

# SUSTAINABLE DEVELOPMENT GOALS REPORT

Rajamangala University of Technology Srivijaya

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### SUSTAINABLE G ALS





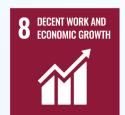




































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# SUSTAINABLE DEVELOPMENT CS: ALS



# MESSAGE FROM THE PRESIDENT



In our previous submission, we were honored to be recognized for our achievements in SDGs 2, 14, 15, and 17 in the Impact Rankings 2023. Our university fully recognizes the importance of all Sustainable **Development Goals and** remains committed to contributing to all 17 SDGs in this year's submission. Building on this success, I would like to express my heartfelt appreciation to the SDGs Committees, faculty, staff, and students for their unwavering commitment, valuable contributions, and collective effort that made this accomplishment possible.

Prof.Dr.Suwat Tanyaros
President

Sout Tonges







#### INTRODUCTION TO RUTS

Rajamangala University of Technology Srivijaya, (abbreviated as RUTS), is one of the universities in the group of Rajamangala University of Technology (RMUT), RUTS is located in the south of Thailand. The university pays great attention to the management of higher education, particularly in the fields of science and technology as well as services. The main aims are to produce graduates who have both the professional ability to manage a career and to be highly aware of the practical ethics in society and the nation. Additionally, the policy focuses on the development of teaching and learning, research, community service, cultural preservation and environment sustainability as well as the staff development to keep pace with globalization so as to complete the vision of the university.

RUTS offers education at the high vocational and graduate levels, and it is composed of 7 areas as follows:

- 1. Rajamangala University of Technology Srivijaya, Songkhla Campus
- 2. Rajamangala University of Technology Srivijaya, Rattaphum College
- 3. Rajamangala University of Technology Srivijaya, Trang Campus
- 4. Rajamangala University of Technology Srivijaya Nakhon Si Thammarat, Sai Yai Campus
- 5. Rajamangala University of Technology Srivijaya Nakhon Si Thammarat, Thung Yai Campus
- 6. Rajamangala University of Technology Srivijaya College of Industrial Technology and Management Nakhon Si Thammarat, Khanom Campus
- 7. Srivijaya Agricultural Development Center, Chumphon



#### VISION

# THE UNIVERSITY OF INNOVATION FOR SOCIETY

#### **MISSION**

- 1.To provide high-quality professionalism at the higher education level by focusing on science and technology and to make sure that graduates are ready for the job market.
- 2. To create research activities, inventions and innovations on science and technology that can be transferred into value-added goods and services for the country.
- 3.To provide academic services and creative education with a purpose to prepare graduates for independent careers to stay competitive in their profession.
- 4. To preserve religion, culture and the environment.



#### **FACTS & FIGURES**



Songkhla Campus (rai) 262
Rattaphum College (rai) 160
Trang Campus (rai) 1700
Sai Yai Campus (rai) 552
Thung Yai Campus (rai) 2025
Khanom Campus (rai) 589
Chumporn Center (rai) 218/300

Total number of academic and supporting staff (person)

1,408





Total number of regular student (person) 16,303

Number of faculties/colleges

12 faculties 3 colleges





Number of courses 88 courses



# END POVERTY IN ALL ITS FORMS EVERYWHERE



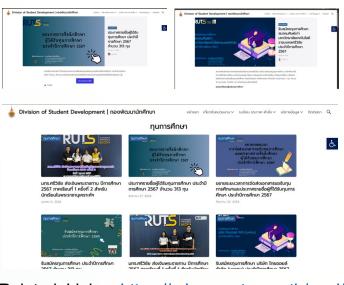
#### **Policy and Operation**

#### **RUTS Scholarship Support**

RUTS has implemented a comprehensive scholarship policy to promote educational equality and support student welfare. The policy ensures that all students, regardless of economic background, can access and complete higher education through scholarships, tuition waivers, and financial aid funded by the university and external sources.



Managed with transparent procedures and clear criteria, the policy reduces financial barriers and supports students from low-income families. This initiative reflects RUTS's commitment to social responsibility, fostering an equitable, inclusive education system that empowers students and contributes to sustainable national development.

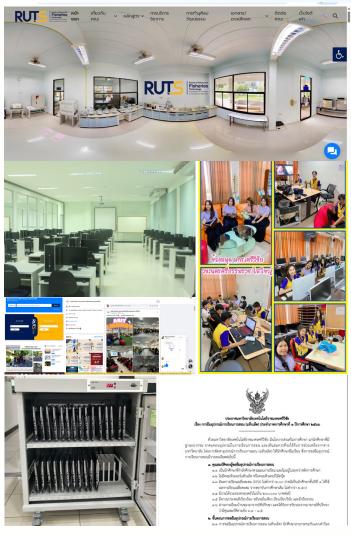


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#### Promote learning with resources and technology for education

RUTS is committed to creating an inclusive and resource-rich learning environment that supports all students. The university provides comprehensive educational resources, including a library, online library, computer labs, and a notebook lending service, ensuring equal access to knowledge and technology. The university and online libraries offer extensive academic materials accessible anytime, supporting research and lifelong learning without geographic or time limitations.

These initiatives reflect RUTSs effort to reduce educational inequality, support low-income students, and enhance access to technology and learning resources, fostering an environment where every student can thrive and reach their full potential.



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#### **Research and Innovation**

#### Technology Transfer of Energy-Saving Stove for Traditional Thai Dessert Processing

RUTS, through the Faculty of Liberal Arts, partnered with the Prince of Songkla University Science Park and the Ban Han Elderly Organic Agriculture Community Enterprise to implement the project "Technology Transfer of Energy-Saving Stove for Traditional Thai Dessert Processing." An MOU was signed on 30 July 2024 at Ban Han Municipality Hall, formalizing cooperation among local government, academia, and the community.

The project developed and transferred energy-saving stove technology to support elderly dessert producers, helping reduce fuel costs, improve efficiency, and preserve local cultural practices. RUTS researchers and students co-designed and demonstrated the technology, integrating academic knowledge with community innovation to promote sustainable livelihoods. Overall, this project shows how RUTS translates research into real social impact, linking education, community empowerment, and sustainability.



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#### Collaboration to promote economic equity and community resilience

RUTS together with seven Southern universities and three private sector organizations, held a policy-level meeting to develop strategic frameworks for sustainable tourism. The discussion focused on integrating academic expertise, local governance, and private sector collaboration to promote economic equity and community resilience.

The initiative reflects RUTS's Policy and Operation approach to community empowerment, emphasizing evidence-based planning, inclusive participation, and resource sharing to make tourism a sustainable driver of local opportunity-especially for low-income communities. Through these efforts, RUTS acts as a policy catalyst, translating research into actionable governance for inclusive and sustainable regional growth.



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#### **Teaching and Learning**

Practical Business Education through Collaborative B.B.A. Programs in Trading Innovation Management and Management & Business Development



RUTS, through College of Hospitality and Tourism, offers two collaborative undergraduate programs the B.B.A. in Trading Innovation Management and the B.B.A. in Management and Business Development under the Public-Private Partnership Premium Graduate Program with CP ALL Public Company Limited. These programs integrate academic learning with professional experience to promote inclusive, career-oriented education.

This approach reduces educational inequality and demonstrates RUTS's commitment to social responsibility, public–private collaboration, and workforce development.



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#### **Educational Facilities and Digital Support Services**

RUTS promotes community engagement and student empowerment through accessible learning spaces and digital facilities that go beyond classroom learning. Libraries, computer and business labs, and tablet lending services serve as platforms for innovation, collaboration, and income generation-enabling students to apply their skills in real-world contexts, such as digital entrepreneurship and community projects, while contributing to local economic growth.

Through this approach, RUTS transforms learning into opportunity-empowering students and communities toward sustainable development.







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#### **Outreach and Engagement**

#### "GSB Yuwaphat Rak Thin 2024" Project



RUTS implemented the "GSB Yuwaphat Rak Thin 2024" Project, an academic service and community engagement initiative promoting sustainable local development. The project enhances community product quality, upgrades local tourism standards, and fosters self-reliant enterprises. Through student participation, it integrates classroom learning with real-world application, allowing students to conduct community research, analyze business potential, and co-develop solutions with local residents.





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#### RUTS Strengthens Community Engagement through Appropriate Technology Symposium 2024

RUTS organized the Appropriate Technology Symposium 2024: "Appropriate Technology for Sustainable Living" to promote academic collaboration and innovation for community benefit. The event gathered representatives from nine RMUT universities, researchers, entrepreneurs, and local communities to exchange ideas and showcase technologies that enhance quality of life and support sustainable development.

The symposium exemplified Outreach and Engagement, fostering partnerships that create practical, community-driven solutions. Through exhibitions and discussions, participants explored technologies that boost income, reduce inequality, and promote environmental balance.





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END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE



#### **Policy and Operation**

#### **Food Sales Regulation at RUTS**

RUTS has established a Food Sales Regulation Policy to govern food, goods, and services within university canteens, ensuring safe, affordable, and accessible meals for all students.

This policy serves as a core institutional mechanism to reduce student food insecurity, promote health and well-being, and ensure equitable access to nutritious meals-particularly benefiting low-income students. Its public accessibility reinforces transparency and accountability in implementation.

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#### RUTS Strengthens University-Industry Linkages through MoU Signing with Two Private Sector Companies

The Faculty of Science and Fisheries Technology signed two Memoranda of Understanding (MoUs) under the University–Industry Linkage Program to strengthen collaboration with the private sector.

Witnessed by faculty executives and staff, the MoUs establish a framework for research, teaching, and innovation collaboration, connecting academic expertise with industry needs to foster sustainable technologies and enhance student skill development.



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#### **Research and Innovation**

#### **Curved-tray groundnut sorting equipment** and a solar-powered drying cabinet

RUTS research team handed over manual curved-tray groundnut sorting equipment and a solar-powered drying cabinet to the Mae Khri Groundnut Farmers Group.

The event, attended by representatives from the Khuan Saothong Subdistrict Municipality and the Tamot District Agricultural Office, aimed to improve farmers' productivity, post-harvest efficiency, and product quality. This project highlights RUTS's commitment to advancing technology transfer, farmer capacity building, and sustainable agricultural development within local communities.





#### Trang pepper farmers and entrepreneurs

RUTS research team joined Farm Expo 2024 to support Trang pepper farmers and entrepreneurs, in collaboration with the Trang Provincial Agriculture Office and the Trang Provincial Commerce Office.

