



Sustainable Development Goals Report



2023





FOREWORD

Prof. Dr. Ir. Mochamad Ashari, M. Eng., IPU, A.Eng.

Rector of Institut Teknologi Sepuluh Nopember

Welcome to Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia, a leading research university that excels in orchestrating technology, research, and engineering with design and art, making them the foundations for advancing humanity.

We made this report as a brief note of our contributions and efforts in making our motto, Advancing Humanity, tangible. Our efforts in advancing humanity are in line with the UN's mission, as summarized in the 17 points of the Sustainable Development Goals, and it is a huge task that requires strong synergy from our internal stakeholders and reciprocal partnership with global partners.

We are grateful, especially in these two years when the pandemic took place, that the partnership with numerous global institutions bore significant contributions in maintaining quality education and research; and also pushed opportunities for innovations.

We are proud that our synergy with industry and society produced positive results, especially in Goal 7, Affordable and Clean Energy. As for this year, we were successful in developing the potential prototypes of power plants and electricity supply for underprivileged areas, creating concrete innovations as solutions to reduce carbon emissions, and expanding partnerships with industries to implement renewable energy-based projects.

We are happy to share this report for reference and inspiration. Along with this, we invite anyone to discuss, synergize, and innovate with us.



No Poverty



Sustainable Development Goals Report 2023

“Over 10% of the world’s population live in extreme poverty, unable to fulfill the most basic needs such as food, health, education, access to clean water and sanitation. Universities need to be able to demonstrate how they are helping to address this problem through their work.”

THE Impact Rankings





No Poverty



Sustainable Development Goals Report 2023



STATISTICS

7,058

Low income students
receiving financial aid

20,851

Number of students

8

Number of publications
2019 - 2023





Breaking Barriers: ITS' Comprehensive Approach to Education

ITS is deeply committed to anti-poverty initiatives at the university level, offering a variety of scholarships to support both national and international students from economically disadvantaged backgrounds. A key offering is the Bidikmisi/KIP-K scholarship, targeting students from the lowest 20% income group, applicable to most study programs except Joint Degree and the International Class Undergraduate Program (IUP). This scholarship alleviates financial burdens, enabling students to pursue higher education.

The ADIK 3T scholarship, supported by the government, provides educational opportunities to students from Indonesia's most remote and underdeveloped regions, ensuring they have access to quality higher education. Additionally, ITS collaborates with Kemenristekdikti to offer affordable housing, particularly benefiting Bidikmisi recipients. The ITS Endowment Fund, sourced from alumni, the community, and other contributors, supports the Tri Dharma of Higher Education. In 2023, ITS allocated substantial financial aid, including tuition and living cost support for KIP students. This fund backs various scholarships, such as Dana Abadi, covering institutional fees, tuition, and living expenses.

Moreover, the BBM scholarship, provided by the government, offers financial assistance to students whose parents cannot afford their education, ensuring financial constraints do not impede educational pursuits. Overall, ITS's scholarship programs reflect a strong commitment to reducing poverty and promoting educational equity, providing essential financial support to students from diverse backgrounds, both nationally and internationally.



ITS Leads Inclusive Development: Bridging Economic and Resource Gaps in Indonesian Communities

ITS creates effective pathways to get out of poverty for vulnerable populations both in urban and rural areas. ITS tries to break down traditional economic barriers by giving essential resources and opportunities in the technology sector through ITS' entrepreneurship programs (WMK, IYT, and KBT). These initiatives are supported by the East Java Cooperative and SME Office to enable participants to showcase innovations and build significant business networks, aligning with Indonesia's 2045 Golden Vision of inclusive economic growth.

The impact affects to rural communities through targeted infrastructure and economic empowerment projects. ITS addressed critical water accessibility issues by implementing a sustainable water reservoir system, benefiting 70 families and establishing community-managed maintenance systems starting from Pacitan's Mantren Village. Similarly, in Ceweng Village, Jombang, ITS combines natural resource processing with digital inclusion, particularly empowering women and youth through the "IT'S Le Za Too" food processing brand, digital marketing training, and solar panel technology implementation.

Through diversified approach ITS ensures communities can access economic resources through entrepreneurship, basic services through infrastructure development, and financial opportunities through digital platforms and microfinance. By constantly addressing immediate needs and long-term development goals, ITS demonstrates how institutional initiatives can effectively bridge resource gaps and create sustainable pathways for community empowerment across Indonesia, proving that equal access to resources and opportunities builds resilient, self-sustaining economies benefiting all members of society.





Zero Hunger



Sustainable Development Goals Report 2023

“The ability to feed the world is a key element of sustainable development. If done right, agriculture, forestry and fisheries can provide nutritious food for all. At the same time it can ensure rural development with people at the centre of the process, supporting the incomes of those who rely on agriculture. Universities need to be able to demonstrate how they are contributing to end hunger, achieve food security and improved nutrition and promote sustainable agriculture”

THE Impact Rankings





Zero Hunger



Sustainable Development Goals Report 2023



STATISTICS

151.7 ton

Total food waste

25,340

Campus population

96

Number of publications
2019 - 2023



ITS Offers Sustainable Healthy, and Affordable Food Choices on Campus

Institut Teknologi Sepuluh Nopember (ITS) is reconstructing campus dining to prioritize sustainable food choices that enhance the health and well-being of students, faculty, and staff. ITS offers a broad variety of nutritious and affordable options, including vegetarian and vegan meals starting from Nasi Pecel, Gado-Gado, fresh fruit juices, until mushroom-based dishes making it an award-winning Central Canteen and other dining facilities. These are the efforts to support physical and cognitive health with sustainable choices, fostering a culture of wellness and productivity.

The ITS Central Canteen recently received top honors in the National Halal, Safe, and Healthy Culinary Zone (KHAS) program by the Indonesian Ministry of Health and the National Sharia Economic and Financial Committee. This recognition highlights ITS's commitment to strict hygiene, sanitation, and comprehensive halal certification, ensuring a reliable and inclusive dining experience for all.

Aligned with ITS' Smart Eco Campus initiative, the Central Canteen also incorporates sustainable practices such as a waste bank and cashless payment systems, promoting environmental responsibility alongside healthy eating. ITS' focus on sustainable food choices creates an inclusive campus environment that encourages lifelong healthy habits within the academic community.



ITS Advances to Prevent National Hunger by Scaling Agriculture with Smart Farming

At the heart of Indonesia's struggle with food security, rising food prices, and land conversion lies a pressing need for change in how we approach agriculture. To help tackle these challenges and work toward achieving Zero Hunger, ITS has introduced the concept of Smart Farming — a game-changing approach that uses technology to make agriculture more efficient, sustainable, and productive.

In the event of Professor Summit 2023 in ITS Research Center Auditorium, Prof. Dr. Ir. Teguh Soedarto MP from UPN "Veteran" East Java presented an innovative Smart Farming system. This provides an answer to the obstacle of Indonesia's food security, especially in the conversion of agricultural land and declining rice reserves in the National Logistics Agency (Bulog). The system involves using automated machinery like rice planters, soil processors, and harvesters that work together to streamline the farming process, reduce time, and increase yields. Drones, too, play a key role, offering a high-tech solution for managing pests, applying fertilizers, and planting seeds with incredible precision. These technologies not only improve productivity but also help to cut costs and reduce waste, making farming more efficient.

For Indonesia, Smart Farming is a major breakthrough to prevent hunger. By leveraging technology, farmers can increase crop yields while minimizing the environmental impact — using less water, fewer chemicals, and maximizing the land they have. This is particularly important in a country where traditional farming methods are struggling to keep up with the growing population and shrinking agricultural land. By helping farmers grow more food, more efficiently, and sustainably, Smart Farming brings us a step closer to a future where hunger is no longer a reality but a thing of the past.



Tackling Urban Hunger: ITS Community Service Internship Program Empowers Local Communities with Hydroponic Farming

In an effort to address food security and reduce hunger in urban areas, Institute of Technology Sepuluh Nopember (ITS) has launched an innovative hydroponic farming initiative through its Community Service Internship Program (KKN Abmas-Kuliah Kerja Nyata Pengabdian Masyarakat). With limited productive land available in urban environments like Keputih Timur Pempa Air, this program aims to empower local residents to grow their own food sustainably.

The KKN Abmas team provided hydroponic farming training to members of the Family Welfare Development (PKK) community group. The training included everything from seedling planting to crop maintenance and harvesting, with a focus on creating a new source of food production in spaces where traditional agriculture isn't feasible. The hydroponic system used in the training relies on a circulation mechanism that efficiently moves water through pipes, allowing crops such as mustard greens to grow quickly — with a harvest time of just 28 days. In addition to mustard greens, participants also learned to grow tomatoes and chilies using polybags with an automatic irrigation system.

One of the key benefits of this initiative is its potential to generate additional income for local families. By selling their produce, PKK members gain a source of revenue while improving local food security. The KKN Abmas team hopes that the success of this program will inspire other communities to adopt similar sustainable farming practices.

This initiative is a direct response to the growing challenge of hunger in urban environments, showing how small-scale, innovative farming methods can improve food availability and empower communities. By providing both practical skills and a sustainable income stream, ITS is making a meaningful contribution to the SDG of Zero Hunger and supporting national efforts to address food insecurity.



Supporting Food Security: ITS Launches Smart Mini Sorghum Sweetener Factory

In an effort to support the Indonesian government's goal of achieving national food self-sufficiency, the Institut Teknologi Sepuluh Nopember (ITS), in collaboration with CV Agriutama, has launched the Smart Mini Sorghum Sweetener Factory in Jombang. This state-of-the-art facility is designed to contribute to the country's food security and ensure a stable supply of raw materials for the national industry, aligning with the objectives outlined in Presidential Regulation (Perpres) No. 40/2023 on accelerating national sugar self-sufficiency and bioethanol production.

The factory is part of a broader research initiative exploring the potential of sorghum, a versatile crop that can be used to produce various products beyond sugar. In addition to sorghum-based sweeteners, the research team has developed other innovative products such as sweet soy sauce, red and white rice, vegan honey, and flour. This research is expected to play a key role in strengthening the country's food security and diversifying the agricultural supply chain.

One of the main advantages of the Smart Mini Sorghum Sweetener Factory is its use of sorghum, a crop that can be harvested multiple times per year, unlike sugarcane. This makes sorghum an attractive alternative raw material for sugar production, providing an opportunity for Indonesia to diversify its agricultural base. With this innovative approach, the factory aims to revitalize the sugar industry and attract investment from both domestic and international sources.

The success of the Smart Mini Sorghum Sweetener Factory is also supported by the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) and the vision of CV Agriutama to advance national food security. This project is seen as a vital step toward achieving greater food sustainability in Indonesia and addressing the nation's growing demand for secure, high-quality food sources. Through this initiative, ITS hopes to contribute to the long-term goals of national food self-sufficiency and resilience.





Good Health and Well-Being



Sustainable Development Goals Report 2023

“Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development. There is an urgent need to fully eradicate a wide range of diseases and address many different persistent and emerging health issues. We are exploring how universities deal with specific conditions and diseases, and support their community.”

THE Impact Rankings





Good Health and Well-Being



Sustainable Development Goals Report 2023



STATISTICS

584

Number of publications
2019 - 2023





ITS Leads Comprehensive Initiative to Enhance Sexual Health Education and Combat Campus Sexual Violence

Institut Teknologi Sepuluh Nopember (ITS) initiatively launched a data-driven to foster a safe and more informed campus remembering that rising concerns over sexual violence in higher education, with rates reaching up to 35%, according to the Ministry of Education, Culture, Research, and Technology. This effort combines preventive education and responsive support with a strong focus on sexual health education and misconduct prevention.

