONSULTATION AND ENGINEERING

From construction, research, insight discovery to farm operation, we'll guide you every step of the way to create your ideal greenhouse or open-field farm

INTEGRATED CONTROLLER

Fine-tune irrigation, nutrient delivery, and airflow with our advanced integrated controller, ensuring consistent plant growth, reducing water and fertilizer waste, and maximizing profitability

EBM SCITECH

Innovative Research and Analytical Excellence for Market-Ready Products

1st Year Acceleration Phase

PT. EBM Saintifk dan Teknologi
https://www.ebmscitech.com/
team@ebmscitech.com

EBM Scitech is a research-driven biotechnology company based in Bandung, West Java, Indonesia, founded in 2020. The company specializes in providing comprehensive research and development (R&D), laboratory analysis, and consultation services to support businesses, academic institutions, and government agencies in developing new products or validating and improving existing ones across the food, pharmaceutical, natural products, and life sciences sectors.



EBM Scitech operates state-of-the-art laboratory facilities—including natural product extraction, analytical chemistry, bioassay, and formulation labs equipped with advanced instruments such as chromatography and spectroscopy systems—to ensure rigorous, high-quality research outcomes. The company's services span bioactivity assays, phytochemical identification and characterization, product formulation and prototyping, and bespoke research and consulting projects tailored to client needs.

In addition to service-based work, EBM Scitech has successfully developed several spin-off products rooted in its scientific expertise and Indonesia's rich biodiversity, including research-validated herbal and natural ingredient brands. The company also collaborates with partners such as MUTU International to expand research, testing, and certification capabilities, particularly in the herbal product domain

With a team of experienced researchers and analysts, EBM Scitech bridges the gap between scientific research and commercial application, delivering solutions that help clients accelerate innovation, maintain product quality, and navigate complex regulatory and scientific challenges.