RUTS facilitated the participation of the Young Smart Farmer group and local pepper producers in the Farm to Table zone, where they showcased and sold Trang pepper products. This initiative highlights RUTS's commitment to empowering local farmers by expanding market access, fostering government—community partnerships, promoting value-added agricultural products, and strengthening the local agricultural economy.





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### Participatory Technology Application to Strengthen the Local Agricultural Economy.

The research team RUTS, in collaboration with community innovators, organized an exhibition and knowledge-sharing event under the project "Participatory Technology Application to Strengthen the Local Agricultural Economy."

Held during the Mobile Agricultural Clinic under the Royal Patronage of His Royal Highness Crown Prince Maha, the event showcased research outputs and appropriate technologies supporting local mushroom farmers. Over 260 farmers and stakeholders from government agencies, local authorities, and the private sector participated in knowledge-sharing activities on mushroom cultivation, post-harvest management, and sustainable farming practices.

This initiative highlights RUTS's commitment to empowering local farmers through technology transfer, practical innovation, and collaboration to enhance productivity, income, and the resilience of the local agricultural economy.







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#### Development of Low-Sodium Instant Noodles Enriched with Brown Rice Flour (Med Fai 62)



A research team from the Faculty of Agro-Industry, RUTS, led by Asst. Prof. Dr. Supasit Chooklin and co-researchers, conducted a technology transfer workshop under the project "Development of Low-Sodium Instant Noodles Enriched with Brown Rice Flour (Med Fai 62)", held in collaboration with the Ban Nong Khla Samakkhi Community Enterprise, Wat Thung Khwai Phatthanasuksa School, and local farmers, the workshop aimed to share scientific knowledge and practical processing techniques for rice-based product development. Participants learned about the nutritional value of local rice, low-sodium noodle production using Med Fai 62 brown rice flour, drying and packaging methods, and market-oriented product development. A tasting session featured the Shabu Black Soup Brown Rice Noodle prototype.

This activity exemplifies RUTS's applied research approach, linking innovation, community participation, and entrepreneurship to enhance local value-added food production.



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#### **Teaching and Learning**

#### "Midnight Chicken Harvest"



Students from the Animal Science and Smart Agriculture programs carried out a "Midnight Chicken Harvest" after a 35-day rearing period in a smart-controlled poultry house. The activity was part of RUTS's student food production and management program promoting food security, sustainability, and hands-on learning.

Students raised broiler chickens using automated systems, harvested them for campus food programs, and gained experience in sustainable poultry management. The initiative also strengthened collaboration between the two programs and supported the university's student food security strategy by providing affordable, nutritious protein while fostering practical agricultural skills.



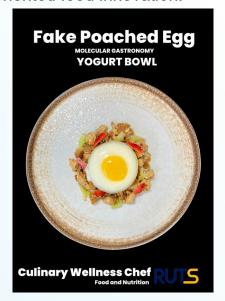
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#### **Wellness Chef**



RUTS integrates the "Wellness Chef" concept into its Molecular Gastronomy course to promote healthy, sustainable, and creative food innovation.

Students learn the principles of molecular gastronomy, design healthy menus, and experiment in the food innovation lab using modern culinary science techniques. The course blends art, science, and wellness, fostering creativity and sustainability while developing advanced culinary and scientific skills for health-oriented food innovation.



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#### Smart Farm, an on-campus learning and production hub

RUTS promotes sustainable agriculture through Saiyai Smart Farm, an on-campus learning and production hub that integrates academic knowledge with practical smart farming.

Students cultivate chemical-free vegetables using controlled environment systems, applying technology for safe and high-quality produce. The harvests are used for learning and sold within the campus and community, creating a closed-loop system that connects education, sustainable food production, and community engagement. This initiative exemplifies how RUTS embeds sustainability into education while enhancing food security and developing students' practical agricultural skills.



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#### **Outreach and Engagement**

Student Food Security and Value-added Agricultural Products Programme



The Faculty of Agriculture implements an ongoing program to tackle student food insecurity by combining food production, value-added processing, and entrepreneurship in the curriculum. students in the course "Agricultural Product Management and Value Addition" transformed farm products-such as free-range chicken and organic vegetables-into Chicken Burgers, offering nutritious, affordable meals for students.

The program provides hands-on training in food processing, product development, and business skills, using fresh produce from university farms. Supported by expert guidance, including Asst. Prof. Narongchai Chupool, it enhances student self-reliance, sustainability, and campus food security through practical learning and innovation.





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#### **Smart Greenhouse and Smart Poultry House at the Faculty of Agriculture.**



The visit highlighted RUTS's agricultural innovations that integrate modern technology with sustainable practices. The Smart Greenhouse cultivates melons, grapes, and hydroponic vegetables under controlled environments to ensure high quality and food safety, while the Smart Poultry House uses IoT systems to optimize production efficiency and animal welfare. Both facilities serve as learning centers where students gain hands-on experience in smart farming, production management, and sustainability. This initiative reflects RUTS's commitment to advancing sustainable food systems through the integration of technology, innovation, and education.



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#### Farm to table

The Bachelor of Home Economics Program (Food and Nutrition Major) organized a knowledge transfer event promoting sustainable culinary practices and local food systems. Using ingredients sourced directly from farmers and producers in Songkhla Province, such as Kai Krob, Sataw, Khlong Ngae Tofu, Ma Muang Bao (GI product), Sam Nam Shrimp, and Sam Nam Seabass were transformed into Chef's Table-style dishes highlighting the Farm-to-Table concept. The event reflected the university's commitment to sustainable procurement and community support. Moreover, the workshop combined culinary arts, menu design, and food storytelling to enhance the value of local produce and promote sustainable gastronomy and tourism.









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#### **RUTS Walking Street**



RUTS Walking Street serves as an on-campus food market that supports food security, entrepreneurship, and community engagement at RUTS.

The market provides students and staff with affordable, nutritious meals, helping reduce food insecurity while offering opportunities to earn income through food and beverage sales. This initiative fosters self-reliance, collaboration, and sustainability, reflecting the university's commitment to building a vibrant and sustainable campus food ecosystem.



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#### RUTS Alumni Association awarded scholarship award

President of the RUTS Alumni Association, and the committee awarded 15 scholarships of 12,000 THB each to students at Rajamangala University of Technology Srivijaya during a ceremony at the Chalongsiriratchasombat 60 Years Auditorium, Hat Yai, Songkhla Province.

This initiative supports students facing financial hardship and food insecurity, helping them maintain stable living conditions and focus on their studies. The RUTS Alumni Association Scholarship Program exemplifies how alumni engagement contributes to student well-being, hunger alleviation, and academic success.



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ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGE



#### **Policy and Operation**

#### Network Partnership for Mental Well-being: Moving Toward Quality Thais" project



RUTS attended the MOU signing for the "Network Partnership for Mental Well-being: Moving Toward Quality Thais" project.

The agreement, signed between the nine Rajamangala Universities of Technology and the Department of Mental Health, Ministry of Public Health, aims to enhance mental health support, prevention, and care for students across all campuses.

Through this collaboration, RUTS continues to promote proactive mental health initiatives, ensuring the well-being and quality of life of its students and staff.



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#### **RUTS: A smoke-free campus**

RUTS signed an MOU with the Ministry of Higher Education, Science, Research and Innovation, the Ministry of Public Health, and the National Alliance for Tobacco-Free Thailand to promote a smoke-free campus. The initiative established smoke-free zones, signage, and awareness campaigns to create a healthier campus environment.

To advance this effort, RUTS leaders and faculty joined a meeting to develop joint action plans for promoting a tobacco- and e-cigarette-free culture through a healthy media ecosystem. The initiative includes the Hackathon 4Health: "Change Agents for a Healthy Society through Media Innovation" project, organized in collaboration with ThaiHealth and the Center for Creative Media for Children, Youth, and Families.





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#### **Research and Innovation**

#### Innovative wound dressing film



Asst. Prof. Dr. Thanakorn Damsud, from the Faculty of Science and Technology developed an innovative wound dressing film made from mangosteen peel extract and natural rubber, showcasing a sustainable Thai-based biomedical innovation.

The film's blend of hydrophilic and hydrophobic polymers ensures excellent drug retention and controlled release, while xanthones from mangosteen provide strong anti-inflammatory and antimicrobial properties to speed up healing.

This research demonstrates how Thailand's local resources can be transformed into high-value healthcare innovations that enhance treatment effectiveness and promote well-being.



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#### **Teaching and Learning**

#### **Workshop on Quality Counseling and Encouragement**

RUTS hosted Workshop on Quality Counseling and Encouragement, aimed to strengthen staff capacity in student mental health support, focusing on counseling principles, techniques, and referral systems.

A total of 50 participants-15 academic and 35 support staff-joined the training, which featured experts from the Smile & Smart Center providing both theoretical and practical sessions to enhance counseling skills and emotional support for students.







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#### **Student Leadership Training Program** on Drug and Prevention



RUTS by Division of Student Development hosted the Student Leadership Training Program on Drug and Prevention, under the theme "Think Good Idol: Change Agent-Leaders for Social Transformation."The program reflects RUTS's commitment to developing quality graduates and promoting sustainable social well-being through innovation, in line with the Standards for Student Affairs (2020) of the Ministry of Higher Education, Science, Research, and Innovation. It aims to build discipline, character, and positive behavior among students for harmonious coexistence. Designed to strengthen leadership and communication skills, the training empowers student leaders and staff to serve as change agents and health communicators, particularly in reducing risks related to drugs, cigarettes, and e-cigarettes.



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#### **Outreach and Engagement**

#### RUTS provided annual health and mental check-up program



RUTS, in collaboration with Songkhla Hospital, Sichon Hospital, and Sikarin Hat Yai Hospital, organized its annual health and mental check-up program for staff and students across all campuses. Covering Songkhla, Rattaphum, Nakhon Si Thammarat (Thungyai, Saiyai, Khanom), and Trang campuses.

Over 350 staff members participated in screenings for general health, chronic diseases, and occupational risks. Those with abnormal results were referred for medical care, while others received personalized health guidance. This program reflects RUTS's dedication to fostering a healthy, safe, and supportive workplace, promoting both physical and mental wellness as part of sustainable organizational growth.









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### The Muslim Student Club of RUTS organized a rural volunteer development camp for the local community

RUTS, along with staff from the Division of Student Development and members of the Muslim Student Club over 80 volunteers student, officially handed over a newly built school building to the Committee of Darunmuttakeen Mosque (Ban Wat Nod) in Moklan Subdistrict, Tha Sala District, Nakhon Si Thammarat Province.