Awareness about sexual health, cultural sensitivity, and witness intervention is what ITS trying to incite in the education environment. Partnering with student organizations, ITS holds annual workshop engaging with hundreds of students each semester with essential knowledge and practical skills to recognize and prevent incidents. This ensures that our 800+ students studying abroad have continuous access to university resources and stay informed and prepared.

By implementing a confidential reporting system that is accessible 24/7 and with an average response time of under 48 hours to offer personalized guidance and counseling. Student's trust is growing because the availability of emergency support is accessible through campus security in order for protective measures.



Alur Pelaporan Kasus Kekerasan Seksual oleh Satgas PPKS ITS



Enhancing Healthcare Access through ITS Collaboration with Health Institutions and Social Foundation

ITS has undertaken substantial efforts in improving accessibility to basic health care revolving around health for all. Helping this effort, ITS works with social foundations and healthcare institutions, especially those who are located in remote areas and people with mental disabilities.

For instance, in one of the key interventions of Al-Hafish Foundation, mental disabilities are treated with a rehabilitation program in order to reintegrate the individual back into the community and change stigmas of the society toward this group of people for better acceptance. Additionally, in cooperation with ITS Alumni Association (IKA ITS), the People's Health Ship project has been developed. This initiative delivers healthcare services to remote areas with limited access to conventional facilities, particularly in riverine regions like Kalimantan and Sumatra. The ship has basic healthcare facilities, patient rooms, and diagnostic equipment, and operates on eco-friendly hybrid green energy.

In addition, ITS, by means of its PT Tekno Sains Medika company, has made seven innovations directed to the enhancement of the medical healthcare system with the use of 3D printing, augmented reality (AR) and other digital technologies. These advancements increase effectiveness and less dependence on imports, providing availability of items such as implants, amputation aids, bone replicas and other medical teaching aids for hospitals and universities of competitive price and quality within Indonesia.



ITS Health Outreach Programmes: Promoting Health and Safety Education for East Surabaya Fishermen

On Sunday, October 1, 2023, the Medokan Ayu Fishermen Group from the Mangrove Botanical Garden tourism area in Gunung Anyar, along with Peduly Surabaya volunteers and Mrs. Santi Frestiqauli, S.T., M.T., a lecturer in Ocean Engineering, conducted a community service activity on behalf of the Hydrodynamics of Offshore Structures Laboratory. This initiative, supported by the Department of Ocean Engineering and the Directorate of Research and Community Service for the 2023 academic year, emphasized the importance of health and safety education for fishermen.

The program aimed to raise awareness about prioritizing health and safety in every job, including fishing, crabbing, fish farming, and other related tasks. By instilling these practices, the initiative seeks to reduce occupational hazards and health risk. This approach not only ensures the well-being of individual workers but also strengthens the community's overall access to proper basic health services. By minimizing workplace injuries and health issues, the community can focus resources on preventive care and overall health improvement, fostering a healthier and more resilient population. This outreach effort is a part of a broader initiative to ensure the community's access to proper basic health services.





Quality Education



Sustainable Development Goals Report 2023

“A high-quality education should be an area where universities excel. Education is a key gateway out of inequalities, especially multi-generational ones. In addition to improving quality of life, access to inclusive education can help equip locals with the tools required to develop innovative solutions to the world’s greatest problems.”

THE Impact Rankings





Quality Education



Sustainable Development Goals Report 2023



STATISTICS

5,540

Number of students
starting a degree

3,454

Number of first generation
students starting a degree

8

Number of publications
2019 - 2023



ITS Community Service Program Enhances Teaching Quality Through Multimedia Training for Elementary School Teachers

Community Service Internship Program (KKN Abmas) program by Institut Teknologi Sepuluh Nopember (ITS) aims to improve the quality of education by equipping teachers with essential multimedia and digital skills. Through this initiative, ITS faculty members provided training to teachers at Yapita Elementary School, focusing on the use of digital tools such as Canva, PowerPoint, and Mentimeter to create interactive and engaging lessons. This effort is part of ITS's broader commitment to enhancing teaching methods and promoting technology integration in education. By utilizing multimedia tools, teachers were able to increase student engagement, making lessons more interactive and accessible. The training not only improved the teachers' skills but also allowed them to develop their own creative educational content, fostering a more dynamic and productive classroom environment.

In this way, the KKN Abmas initiative directly contributes to SDG 4: Quality Education, as it empowers educators to deliver high-quality, technology-driven lessons. It supports lifelong learning by ensuring that teachers have the necessary skills to keep pace with rapidly changing technological advancements, ultimately benefiting students and strengthening the overall education system.



Enhancing Education Quality: ITS Donates Physics Lab Equipment

Institut Teknologi Sepuluh Nopember (ITS) through its Community Service Internship Program (KKN Abmas) has launched a project aimed at improving the quality of physics education at Senior High School 3 Magetan, East Java. Recognizing the limited access to practical learning tools in many schools, the team provided training and donated laboratory equipment for experiments on light interference and diffraction, crucial topics in physics.

The primary objective of this initiative is to enhance students' learning experiences through hands-on practice. By providing teachers with the necessary skills and resources, the project directly impacts the quality of education at the school. The donated equipment will empower students to actively engage with complex physics concepts, leading to a deeper understanding and improved academic performance.

A team of ITS faculty members and students conducted training sessions for teachers and students, covering topics such as experimental setup, data collection, and analysis. This training equips teachers with the knowledge and confidence to integrate practical experiments into their lessons, fostering a more interactive and engaging learning environment.

Through this outreach, the KKN Abmas team hopes to inspire greater creativity among teachers, encouraging them to develop more innovative teaching methods even when resources are limited. The project aligns with SDG 4: Quality Education, emphasizing the importance of accessible and hands-on learning opportunities in schools to enhance educational outcomes.



Empowering Female Entrepreneurs: ITS Holds Womenpreneur Training to Support Development of Women-Led MSMEs in Indonesia

ITS is extending its commitment to entrepreneurship education beyond the classroom through the Womenpreneur Training program. By providing a platform for women entrepreneurs to enhance their business knowledge and skills, ITS is fostering a culture of entrepreneurship and innovation within the community. This initiative complements ITS's academic programs by offering practical, hands-on learning opportunities for adult learners, took place from June 19, 2023 with over 150 female entrepreneurs from various regions in East Java. The training sessions emphasized key areas such as entrepreneurial mindset, digital marketing, and digital financial management, in collaboration with Kasir Pintar. These areas were designed to equip the participants with the skills needed to modernize their businesses and manage them more efficiently in the digital age.

The Womenpreneur Training program was developed in partnership with Monash University Malaysia and aimed to address the gap in business knowledge, particularly for entrepreneurs who have learned about entrepreneurship through self-study. By providing expert-led training free of charge, ITS offered invaluable knowledge and practical strategies to help women-led businesses thrive.

Beyond the training, ITS conducted a six-month follow-up to assess the program's impact on participants' businesses. The Department of Business Management remains committed to offering ongoing support and mentorship for entrepreneurs who need further guidance. Moving forward, the department plans to offer advanced-level training to further support business growth and sustainability, aiming to create a stronger foundation for these businesses and improve their performance.

Through these efforts, ITS is committed to having a positive impact on job creation and supporting the economic empowerment of women entrepreneurs in Indonesia. By extending its educational outreach beyond the campus to local communities and offering tailored business training, ITS is helping bridge the gap in business knowledge and skills, fostering economic growth, and empowering women entrepreneurs in East Java and beyond.



ITS Promotes Lifelong Learning with Public Resources

Institut Teknologi Sepuluh Nopember (ITS) is dedicated to fostering lifelong learning by offering free access to a variety of educational resources for everyone, regardless of whether they are enrolled at the university. By providing these resources, ITS aims to support individuals in the community as they seek to expand their knowledge and skills for personal and professional growth.

ITS offers hundreds of free, certified online courses covering a broad range of topics, including design and arts, science and data analytics, electronics and information, as well as management and development. These MOOCs are designed with high-quality video content and learning materials created by ITS' esteemed faculty in collaboration with international partners such as Kumamoto University, Chulalongkorn University, and Dalian Maritime University. Accessible at learning.its.ac.id, these courses welcome anyone interested in expanding their knowledge, regardless of their affiliation with ITS.

Additionally, ITS boasts a main library equipped with facilities that are open to the general public beyond the university community. Individuals can register as library members by simply presenting an ID card and filling out a registration form available at the Ikoma Corner Room. Membership options vary from one day to six months, with fees based on the selected duration. Notably, the library offers free membership to members of the Forum Perpustakaan Perguruan Tinggi Indonesia (FPTTI) and holders of the SAKTI card, further enhancing accessibility.





Gender Equality



Sustainable Development Goals Report 2023

“Women and girls continue to suffer discrimination and violence in every part of the world. Gender equality is a fundamental human right, and a foundation for a peaceful, prosperous and sustainable world. Providing women and girls with equal access to education is a key part of delivering gender equality, but universities also have a wider role to drive forward gender equality in their communities.”

THE Impact Rankings





Gender Equality



Sustainable Development Goals Report 2023



STATISTICS

2,346

Number of women starting a degree

1,521

Number of first generation women starting a degree

718

Number of senior academic staff

4,712

Number of graduates

1,964

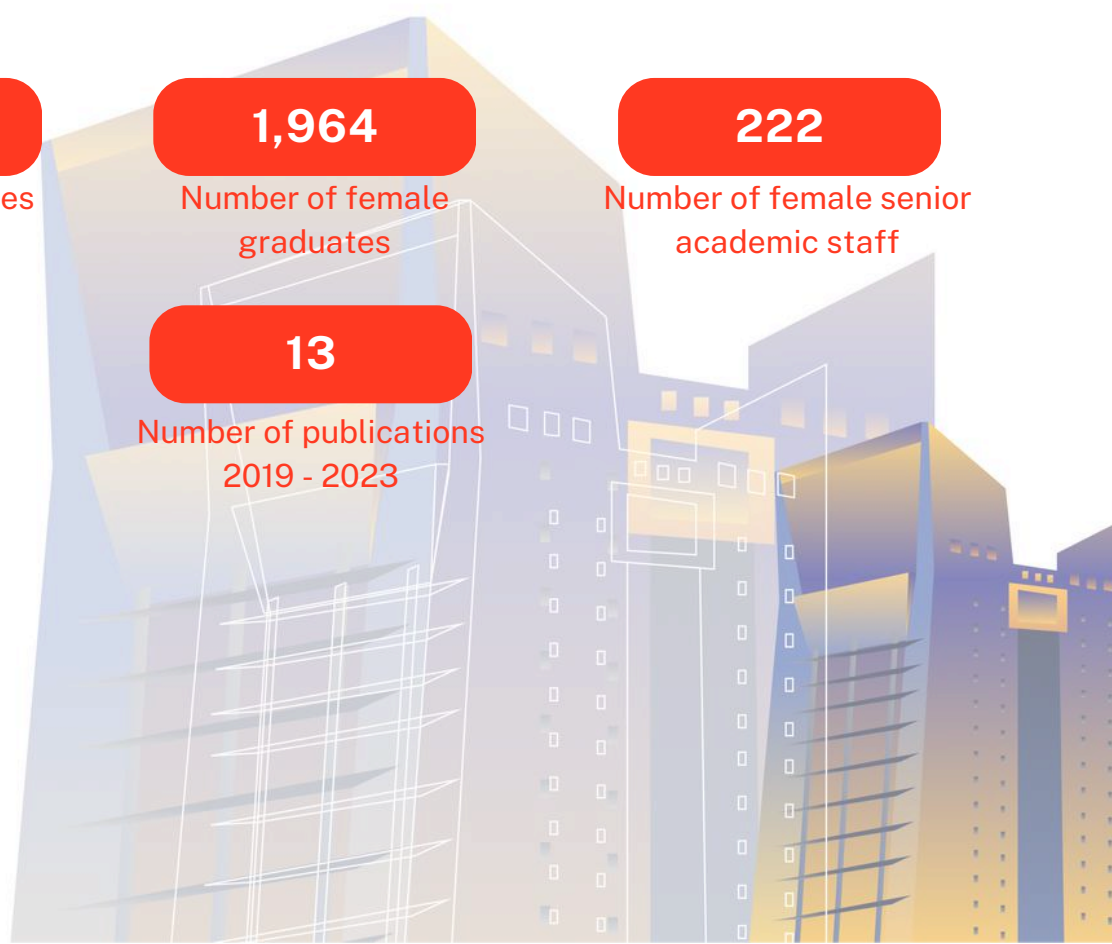
Number of female graduates

222

Number of female senior academic staff

13

Number of publications
2019 - 2023



ITS Policies in Protecting Women Who Reported Discrimination at ITS

ITS strengthened its commitment against sexual violence through the Task Force for Prevention and Handling of Sexual Violence (PPKS). This initiative responds to concerning statistics showing that 35 percent of sexual violence cases against women in Indonesia occur in higher education institutions, according to Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) data.