MarkHerb

Reference compounds from medicinal plants and their analysis services

Flabio

Herbal foods and supplements

NUU REBOOT

Natural cosmetic products

EBM INSTITUTE

Science workshop and training

OMICverse Unraveling Complexity

All omics services

ERSCH

Laboratory Instruments

INBIOTA

Indonesian biodiversity integrated database

ebm lib

Journal and book publishing

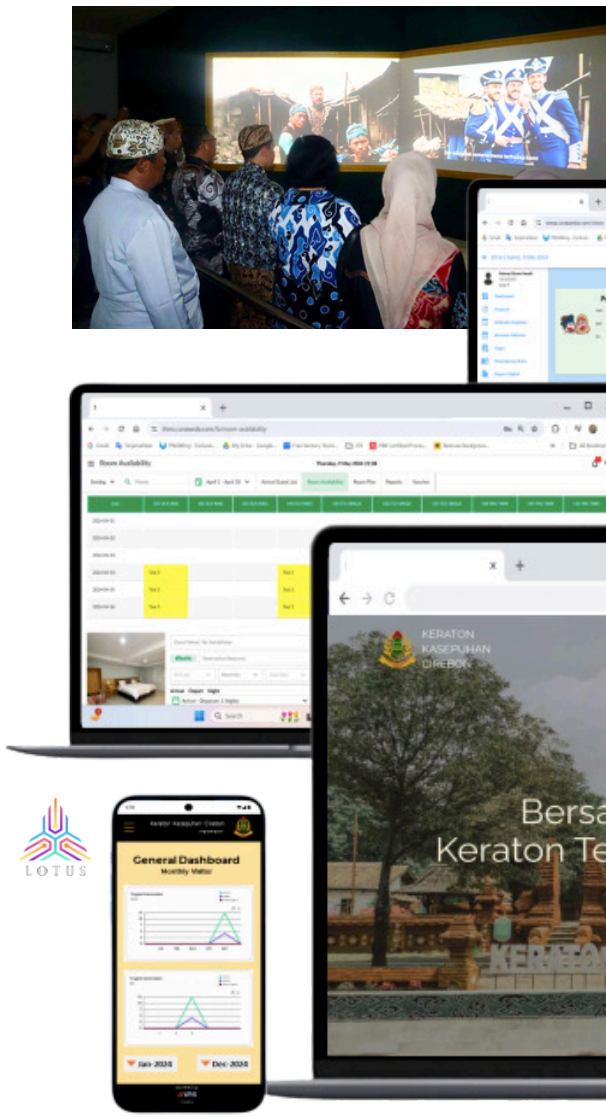
CURAWEDA

Catalyzing Inclusive Tech Innovation with Intelligent Software

1st Year Acceleration Phase

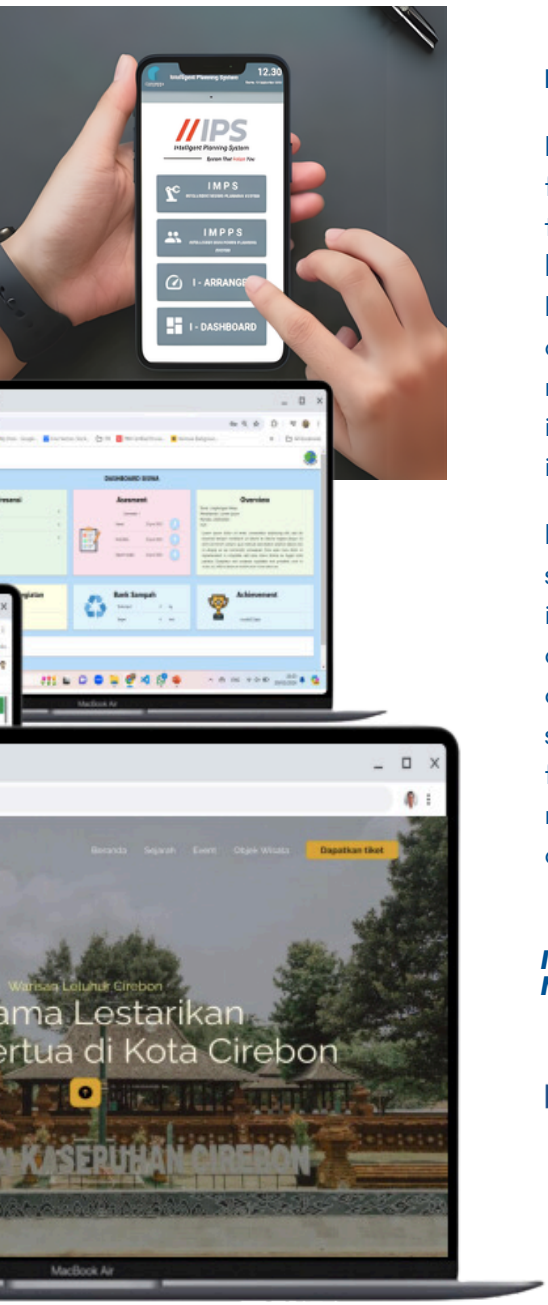
PT. Curaweda Palagan Innotech
https://curaweda.com/
info@curaweda.com

Curaweda is an innovative technology company headquartered in Bandung, West Java, Indonesia. Established with the mission to redefine how enterprises and institutions leverage software for operational excellence, Curaweda develops adaptive digital solutions that streamline processes, improve decision-making, and enhance organizational efficiency. Its flagship platform, the Intelligent Planning System (IPS), is a modular, "LEGO-like" technology designed to integrate with existing enterprise infrastructure or serve as a standalone system to automate planning, coordination, and resource optimization more effectively than traditional ERP tools.



Museum CAVE LOTUS (Museum AI)

A digital museum concept that offers interactive experiences based on artificial intelligence technology. The LOTUS Museum represents history and culture through engaging visual simulations and cinematic narratives, reaching young people and various audiences. The museum features an immersive, three-screen trapezoidal display, featuring hyper-realistic cinematic films generated by an AI engine created by Indonesian artists. Historical accuracy is directly validated by the museum's owners, enabling the presentation of history and culture to be more interactive for the younger generation.



Intelligent Planning System (IPS)

Intelligent Planning System (IPS) by Curaweda is a flexible, LEGO-like technology platform designed to streamline coordination and decision-making for businesses. It offers an alternative to traditional ERP systems by emphasizing planning and delegation rather than complex resource management. IPS integrates practical IT solutions into a cohesive system, helping organizations improve efficiency, collaboration, and adaptability.

Built with a modular architecture, IPS can be seamlessly integrated with existing business infrastructure or deployed as a standalone advanced ERP solution, making it adaptable for companies of varying sizes and industries. Its core strengths include enhanced coordination across functional units, streamlined data processing, reduced human error through automated algorithms, and improved operational efficiency.

Innovative Solutions for Smarter Business Management

I-SCHOOL
SMAGARIS technology
I-LOG
HMS
VISICLEAN
I.FAST
IPS Intelligent Planning System

BELL LIVING LAB

Grow Beyond Materials

1st Year Acceleration Phase

PT. Kurva Lonceng Khatulistiwa
https://www.belllivinglab.com/
hi@belllivinglab.com



Bells Society recycles agricultural waste—such as fruit residues and coconut coir—using microbial processes. The method is simple, efficient, and easily scalable, and can be implemented not only in laboratory settings but also at the household level. This initiative functions as both an environmentally friendly project and a social enterprise, partnering with local villagers in Cidaun, Cianjur, West Java, who previously faced unstable income. Bells Society provides basic training to enable them to produce the materials independently. The resulting material serves as a sustainable alternative for the textile industry, which is currently dominated by environmentally harmful products and production processes.