The construction was part of the Rural Development Volunteer Camp Project 2024, organized by the Muslim Student Club to allow students to apply academic knowledge, foster community engagement, and promote volunteerism. The building provides a valuable learning space for local children and reflects RUTS's commitment to social responsibility and sustainable community development.





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ENSURE INCLUSIVE AND EQUITABLE
QUALITY EDUCATION AND PROMOTE LIFELONG
LEARNING OPPORTUNITIES FOR ALL



#### **Policy and Operation**

#### **Education for All and Lifelong Learning**

RUTS integrates the principles of Education for All and Lifelong Learning into its Strategic Plan (2018–2037), aligning with Thailand's 20-Year National Strategy and the Southern Border Provinces Education Plan. Under its policy framework, RUTS emphasizes equitable access to education, teacher empowerment, and community-based learning, especially for underprivileged and marginalized groups.

These policies have expanded access to education, improved teaching quality, and strengthened community-based learning through university-school-community partnerships. RUTS has emerged as a proactive driver of SDG 4: Quality Education, advancing inclusive and sustainable learning beyond the campus.







RUTS implements a research budget management policy that promotes knowledge creation, technology transfer, and community development through practical innovation. Research funding is directed toward projects that apply academic expertise to real-world challenges, focusing on technologies that enhance productivity, sustainability, and quality of life.

The policy also expands lifelong learning opportunities by engaging communities in hands-on training on agricultural innovation, natural resource management, and renewable energy. Through partnerships with local organizations and the private sector, RUTS ensures research outcomes benefit both society and the economy

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#### **Research and Innovation**

Application and Scaling of Appropriate Technologies for Agricultural Products in Central Southern Thailand to Enhance the Community-Based Economy



Asst. Prof. Noppadon Podkumnerd and his research team delivered and transferred solar-powered drying cabinets to local entrepreneurs in Wangwan, Bang Mak, and Bang Pao Subdistricts, Kantang District, Trang Province, under the project "Application and Scaling of Appropriate Technologies for Agricultural Products in Central Southern Thailand to Enhance the Community-Based Economy."

The initiative promoted hands-on technology transfer, helping reduce energy costs and improve product quality. It also enhanced local producers' skills through experiential learning, fostered collaboration among academia, government, and communities, and established a scalable model for sustainable, community-based economic development.



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### **Knowledge Transfer and Capacity Building for Community Mushroom Cultivation**

In collaboration with researchers from the Faculty of Business Administration, RUTS, a training and knowledge transfer activity under the Tha Kham Red Mushroom Village Project, Year 3 was held at the Tha Kham Red Mushroom Community Enterprise, Hat Yai District, Songkhla Province. The project focused on reusing spent mushroom substrate and applying microbial bioproducts to produce eco-friendly, pest-resistant compost.

Moreover, the project strengthened farmers' technical skills, enabling efficient waste reuse, cost reduction, and sustainable production.





Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>

#### **Empowering Communities with Ready Skills**



Department of Industrial Promotion, Ministry of Industry, in collaboration with the Pracharath Initiative, organized the "Empowering Communities with Ready Skills" project at Rajamangala University of Technology Srivijaya, Nakhon Si Thammarat Campus, Thung Song District. The event featured a workshop on "Art of Mixing Mocktails and Cocktails" as well as emphasized creativity, technical expertise, and the fusion of modern innovation with local identity to enhance community products and small business competitiveness.



Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>



## Research and Innovation for Enhancing Garcinia Products of Community Enterprises in Yala Province to Strengthen Local Economic Competitiveness



The Faculty of Science and Technology, Rajamangala University of Technology Srivijaya implemented the research project "Research and Innovation for Enhancing Garcinia Products of Community Enterprises in Yala Province to Strengthen Local Economic Competitiveness." The project focused on developing innovations and transferring technologies to improve the quality, safety, and value of garcinia-based products while strengthening the business capacity of local community enterprises. On 30 October 2024, the team delivered innovations, conducted hands-on training, and upgraded production for four community enterprises across Yala Province.



Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>

#### **Teaching and Learning**

#### IED Volunteer Spirit: Enhancing Life Skills and Educational Standards for Teachers and Students in Border Patrol Schools

Faculty of Industrial Education and Technology, Rajamangala University of Technology Srivijaya organized the project "Enhancing Life Skills and Educational Standards for Teachers and Students in Border Patrol Schools (IED Volunteer Spirit)" at Ban Baroy Border Patrol Police School, Sadao District, Songkhla Province. The project aimed to strengthen teaching and learning capacities in remote border areas through training on instructional design, lesson planning, and creative learning activities. The project improved teachers' professional skills and students' creative learning abilities, fostering effective teaching practices and the production of engaging educational media.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>



#### **Enhancing Teaching Capacity to Create Innovative and Integrated Learning**



Faculty of Industrial Education and Technology, Rajamangala University of Technology Srivijaya held the project "Enhancing Teaching Capacity to Create Innovative and Integrated Learning" at Wat Tha Hin School, Sathing Phra District, Songkhla Province, the project aimed to strengthen teachers' skills in designing 21st-century, innovation-driven, and locally relevant instructional approaches. All Workshops focused on instructional design, digital media use, and learning assessment. The project enhanced teachers' capacity to create modern, integrated, and student-centered learning experiences using digital tools and effective evaluation methods.



Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>

#### **Vocational training programs**

Throughout 2024, RUTS organized a series of vocational training programs to enhance public skills and promote lifelong learning. Through its faculties and the Innovation and Technology Transfer Management Office, RUTS offered both free and paid courses, including:

- "Presentation Techniques Using Canva Level 3" - developing creative digital design skills;
- "Boiler Operator Training Program (Liquid Heat Transfer System)" - a 36-hour certified safety and operation course;
- "Preparation Course for Professional Licensing Examination in Diet Therapy" - supporting learners preparing for professional certification.

These programs broadened access to practical, career-focused education, helping participants build digital, technical, and professional competencies.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>



#### **Outreach and Engagement**

#### Rajamangala Srivijaya Fair 2025



RUTS hosted "Rajamangala Srivijaya Fair 2025," the fair was held across all RUTS campuses Songkhla, Nakhon Si Thammarat (Saiyai, Thungyai, Khanom), and Trang in both on-site and online formats. The event brought together government and private sector representatives, faculty, students, parents, and participants from across provinces, creating a lively atmosphere of learning and collaboration.

The fair included academic exhibitions, innovation showcases, skill competitions, and cultural performances, organized with over 30 partner institutions. The event highlighted RUTS's commitment to lifelong learning, community engagement, and the integration of academic knowledge with real-world application.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>

### Senior Citizens School Project – Promoting Lifelong Learning and Well-being for the Elderly Community

RUTS, Nakhon Si Thammarat Campus (Saiyai), joined the Senior Citizens School Project organized by the Tham Yai Subdistrict Municipality, Thung Song District, Nakhon Si Thammarat Province. The project promoted lifelong learning for the elderly, focusing on health, mental well-being, social inclusion, and the preservation of local wisdom. The initiative empowered senior citizens to stay healthy, confident, and engaged in their communities, enhancing their capacity to adapt and contribute to an inclusive society.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>



#### Science for Life, Environment, and Society in the BCG Model.



The Faculty of Science and Technology organized the Regional National Science Week 2024 marking its 17th consecutive year under the theme "Science for Life, Environment, and Society in the BCG Model." The event, aimed to promote scientific awareness and position the university as a hub for lifelong learning and community engagement. Activities included royal tribute exhibitions, an academic lecture on astronomy, science project and drawing competitions, and STEM learning workshops. The event welcomed students, teachers, and the public to explore science through hands-on learning and interactive displays.







Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>

#### **IED Open House 2024**

Faculty of Industrial Education and Technology held the "IED Open House 2024" to provide academic guidance, promote career pathways in industrial education and technology, and strengthen educational networks. Attended by over 400 participants from schools and colleges across Southern Thailand. The event highlights included robot control design, precision measurement, electrical wiring, and PCB design competitions, along with interactive learning stations that offered hands-on experience in industrial technology and innovation.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-4/">https://sdgs.rmutsv.ac.th/goal/en-4/</a>



# ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS



#### **Policy and Operation**

#### **RUTS** promoting gender equality for staff and students



RUTS is committed to promoting gender equality and maintaining a fair, inclusive, and non-discriminatory environment. All employees and students have the freedom to dress according to their gender identity or preference, except where specific uniforms are legally required.

The university provides inclusive facilities, equal employment opportunities, and gender-neutral access to all positions, alongside clear measures to prevent and address sexual harassment and gender-based misconduct. These efforts reflect RUTS's dedication to fostering a respectful, safe, and equitable campus that upholds the rights and dignity of every individual.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>

#### **RUTS** promotes gender equality policy

RUTS actively promotes gender equality and prevents gender discrimination in line with the Gender Equality Act of 2015. The university has issued formal commitments to ensure fair and equal treatment for all, regardless of gender identity.

Women play a key role in RUTS leadership, including one Vice President, three Assistants to the President, four Deans, and four Directors, reflecting the university's commitment to gender diversity and inclusive leadership. These efforts demonstrate RUTS's dedication to fostering a fair, respectful, and equitable campus environment that values diversity and equal opportunity.





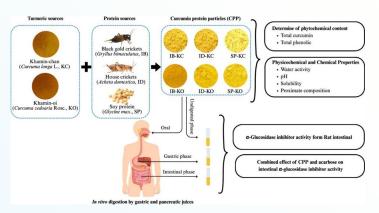


Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>



#### **Research and Innovation**

#### Turmeric for women's health



Asst. Prof. Thanakorn Damsud and his research team conducted a study titled "Inhibitory Activity of Insect Curcumin Protein Particles on  $\alpha$ -Glucosidase and Their Synergism with Acarbose under Simulated Digestion." The research aims to develop nutritious, bioactive insect protein alternatives with added functional value.

The study highlights turmeric (Curcuma longa) a key Thai herb known for its active compound curcumin, which supports women's health by easing menstrual discomfort, balancing hormones, enhancing skin and digestive health, improving liver function, and potentially lowering the risk of certain cancers. In summary, turmeric is a health-promoting herb with multiple benefits for women when consumed appropriately.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>

#### Shrimp paste for women's health

Asst. Prof. Chutinut Sujarit and her research team conducted a study titled "Shrimp Paste for Women's Health," highlighting the nutritional value of shrimp paste made from small shrimp or krill. Rich in calcium, vitamin D, vitamin B12, and antioxidants like astaxanthin, it supports bone health, anemia prevention, brain function, and overall well-being.