The PPKS Task Force implements a comprehensive support system, offering multiple reporting channels, including email, phone, and online forms. Reports are promptly assessed, and survivors receive immediate support. For overseas cases, ITS collaborates with host universities to ensure student safety.

Through prevention measures, clear reporting mechanisms, and ongoing support services, ITS maintains its dedication to creating a safe academic environment free from discrimination and sexual violence.





ITS Advances Women's Empowerment through Comprehensive Mentoring Programs

ITS strengthens gender equality through two key initiatives: Girl Up ITS and the Womenpreneur Training program. These programs demonstrate ITS' commitment to women's empowerment through structured mentoring and skill development. Girl Up ITS, a UN Foundation-affiliated youth volunteer group, creates a supportive platform for female students. One of the community's conducted impactful workshops, including "beYOUtiful" and "Dismantling Rape Culture," focusing on women's empowerment and awareness of sexual harassment issues. The Womenpreneur Training program, led by the Department of Business Management (MBITS), supports women entrepreneurs. Recently, 150 participants engaged in a four-day intensive workshop covering entrepreneurial mindset, digital marketing, and financial management. Program coordinator Berto Mulia Wibawa emphasizes this initiative's role in equipping women with essential business skills.



ITS Lecturer's Achievement Highlights Women's Excellence in STEM Research

ITS continues to demonstrate its commitment to advancing women in STEM fields. In 2023, Dr. Latifah Nurahmi, a lecturer from the Department of Mechanical Engineering, was awarded the prestigious Pancasila Achievement Icon Award by the Pancasila Ideology Development Agency (BPIP). The recognition celebrates Dr. Nurahmi's groundbreaking contributions to medical robotics, specifically her development of a hybrid robot for rehabilitation and bone surgery. Her innovation features a unique rotational structure mimicking ankle movements, offering superior flexibility compared to existing parallel robots.

"This robot isn't designed to replace doctors but to enhance medical procedures with high-precision assistance," explains Dr. Nurahmi, who previously received the L'Oreal-UNESCO For Women In Science award in 2020. Her research, initiated in 2015, exemplifies the innovative potential of women in engineering. Dr. Nurahmi dedicates this achievement to female Mechanical Engineering students at ITS and women across Indonesia, proving that women can excel in critical thinking, research, and academic leadership.





Clean Water and Sanitation



Sustainable Development Goals Report 2023

“Without water, we can’t live. Water supports out agriculture and aquaculture. Clean water is vital. However, due to bad economics or poor infrastructure, millions of people, including children, die every year from diseases associated with inadequate water supply, sanitation, and hygiene.”

THE Impact Rankings





Clean Water and Sanitation



Sustainable Development Goals Report 2023



STATISTICS

25,340

Campus Population

438,308 m³

Volume of water used in
university

42

Number of publications
2019 - 2023



ITS Demonstrates Multi-faceted Support for Regional Water Conservation Through Knowledge Transfer and Stakeholder Engagement

ITS supports off-campus water conservation policies through strategic initiatives and collaborations, as evidenced in their recent Ecotalk Series #6 event titled "Environment and Water Awareness." The event brought together key stakeholders in water conservation, featuring international perspectives from the Cycle for Water community and local expertise from PDAM Surya Sembada. During the session, Petronille Sartorio from Cycle for Water shared valuable insights about New Zealand's "three water services" program, offering potential policy adaptations for Indonesia. This international knowledge exchange demonstrates ITS' dedication to exploring innovative water management solutions that could benefit local communities. The dialogue was further enriched by PDAM Surya Sembada's Senior Manager, Palupi Wikandari, who presented the Master Meters program. Her participation showcased the successful collaboration between academic institutions and public utilities in addressing water access challenges.



KKN ITS: Water Management Solutions Transform Two Villages Kampus ITS

Two water management initiatives under ITS' Community Service Program (KKN) have successfully transformed water access in rural communities while providing students with invaluable field experience. These projects in Gresik and Pasuruan demonstrate how academic expertise can effectively address community challenges.

In Setrohadi Village, Gresik, a team of 19 Chemistry Department students tackled severe brackish water issues affecting the local water supply from the Bengawan Solo River tributary. The team implemented a combined aeration and upflow filtration system, utilizing multiple filtration materials, including silica sand, manganese filters, zeolite, and activated carbon. This solution effectively reduced water salinity and improved water clarity for domestic use. Simultaneously, in Tanjungsari Village, Pasuruan, the Industrial Chemical Engineering Department team addressed critical challenges in drinking water processing. Their intervention focused on enhancing water storage capacity and implementing specialized anthracite-silica filtration technology. The team successfully optimized the water distribution network and significantly reduced iron content and sediment problems. Both projects achieved remarkable results. The Gresik system now consistently produces safer, clearer water for domestic use, while the Pasuruan project has established reliable access to clean drinking water with improved distribution efficiency.

The initiatives have created lasting impact beyond infrastructure improvements. Students gained comprehensive experience in environmental engineering, project management, and community engagement. The local communities now benefit from sustainable water management systems and enhanced awareness of water treatment practices.

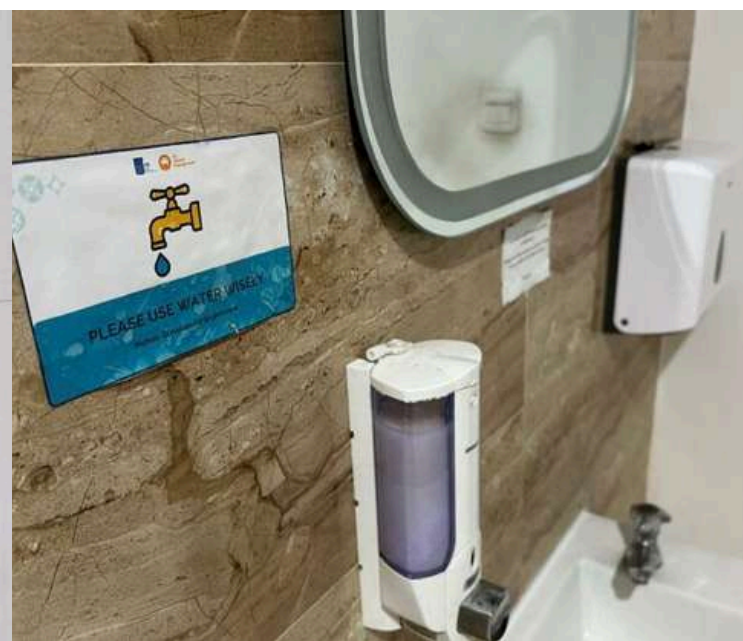




Water Conservation Campaign: ITS Promotes Mindful Usage through Strategic Signage

ITS has launched a water conservation awareness campaign through strategic educational signage across campus facilities. The campaign addresses the critical need for conscious water usage amid growing environmental challenges. The initiative places informative signs at key water access points - restrooms, sinks, faucets, and water fountains - serving as daily reminders of water's finite nature. This campaign responds to increasing global water scarcity concerns, where climate change and population growth intensify pressure on available freshwater resources.

The campaign promotes simple yet impactful practices: proper tap closure, prompt leak reporting, shorter showers, and efficient daily water usage. These individual actions, when adopted collectively, contribute significantly to water conservation efforts. Early results show increased awareness and behavioral changes among students and staff, demonstrating growing recognition of water as a precious resource. The initiative serves as a model for other institutions, showcasing how strategic awareness campaigns can effectively promote environmental responsibility and sustainable resource management. ()*





Strengthening Rural Water Security: ITS' Strategic Partnerships with Local Communities

ITS has established key partnerships with BUMDes Delta Mina Sejahtera and Ngendut Village, Ponorogo, implementing innovative water security solutions through technological advancement. At BUMDes Delta Mina Sejahtera in Kedungpeluk Village, Enny SST MT MSc's team has deployed a Smart and Integrated Water Quality Monitoring System (WQMS). The system utilizes a specially designed boat equipped with four waterproof sensors - DS18B20 for temperature, TDS for salt content, pH for acidity, and DO for oxygen levels - enabling efficient aquaculture management through continuous water quality monitoring. In Ngendut Village, Ponorogo, a team led by Dimas Anton Asfani ST MT PhD has implemented a 4,800-watt solar power system (PLTS) for reliable water access. The installation features short-circuit protection and voltage stabilizers, complemented by an IoT monitoring system for real-time power consumption tracking via mobile devices.

These technological integrations have yielded significant benefits: BUMDes Delta Mina Sejahtera has seen improved aquaculture productivity through precise water quality monitoring, while Ngendut Village residents enjoy 20% reduced monthly electricity costs and uninterrupted water supply during power outages. Both initiatives incorporate comprehensive community education, including system operation training and maintenance procedures, with ongoing support from ITS teams to ensure sustainable long-term impact.





Affordable and Clean Energy



Sustainable Development Goals Report 2023

“After water and food, energy is one of the key enablers of human life. Energy is central to nearly every major challenge and opportunity the world faces today, and access to energy for all is essential. But energy needs to be available and affordable to all to allow future development, and it needs to be clean in order to ensure that the development can be sustainable.”

THE Impact Rankings





Affordable and Clean Energy



Sustainable Development Goals Report 2023



STATISTICS

51,992.97 GJ

Total energy used

362,577 m²

University floor space

949

Number of publications
2019 - 2023



ITS Advances Clean Energy Policy Through Energy-Efficient Street Lighting

ITS has been implementing a comprehensive clean energy policy through smart LED street lighting technology, partnering with PT Panasonic Gobel Life Solutions Manufacturing. This initiative marks a significant shift in institutional energy management and policy development. The policy framework centres on three key elements: energy transition strategy, smart monitoring implementation, and industry collaboration.

The initiative combines technological innovation with practical energy management solutions through the Innovation and Science Technology Area (DIKST) ITS. The smart monitoring system enables real-time tracking of energy consumption and operational costs, providing valuable data for policy optimization. The integration of a smart system by Panasonic Indonesia creates a sustainable framework for long-term energy management. This collaboration extends beyond technology implementation to include knowledge transfer and ongoing system optimization. As the project progresses toward campus-wide implementation, it establishes a model for sustainable energy management in academic institutions, setting new standards for clean energy policy development in educational settings.



ITS Advances Integrated Community Energy Solutions Through Education and Innovation

ITS has been demonstrating how academic institutions can effectively merge technological advancement with community development through two groundbreaking renewable energy initiatives. These projects, located in Gresik and Batu City, showcase a comprehensive approach that combines technical expertise with community empowerment. The foundation of both initiatives lies in knowledge transfer and sustainable implementation.