WE COLLECT ORGANIC WASTE FROM FARMERS AND COFFEE SHOPS, PARTNERING TOGETHER TO CREATE BIGGER IMPACT



WE PROCESS ORGANIC WASTE INTO VARIOUS KINDS OF LOW IMPACT MATERIALS



WE CREATE PRODUCTS TOGETHER WITH OUR PARTNERS, FULFILING THE NEEDS OF BETTER PRODUCT IN THE MARKET.











The resulting materials can substitute environmentally harmful products in industries such as textiles, fashion, and furniture, where conventional production often relies on non-eco-friendly inputs and generates significant pollution. Bell's biomaterials—such as M-Tex coffee leather and C-FOAM panels—demonstrate performance and versatility that rival traditional leather and board products while reducing environmental impact.

Bell Society's bio-based materials offer a compelling solution for a more sustainable and circular textile industry by transforming waste into durable, functional alternatives that help mitigate pollution and reduce reliance on harmful materials.

ALGATEK

Turning Carbon into Sustainable Value Through Algae Innovation

1st Year Acceleration Phase

PT. Algatek Karbon Nusantara
https://algateknusantara.com/
algateknusantara@gmail.com

Algatek is an Indonesian biotechnology company committed to advancing sustainable solutions through the integration of algae and plankton technologies with Internet of Things (IoT) systems. The company focuses on carbon capture optimization, photobioreactor innovation, scalable biomass production, and the development of algae-based derivatives that support renewable energy, agriculture, and environmental industries. By combining biological science with digital monitoring and control technologies, Algatek delivers data-driven, efficient, and environmentally responsible solutions that contribute to climate mitigation, resource efficiency, and the transition toward a circular bio-economy.

Through biotechnology, engineering, and environmental science, Algatek enables industries to:

- Achieve decarbonization targets
- Improve competitiveness with green technologies
- Support Indonesia's transition to Net Zero Emission with low-carbon industrial innovation



PRODUCTS

ALGATEK INDOOR PHOTOBIOREACTORS (PBR)

The Indoor Photobioreactor (PBR) is a microalgae-based air purification system designed to capture CO_2 and airborne pollutants within enclosed environments.

ALGATEK OUTDOOR PHOTOBIOREACTORS (PBR)

The Outdoor PBR captures CO_2 from industrial flue gas using microalgae technology, converting emissions into renewable biomass through a sustainable, sunlight-powered system.



ALGATEK DERIVATIVE PRODUCTS
ALGATEK SOIL BOOSTER SERIES

The Indoor Photobioreactor (PBR) is a microalgae-based air purification system designed to capture CO_2 and airborne pollutants within enclosed environments.

ALGATEK WATER TREATMENT SERIES

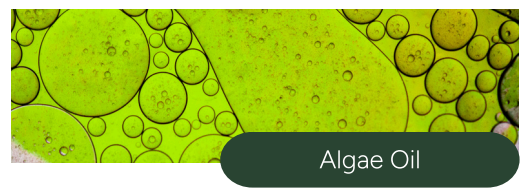
Water treatment services to decrease COD, Fe, and Mn contaminants by Algae technology.

ALGATEK BIOMASS DERIVATIVES

Renewable energy for carbon-neutral and other biomass applications.











AGROBOT

Transforming Farm Operations Through Robotics

1st Year Acceleration Phase

PT. Agrobot Bangun Nusantara
https://www.agrobot.com/
wijayandaru@agroobot.co.id





Agrobot is a pioneering agricultural robotics company dedicated to advancing smart farming through practical, automated solutions that address the critical challenges of labor shortages and operational efficiency in modern agriculture. With a strong foundation in mechatronics, computer vision, and autonomous systems, Agrobot develops intelligent robotic platforms tailored for delicate and high-precision field tasks.

Agrobot's flagship innovations include the E-Series robotic harvesters, designed specifically to gently and accurately pick strawberries using up to 24 coordinated robotic arms equipped with real-time AI vision and sensor systems. The adaptable, autonomous platform enables selective harvesting that meets quality standards while significantly reducing reliance on manual labor and improving overall productivity.

In addition to harvesting, Agrobot's portfolio includes autonomous field solutions such as the Bug Vacuum robot, which delivers efficient pest management through autonomous navigation and targeted vacuuming, offering farmers a cost effective alternative to traditional pest control methods.

Built for rugged agricultural environments and empowered by embedded machine learning, Agrobot's technologies integrate perception, motion control, and sensor fusion to transform how farms operate bridging traditional agricultural practices with cutting-edge automation for more resilient, efficient, and sustainable food production.