The study emphasizes that moderate consumption of clean, hygienically produced shrimp paste can provide valuable nutrients, help reduce fatigue and stress, and promote vitality making it a beneficial traditional food for women's health.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>



#### **Teaching and Learning**

#### **Marine Engineering for female students**



Rajamangala University of Technology Srivijaya (RUTS) promotes gender equality across its academic programs, notably in the Marine Engineering program, which actively encourages female participation in a traditionally male-dominated field.

The program combines theory and practice to build professional skills while fostering an inclusive learning environment. Currently, ten female students are enrolled, supported through mentorship, workshops, and networking activities.

These efforts reflect RUTS's commitment to empowering women in engineering and advancing gender balance and inclusivity in STEM education.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>

#### **Tracking female graduation data**



In 2024, 2,600 female students graduated from RUTS. The university then monitors graduates' employment status to assess educational outcomes and career readiness.

By tracking graduation and employment data, RUTS continuously improves its programs and support services to ensure students are well-prepared for professional success after graduation.





#### **Outreach and Engagement**

#### Platform for consult Service by RUTS



RUTS supports student well-being through Consult Service RUTS, offering online consultation via LINE group chat, Facebook, and TikTok. The service provides academic guidance, personal counseling, and mental health support for issues such as stress, anxiety, and depression, with special attention to female students' needs.

By creating an accessible and compassionate platform, RUTS demonstrates its commitment to student welfare, ensuring that learners receive timely support for both academic and personal challenges.









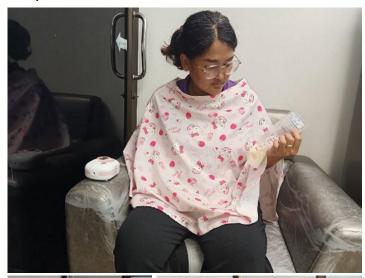
Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>



# Childcare and maternal facilities for RUTS female employees

RUTS supports female employees through childcare and maternal facilities, including breastfeeding rooms with pumps and refrigerators for milk storage, and rest areas for pregnant staff.

These facilities provide a safe, comfortable, and private environment that supports mothers' health and work–life balance. Through such initiatives, RUTS demonstrates its commitment to employee well-being and helping women manage both professional and family responsibilities.









Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>

## HPV vaccination campaign for female RUTS students

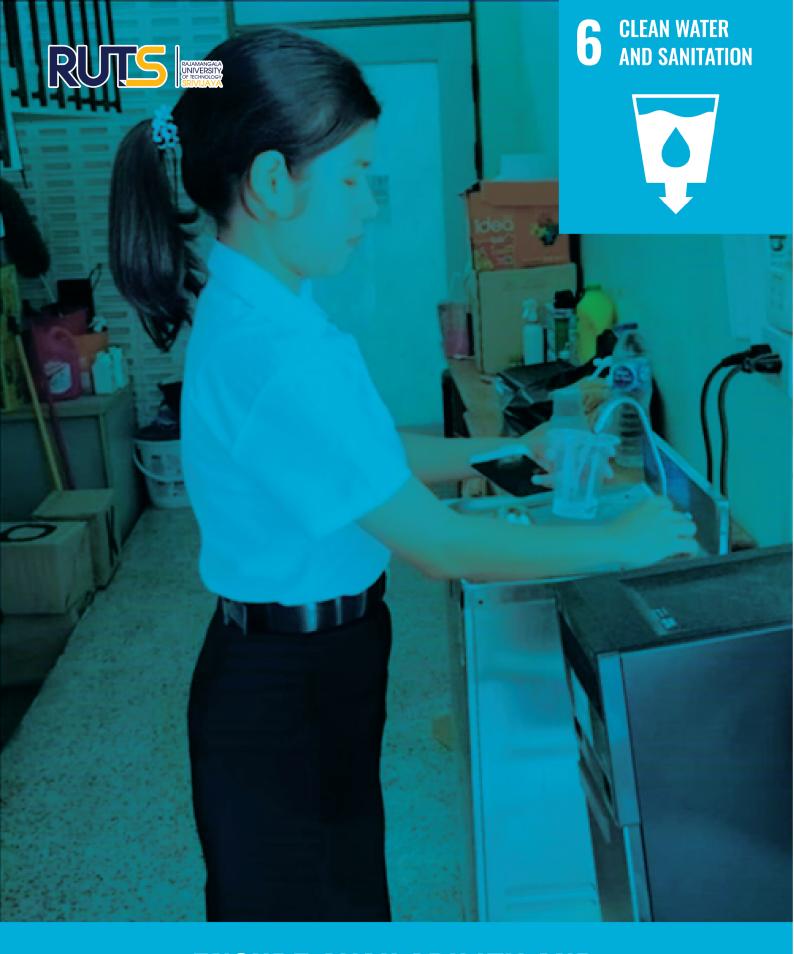


RUTS, in collaboration with local healthcare facilities, launched an HPV vaccination campaign for female students to help prevent cervical cancer.

The program reached 60 students across RUTS campuses, demonstrating the university's commitment to women's health and cancer prevention. Alongside vaccinations, counseling services were provided both on-site and online to address health concerns and promote mental well-being. This initiative highlights RUTS's holistic approach to student health, combining physical protection with emotional support to foster a healthier future for women.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-5/">https://sdgs.rmutsv.ac.th/goal/en-5/</a>

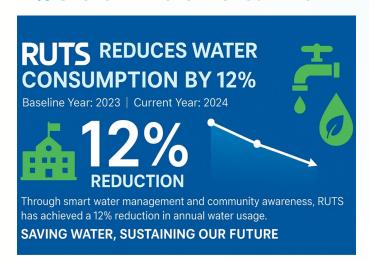


ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL



#### **Policy and Operation**

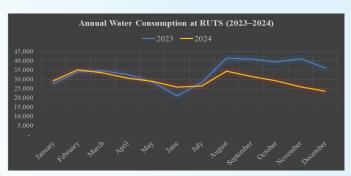
UTS Reduces Its Water Use by Nearly 12% Over a 12-Month Period in 2024



Rajamangala University of Technology Srivijaya (RUTS) has made significant progress in promoting sustainable water use, achieving a 12% reduction in total water consumption through efficient management and technological innovation. Major initiatives include installing low-flow fixtures, sensor taps, and dual-flush toilets; implementing rainwater harvesting and smart irrigation systems; and promoting water recycling in laboratories. The university also conducts awareness campaigns, water audits, and sustainability-focused education programs to encourage responsible water use across the campus. In alignment with Sustainable Development Goal 6 (Clean Water and Sanitation), RUTS continues to strengthen its water management policy, collaborate with local partners, and integrate sustainable practices that ensure the efficient, equitable, and environmentally responsible use of water resources for long-term resilience.

#### Annual Water Consumption at RUTS (2023-2024)

The figure presents the monthly water consumption levels at Rajamangala University of Technology Srivijaya (RUTS) for 2023 and 2024. The data indicate a 12% reduction in total water usage in 2024 compared to 2023.



The line graph compares monthly water consumption at Rajamangala University of Technology Srivijaya (RUTS) in 2023 and 2024, showing a clear overall reduction in usage. Although both years followed a similar seasonal trend with peaks in February and August and the lowest levels in June water use in 2024 was consistently lower, marking a 12% decrease compared with 2023. This improvement reflects the university's successful implementation of water-saving technologies, awareness programs, and efficient management practices. The achievement aligns with Sustainable Development Goal 6 (Clean Water and Sanitation) by promoting responsible water use and supporting long-term sustainability within the campus community.

Table of the use of water in the year 2024 from January to December

| Month      | The<br>Use of Water<br>(m3) | The Use of<br>Water (Liters) | The Use of<br>Water<br>(L./person) | The Use of<br>Water<br>(L./person/day |
|------------|-----------------------------|------------------------------|------------------------------------|---------------------------------------|
| January    | 29,277                      | 29,277,000                   | 1,653.04                           | 55.10                                 |
| February   | 35,248                      | 35,248,000                   | 1,990.18                           | 66.34                                 |
| March      | 33,527                      | 33,527,000                   | 1,893.00                           | 63.10                                 |
| April      | 30,744                      | 30,744,000                   | 1,735.87                           | 57.86                                 |
| May        | 28,907                      | 28,907,000                   | 1,632.15                           | 54.40                                 |
| June       | 25,886                      | 25,886,000                   | 1,461.58                           | 48.72                                 |
| July       | 26,494                      | 26,494,000                   | 1,495.91                           | 49.86                                 |
| August     | 34,435                      | 34,435,000                   | 1,944.27                           | 64.81                                 |
| September  | 31,545                      | 31,545,000                   | 1,781.10                           | 59.37                                 |
| October    | 29,354                      | 29,354,000                   | 1,657.39                           | 55.25                                 |
| November   | 25,938                      | 25,938,000                   | 1,464.51                           | 48.82                                 |
| December   | 23,634                      | 23,634,000                   | 1,334.42                           | 44.48                                 |
| Total      | 354,989                     | 354,989,000                  | 20,043.42                          | 668.11                                |
| Total numb | er of regular st            | udents (person)              |                                    | 16,303                                |
|            |                             | udents (person)              |                                    |                                       |
|            |                             | A Same                       | Total number                       | 17,711                                |



# Wastewater Treatment and Management at Rajamangala University of Technology Srivijaya (RUTS)

Rajamangala University of Technology Srivijaya (RUTS) has implemented a comprehensive wastewater management system in line with the Ministry of Natural Resources and Environment's regulations to ensure sustainable and responsible water use. The system combines engineering solutions and biological treatment processes to effectively treat wastewater from cafeterias, laboratories, and campus buildings. Key components include wastewater treatment tanks, sedimentation and filtration systems, and grease traps that prevent contamination. Additionally, the use of beneficial microorganisms in treatment ponds enhances purification, reduces odors, and minimizes chemical use. These initiatives not only improve water quality and reduce environmental impacts but also provide students with hands-on learning opportunities in sustainable wastewater management. Through these efforts, RUTS actively supports Sustainable Development Goal 6 (Clean Water and Sanitation) by promoting efficient wastewater treatment, pollution prevention, and long-term water sustainability on campus.













Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>

# Free Clean Drinking Water Initiative at Rajamangala University of Technology Srivijaya (RUTS)



Rajamangala University of Technology Srivijaya (RUTS) has installed around 50 free, clean drinking water stations across its five campuses to ensure safe and sufficient water access for students, staff, and the local community. Equipped with modern filtration systems, these stations encourage the use of refillable bottles, reducing plastic waste and promoting healthy hydration. Regular maintenance and water quality checks are conducted to guarantee safety and cleanliness. The university also provides a mobile app feature to help users locate the nearest water stations, further supporting convenience and sustainability. This initiative directly contributes to Sustainable Development Goal 6 (Clean Water and Sanitation) by ensuring equitable access to clean water, reducing pollution from plastics, and fostering responsible water consumption across the RUTS community.

Don't forget to make the most of the free drinking water stations and stay hydrated sustainably with RUTS!



### SUSTAINABLE GOALS

## RUTS-FREE CLEAN DRINKING WATER INITIATIVE









Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>

#### Water-Conscious Planting and Sustainable Landscape Management at Rajamangala University of Technology Srivijaya (RUTS)

Rajamangala University of Technology Srivijaya (RUTS) promotes sustainable and water-efficient landscape design across all campuses by prioritizing the use of native and drought-tolerant plants, such as palms, Yellow Bells, and Madagascar periwinkle, which thrive with minimal irrigation. The university employs drip irrigation systems, soil moisture sensors, mulching, and rainwater harvesting to conserve water and enhance soil health. In addition, treated wastewater is reused for irrigation. reducing reliance on municipal water sources. Educational demonstration gardens further raise awareness about responsible water use and sustainable planting practices. Through these integrated efforts, RUTS advances Sustainable Development Goal 6 (Clean Water and Sanitation) by ensuring efficient water use, promoting ecosystem resilience, and fostering environmental stewardship within its campuses.













#### **Research and Innovation**

#### Monitoring and Managing Salinity Levels in Songkhla Lake for Sustainable Water Resource Management



On April 1, 2024, the Water Management Research Team from Rajamangala University of Technology Srivijaya (RUTS) conducted a comprehensive salinity assessment of Songkhla Lake in collaboration with local community innovators under the project "Scaling Up Water Management Innovation for Rice and Shrimp Farmers." Rising salinity levels above 2 ppt have threatened domestic water supply, agriculture, and aquaculture, prompting the implementation of real-time monitoring and adaptive pumping guidelines to protect water quality and availability. The collected data also support disaster preparedness and informed decision-making by local authorities. This initiative aligns with Sustainable Development Goal 6 (Clean Water and Sanitation) by promoting efficient water management, safeguarding household and agricultural water resources, enhancing community resilience, and fostering local capacity for climate-adaptive water governance.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>

# Innovative Production of Biodegradable Pots from Water Hyacinth for Sustainable Waste Management

The research project "Innovative Production of Biodegradable Pots from Water Hyacinth" at Rajamangala University of Technology Srivijaya (RUTS), led by Assistant Professor Dr. Prasert Nontakan, transforms the invasive aguatic weed water hyacinth into biodegradable plant pots using natural binders like cassava starch. This initiative addresses environmental challenges by reducing plastic waste, restoring waterways clogged by water hyacinth, and improving water quality, directly supporting Sustainable Development Goal 6 (Clean Water and Sanitation). Laboratory and field tests confirmed that the pots are both durable for plant growth and fully decomposable within weeks, while large-scale production technology enables commercial use, green entrepreneurship, and community engagement. By combining waste valorization, ecosystem restoration, and sustainable manufacturing, the project demonstrates how scientific innovation can promote cleaner waterways, healthier aquatic ecosystems, and responsible water management.













# **Environmental Conservation Club Learns and Practices Career Development from Plastic Bottle Recycling**



The Environmental Conservation Club of Rajamangala University of Technology Srivijaya (RUTS), Trang Campus, conducted a hands-on training on plastic bottle recycling at the Laem Phak Bia Royal Development Project in May 2024. Supervised by Assistant Professor Nuchanat Nil-or, students learned to repurpose plastic bottles into useful products, promoting waste reduction, pollution prevention, and sustainable practices. By minimizing plastic waste that could enter waterways and break down into harmful microplastics, the initiative directly contributes to protecting water quality and aquatic ecosystems. It also encourages proper waste segregation, use of refillable bottles, and community engagement, reinforcing the link between responsible waste management and clean water. This project exemplifies how education, innovation, and environmental stewardship support Sustainable Development Goal 6 (Clean Water and Sanitation) by safeguarding freshwater and marine resources while fostering sustainable habits.







Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>

#### **Teaching and Learning**

# **Engineering Unity in Forest Planting and Aquatic Animal Release Project**

On March 9, 2024, the Faculty of Engineering at Rajamangala University of Technology Srivijaya (RUTS) organized the "Engineering Unity in Forest Planting and Aquatic Animal Release Project" at Ban Khok Mueang, Songkhla, to promote environmental awareness and ecosystem restoration. The project involved planting mangrove seedlings, constructing artificial fish habitats, releasing juvenile mud crabs, and learning sustainable bio-composting practices. These activities improved water quality, enhanced aquatic biodiversity, reduced coastal erosion, and strengthened natural filtration systems that prevent pollutants from reaching waterways. By combining hands-on conservation with community engagement and student learning, the initiative supports Sustainable Development Goal 6 (Clean Water and Sanitation) by fostering sustainable water resource management, protecting freshwater and coastal ecosystems. and promoting environmental stewardship.













#### World Environment Day 2024 Activity "Youth Awakening to Save the Warming World"



On June 5, 2024, RUTS Trang Campus celebrated World Environment Day 2024 under the theme "Youth Awakening to Save the Warming World," engaging over 13 local schools through exhibitions, interactive activities, and eco-friendly workshops. The event highlighted the importance of sustainable waste and wastewater management, enabling students to learn and practice environmental stewardship while understanding the impact of human activities on water quality and ecosystems. By connecting academic knowledge with community engagement, the initiative supports SDG 6 (Clean Water and Sanitation) by promoting awareness of water conservation, pollution prevention, and responsible wastewater practices among youth and the wider community.





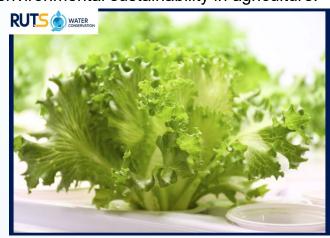




Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>

# **RUTS and UniMAP International Collaboration Camp 2024 (Smart Farm Camp)**

From August 14-17, 2024, Rajamangala University of Technology Srivijaya (RUTS), Ratthapoom College, hosted the "RUTS and UniMAP International Collaboration Camp 2024" to promote sustainable agriculture and cross-cultural learning. Participants engaged in hands-on training in smart irrigation, solar-powered farming, and resource-efficient agricultural practices. By learning to monitor soil moisture and automate watering systems, students explored ways to optimize water use, conserve freshwater resources, and prevent soil degradation, directly supporting SDG 6: Clean Water and Sanitation. The camp also fostered sustainable farming, renewable energy use, and cross-border knowledge exchange, empowering the next generation of innovators to advance environmental sustainability in agriculture.











Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>



#### **Outreach and Engagement**

# HII and RUTS: Collaborative Effort to Strengthen Water Management in the Songkhla Lake Basin



The Songkhla Lake Basin, a vital freshwater resource in southern Thailand, faces increasing challenges from salinity intrusion, pollution, and climate change. To address these issues, Rajamangala University of Technology Srivijaya (RUTS) and the Hydro Informatics Institute (HII) under the Ministry of Higher Education, Science, Research, and Innovation (MHESI) have partnered to develop data-driven solutions for sustainable water management. This collaboration focuses on water data integration, salinity monitoring, and community-based water governance under the Bio Circular Green (BCG) Economy Model. Aligned with Sustainable Development Goal 6 (Clean Water and Sanitation), the initiative promotes efficient water use, integrated water resource management, and community participation, ensuring the long-term sustainability of water resources and ecosystem health in the Songkhla Lake Basin.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>

#### RUTS, Trang Campus Promotes Marine Conservation Awareness through Academic Service Project

Rajamangala University of Technology Srivijaya (RUTS), Trang Campus, Faculty of Science and Fisheries Technology, in collaboration with Benjamarachutit School, organized the "Marine Environmental Science Camp" to promote environmental awareness and sustainable water management among students. Held on March 11, 2024, the camp featured lectures and hands-on activities such as water quality testing, mangrove and seagrass ecosystem studies, and marine debris management. These activities highlighted the importance of maintaining clean and healthy water systems to protect marine biodiversity and coastal ecosystems. Through experiential learning, participants gained practical knowledge of how conserving water resources and reducing pollution contribute directly to Sustainable Development Goal 6 (Clean Water and Sanitation) and support broader efforts toward environmental sustainability in Thailand's coastal regions.







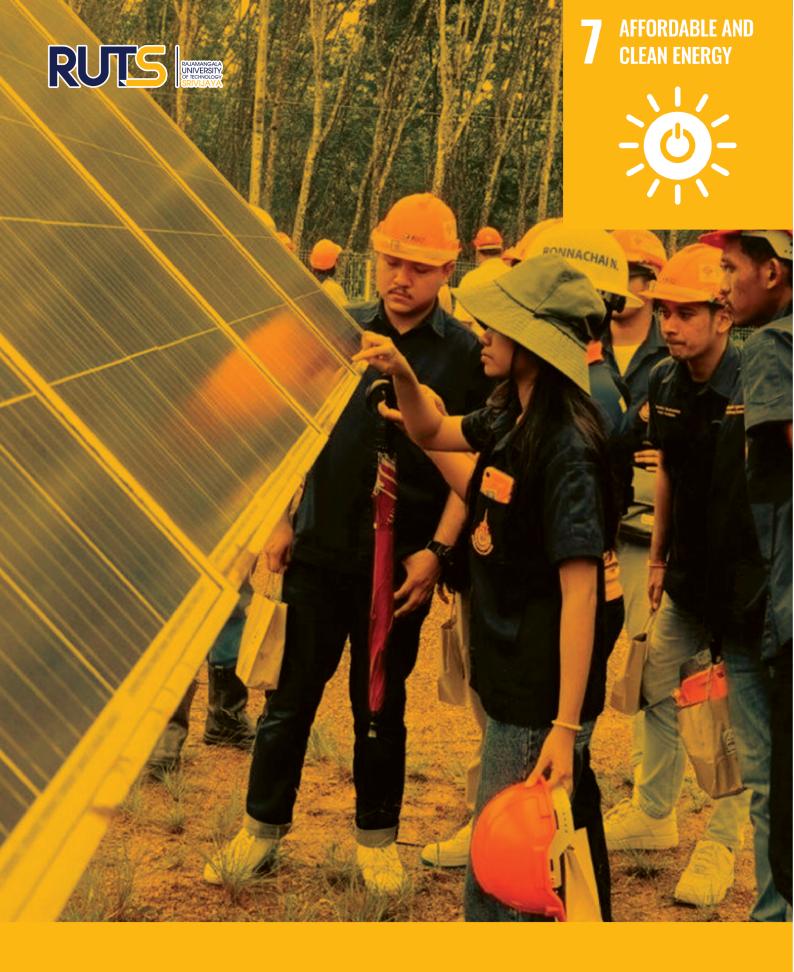








Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-6/">https://sdgs.rmutsv.ac.th/goal/en-6/</a>



ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY



#### **Policy and Operation**

# **Environmental and Energy Management Policy of RUTS**

The university focuses on innovation in environmental and energy management as it transitions toward becoming a Smart City, emphasizing the adoption of clean energy technologies, energy-efficient infrastructure, and sustainable operational practices. This includes integrating renewable energy sources, reducing greenhouse gas emissions, implementing zero-waste initiatives, and promoting resource efficiency across all campus activities. At the same time, the university seeks to foster environmental awareness and active engagement among staff, students, and stakeholders, encouraging a culture of sustainability, responsible consumption, and collaborative action to create a greener, healthier, and more resilient campus community.