In Daun Village, Gresik, ITS' Electrical Engineering team has installed a 550-watt on-grid photovoltaic system at Baitul Mu'minin Mosque, operating at 21.3% efficiency and providing crucial backup power. Simultaneously, in Pandanrejo Village, Batu City, the Physics Department has developed an Archimedes screw turbine-based micro-hydro power plant (PLTMH) that generates 360 watts of continuous power for smart greenhouse operations.

The economic and infrastructural benefits of these initiatives are already evident. Daun Village now benefits from both reliable solar power and enhanced digital connectivity through WiFi installation, supporting village digitalization efforts. In Pandanrejo, the PLTMH system powers an advanced greenhouse monitoring system for strawberry farming, enabling 24-hour control of crucial growing conditions and boosting agricultural productivity.

Looking forward, these successful implementations are paving the way for wider adoption. The PLTMH design is being refined to enhance flood resistance, with plans for expansion to other electricity-deficient areas. The collaborative approach, involving faculty members, students, and local communities from both the Electrical Engineering and Physics Departments, has created a replicable model for sustainable energy development.



Society of Renewable Energy ITS: Empowering Student-Led Sustainability

ITS' powerful student initiative has taken root in response to growing environmental challenges. The Society of Renewable Energy (SRE-ITS) emerged from students' shared commitment to bridging the gap between academic knowledge and practical applications in renewable energy development. SRE-ITS operates through four core programs: Introduction to Renewable Energy (Kenal EBT), Expert Seminars, Collaborative Studies, and Industry Visits. These activities create a comprehensive learning ecosystem where theoretical knowledge meets practical application. The organization's student-driven approach, supported by ITS' institutional framework, ensures sustainable knowledge transfer and community building.

What sets SRE-ITS apart is its dual impact: while developing future renewable energy leaders, it simultaneously contributes to Indonesia's sustainable development goals. The organization's success demonstrates how student initiatives when properly supported, can transform environmental consciousness into concrete action. Through SRE-ITS, ITS exemplifies how educational institutions can empower students to address global environmental challenges while preparing them for careers in the expanding renewable energy sector. SRE-ITS stands as a testament to how student passion, when coupled with institutional support, can create a lasting impact in renewable energy education and environmental sustainability.





Energy Efficiency Initiatives at ITS Utilizing Solar, Biodiesel, and Clean Biomass

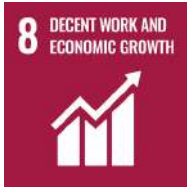
ITS has established a formal commitment to environmental sustainability through Rector's Circular Letter No. T/95007/IT2/TU.00.08/2019, issued on November 18, 2019, which designates ITS as a "Sustainable and Environmentally-Conscious Campus." This policy framework specifically emphasizes technology-driven energy efficiency. It mandates the adoption of renewable energy across campus facilities, ensuring that all renovations and new construction projects adhere to high energy efficiency standards.

The implementation of this policy has yielded significant results in addressing climate change and sustainable resource utilization through building improvements. A key demonstration of this commitment is the successful integration of renewable energy sources, which collectively generate 216,605 kWh annually, distributed across:

- 1. Solar Power: 215,165 kWh/year (serving as the primary energy source)*
- 2. Clean Biomass: 240 kWh/year (through biogas and gasification)*
- 3. Biodiesel: 1,200 kWh/year*

These energy efficiency initiatives in building upgrades and renovations have proven effective in reducing energy consumption, resulting in decreased greenhouse gas emissions and more responsible resource utilization. The policy not only supports environmental sustainability goals but also generates substantial cost savings for the university while ensuring all campus development aligns with modern energy efficiency standards.





Decent Work and Economic Growth

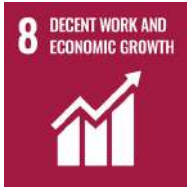


Sustainable Development Goals Report 2023

“Decent work in safe and stable conditions is a vital component of helping people out of poverty, with the related aspects of reducing hunger and increasing health. The rise of precarious employment, modern slavery, and uneven growth has created threats to a sustainable future. Universities as employers can lead the way, as teachers can educate for the future, and as innovators can develop new and fairer ways of working.”

THE Impact Rankings





Decent Work and Economic Growth



Sustainable Development Goals Report 2023



STATISTICS

4,489

Number of employees

4,489

Number of employees on contracts of > 24 months

142

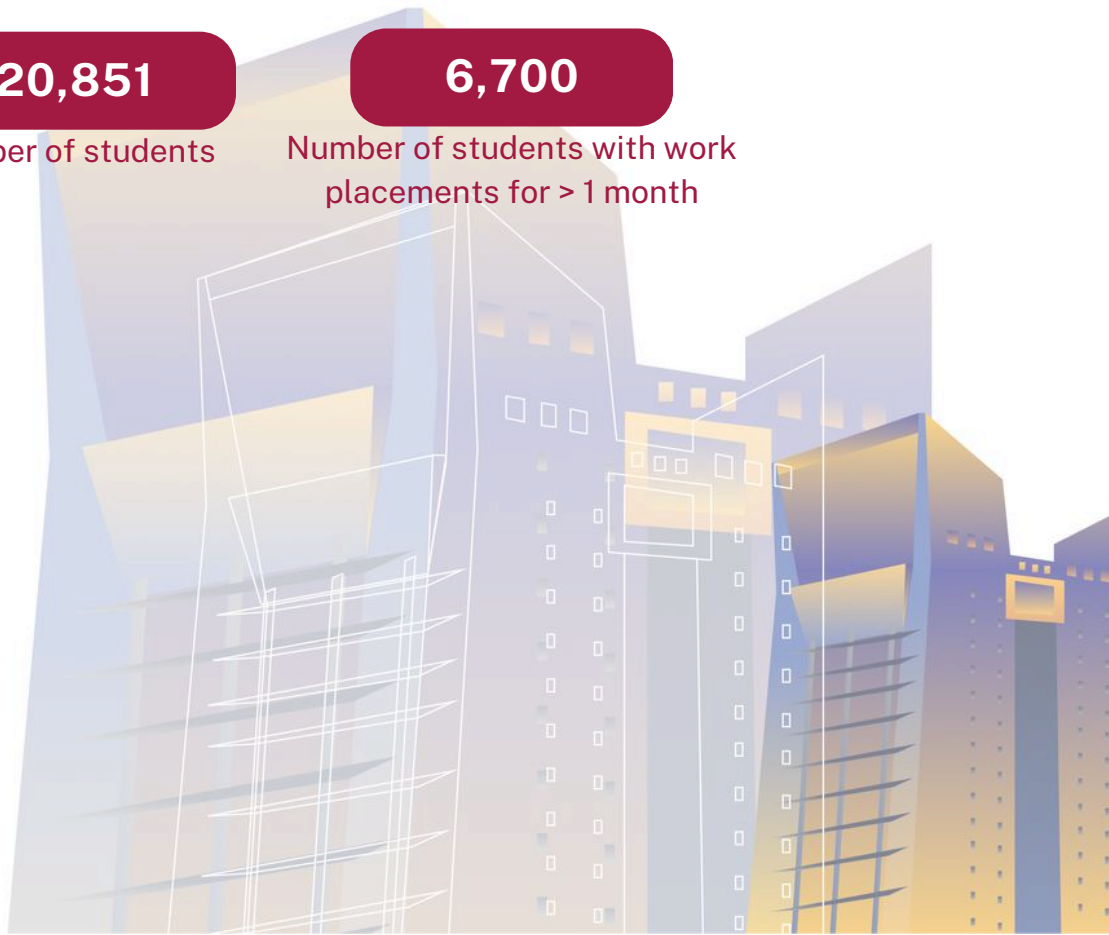
Number of publications 2019 - 2023

20,851

Number of students

6,700

Number of students with work placements for > 1 month



Strengthening Local Economies Through ITS Community Engagement Programs

ITS drives local economic growth through targeted community engagement programs that combine technological innovation with SME empowerment. The institution's approach focuses on three strategic areas: digital marketing advancement, production technology innovation, and sustainable agriculture development.

In Sidoarjo, the INTAKO Digital Marketing and Branding Program has successfully transformed local bag and luggage manufacturers by enhancing their digital presence and market reach. Complementing this initiative, ITS' production innovation efforts have yielded significant improvements through the Milkfish Smoking Equipment Development program, where enhanced smoking equipment enables local businesses to produce higher-quality products that command better market prices and offer extended shelf life. In the realm of sustainable agriculture, ITS has introduced water-efficient farming techniques to the Keputih Hydroponic Farming Initiative that create new opportunities for environmentally friendly produce while maximizing limited space.





Finding Solutions to Strengthen Indonesia's National Economy: A University Collaboration Initiative

A strategic focused group discussion (FGD) led by the Center for Public Policy Studies in Business and Industry (PKKP-BI) at ITS united experts from four prestigious state universities: ITS, Universitas Gadjah Mada (UGM), Institut Teknologi Bandung (ITB), and Universitas Indonesia (UI). This collaboration produced three key solution pathways: technological advancement, sustainable energy development, and human capital enhancement.

Experts from the participating universities contributed valuable insights, resulting in concrete policy recommendations. These include technology-based reindustrialization programs, renewable energy infrastructure development, and STEM education enhancement. The recommendations emphasize aligning Indonesia's natural resources with technological developments supported by innovation-friendly policies. The initiative demonstrated practical applications through successful digital transformation projects and the launch of specialized academic programs. This collaboration between Indonesia's top technical and research universities highlights academia's crucial role in shaping national economic policy, providing a clear roadmap for strengthening Indonesia's economic position through evidence-based solutions.



Institut Teknologi Sepuluh Nopember (ITS) Declaration Against Slavery and Discrimination in Employment

ITS is committed to creating a workplace free from slavery, exploitation, and discrimination, ensuring that every employee and worker, regardless of their gender, age, ethnicity, religion, or social status, is treated with dignity and respect in all employment practices. Through this ITS Declaration Against Slavery and Discrimination in Employment, signed by the ITS Rector, we establish comprehensive workplace protections and equal employment opportunities for all members of our academic community. Our commitment encompasses zero tolerance for modern slavery in any form, ensuring fair recruitment practices, equal career advancement opportunities, and safe working conditions throughout our institution.

We actively implement this commitment through clear employment policies, regular staff training, and confidential reporting mechanisms. For any employees affected by workplace exploitation or discrimination, we pledge comprehensive support, including protection services and access to justice. Our employment practices are continuously monitored and improved to maintain the highest standards of workplace dignity and equality. ITS invites all employees and stakeholders to join in upholding these principles as we work together to maintain an academic workplace that champions human rights, dignity, and equal opportunity.





Industry, Innovation and Infrastructure



Sustainable Development Goals Report 2023

“Investments in infrastructure – transport, irrigation, energy and information and communication technology – are crucial to achieving sustainable development and empowering communities in many countries.”

THE Impact Rankings





Industry, Innovation and Infrastructure



Sustainable Development Goals Report 2023



STATISTICS

103

Number of university
spin offs

3,440

Number of academic staff

85

Number of publications 2019
- 2023



ITS: Driving Healthcare Innovation and Sustainable Development in Indonesia

ITS stands at the forefront of Indonesia's drive towards innovative healthcare solutions and sustainable development, establishing itself through a strategic combination of infrastructure development, academic research, and industry innovation. The institute's flagship initiative, the People's Health Ship project, exemplifies this commitment by delivering healthcare to remote regions across Kalimantan and Sumatra's riverine communities. This mobile facility showcases sustainable engineering through its incorporation of recyclable materials and hybrid energy systems while maximizing the use of local resources.