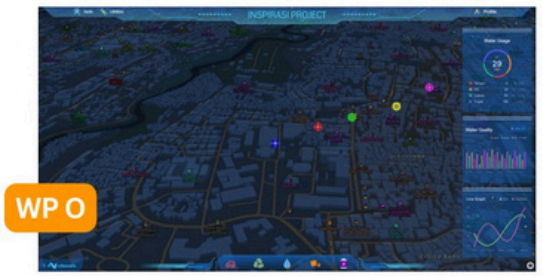


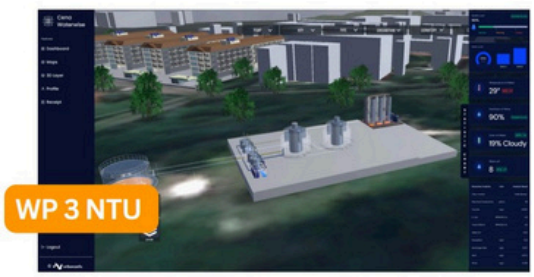
URBANSOLV.ID

Intelligent Geospatial Solutions for Smarter Cities

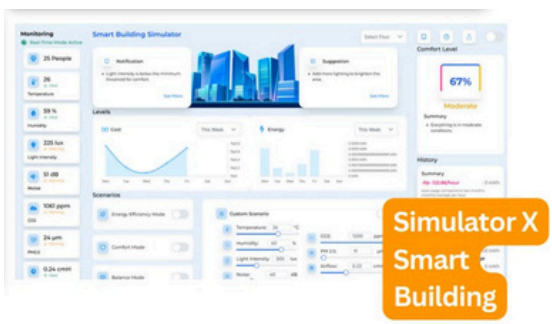
Incubation

PT Multimedia Solusi Prima
https://urbansolv.co.id/
contact@urbansolv.id









UrbanSolv is a technology-driven company specializing in Geospatial Analytics, Digital Twin, and Artificial Intelligence to support data-driven decision-making for urban development, infrastructure, and spatial planning. By integrating advanced spatial data, AI-powered analytics, and dynamic digital twin models, UrbanSolv transforms complex geospatial information into actionable insights.

The solutions enable governments, enterprises, and urban stakeholders to better understand, simulate, and optimize urban systems—enhancing efficiency, resilience, and sustainability across planning, monitoring, and operational processes.

Through this integrated approach, UrbanSolv enables data-driven decision-making, smarter urban development, and collaborative innovation—supporting governments, institutions, and stakeholders in shaping resilient and sustainable cities.





CENA (Centralized Analytics) is an integrated analytics platform developed by UrbanSolv to enable intelligent, data-driven management of buildings and built environments. Designed as a centralized decision-support system, CENA brings together digital twin technology, artificial intelligence (AI), and real-time data monitoring to provide a comprehensive and holistic view of spatial, operational, and environmental performance.

By consolidating data from multiple sources into a unified analytics platform, CENA allows stakeholders to visualize conditions, monitor performance, and identify patterns across buildings and surrounding environments. AI-powered insights and predictive analytics support proactive decision-making, helping optimize operations, improve efficiency, and enhance sustainability outcomes.

CENA is built to support a wide range of use cases, including facility management, environmental monitoring, energy optimization, and urban asset management. Through its scalable and modular architecture, the platform empowers governments, enterprises, and property managers to manage complex spaces more effectively—transforming raw data into actionable intelligence for smarter, more resilient, and future-ready environments.

PELIHARA

Empowering Veterinary Clinics Through Smart Management

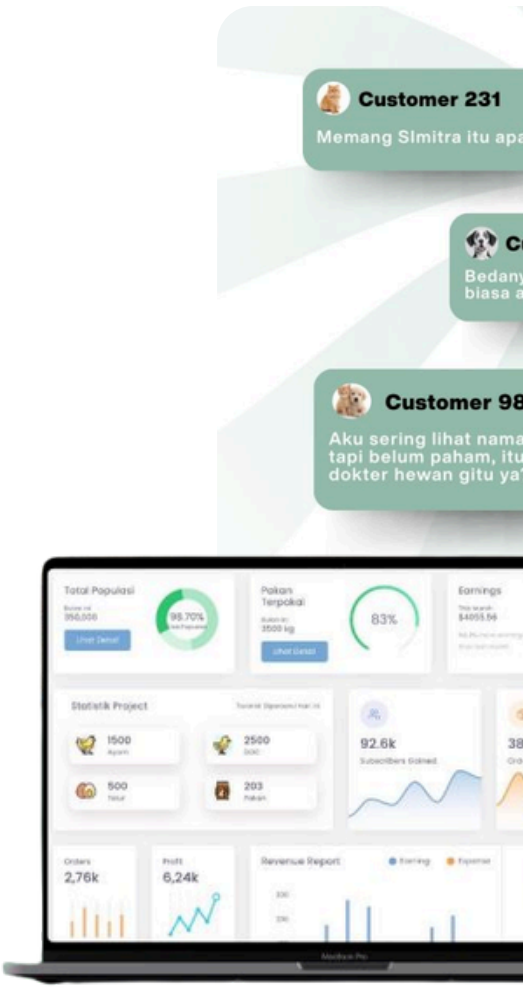
Incubation

PT. Pelihara Hewan Bahagia
https://www.pelihara.co/
halo@pelihara.co

Pelihara is a digital platform designed to support pet owners and businesses across the pet industry ecosystem. The platform focuses on delivering integrated solutions that help modernize and streamline operations within veterinary and animal care services.