In alignment with the strategy gain for the development of Rigimorphy. Underward of Technology Solispia over the entitle improved of 5 years (2022-2027), which represents the second mid-term plant designed to drive the long-term development strategy of Rigimarghia University of Technology Solispia over 29 years (2022-2027). Toward sustandate ecrosmic growth and excellence, with a specific emphasis on innovation in environmental and energy management. The workersh apples to become a swart dry advocate for clean energy, and promote environmentally fermidy practices. This include former parameter and engineers among viewnishy staffs, tabelories, that includes statelories in nutties of environmental and energy convention, adhering to the standard state by the Methody of People for building design amend a energy connection (2009), and Stokiowing the general for environmental management publishes. We have established the Stokiowe policies related to environmental and every management:

 Designing and constructing new buildings and renovating existing ones in accordance with the Ministry of Energy's standards, criteria, and methods for energy conservation in building design (2009), and adhering to the green office environmental management approach.

2. Enhancing awareness among university staff, students, and stakeholder regarding the Impector of resource utilization on environmental sustainability and energy management, following the standards of the Department of Environmental Quality Promotion 3. Encouraging staff, students, and stakeholders to reduce resource consumotion and use environmentally friendly creducts and services to mentione coulding the promotion of the

Focusing on waste management and implementing zero waste initiatives, a
well as utilizing waste and biomass for alternative energy sources and eco-friendly products.
 Committing to reducing greenhouse gas emissions by 45% by the year 202

increasing the use of renewable energy sources for 25% of the university's
energy consumption by 2027.
 Promoting and supporting collaborative activities with external organizations,
including the local community, government agencies, and industry, to create a low-carbon

 Divesting investments from carbon-intensive energy industries especially coa and oil.

Rajamangala University of Technology Srivijaya is dedicated to advocating for and supporting various initiatives aimed at enhancing environmental and energy management in order to achieve the objectives outlined in the aforementioned policy consistently and sustainably.

As a result, this announcement is made to inform every one of our commitmen and intentions.

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Suntanyaris

President of Rajamangala University of Technology Srivijay



Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>

#### Policy on Environmental and Energy Management, Health and Well-Being, and Safety Measures RUTS

RUTS is dedicated to transforming into a Green University, fostering an eco-friendly and livable campus that exemplifies sustainability for the community and society. This commitment aligns with the University's Long-Term Strategic Development Plan (2018–2038) and highlights the importance of active participation and environmental consciousness among all departments, staff, students, and stakeholders.



ประกาศมหาวิทยาลัยเทคโนโลยีราชมงคลศรีวิชัย เรื่อง นโยบายการจัดการสิ่งแวดล้อมและพลังงาน สุขภาวะอบามัย และความปลอดภัยภายใน

ตามสั้นการิทยาดัยเหลี่บระ (Green University) ที่เป็นมีครรับ มีเมื่อบายในการขับเคลื่อนมหาวิทยาดัยผู้การ เป็นมหาวิทยาดัยที่เรียว (Green University) ที่เป็นมีครรับสี่บลังครับสิ้น สร้างสังคนที่น้ำอยู่ในรุนขน มหาวิทยาดัย และเป็นแบบอย่างที่ตั้งอยู่หามและสังคนโดรอบ ชามแผนกุขกระจาสการพินามหาวิทยาดัย ระยะยาว ๒๐ ปี (พ.ศ. ๒๕๒๓-๒๕๒๐) เพื่อให้การรับเหลือนไม่ถูกราปฏิบัติอย่างเป็นรูประรามและบราสุ เป้าหมาย จีงได้ประกาศเมื่อบายการจัดการสิ่นมลด้อนและหลังงาน สุขการอะนานัย และความปอดสนัย ภายในมหาวิทยาดัยเทคในเดือารามเจดสรีวิรัย เพื่อให้หน่วยงาน บุคลากร นักศึกษา และผู้มีส่วนก็จารจัดบุค แม้ไม่สีว่างว่าสามพาร์และเครียบกับการจัดเกาสิ่งและต้อนภายให้กรอบนโบบายล้านมหาวิทยาลัยเพียว (Green University) ใน ๒ ด้านสังต่อใบนี้

#### ๑. ด้านกายภาพ (Setting & Infrastructure)

๑.๑ สนับสนุนผละส่งเสริมให้มีการทบทวนและจัดทำมังแม่บทด้านการใช้ประโยชน์ทิ้นที่ มหาวิทยาลัย การจัดทำมังเฉพาะและพัฒนาให้สอดคล้องกับวัตถุประสงค์การใช้งานพื้นที่ตามฤทธศาสตร์

๑.๒ สนับสนุนและส่งเสริมให้มีการเพิ่มพื้นที่สีเรียวของมหาวิทยาลัยอย่างต่อเมือง

 ๑.๓ สนับสนุนและส่งเสริมให้มีการจัดการในปั้นลับ การอนุรักษ์ดันใน้และปลูกทดมหน การพื้นหู่บำและพื้นที่เสี่ยมโหรม เพื่อพัฒนาระบบนิเวศและความหลากหลายทางชีวภาพ (Ecosystems & Biodiversity)

 ๑.๙ สนับสนุนและส่งเสริมให้หน่วยงานจัดการด้านสภาพแวดล้อม สุนภาระอบามัยที่ ที่ เชื้อและส่งเสริมต่อกรทำสาน การเรียนการสอน รวมทั้งการดูแลด้านความปลอดภัยของบุคลากรและ

#### ь. ด้านพลังงานและการเปลี่ยนแปลงสภาพภูมิอากาศ (Energy & Climate Change)

๒.๓ ด้างนินการ และพัฒนาระบบการจัดการพถึงงานและบริหารจัดการหลือดการบล่อย ก๊ายเรือนกระจาดอ่างแนกเลน เพื่อให้หน่วยงานใช้หลึ่งงานอย่างคุ้มค่าและยังขึ้น โดยกำหนดให้เป็นส่วนหนึ่ง ของการค้าเป็นงานจะแนกวิทยาลัยและให้ออดคล้องกับพระราชบัญญีศิกรส่งเสริมการอยุรักษ์พลังงานและ ข้อกำหนดขึ้น ๆ ที่เกี่ยวข้อง

๒.๒ คำเนินการปรับปรุงบระสิทธิภาพการใช้พร้องานคว่าสัดเรื่องและเงณาะอนกับการได้ของ สนับสนุนและส่งแล้วไปพุ่งคน้อยงานในการได้บระสิทธิภาพการได้เรื่อง และเงินการปรับปรุง ปรับปลี่ยนอยู่ปกรณ์ภายในอาคารให้เป็นอยู่ปกรณ์ประชอทัดหลังงาน การนำเพคไม่เลียละแนวทางการ ปฏิบัติงานที่ดี พองคนการใช้กลังงานทดมานสถังสหารใช้หลังงานและลดการปรับปกับจังนิยกระสิทธิภาพวัยบาทระสิทธิภาพวัยทระสิทธิภาพการได้ของการเลี้ยง

 ๒.๓ สนับสนุนผละส่งเสริมให้หน่วยงานมีการพัฒนานวัดกรรมตำบทสังงาน การสร้างแนว ปฏิบัติที่ดีในการอนุรักษ์พลังงาน และลดการปร่อยกัจงเรือนกระจก และการนำหลังงานหลุมหนมาจ่วยลดการ ใช้หลังงานในกิจกรรมค่างๆ จะอมหาวิทยาลัย

๒.๔ ส่งเสริมให้เกิดการใช้พลังงานทดแทนขึ้นภายในมหาวิทยาลัยอย่างน้อย ๒๕%

๒.๕ สนับสนุนให้มีการพัฒนา ปรับปรุง (Building Renovation) และยอกแบบอาคาร (Passive Design for Building) ของหนัวสงานให้เป็นอาคารที่เพียว (Green Building) อาคารประหตัด หลังงาน (Energy Saving Building) และอาคารอังจริงะ (Smart Building) ๒.๖ อดตั้งนี้การใช้เพลิงงานต่อคน และอดคารระโต่อยถึงแร้อนกระงกจากจังกรรมด่วงๆ

b.b. อดดัชน์การใช้หลังงานต่อคน และลดการปล่อยก๊าชเรือนกระจากจากใจการมดำงๆ ของหน่วยงานภายในมหาวิทยาลัย และก้าวเข้าสู่การเป็นมหาวิทยาลัยคาร์บอนเป็นกลาง (Carbon Neutral University) ภายในปี bacalo

b.ฮ ประชาสัมพันธ์ และสร้างจิตสำนึกด้านการอนุรักษ์พลังงานให้แก่นักศึกษาและ เุคลากรขอมหาวิทยาลัยรวมถึงประชาชนทั่วไปอย่างจริงจังและต่อเนื่อง