In the realm of healthcare technology, Prof. Dr. Eng. Chastine Fatichah's groundbreaking research in Deep Learning methods highlights ITS excellence. Her team's implementation of a Generative Adversarial Network (GAN) and a Generative Pre-trained Transformer (GPT) has significantly enhanced medical data processing, improving both diagnostic accuracy and medical report generation efficiency. The institute's impact extends into the industry through successful startups like PT Nanoma Teknologi Indonesia, a recent winner of the Health Innovation Sprint Accelerator 2023 competition. Their development of CoFilm, an antiviral paint utilizing copper nanotechnology, showcases how academic research can be transformed into practical public health solutions.



ITS: A Hub of Innovation Driving Sustainable Development

Through its powerful motto, "Membumi untuk Mendunia" (Grounding Globally), ITS demonstrates its dual commitment to serving local communities while expanding its global influence. This vision materializes through educational transformation, broadening scientific horizons, and developing cutting-edge infrastructure that positions ITS as a comprehensive innovation hub. At the core of the ITS innovation ecosystem stands the Science Techno Park (STP), a technological complex operating through four strategic divisions: Maritime, Automotive, Creative Design, and Robotics.

Supporting these divisions are specialized facilities, including the ITS Automotive & Forensic Center and the ITS Robotic Center, which provide cutting-edge resources for advanced research and development initiatives. The crown jewel of ITS' research infrastructure is its eleven-story Research Center building, housing ten dedicated research centers, including the Center for Sustainable Energy and Technology Health Center. Additionally, five specialized study centers focus on critical areas such as Sustainable Development Goals and Community Empowerment, exemplifying ITS commitment to combining technological advancement with social impact.



Empowering Technology-Based Startups: ITS' ILBI Drives Innovation

ILBI (Innovators and Innovative Business Services) is ITS' dedicated technology business incubator. Its compelling vision is to become a leading university-based business incubator and a center for technology-driven entrepreneurship development in Indonesia and Southeast Asia. The incubator provides comprehensive support through structured entrepreneurship development programs, focusing on nurturing resilient entrepreneurs who develop research-backed innovative products. This is achieved through mentorship programs, access to research facilities, product development assistance, and market validation support. ILBI also facilitates crucial networking opportunities, connecting startups with potential investors, industry partners, and fellow entrepreneurs. Through this integrated approach, ILBI ensures that innovative ideas transform into sustainable businesses with strong competitive advantages, contributing to Indonesia's economic development and technological advancement.





Reduced Inequalities



Sustainable Development Goals Report 2023

“Equality needs to underpin every aspect of sustainability if the objectives of the SDGs are to be met. Although SDG 5 explores this through the prism of gender, SDG 10 takes a broader look at the intersectionality of disadvantages. This disadvantage can be felt through all of the other key issues raised by the SDGs – disadvantaged groups are both more likely to be unable to take advantage of progress and to suffer from the effects of climate change.”

THE Impact Rankings





Reduced Inequalities



Sustainable Development Goals Report 2023



STATISTICS

5,540

Number of students starting a degree

3,454

Number of first-generation students starting a degree

822

Number of international students from developing countries

15

Number of publications 2019 - 2023



ITS' Impact on Disability Support: Bridging Campus and Community

ITS has launched three transformative initiatives supporting people with disabilities, demonstrating its commitment to inclusive community development beyond campus boundaries.

The Fake Thousand Hands Movement spearheads technological innovation through open-source 3D-printed prosthetics, creating a nationwide network of support via the Indonesian Tridimensional Printer Association. Their slogan, "I Can't...But We Can, Ayo Gotong Royong," emphasizes collaborative community action, incorporating local prosthetic workshops and free training programs. Meanwhile, The Student Executive Board's "Gebyar Ngopi Komunitas 3.0" program addresses social inclusion by partnering with the Peduli Kasih Foundation, engaging special needs children in creative activities and public performances. This initiative effectively builds confidence while challenging societal perceptions. Complementing these efforts, the Global Partnership Directorate connects international students with the disabled community through Istana Karya Difabel (IKD). This program combines cultural exchange, performance arts, and economic empowerment through MSME support, creating a comprehensive approach to community integration.





ITS' Comprehensive Scholarship and Financial Aid Program: Ensuring Educational Access for All

ITS committed to support underrepresented groups through an extensive scholarship and financial aid program. In a remarkable achievement in 2023, ITS has successfully established partnerships with 11 new scholarship providers, bringing the total to 53 donor institutions, benefiting 6,361 students with a substantial total funding of Rp 83.68 billion.

The funding structure spans seven strategic categories:

1. Government ministries and institutions leading at Rp 76+ billion.
2. Additional support comes from regional governments (Rp 1+ billion),
3. State-owned enterprises (Rp 2+ billion),
4. Private sector partners (Rp 1+ billion),
5. Foundations (Rp 1+ billion),
6. Dedicated contributions from ITS alumni and
7. The ITS Endowment Fund Management Institution (LPDA-ITS), each providing over Rp 400 million.

Complementing these scholarships, the IKOMA-managed UKT Assistance Post program offers crucial support for students struggling with tuition fees. This initiative ensures that immediate financial challenges don't derail students' academic journeys.

BEASISWA SCHOLARSHIP
PT. JAYA OBAYASHI

PENDAFTARAN
1 APR 2023 - 31 OCT 2023

BENEFIT

- UANG SAKU RP. 2.000.000,- /Orang Sampai dinyatakan Lulus (Maksimal 24 bulan)
- Jaminan Lulusnya bekerja Di JAYA OBAYASHI (Mutasi Cina Selama 3 tahun)

PERSYARATAN UMUM

- Curriculum Vitae
- Mahasiswa ST (Teknik Sipil, Teknik, Mechanical & Electre)
- Belum Menikah
- KTP/NIKarta Mahasiswa
- Mahasiswa Minimal Semester 5
- Tidak Berang Menerima Beasiswa lain (Sesuai Beaupemenukuan Dari Pihak Terkait)
- Mempai Ekomul Pendidikan
- Minimal IPK 2,00/4,00 Disampakan Transkrip Rata
- Sertifikat Kesehatan (jika Ada)
- Foto Terbaru
- Surat Pernyataan Bertanggung Jawab Dari Orang Tua
- Surat Keterangan Sehat Dari Rumah sakit
- SiCK Dari Kepolisian

LIK PENDAFTARAN
<https://bit.ly/JOScholarship2023>

ITS.ac.id/kemahasiswaan
CALL CENTER: 082245493201

BSI BANK SYARIAH INDONESIA | BSI MASLAHAT | BSI SCHOLARSHIP

OPEN REGISTRATION

2023

Beasiswa untuk Mahasiswa Tingkat Akhir

BSI SCHOLARSHIP TALENTA

Buat kamu mahasiswa yang ingin berkarir di dunia ekonomi syariah, jangan lewatkan kesempatan ini!

ITS.ac.id/kemahasiswaan
CALL CENTER: 082245493201

Daftar Segera!

SCHOLARSHIP BRIGHT

Dibuka hingga 01.10.2023

ITS.ac.id/kemahasiswaan
CALL CENTER: 082245493201

Pioneering Disability Empowerment: ITS' Comprehensive Approach to Inclusive Technology

ITS is at the forefront of disability empowerment through innovative technological solutions that address social inclusion, economic accessibility, and political awareness. Firstly, ITS' computer engineering students revolutionized mobility assistance with MobiAi, an eye-controlled wheelchair designed for individuals with severe motor limitations, including those affected by ALS and elderly individuals. Second, the "Sambal Telur" team integrated CNN algorithms and IoT capabilities, enabling autonomous movement through eye control while incorporating a sophisticated patient tracking system. This innovation effectively breaks down physical barriers while maintaining essential monitoring capabilities for caregivers.

Building on this momentum, ITS graduate students developed SMILE, an AI-powered system that transforms traditional physical therapy into engaging games. This innovative approach tackles both rehabilitation needs and cognitive development for children with special needs while reducing long-term therapy costs. Securing IEEE EPICS funding demonstrates how academic innovations can attract international resources for sustainable disability support programs.

ITS further expanded its impact through a wireless bookshelf project at YPAC Surabaya's Special Education School, which addressed fundamental literacy access rights. This community service initiative, developed by 20 students, enables independent access to educational resources through remote-controlled technology while incorporating holistic development activities like clay modeling and tote bag painting to foster motor skills and creativity. These collective initiatives mark significant progress toward a more equitable society, creating better opportunities for development, education, and social integration for individuals with disabilities.



MobiAi In Action!

Klasifikasi Gerakan Lewat Mata
Kursi Roda Bergerak Berdasarkan Pose Mata





ITS' Comprehensive Framework for Equal Opportunities and Anti-Discrimination

ITS integrated approach to ensuring equal opportunities and reducing inequalities lies in the Declaration Against Slavery and Discrimination. This document explicitly rejects all forms of discrimination based on gender, age, ethnicity, religion, and social status, establishing human dignity as a fundamental principle that transcends social boundaries. This foundational document, combined with comprehensive anti-discrimination measures, sexual violence prevention, and global protection protocols, creates a thorough framework where every individual's worth is recognized and protected.

The Sexual Violence Prevention and Handling Task Force (Satgas PPKS) serves as a cornerstone of this framework, responding to the concerning statistic that university environments account for 35% of cases against women in Indonesia. ITS implements a dual approach to prevention and response, featuring educational programs, multiple reporting channels, and comprehensive support services. The institution's nine-step reporting process ensures confidential case handling while maintaining accessibility through various reporting channels.

This framework represents ITS vision for an academic environment where every individual can thrive free from discrimination. It sets a standard for how educational institutions can contribute to building a more equitable society while preserving their cultural integrity and values. The institution's comprehensive approach ensures that every community member can pursue their academic and professional goals, supported by robust institutional structures that actively work to reduce inequalities of outcome.





Sustainable Cities and Communities



Sustainable Development Goals Report 2023

“Cities and communities must themselves be sustainable. More and more of the world’s population lives in urban centres, and this is often the home of our universities too. Cities can be places of great innovation and opportunity, but they can also be home to intense poverty and inequality. The interaction between universities and their communities, urban and rural, needs to be a positive one that can last for generations.”

THE Impact Rankings





Sustainable Cities and Communities



Sustainable Development Goals Report 2023



STATISTICS

268

Number of publications 2019 -
2023



Advancing Cultural Heritage Preservation Through Digital Innovation: ITS' VR Conservation Initiative

ITS initiated a transformative approach to cultural heritage preservation through virtual reality technology. This collaborative initiative, which joined forces with Ciputra University's Architecture Program and the Surabaya Tourism Office, addressed the fundamental limitations of traditional conservation methods by introducing advanced digital documentation techniques. At the heart of this innovation is a system combining 360-degree VR technology, LiDAR scanning, and photogrammetry. The team has successfully applied this technology to preserve historically significant spaces, including Bung Karno's boarding room and HOS Tjokroaminoto's private chamber in Peneleh, Surabaya. These digital recreations capture precise spatial dimensions, lighting conditions, and material details, creating authentic digital twins of these historic spaces.

The project's significance extends beyond technological achievement. By creating detailed digital archives, ITS has democratized access to these cultural treasures while ensuring their preservation for future generations. The success of these initial implementations has established a replicable methodology for digital conservation, setting a foundation for broader application across Indonesia's rich architectural heritage. As a model for future conservation efforts, it represents a significant step forward in protecting and sharing cultural heritage in the digital age, ensuring these treasures remain accessible and relevant for generations to come.