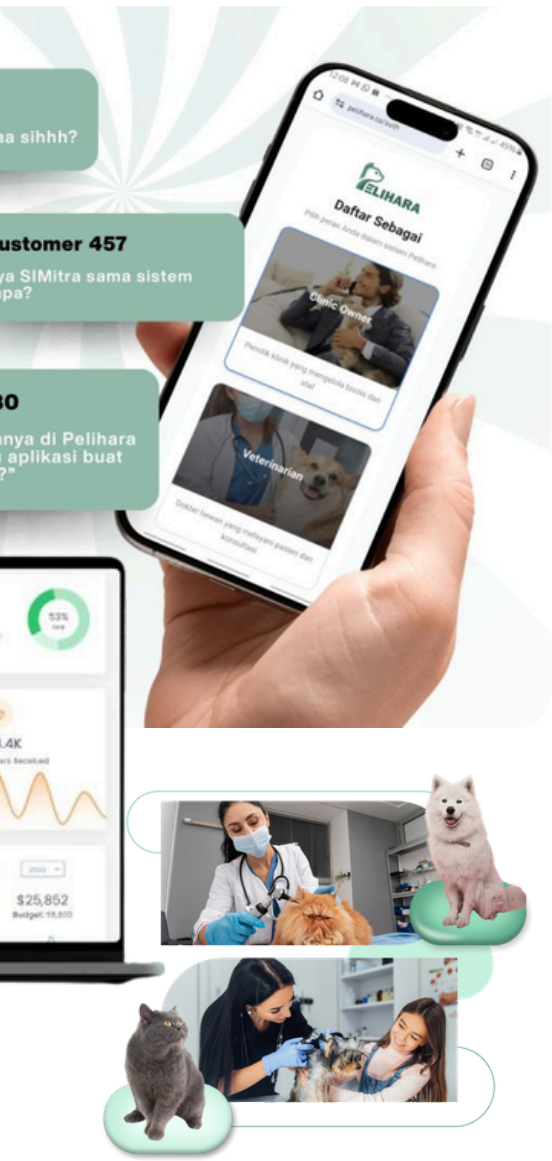
Currently, Pelihara is developing a business management software for veterinarians and veterinary clinics, accessible across multiple platforms including Windows, iOS, and Android. The solution is built to improve operational efficiency, enhance service quality, and support data-driven decision-making for animal healthcare professionals.

Committed to continuous innovation, Pelihara aims to accelerate the digital transformation of the pet community and pet industry in Indonesia. Through the development of the Pelihara Ecosystem, the platform seeks to connect pet owners, veterinary professionals, and pet businesses—fostering a more connected, efficient, and sustainable pet industry nationwide.



SiMitra Pelihara

SiMitra Pelihara is a digital management solution purpose-built to significantly improve the operational efficiency of veterinary clinics. The platform enables clinics to manage daily operations in a more structured, organized, and scalable manner through an integrated and reliable management system.



Designed to support professional veterinary practices, SiMitra Pelihara helps clinics optimize workflows, enhance service quality, and prepare for sustainable growth with software that evolves alongside the business.

SiTernak Pelihara

SiTernak Pelihara is an integrated ERP solution developed to support data-driven decision-making in the livestock and animal-based business sector. Through a centralized dashboard and automated data processing, the platform provides real-time visibility into operational and business performance.

By streamlining data management and business processes, SiTernak Pelihara enables organizations to improve efficiency, strengthen control, and increase productivity with a system designed to scale as the business grows.

PeliharaKu

PeliharaKu is a lifestyle-oriented digital platform that brings together essential services for pet owners within a single integrated application. The platform simplifies access to veterinary services, medical records, and pet-related products in one seamless experience.

By connecting pet owners with veterinary clinics and pet businesses, PeliharaKu enhances convenience, transparency, and engagement—supporting a more connected and digitally enabled pet care ecosystem.