#### าวิทยาลัยรวมถึงประชาชนทั่วไปอย่างจริงจังและต่อเนื่อง ๓. การบริหารจัดการด้านการจัดการของเสีย (Waste)

 ๓.๒ สนับสนุนและส่งแระให้หน่วยงานดงปริมาณการเกิดขอะ การคัดแยกของมูลฝอย และขอะอันควาย ตามหลักการ ๓Rs ได้แก่ การถตการใช้ทวัพยากรและการดดการเกิดขอะ (Reduce) การใช้ ข้าและใช้ให้คุ้มคำ (Reuse) และการนำกลับอาใช้ใหม่ (Recycle) ลดการใช้พลาดติก โฟม ในหนาวิทยาลัย

 ๒.๒ บริหารจัดการและพัฒนาระบบที่สบับสนุนการลด การคัดแยก และการจัดการขยะ มณส่อยและขยะขันตรายที่มีประสิทธิภาพตั้งแต่คันทางถึงปลายทาง

 ๓.๓ มุ่งเน้นการบริหารและจัดการขยะและชีวมาสแบบขยะเป็นศูนย์ (Zero Waste) และ ใช้ประโยชน์จากขยะและชีวมาสในการแปลงหลังงานทดแทน และผลิตภัณฑ์ที่เป็นมิตรต่อสิ่งมาตล็อม

 ๓.๔ คำเนินการบริหารจัดการ ควบคุม และพัฒนาระบบบำบัดน้ำเสียที่มีประสิทธิภาพ และควบคุมคุณภาพน้ำให้เป็นไปตามค่ามาตรฐานที่กฎหมายกำหนด

 ๓๐๕ สนับสนุนและส่งเสริมการที่สนาระบบรวบรวมน้ำเสียที่มีประสิทธิภาพและเหมาะสม กับการใช้งาน ลดการปนณีขึ้นของน้ำเสียสุ่นหล่งน้ำภายในมหาวิทยาลัย

๓.๖ ดำเนินการติดตาม และควบคุมคุณภาพน้ำเสียที่มาจากหน่วยงาน และน้ำเสียที่ผ่าน

มาบำบัดแล้ว

 ๑.๗ สนับสนุนและส่งเสริมการวิจัยและพัฒนาเทคในโลยีและนวัตกรรมในการจัดการ น้ำเงีย ขอะมูลฝอยและขอยอันตราย



#### **Research and Innovation**

# Best paper award: ECTI-CARD 2024 congratulations



Asst.Prof.Dr.Paphatsakorn Areekul and team conducted the research Harnessing Wind Energy Conversion from Vehicular Motion for Electricity Generation Using Small-Scale Vertical Axis Wind Turbines for Road Safety Enhancement and have been awarded the Best Academic Paper Award at the 16th Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI) on Application Research and Development (ECTI-CARD 2024). The research goal is to contribute to road safety through this sustainable energy application.

#### Faculty of Engineering and Technology Researchers Secure Best Paper Award at ECTI-CARD 2024

Assistant Professor Dr. Paphatsakorn Areckul, Mr. Sarawut Phaspantong, and Mr. Abeedin Jilao, all faculty members of the Faculty of Engineering and Technology, have been awarded the Best Academic Paper Award at the 16th Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI) Conference on Application Research and Development (ECTI-CARD 2024).

The award-winning paper, titled "Harnessing Wind Energy Conversion from Vehicular Motion for Electricity Generation Using Small-Scale Vertical Axis Wind Turbines for Road Safety Enhancement," presented research focusing on the development and design of a low-wind-speed, three-phase, 200-watt vertical axis wind turbine system. This innovative system is engineered to generate electricity by capturing the relative wind force created by passing vehicles (traffic flow), which is then used to charge a 12-volt, 17-ampere-hour battery. The project's primary goal is to contribute to road safety through this sustainable energy amplication.

The conference was hosted at the Thongtarin Hotel in Surin Province, organized collaboratively by the Faculty of Industrial Technology, Surindra Rajabhat University, the Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology Association (ECTI-Thailand), and the National Institute of Metrology (NIMT).

Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>

# RUTS in collaboration with partner network, organized the technological transfer of an energy-efficient oven for the processing of traditional Thai desserts project

RUTS and partner network have launched a pilot program to facilitate the technological transfer of an energy-efficient oven system developed for processing traditional Thai desserts. This initiative supports the Baan Harn Traditional Thai Dessert Production Conservation Community Enterprise with Green Energy, located in Baan Harn Subdistrict, Bang Klam District, Songkhla Province.

The project aims to design and develop an energy-efficient oven system tailored to traditional Thai dessert production within the Baan Harn community, while also fostering sustainable local economic development and enhancing the community's quality of life through the adoption and implementation of this innovative green technology.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>

## SUSTAINABLE G ALS

# Development of an innovative biomass stove to reduce energy consumption and promote environmental conservation



Research team led by Assoc. Prof. Dr. Supranee Woonsri and team from Faculty of Liberal Arts, RUTS, led with team has developed an innovative biomass stove aimed at reducing energy consumption and promoting environmental conservation. The project represents a key step toward fostering an eco-friendly society. This innovation not only helps reduce pollution and carbon emissions but also transforms waste into sustainable energy, supporting Thailand's transition toward greener living.



Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>

#### A Low-Cost, Automatic Solar-Powered Aeration System for Fish Cages to Effectively Maintain Water Quality

The Tapi River hosts many aquaculture farmers who use fish cages due to their low cost and ease of setup. However, these farmers often face severe fish mortality caused by low dissolved oxygen (DO) levels, especially during dry seasons or floods when water stagnation limits natural oxygenation.

To tackle this issue, three students from the Industrial Technology Program, Faculty of Science and Technology, conducted a research project to develop a practical solution for improving water oxygen levels in fish cage farming.





Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>



# RUTS Ratthaphum Campus developed Solar-Powered CCTV System for Remote Agriculture Using TRIZ Methodology



Mr. Aroonrak Tunpanit, a lecturer at RUTS Ratthaphum College, and his research team have developed a solar photovoltaic (PV) power system for CCTV, using the Theory of Inventive Problem Solving (TRIZ) methodology. Focusing on Mangosteen orchards in Nakhon Si Thammarat Province, the project engaged 51 local farmers who expressed strong interest in solar-powered CCTV systems for continuous day-and-night monitoring.

A review of prior research and patents confirmed that Nakhon Si Thammarat's hot, humid climate provides ideal conditions for solar-powered CCTV systems, offering sufficient solar irradiance for continuous operation. The system allows real-time monitoring and playback via an internet-connected application and remains functional during rainy or low-light conditions. Its compact, easy-to-install design enables seamless integration with mobile devices, making it well-suited for deployment in mangosteen orchards.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>

#### **Teaching and Learning**

#### Fish cage farming project

Lecturers and students from the Faculty of Science and Technology, RUTS, have transformed classroom learning into real-world innovation by developing a solution to improve water oxygenation in fish cage farming.

Building on theoretical knowledge gained through coursework, the team applied practical research to address one of the most pressing challenges faced by aquaculture farmers low dissolved oxygen (DO) levels that often lead to fish mortality. Through experimentation and collaboration with local farmers, the project bridged the gap between academic learning and community application, demonstrating how science and technology education can directly benefit local aquaculture practices and support sustainable fisheries development.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>

## SUSTAINABLE GALS

#### Faculty of Engineering and Technology Hosts Solar Rooftop Skills Enhancement Workshop



Faculty of Engineering and Technology in collaboration with Innovation Technology Phuket Co., Ltd., organized a training workshop titled "Solar Rooftop Knowledge and Skills Enhancement." The program, designed for Electrical Engineering students, aimed to develop practical skills in the installation, repair, and maintenance of solar PV systems, while also promoting entrepreneurship in renewable energy, where they gained hands-on experience in solar rooftop technology.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>

#### RUTS Trang Electrical Engineering Students Conduct Technical Field Study at SCG and Solar Power Plant

Faculty of Engineering and Technology, led a group of faculty members and third-year students from the Electrical Engineering (B.Eng.) Program on a technical field study.

The study visit included trips to Siam Cement Group (SCG) (Thung Song) Co., Ltd. and a solar power plant in Huai Yot District, Trang Province, providing students with valuable hands-on learning experiences in industrial operations and renewable energy systems.





Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-7/">https://sdgs.rmutsv.ac.th/goal/en-7/</a>



#### **Outreach and Engagement**

#### Renewable energy contributes to achieving low carbon emissions at **RUTS** aquarium based on solar rooftop

In 2024, RUTS strengthened its commitment to low-carbon energy by upgrading the campus aquarium building, one of its key visitor attractions. The project involved replacing the existing roof and installing a 150 kWp on-grid solar photovoltaic (PV) system. Moreover, the upgrade greatly improved the building's energy efficiency, resulting in significant electricity savings and reduced dependence on external power sources.



Before



After

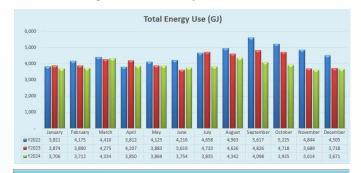
Related Link: https://sdgs.rmutsv.ac.th/goal/

en-7/

#### Low carbon energy use in RUTS

RUTS has a total building area of 309,725 m<sup>2</sup>, comprising facilities in Songkhla (159,655 m²), Nakhon Si Thammarat (89,584 m²), and Trang (60,486 m<sup>2</sup>) Provinces.