ITS Advances Urban Sustainability through Drainage System Training

ITS delivered a strategic urban drainage system training program to Kediri City's Public Works Department (PUPRPKP), bridging the gap between theoretical knowledge and practical implementation in urban infrastructure management. The program trained 30 officials across various departments through five comprehensive modules, from basic rainwater flow concepts to advanced system modeling. The initiative's significance lies in its dual impact: enhancing technical expertise while strengthening sustainable urban planning capabilities. By empowering local officials with specialized knowledge. The enthusiastic response and requests for advanced training sessions demonstrate the program's effectiveness in building local capacity for sustainable urban development.

The training included five main topics, starting with basic principles of water flow during rainfall and advancing to accurate drainage modeling. Participants were introduced to drainage systems that manage rainwater, methods for calculating rain discharge, and determining appropriate drainage dimensions. In the later sessions, employees were also shown how to connect various drainage channels and were provided with software tools that could assist in modeling and designing effective drainage systems. Through this training and workshop, it is hoped that staff will be equipped with the necessary insights and skills to tackle drainage challenges more effectively.



ITS Implements Technological Solutions for Cultural Heritage Preservation

ITS has developed two meaningful initiatives that demonstrate thoughtful approaches to protecting and enhancing Indonesia's rich cultural heritage, combining technological advancement with traditional preservation methods. The first initiative introduces a solar-powered photocatalytic reactor in Pamekasan's batik industry. This system enhances traditional batik production by efficiently processing dye waste through an advanced filtration system utilizing manganese, zeolite, and activated charcoal. By integrating solar power, the system significantly reduces energy consumption while maintaining the authenticity of batik craftsmanship. The positive reception from local artisans validates that modern technology can successfully support and sustain traditional cultural practices.

In a parallel effort, ITS implemented an innovative network analysis solution at the historic Majapahit temple complex in Trowulan, Mojokerto. This project addresses accessibility challenges across 20 cultural heritage sites spread throughout three villages: Baijijong, Sentonorejo, and Jatipasar. Through the community outreach program, ITS developed a comprehensive transportation network using ArcGIS-based analysis, complemented by clear directional signage, walking route banners, and detailed tourist maps. The initiative demonstrates how improved infrastructure can enhance visitor access while preserving historical integrity.



ITS Implements Sustainable Campus Transportation Solutions

ITS has developed an integrated transportation system that demonstrates thoughtful approaches to sustainable urban mobility. It combines eco-friendly vehicles with comprehensive non-motorized transportation infrastructure. The first component showcases dedicated bicycle infrastructure across the campus, featuring clearly marked cycling lanes with distinctive yellow bicycle symbols and "Jalur Sepeda" signage. These paths, integrated into tree-lined streets, provide natural shade and comfortable riding conditions, encouraging the campus community to embrace cycling as a primary mode of transportation. Concurrently, ITS has introduced the i-CAR electric shuttle service, operating on designated routes with purpose-built stops. These compact electric vehicles provide zero-emission transportation, complementing the bicycle infrastructure and ensuring accessibility for all campus community members, regardless of their mobility preferences.





Responsible Consumption and Production



Sustainable Development Goals Report 2023

“Much of the world’s economy is based around producing things for consumption. This drives the engine of industry. If we want the world to develop sustainably, we need to understand how to be more responsible at both ends of this cycle. This means promoting resource and energy efficiency, having a sustainable infrastructure, and providing access to basic services for all.”

THE Impact Rankings





Responsible Consumption and Production



Sustainable Development Goals Report 2023



STATISTICS

1,634 ton

Amount of waste generated

930 ton

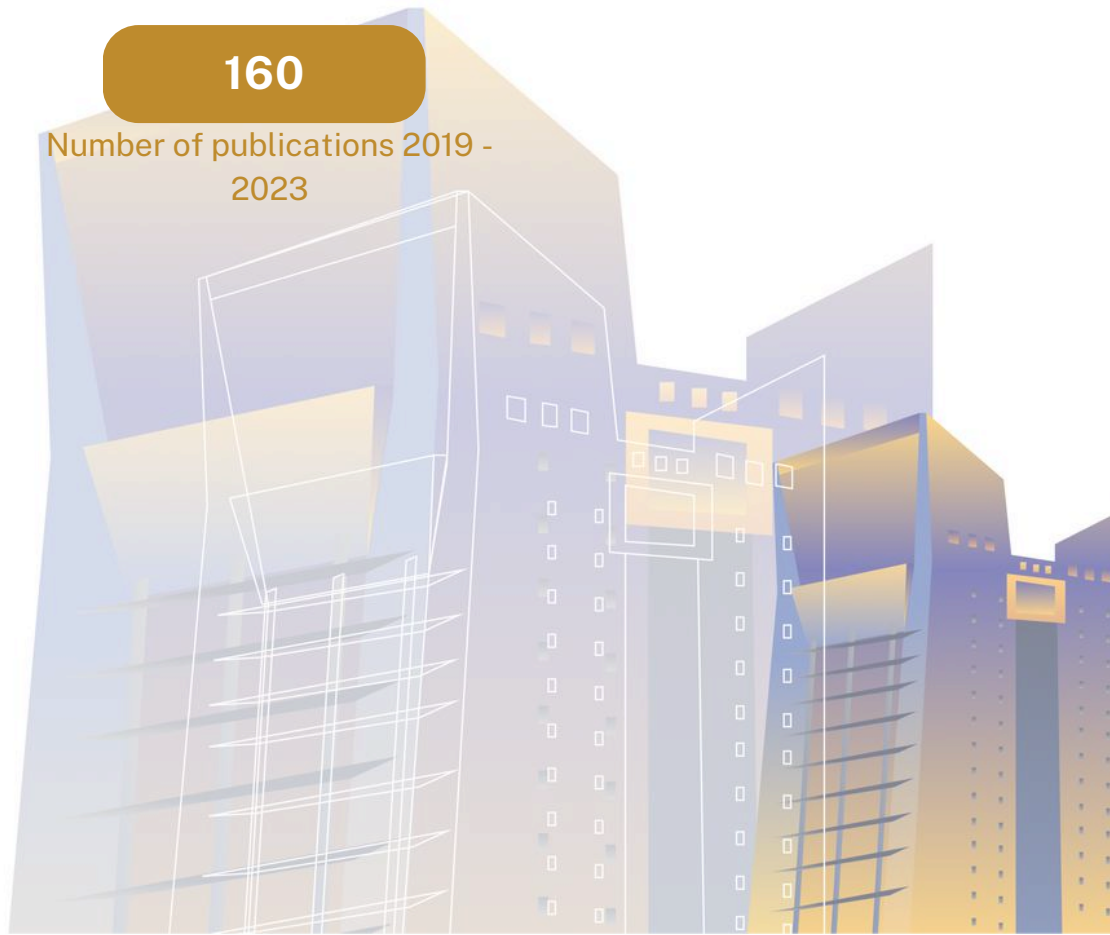
Amount of waste recycled

704 ton

Amount of waste sent to landfill

160

Number of publications 2019 - 2023



ITS Leads Innovation in Responsible Waste Management Through Digital and Automated Solutions

ITS advances responsible waste management through two key innovations: Apps4SWAM and Anomalister. Apps4SWAM digitizes community waste management in Kediri City, while Anomalister tackles river waste accumulation in Jumputrejo Village, Sukodono, through automated solutions. The innovations demonstrate complementary technological approaches. Apps4SWAM streamlines waste bank operations with digital tracking and community engagement features, while Anomalister employs infrared sensors and solar power for automated river waste filtration. Both systems show ITS' commitment to practical environmental solutions through different technological implementations.

Implementation success is evident in both projects. Apps4SWAM's deployment (July-November 2023) effectively engaged communities despite technical challenges, while Anomalister successfully addressed a 15-year waste management problem through its dual-mode operation system. These achievements showcase ITS' capability in developing sustainable, technology-driven solutions that can be replicated across different environmental contexts.



ITS Leads Multi-Faceted Environmental Initiatives: From Local Innovation to International Collaboration

ITS demonstrated a comprehensive commitment to environmental sustainability through parallel initiatives in local waste management innovation and international mangrove conservation. In Banjarkemuning Village, ITS partners with the Ministry of Public Works and Housing to transform household waste into valuable resources through eco-enzyme technology while simultaneously collaborating with Universiti Teknologi Malaysia (UTM) to address critical waste challenges at Wonorejo Mangrove Ecotourism site, where 1.2 tons of waste accumulates daily.

The initiatives implement complementary approaches to environmental stewardship. The local program focuses on systematic waste segregation education and organic waste conversion, producing sustainable outputs, including natural pesticides and fertilizers, through a three-month fermentation cycle. Concurrently, the international collaboration engages 64 students in practical waste management and cross-cultural environmental problem-solving. Results demonstrate a significant impact across both programs. The eco-enzyme initiative successfully transforms problematic waste-burning practices into a sustainable zero-waste cycle, while the mangrove conservation effort shows immediate ecosystem improvement through coordinated student action.





Advancing Sustainability: ITS' Digital Transformation and Commitment to Environmental Responsibility

ITS is advancing sustainable management and efficient resource use through the myITS Office application, a key component of the ITS Smart Eco Campus initiative. This platform transitions the academic community from paper-based to digital document management, significantly reducing paper use and eliminating repetitive processes like scanning and printing. This digital shift is part of ITS' commitment to environmental stewardship, as detailed in the sustainability declaration, which emphasizes minimizing single-use materials.

The declaration extends to third-party suppliers, promoting a campus-wide culture of sustainability. The digital transformation has led to notable reductions in paper usage and carbon emissions while enhancing operational efficiency and service accessibility. These initiatives position ITS as a leader in sustainable campus operations and provide a model for other institutions aiming to achieve similar environmental goals.

The screenshot displays the 'myITS office' web application interface. The top left corner features the 'myITS office' logo and a hamburger menu icon. Below the logo is a navigation sidebar with a blue 'Surat Baru' button and a 'Menu Utama' section containing 'Permohonan Surat', 'Surat Tugas Dalam Negeri', 'Undangan Rapat', and 'Surat Bebas'. The main content area is titled 'Surat Masuk' and includes a search bar with 'Tampilkan Filter', a 'Download Data Surat ke dalam Excel' button, and a 'Show 10 entries' dropdown. A checkbox for 'Tampilkan hanya belum dibaca' is also present. Below this is a table with columns for 'Perihal', 'Tanggal Surat', and 'Pengirim'. The first row shows a redacted subject, the date '20 Januari 2023', and a redacted sender. The second row shows 'Surat Dinas' with a redacted subject and a redacted sender.



Climate Action



Sustainable Development Goals Report 2023

“Climate change is a crisis that will affect every part of society and every country. Universities need to be at the forefront of action to reduce the impact of climate change, especially amongst the poorest, who will be the most affected.”

THE Impact Rankings





Climate Action



Sustainable Development Goals Report 2023



STATISTICS

51,993 GJ

Total energy used

1,202 GJ

Total energy used from low-carbon sources

125

Number of publications 2019-2023



ITS Strengthens Climate Change Education and Awareness through Comprehensive Initiatives

ITS has been actively enhancing education, awareness, and capacity-building related to climate change through its ITS Climate Action initiative and the Generasi Integralistik (Gerigi) 2023 program. These efforts are integral to fostering a culture of sustainability and environmental responsibility within the ITS community. In 2023, the Gerigi program involved thousands of new students in activities designed to highlight the urgent need for climate action and environmental preservation. By integrating climate awareness into the campus orientation program, ITS instills a sense of responsibility and urgency in students regarding global climate challenges. Creative activities, such as the climate crisis puzzle depicting environmental challenges faced by 34 countries, promote awareness and educate students on the importance of reducing paper use and deforestation.

As part of its 63rd-anniversary celebration, ITS organized a series of activities aimed at raising awareness and engaging the community in climate change mitigation and adaptation efforts. The ITS Climate Action initiative includes research and development projects focused on reducing greenhouse gas emissions, such as innovations in electric vehicles. Additionally, ITS launched the e-klim application, which facilitates community participation in activities like mass clean-ups, tree planting, cycling, and healthy walking.