LEAD AI

Data Intelligence for Drug Discovery

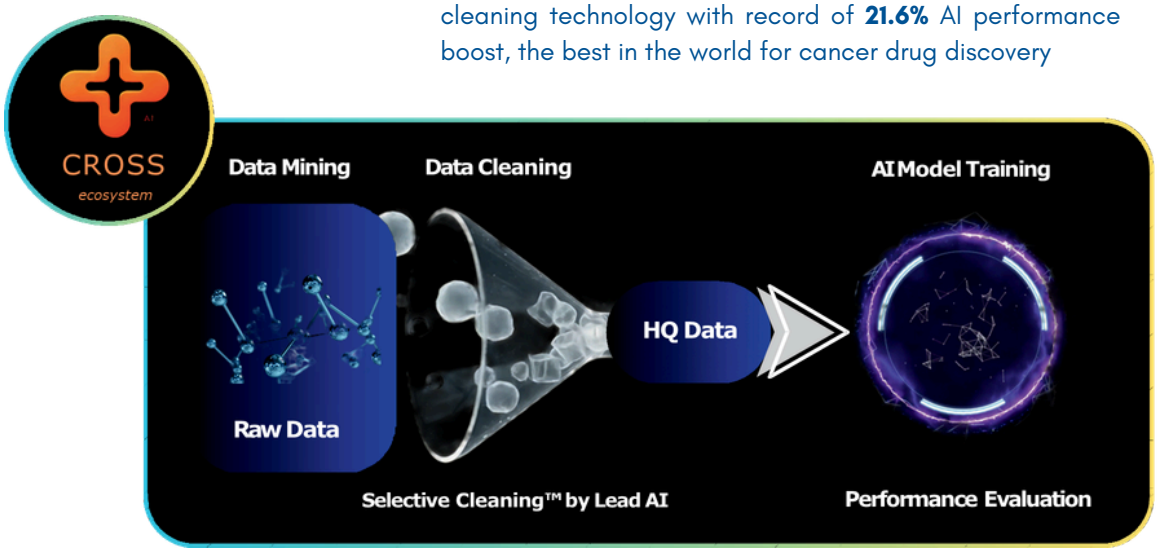
Incubation

PT. LEAD AI Indonesia
aileadyou.com
firdaus@aileadyou.com

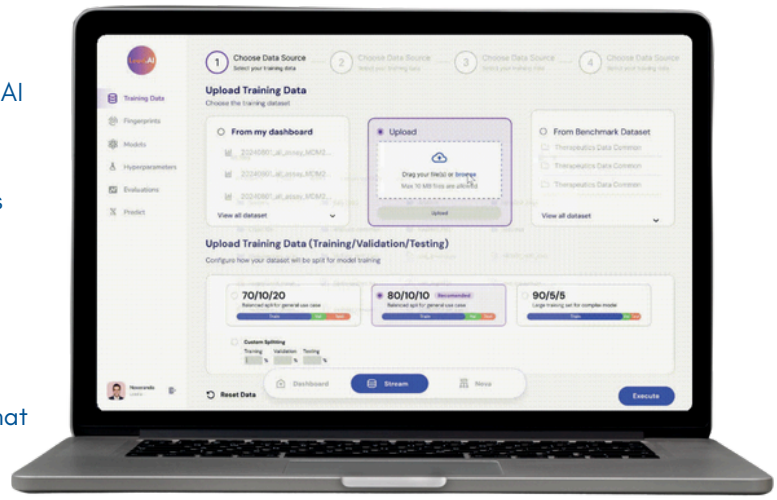
Lead AI is a data-centric artificial intelligence company dedicated to supporting pharmaceutical and biotechnology organizations in building reliable, high performing AI models. By transforming complex, noisy, and fragmented scientific data into clean, trusted, and high-quality datasets, Lead AI enables more accurate, reproducible, and dependable AI-driven research outcomes.

At the core of Lead AI's offering is advanced data cleaning and preprocessing technology designed specifically for bioactivity and drug discovery data. This foundation ensures that AI models are trained on robust datasets, significantly improving model reliability, performance, and decision-making across research and development pipelines. Through its end-to-end approach from data handling and feature engineering to AI model development, Lead AI helps organizations accelerate research while reducing inefficiencies caused by poor data quality.

CROSS is Lead AI's flagship service utilizing special data cleaning technology with record of **21.6%** AI performance boost, the best in the world for cancer drug discovery



Guided by a vision to become a trusted AI data partner in pharmaceutical and biotechnology research, Lead AI is committed to building scalable data solutions grounded in scientific rigor. Its mission is to strengthen AI adoption in life sciences by improving model accuracy, enabling actionable insights from complex data, and ultimately driving innovation that advances drug discovery and patient outcomes.