ITS Advances Climate Action through Education and Innovation

ITS spearheads various initiatives to integrate renewable energy and sustainable practices into national strategies. The Blue Energy for Blue Economy Initiative fosters climate change education by combining renewable marine energy with sustainable economic practices. Supported by the British Council, this program involves local and international academics in exploring renewable sources like solar, wind, and wave energy. Activities such as mangrove planting and resource surveys in Malang aim to promote decarbonization and boost local economies.

In the realm of renewable energy, a collaboration with PLN ITS was also initiated through a Ministry-supported MoU. It focuses on energy transition research across top Indonesian universities, offering scholarships to improve student quality and prepare them for careers in the evolving energy sector. As a continuation of the initiative, ITS and PLN have introduced earthquake-resistant homes made from Fly Ash Bottom Ash (FABA), The Earthquake-Resistant FABA Homes in Sumberejo Village. Meanwhile, the FABA-based bricks Rumah Bima were also introduced together with Politeknik Perkapalan Negeri Surabaya to address waste sustainably and provide economic opportunities for local communities.

For the Net-Zero Emission Policy Development, ITS collaborates with the National Research and Innovation Agency (BRIN) to jointly develop policies for Indonesia's 2060 Net-Zero Emission (NZE) target. Emphasizing comprehensive policy-making, ITS aims to ensure economic growth and environmental protection. The collaboration involves ITS experts in shaping impactful NZE strategies. ITS also evaluates Indonesia's readiness for Low-Carbon Emission Vehicle (LCEV) policies through the LCEV Policy Readiness Assessment, which highlights the need for government strategies like efficient fuel and tax incentives to reduce CO₂ emissions.





Life Below Water



Sustainable Development Goals Report 2023

“The two SDGs that look at the broader ecosystem divide it into Life Below Water and Life on Land. The oceans, and the rivers and watersheds that link to them are the largest part of our ecosystem. 40% of the world’s population lives within 100km of the coast, and we all rely – directly or indirectly – on the sea.”

THE Impact Rankings





Life Below Water



Sustainable Development Goals Report 2023



STATISTICS

188

Number of publications 2019-
2023



ITS' Marine Technology Breakthroughs: Leading Indonesia's Maritime Innovation

ITS demonstrated excellence in marine technology through three groundbreaking initiatives that strengthen Indonesia's maritime capabilities and environmental sustainability. First, the AISITS Maritime Safety System, developed by PUI Kekal, revolutionizes maritime safety and environmental protection through real-time monitoring and carbon footprint tracking. Implemented at Pertamina facilities and recognized with the IAFMI Innovation Award 2023, this system features a 100-kilometre monitoring range and advanced early warning capabilities, effectively preventing underwater accidents and protecting marine conservation areas.

Second, the Ocean FarmITS Innovation combines offshore aquaculture with marine tourism through a dual-purpose floating structure. Built entirely with domestic components, it features tourist accommodations above and aquaculture facilities below, cultivating high-value species while offering unique tourism experiences. The sustainable design incorporates solar power, ensures quick investment recovery within 7-12 months, and demonstrates Indonesia's capability in maritime engineering.

Third, ROV W-101 Development, a collaboration between ITS, BRIN, and PT. Aquamarine Divindo Inspection showcases advanced underwater technology capabilities. Led by Ir. Wasis Dwi Aryawan, this autonomous vessel features cutting-edge imaging systems and precise manoeuvrability. Its modular, cost-effective design democratizes access to marine research technology, enabling broader participation in underwater exploration and research activities.



ITS Leads Maritime Innovation Through Strategic Partnerships

ITS also leads in maritime innovation through multiple strategic initiatives, partnerships, and technological developments that strengthen Indonesia's maritime sector while gaining international recognition. First, the PIANC Partnership for Maritime Excellence ITS has forged a strategic alliance with the Permanent International Association of Navigation Congresses (PIANC) during SENTA 2023, themed "Autonomous and Smart Innovation in Marine Science and Technology." This collaboration connects Indonesian maritime professionals with global expertise through PIANC's network, established in 1885. The partnership focuses on developing tailored solutions for Indonesia's maritime challenges while integrating global standards into local practices through specialized training programs and international project involvement.

Second, Maritime Innovation Hub with IDSurvey in collaboration with IDSurvey, ITS established a cutting-edge innovation hub at the National Ship Design and Engineering Center (NaSDEC). The 15x15-meter facility serves dual purposes as an industry service centre and research facility, including offices for the Indonesian Offshore Marine Industry Association (Iperindo). This initiative aims to accelerate Indigenous maritime solutions while streamlining the commercialization of innovations through improved certification and licensing processes.

Third, ITS, in collaboration with University College London and Universitas Pattimura, received the 2023 RINA-LR Maritime Safety Award for their innovative "Kora-Kora" ship stability monitoring app. Supported by the Newton Fund, this smartphone-based solution, tested in Ambon in October 2022, offers offline functionality and color-coded safety indicators, marking ITS as the first Indonesian institution to earn this prestigious award and highlighting its commitment to maritime safety.



Advancing Maritime Science and Innovation Through Strategic Partnership, Research, and Technology Transfer

ITS has fortified its maritime and industrial education framework through a groundbreaking partnership with South Korea's Mokpo National University (MNU). What began as a focused collaboration in maritime studies has evolved into a comprehensive academic alliance, encompassing industrial engineering, information technology, and electronics through innovative Double Degree and Joint Degree programs. This strategic partnership harnesses the combined strengths of ITS' prestigious Naval Engineering Department and MNU's position as the leading maritime institution in Jeollanam-do. Together, they have created a dynamic educational ecosystem that seamlessly integrates theoretical expertise with practical industry applications.

The excellence of this collaboration is exemplified by ITS Faculty of Marine Technology (FTK), recently honored as the "Best Academic Excellence Center in the Maritime Sector of the Year 2023" by IPERINDO. FTK's success is built upon three fundamental pillars: the advancement of scientific knowledge, the development of research capacity, and effective technology transfer. Through its carefully crafted curriculum, which balances advanced marine technology concepts with hands-on applications, FTK consistently produces industry-ready graduates who make immediate and meaningful contributions to the maritime sector.



Empowering Communities Through Sustainable Water Ecosystem Management: ITS Initiatives in East Java

ITS implemented two groundbreaking water management initiatives that blend technological innovation with community empowerment. In Setrohadi Village, Gresik, ITS addressed water quality challenges through an integrated aeration-filtration system using natural materials like silica sand, carbon, and zeolite. Simultaneously, they developed a Smart Water Quality Monitoring System (WQMS) for aquaculture communities, employing IoT-enabled sensors to track vital water parameters in real time.

The success of these initiatives lies in their comprehensive approach to community engagement. Through knowledge transfer programs, local communities gain the expertise to maintain and operate these systems independently. This combination of technological solutions and community empowerment has created a replicable model for sustainable water resource management, demonstrating how environmental protection and community development can be achieved simultaneously. The results include improved water quality, enhanced aquaculture productivity, and strengthened community resilience, establishing a sustainable framework for water ecosystem management that other communities can adopt.





Life on Land



Sustainable Development Goals Report 2023

“This is the second of two SDGs that look at the broader ecosystem – the other being SDG 14: Life Below Water. Life on land is a precious resource – we need to ensure that it is passed on to future generations, at a time when loss of biodiversity is an increasing concern. Different universities will have responsibility for very different landscapes and the life within, but all have a responsibility as stewards of their environment.”

THE Impact Rankings





Life on Land



Sustainable Development Goals Report 2023



STATISTICS

123

Number of publications 2019-
2023



ITS' Agricultural Innovation: Leading East Java's Sustainable Farming Revolution

ITS demonstrated agricultural sustainability through four groundbreaking initiatives that strengthen East Java's farming capabilities while promoting environmental stewardship: First, Lumajang's Automated Fermentation System revolutionizes organic fertilizer production through advanced technology integration. The system features temperature control, pH monitoring, and mobile supervision capabilities, maintaining optimal conditions at 45°C and pH 6.5. This innovation effectively converts water hyacinth and organic waste into high-quality liquid fertilizer, transforming waste management challenges into agricultural opportunities.

Second, Kediri's Waste Processing Initiative combines immediate practicality with future sustainability through an innovative grinding system. Initially powered by diesel for immediate community adoption, the program includes plans for solar transition. This system efficiently processes dried cattle waste into fine-textured fertilizer, enabling agricultural self-sufficiency and reducing dependency on government subsidies.

Third, Bangkalan's Sustainable Farming Program, in partnership with Ben Giat Farmers Group and BRIN, introduces advanced organic fertilizer production using an MA-11 decomposer solution. The initiative optimizes local microbe utilization and climate-suitable crop selection, establishing a foundation for a high-value agricultural industry while reducing chemical fertilizer dependency.

Lastly, Blitar's Rapid Fertilizer Production System, demonstrates efficient waste-to-resource conversion. The streamlined 7-14 day process combines manure with rice husk charcoal and decomposer solution, creating valuable agricultural resources while opening new economic opportunities through potential commercialization.



ITS Takes Action: From Forest Crisis to Community Conservation

In a significant week of environmental initiatives, ITS mobilized both academic and student resources to address Indonesia's land conservation challenges. The activities highlighted urgent environmental concerns while demonstrating practical solutions. At the research front, ITS environmental expert Amien presented alarming findings on mountain forest degradation, revealing how tourist developments and residential expansion have severely compromised ecological systems. His research exposed how converted mountain areas have lost their natural disaster prevention capabilities, emphasizing the urgent need for the restoration of protected forests and water catchment zones.

Taking immediate action, ITS' Student Executive Board (BEM) launched a hands-on Earth Day campaign in Surabaya. Led by Social Affairs Minister Agil Wahyu Ramadhan, students distributed 300 seedlings at Flora Park and conducted mangrove planting at Gunung Anyar's Mangrove Botanical Garden. The initiative, supported by twenty student volunteers, earned praise from garden administrator Ani Shofiaturun for its practical approach to environmental conservation.



Smart Forest Conservation through Educational Innovation

ITS' Community Service Program has launched a pioneering forest monitoring initiative at Sumber Pawon Forest, Kediri. Led by Iska Desmawati, a Biology lecturer, 28 students from diverse scientific backgrounds implemented a smart barcode system that serves dual purposes: training local forest managers in digital monitoring while documenting biodiversity. The system tracks 890+ trees across 17 species, including rare specimens, providing real-time data on distribution, status, and characteristics through quarterly updates.

Using a barcode system, the management team of Sumber Pawon Forest can monitor the area's flora online. Barcodes are placed in front of trees or plants to simplify the scanning process. Once scanned, information about each plant—such as species name, distribution, rarity status, age, general description, and benefits—is displayed. Additionally, the information provided after scanning is real-time, as the plant data is regularly updated. Updates and data checks are planned every three to six months.

It is hoped that the barcode system will contribute to conservation efforts in the Sumber Pawon Forest area, potentially reducing the risk of certain plant species being taken. The digitized monitoring system in this forest could also support the development of Tempurejo Village, located near Sumber Pawon Forest, as a digital village.





Peace, Justice, and Strong Institutions



Sustainable Development Goals Report 2023

“SDG 16 and 17 explore some of the underlying factors that are needed in order to ensure delivery of the other SDGs. Peace and Justice go hand in hand – and indeed are vital for equity between people and countries. Supporting this we need our institutions to be strong enough to maintain a focus on delivering the SDGs. This can range from individual justice – eradicating modern slavery and people trafficking – to ensuring that our countries have the evidence base needed to react appropriately to crises.”