Research Productivity Platform

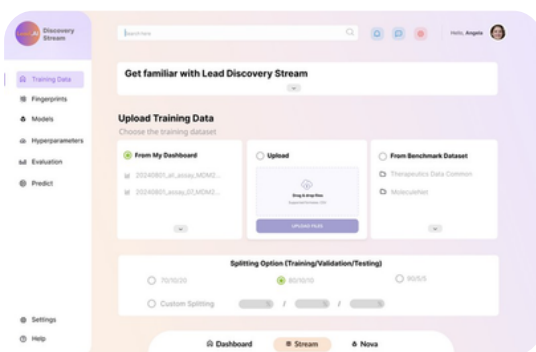
Unified, secure system tailored to pharmaceutical R&D workflows, enabling centralized management of experimental, formulation, and clinical datasets

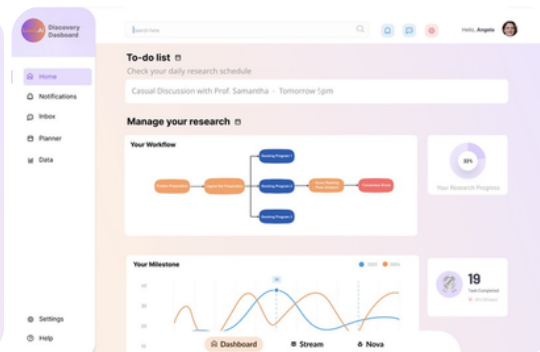
Predictive AI for Pharmaceutical Company

Lead AI train custom AI models on your proprietary data to prioritize high-potential drug candidates, reduce trial-and-error, and shorten discovery timelines.

Personalized AI Development

Lead AI build bespoke AI models based on your specific objectives; whether it's compound prioritization, mechanism prediction, QC automation, or clinical data analysis.





Lead Stream: Data Handling & AI Training

- Data Preprocessing
- Data Cleaning
- Feature Engineering

Lead Dashboard: Researcher Profile & Data Profile Tools

- Electronic Lab Notebook
- Exploratory Data Analysis

HAMASA LAB

Technology Enhancing Spiritual Focus and Comfort

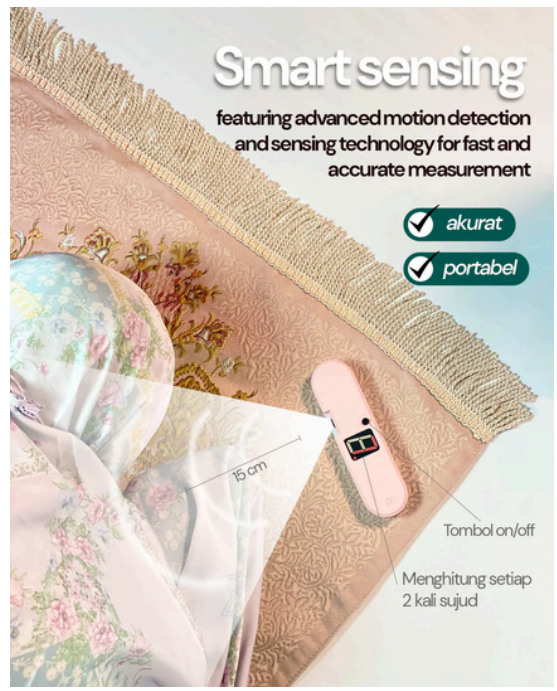
Incubation

PT. Hamasa Inovasi Teknologi
https://international.hamasalab.com/
prima@hamasalab.com



Hamasa Lab is an innovation-driven technology brand dedicated to creating smart devices that enhance everyday spiritual experiences for the global Muslim community. The product portfolio focuses on solutions that integrate functional design with modern technology to support meaningful, focused worship and daily devotional practices.

The range includes advanced tools such as smart prayer counters and pressure-sensor prayer mats, which are engineered to help users maintain concentration and accuracy during prayer without distraction. These products combine comfort, precision tracking, and thoughtful craftsmanship to elevate the quality of worship and promote ease of use for individuals of all ages.



By merging tradition with contemporary technology, Hamasa Lab strives to empower spiritual engagement in everyday life, providing solutions that respect cultural values while embracing innovation.





GOOPO

An Integrated Milk Supply Chain for Food & Beverage Retail

Incubation

PT. Goopo Inovasi Indonesia
https://goopo.id/
customer@goopo.id

Goopo Indonesia was established in 2021 with the mission to build an open, efficient, and modern ecosystem that empowers farmers.

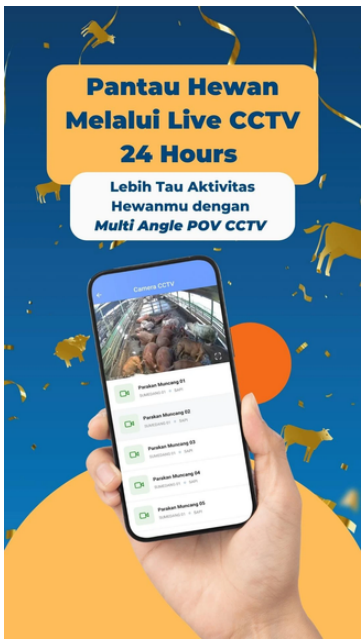
The company provides a digital platform that enables strategic partnerships with external farmers while managing integrated farm operations. Its business operates across three synergistic verticals, two of which have successfully developed downstream products.

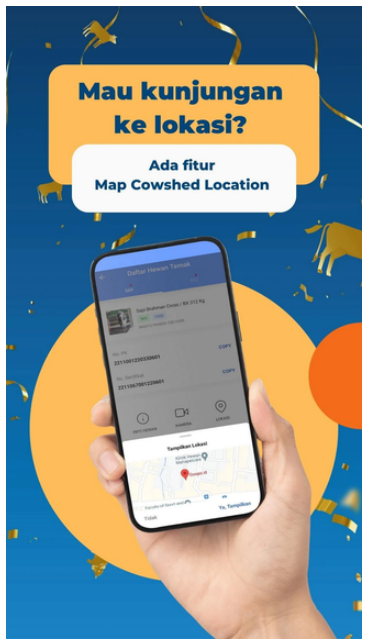
Business Lines:

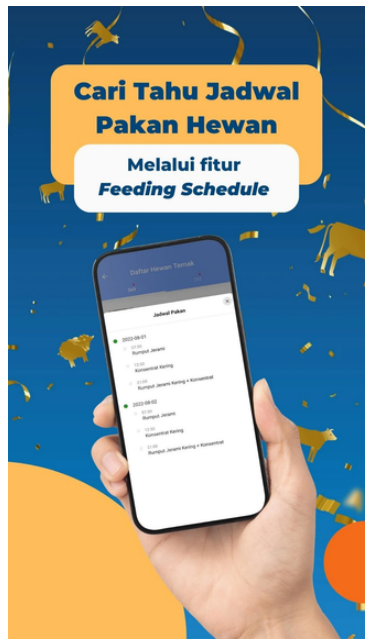
- Farm Management – Goopo App
- Beef Cattle Farm – Beef Product Brand
- Dairy Farm – Sustainable Milk Supply Chain for B2B

Through its dairy business, Goopo Indonesia delivers better and fresher milk solutions tailored for coffee shops and F&B retail. The approach emphasizes sustainability through reusable containers to reduce waste and packaging costs, supported by specialized solutions designed to improve efficiency in F&B operations.

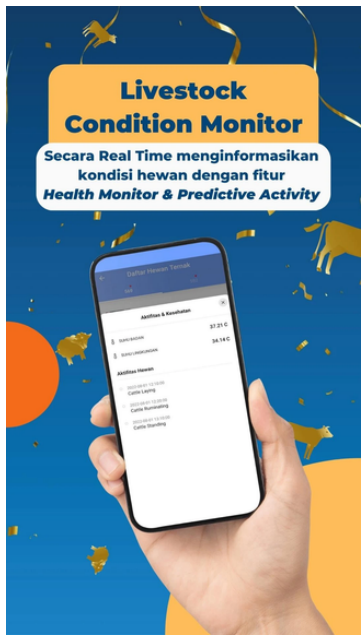



Pantau Hewan Melalui Live CCTV 24 Hours
Lebih Tau Aktivitas Hewanmu dengan
Multi Angle POV CCTV


Mau kunjungan ke lokasi?
Ada fitur
Map Cowshed Location


Cari Tahu Jadwal Pakan Hewan
Melalui fitur
Feeding Schedule


Mau tau prediksi imbal hasilnya?
Ada fitur
Fact Sheet Analysis


Livestock Condition Monitor
Secara Real Time menginformasikan kondisi hewan dengan fitur
Health Monitor & Predictive Activity


Fitur My Feed
Update informasi terkini tentang dunia peternakan

DAGO KINEMATIC

From Monitoring to Prevention:
Autonomous Safety for Mining Fleets

Incubation

Spin of from Riset.ai
https://www.riset.ai/
dhimas@riset.ai

MineGuard is an AI-based active safety retrofit system developed for mining vehicles to enhance operational safety in demanding, 24-hour mining environments. The system integrates Obstacle Detection, Autonomous Emergency Braking (AEB), and a Driver Monitoring System (DMS) to provide real-time hazard detection and active intervention capabilities.

MineGuard addresses critical safety challenges in the mining industry, including high accident rates caused by driver fatigue, limited visibility due to blind spots, and the absence of active safety intervention systems in existing vehicle fleets. By enabling real-time monitoring and automated responses, the solution significantly improves risk mitigation for heavy equipment operations.

The product has currently reached Technology Readiness Level (TRL) 6, progressing toward TRL 7, following successful system integration with an IT partner and full-scale testing on a mining vehicle unit. Initial validation indicates strong market potential, with the IT partner expressing readiness to commercialize MineGuard as an add-on to their existing systems.

Beyond operational benefits, MineGuard delivers measurable social impact by reducing workplace accident risks and enhancing driver safety, while also contributing to environmental impact through improved operational efficiency of heavy vehicles in mining operations.




GEDUNG STP ITB



dkst.itb.ac.id dkst@itb.ac.id @dkst_itb | @inkubator_itb