THE Impact Rankings





Peace, Justice, and Strong Institutions



Sustainable Development Goals Report 2023



STATISTICS

44

Number of publications 2019-
2023



ITS Multi-Faceted Approach to Strengthening Public Institutions and Policy Development

ITS has emerged as a pivotal force in strengthening public institutions and policy development through three interconnected initiatives, each demonstrating the institution's commitment to building more effective and transparent governance systems. In collaboration with the Surabaya City Government, ITS has set a new standard for transparent governance through the Electronic-Based Government System (SPBE). Led by Tony Dwi Susanto, the initiative goes beyond traditional digital transformation, incorporating a risk management framework to strengthen Regional Government Organizations (OPD). Continuous monitoring by the City Inspectorate ensures ongoing improvements in government service delivery.

Complementing this digital transformation, ITS' involvement in the HE2O drinking water facility demonstrates the institution's ability to translate policy into practical solutions. This initiative showcases the effectiveness of the triple helix collaboration model, where academic expertise meets governmental oversight and industrial efficiency. The project's success in simultaneously addressing multiple Sustainable Development Goals while maintaining strong stakeholder engagement has created a replicable framework for sustainable development implementation.

Further strengthening its institutional impact, ITS' Urban Drainage System Training program in Kediri City, led by Dr. Yang Ratri Savitri, addresses critical knowledge gaps in public service delivery. This initiative has proven particularly effective in enhancing technical capabilities within local government institutions, creating a sustainable model for knowledge transfer and practical skill development.

These initiatives highlight ITS's comprehensive approach to strengthening institutions and policy through digital innovation, sustainable development, and capacity building. ITS demonstrates how academia can contribute to robust public institutions with practical implementation, stakeholder engagement, and sustainable knowledge transfer. These efforts position ITS as a model for advancing sustainable development goals and improving public service delivery.



ITS: Advancing National Development Through Expert Policy Guidance

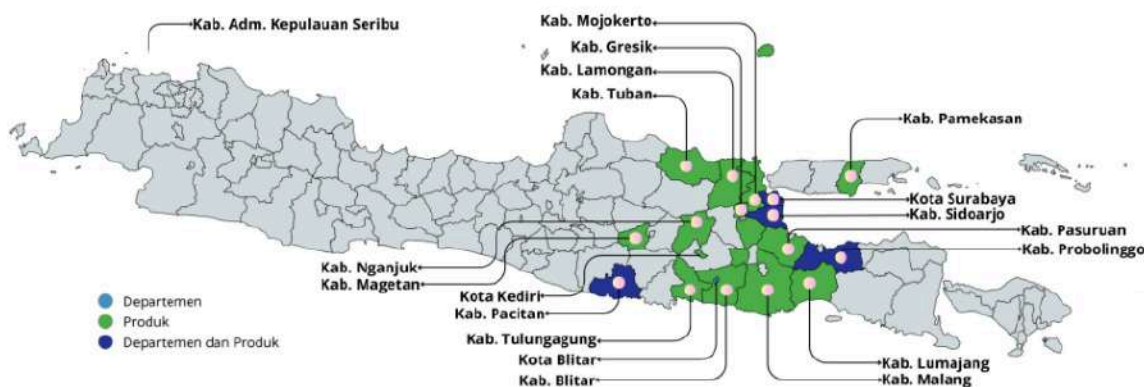
ITS has become a key advisory partner for government initiatives, showcasing the role of academia in evidence-based policy and development. Through its Center for Regional Development and Community Empowerment (PDPM), ITS offers guidance on regional projects that merge technology with social development, focusing on economic empowerment, capacity building, and culturally appropriate solutions. This strategy promotes technically sound outcomes and strong collaboration with local governments and communities.

ITS plays a key advisory role in environmental policy, notably in Low Carbon Emission Vehicle (LCEV) initiatives. At a recent Surabaya discussion, Dr. Bambang Sudarmanta emphasized reform through product development, fuel standards, and tax incentives. This aligns with ITS's broader commitment to Indonesia's 2060 Net-Zero Emission goals, in partnership with the National Research and Innovation Agency (BRIN). Through its Center for Public Policy, Business, and Industry Studies (PKKPBI), ITS addresses crucial issues like Jakarta's air pollution, bringing expert insights to environmental policy.

In rural development, ITS has partnered with the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration to develop comprehensive Spatial Planning (RTR) guidelines. The pilot project in Pangkahwetan Village, Gresik, exemplifies how academic expertise can effectively support government initiatives while ensuring solutions remain grounded in community needs. Led by Ir Putu Rudy Setiawan MSc, this initiative combines technical excellence with community engagement through focused field surveys and stakeholder discussions.

Through diverse initiatives, ITS showcases its commitment to expert, community-focused guidance in government advisory, emphasizing practical, participatory, and evidence-based methods. This approach has positioned ITS as a key partner in national development, bridging academic expertise with real-world policy implementation.

Detail Wilayah Pengabdian Masyarakat Tahun 2023



ITS: Advancing National Development Through Expert Policy Guidance

ITS has established itself as a crucial advisory partner to government initiatives across multiple sectors, demonstrating the vital role of academic institutions in shaping evidence-based policy and development programs. Through the Center for Regional Development and Community Empowerment (PDPM), ITS provides comprehensive guidance on regional development initiatives. The center's strategic framework combines technological innovation with social development, focusing on economic empowerment, capacity building, and appropriate technology implementation. This approach ensures solutions are both technically sound and culturally appropriate, while maintaining strong multi-stakeholder collaboration with local governments and community organizations.

ITS' advisory role extends to environmental policy, as evidenced by its leadership in addressing Low Carbon Emission Vehicle (LCEV) implementation challenges. At a recent focus group discussion in Surabaya, Dr. Bambang Sudarmanta highlighted the need for reform through industrial product development, fuel quality standards, and tax incentives. This initiative aligns with the institution's broader environmental commitment, demonstrated by its partnership with the National Research and Innovation Agency (BRIN) to advance Indonesia's 2060 Net-Zero Emission goals. Through the Center for Public Policy, Business, and Industry Studies (PKKPBI), ITS brings expert insights to environmental policy development, addressing critical challenges such as Jakarta's air pollution crisis.

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Through these diverse initiatives, ITS demonstrates its commitment to providing expert guidance while maintaining a strong focus on practical, community-oriented outcomes. The institution's approach to government advisory services emphasizes holistic and participatory methods, ensuring all initiatives are based on solid evidence and stakeholder input. This comprehensive strategy has established ITS as an invaluable partner in national development, effectively bridging the gap between academic expertise and practical policy implementation.





Partnerships for the Goals



Sustainable Development Goals Report 2023

“Sustainable development is the responsibility of every part of society, across the world. It cannot be achieved without linkages, across the goals, but also between institutions, governments, companies, NGOs, and people.”

THE Impact Rankings



17 PARTNERSHIPS
FOR THE GOALS



Partnerships for the Goals



Sustainable Development Goals Report 2023



STATISTICS

435

Number of MoU

305

Number of university partners

43

Number of university partners
by countries



ITS Partnerships: Advancing Indonesia's Sustainable Development Through Strategic Government Collaborations

Institut Teknologi Sepuluh Nopember (ITS) has established pivotal partnerships with key government institutions—the Ministry of Environment and Forestry (KLHK) and the National Research and Innovation Agency (BRIN)—demonstrating effective academic-government collaboration in advancing Indonesia's environmental sustainability agenda. These strategic alliances operate through specialized channels, including the PROPER program and the Center for Public Policy, Business, and Industry Studies (PKKPBI), creating comprehensive frameworks for environmental policy development and implementation.

The partnerships' impact is evidenced through tangible outcomes. The ITS-KLHK collaboration has achieved a 23% increase in corporate participation in environmental programs, while the ITS-BRIN partnership focuses on developing policies for achieving Net-Zero Emission (NZE) targets by 2060. Both initiatives emphasize a holistic approach, balancing environmental protection with economic growth and social inclusivity.

These collaborations leverage ITS's multi-disciplinary expertise, bringing together specialists from Business Management, Physical Engineering, and the Regional Potential Study Center for Community Empowerment. This academic knowledge effectively complements governmental policy-making capabilities, creating evidence-based frameworks for sustainable development. The partnerships employ innovative approaches, from PROPER's color-coded assessment system to hybrid discussion formats, ensuring broader stakeholder engagement and effective knowledge exchange.



ITS and BRIN: Forging Excellence in Sustainable Development Research Through Strategic Partnership

ITS has emerged as a pivotal force in advancing Indonesia's sustainable development agenda through its strategic partnership with the National Research and Innovation Agency (BRIN), specifically focusing on the nation's ambitious Net-Zero Emission (NZE) 2060 targets. Through its Public Policy, Business, and Industry Research Center (PKKPBI), ITS demonstrates research excellence by leading critical discussions and contributing to evidence-based policy development that addresses both environmental sustainability and economic growth. This collaboration exemplifies ITS' commitment to global climate action, bringing together multidisciplinary expertise from academics, researchers, and policy practitioners to tackle complex environmental challenges. ITS' approach integrates scientific knowledge with practical policy implementation, particularly evident in their work addressing pressing issues such as air pollution and its economic impacts.

The rule-making in the Net-Zero Emission Policy must consider the various aspects affected by policy decisions. A complex approach to decision-making is essential, as it closely relates to fostering growth, creating jobs, and ensuring inclusivity for all levels of Indonesian society. Additionally, policies must prioritize the community's quality of life and consider their environmental impact.



ITS Civil Engineering Student Association Advances SDGs Through Collaboration with Save Street Child Surabaya

ITS, through its Civil Engineering Student Association (HMS), demonstrates meaningful engagement with Sustainable Development Goals (SDGs) through a strategic collaboration with the non-governmental organization Save Street Child (SSC) Surabaya. This partnership, manifested in their annual social outreach program "Kunjungan Sosial HMS (Kasih)," focuses on empowering marginalized children through a holistic educational approach that combines formal education with character development. The program's environmental awareness component, which includes tree-planting activities, teaching children about environmental responsibility and sustainable practices.

HMS ITS' comprehensive approach includes not only educational support but also financial assistance through fundraising efforts, demonstrating the importance of sustainable partnerships in addressing social challenges. This collaboration serves as a model for how academic institutions can work effectively with NGOs to create meaningful social impact while contributing to global sustainable development objectives. The program's success in combining educational empowerment with environmental awareness showcases the potential of student-led initiatives in advancing the SDGs through local community engagement.



ITS Spearheads Dialogue on National Economic Strengthening

ITS recently led a key Focus Group Discussion (FGD) uniting academia, industry, and government to strengthen national economic independence through innovation and collaboration. Hosted by ITS's Public Policy Research Center for Business and Industry (PKKP-BI), Dr. Arman Hakim Nasution emphasized Indonesia's role in aligning natural resources with technology, while Dr. Fajar Harry Sampurno Kuffal shared insights on global economic trends and Industry 5.0's impact on Indonesia.

PLN's Alternative Energy Deputy Manager, Dewanto, contributed valuable perspectives on energy sustainability, outlining the company's journey toward Net Zero Emission by 2060. This aligned seamlessly with ITS's ongoing research initiatives in sustainable technology. Professor Alva Edy Tontowi from UGM enriched the dialogue by emphasizing the crucial role of higher education in developing scientific and engineering talent.

The event showcased ITS's commitment to inclusive development through the BUMDes Award ceremony, recognizing excellence in village enterprise digitalization. A significant highlight was the announcement of a new specialization within ITS' Master of Innovation Systems and Technology (MIST) program, focusing on Public Service Innovation and Policy. The FGD successfully facilitated collaboration between five major state universities (ITS, UI, UGM, UNAIR, and UB), demonstrating ITS' leadership in fostering academic partnerships for national development.