In 2024, RUTS recorded total energy use of 46,709 GJ, a reduction of 3,348 GJ (6.69%) from 2023. This decrease equivalent to about 930 MWh or 435.43 metric tons of CO<sub>2</sub>e per year is attributed to lower consumption of purchased grid electricity.



| Year 2024 |                   |            | Floor Area | 309,725                           | m <sup>2</sup>       |
|-----------|-------------------|------------|------------|-----------------------------------|----------------------|
| Month     | Electrical Energy |            |            | Specific Energy Consumption (SEC) |                      |
|           | (kWh)             | (MJ)       | (GJ)       | (MJ/m <sup>2</sup> )              | (GJ/m <sup>2</sup> ) |
| January   | 1,029,322         | 3,705,558  | 3,706      | 11.96                             | 0.01                 |
| February  | 1,031,221         | 3,712,394  | 3,712      | 11.99                             | 0.01                 |
| March     | 1,203,959         | 4,334,253  | 4,334      | 13.99                             | 0.01                 |
| April     | 1,069,381         | 3,849,770  | 3,850      | 12.43                             | 0.01                 |
| May       | 1,074,702         | 3,868,929  | 3,869      | 12.49                             | 0.01                 |
| June      | 1,042,784         | 3,754,023  | 3,754      | 12.12                             | 0.01                 |
| July      | 1,065,314         | 3,835,130  | 3,835      | 12.38                             | 0.01                 |
| August    | 1,206,237         | 4,342,454  | 4,342      | 14.02                             | 0.01                 |
| September | 1,138,206         | 4,097,543  | 4,098      | 13.23                             | 0.01                 |
| October   | 1,090,224         | 3,924,808  | 3,925      | 12.67                             | 0.01                 |
| November  | 1,003,895         | 3,614,023  | 3,614      | 11.67                             | 0.01                 |
| December  | 1,019,609         | 3,670,593  | 3,671      | 11.85                             | 0.01                 |
| Average   | 1,081,238         | 3,892,457  | 3,892      | 12.57                             | 0.01                 |
| Total     | 12,974,855        | 46,709,478 | 46,709     | 150.81                            | 0.15                 |

**Table 1** the amount of energy used per unit of usable area during the year 2024

| Description                              | GJ     |
|--|--------|
| Total energy used                        | 46,709 |
| Total energy used from low-carbon source | 23,089 |

**Table 2** Low carbon energy use in RUTS

| Description                            |   |  |
|--|---|--|
| Energy consumption decreased from 2023 | 3,348 GJ (6.69%)                        |  |
| Carbon reduction (Electric energy)     | 435.43 metric tons of CO <sub>2</sub> e |  |

Table 3 Energy decreased in RUTS

Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/">https://sdgs.rmutsv.ac.th/goal/</a>

en-7/



DECENT WORK AND ECONOMIC GROWTH





PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENTAND DECENT WORK FOR ALL



#### **Policy and Operation**

#### Foreigners employee at RUTS

RUTS employs foreign personnel under a clear framework aligned with Thai labor laws and the university's 2016 hiring guidelines. Currently, three foreign staff members primarily in the Faculty of Liberal Arts contribute to teaching, research, curriculum development, and international collaboration.

Their recruitment follows strict criteria regarding qualifications, expertise, and documentation to ensure legal and effective employment. This initiative enhances RUTS's cultural diversity, academic quality, and global engagement, strengthening its international reputation and fostering continuous knowledge exchange. Their expertise enriches students' learning experiences and strengthens their confidence in using English effectively in academic and professional settings.



Mr. Ryan R. Dominguez Lecturer



Ms. Mitchelle R. Juaban Lecturer



Ar. Lauro Sadaran Dequina Jr Lecturer





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-8/">https://sdgs.rmutsv.ac.th/goal/en-8/</a>

## **RUTS Fair and assesses salary increments**



RUTS has implemented a compensation adjustment policy aligned with its job performance evaluation regulations. The process ensures fairness and transparency, with salary increases determined by individual performance outcomes.

In essence, RUTS's performance-based compensation system fosters equity, motivation, and accountability, enabling the university to reward excellence while encouraging continuous professional growth and contribution among all employees.





#### Research and Innovation

#### Research on Native Crossbred Chicken Farmer Groups in Central Southern Provinces to Create Competitive Opportunities

Asst. Prof. Dr. Napaphat Chuaychunu from Faculty of Agriculture, RUTS, implemented the research project "Management of Native Crossbred Chicken Farmer Groups in Central Southern Provinces to Create Competitive Opportunities." The project aims to strengthen the competitiveness and sustainability of native crossbred chicken farming through farmer group development, improved management practices, and enhanced market access. It focuses on building farmer capacity in feed optimization, health management, and breeding, while promoting quality, branding, and marketing opportunities.

The research is expected to empower farmers, increase productivity, and foster sustainable livestock practices, contributing valuable insights for agricultural policy and regional innovation.





Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-8/">https://sdgs.rmutsv.ac.th/goal/en-8/</a>

#### **Smart Farming at RUTS**



Faculty of Agriculture offers fresh, high-quality vegetables from Smart Farm Saiyai delivered directly from farm to table. Smart Farm Saiyai applies research-based smart farming technologies, such as precision water and nutrient management and digital growth monitoring, to produce safe, chemical-free, and sustainable crops.

The farm emphasizes hands-on care and continuous quality checks to ensure freshness and excellence. It also serves as a learning hub, linking research, innovation, and student internships, enabling learners to apply sustainable farming technologies and gain real-world agricultural experience aligned with industry needs.



Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-8/">https://sdgs.rmutsv.ac.th/goal/en-8/</a>



#### **Teaching and Learning**

#### **RUTS students to Entrepreneurs**



The Hotel and Service Management and Tourism programs under the Faculty of Liberal Arts emphasize experiential learning to build practical skills and student confidence. From their first to fourth year, students engage in hands-on courses that provide real-world experience in hospitality, food and beverage service, and professional tour guiding preparing them for successful careers in the service industry.

Meanwhile, the Faculty of Industrial Education and Technology fosters entrepreneurial development by encouraging students to apply business skills through weekly product sales at Nad Na Suan Market. This activity allows students to gain practical experience in entrepreneurship, marketing, and customer relations, bridging academic learning with real business practice.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-8/">https://sdgs.rmutsv.ac.th/goal/en-8/</a>

# Agricultural Innovation and Entrepreneurship Learning Project

Faculty of Agriculture, RUTS, in collaboration with Benjamarachutit School, Nakhon Si Thammarat, organized the "Agricultural Innovation and Entrepreneurship Learning Project" for 118 students at the Saiyai Campus. The project aimed to strengthen students' skills in agricultural technology, innovation, and entrepreneurship.

Through the course "Learning Beyond the Classroom," students received training in business planning, farm management, marketing, and agricultural innovation, combining theory with hands-on experience on university farms and with local entrepreneurs. This approach equips students to become future agricultural entrepreneurs capable of turning knowledge into practical and sustainable agribusiness ventures.











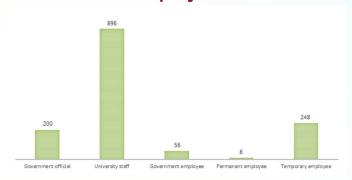






#### **Outreach and Engagement**

#### **Current RUTS employees**



As of the current academic year, Rajamangala University of Technology Srivijaya (RUTS) has a total workforce of 1,408 personnel, consisting of faculty members, researchers, and supporting staff across all campuses and academic units. They play a vital role in driving the university's academic excellence, research advancement, and community engagement.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-8/">https://sdgs.rmutsv.ac.th/goal/en-8/</a>

# **RUTS** employees (More than 24 months)

At Rajamangala University of Technology Srivijaya (RUTS), the Personnel Administration Division under the Office of the President is responsible for collecting and maintaining staff records from all university departments, categorized by employment type including civil servants, university employees, government employees, permanent staff, and temporary staff.

Currently, 1,164 personnel have been employed for more than 24 months, comprising 1,148 civil servants, university employees, government employees, and permanent or temporary staff. This data supports effective workforce management and strategic planning, ensuring that the university maintains accurate and up-to-date employment records .





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-8/">https://sdgs.rmutsv.ac.th/goal/en-8/</a>



BUILD RESILIENT INFRASTRUCTURE,
PROMOTE INCLUSIVE AND SUSTAINABLE
INDUSTRIALIZATION AND FOSTER INNOVATION



#### **Policy and Operation**

## **RUTS Open House "Pitch IDEA 2024" Business Concept Competition**



Office of Innovation Management and Technology Transfer (IMTT) hosted RUTS Open House "Pitch IDEA 2024" at the Faculty of Engineering. The competition aimed to give students practical experience in pitching ideas, develop startup ventures, prepare for external funding applications, and promote student entrepreneurship.

Eighteen teams participated 16 from RUTS and 2 from Songkhla Rajabhat University. The event provided hands-on experience in communication, problem-solving, and business planning, helping students turn innovative concepts into viable startups. Participants also gained networking opportunities with peers, mentors, and industry professionals, fostering collaborations and enhancing the university's entrepreneurial ecosystem.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>

#### **RUTS Supports Southern Regional** Science Park Entrepreneurs



Entrepreneurs from the University Business Incubator (UBI) submitted their 18-month progress reports during the TOR 66 assessment at Prince of Songkhla University Science Park, Hat Yai Campus. The session, included 5 pre-incubation and 3 startup entrepreneurs under RUTS UBI. The evaluation committee provided feedback on refining target markets, planning business expansion, and strengthening customer relationships to ensure sustainable growth.

Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/">https://sdgs.rmutsv.ac.th/goal/</a>

<u>en-9/</u>

# RUTS accelerates faculty academic promotion



RUTS organized the "Accelerated Academic Promotion Program" to strengthen faculty academic potential and career advancement. The program aimed to enhance understanding of academic promotion procedures through expert-led lectures, mentoring, and workshops on academic writing, textbook development, and research aligned with MHESI standards. This initiative supports RUTS's mission of "Creating People, Creating Innovation for Sustainable Development" and advances its vision of becoming a High-Performance University by fostering academic excellence and professional growth.

Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/">https://sdgs.rmutsv.ac.th/goal/</a>

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#### **Research and Innovation**

# Rice Seed Dryer with Automatic Controlled Stirring Device



A research team from Rattaphum College earned international recognition at the 9th International Invention Innovation Competition in Canada (iCAN 2024) for their project "Rice Seed Dryer with Automatic Controlled Stirring Device." The invention won a Gold Medal and two International Special Awards from the Organization for Creativity, Innovation, and Invention Promotion (OCIIP) and the World Invention Intellectual Property Associations (WIIPA).

This achievement highlights Thai researchers' innovation capabilities and contributes to the advancement of smart agriculture and the BCG economy, while offering practical applications in agricultural machinery education and rice seed production.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>

#### **Red Calo Miracle Lip Balm**



Researchers from Faculty of Agriculture and Faculty of Science and Technology received international recognition for their innovation "Red Calo Miracle Lip Balm" at WorldInvent Singapore 2024 (WoSG)

The invention won a Gold Medal and the NRCT Honorable Mention Award, showcasing the creativity and global potential of Thai researchers. This natural-extract lip balm innovation demonstrates applications in cosmetic science, natural product development, and entrepreneurial opportunities within the health and beauty industry.





# Biodiesel Production Unit with the Alkali Earth on Porous Ceramic as a Solid Catalyst

A research team from Rattaphum College earned international recognition for their invention, "Biodiesel Production Unit with the Alkali Earth on Porous Ceramic as a Solid Catalyst," at WorldInvent Singapore 2024 (WoSG) at the Singapore Expo.

The innovation won a Gold Medal and the NRCT Honorable Mention Award I, highlighting the creativity and research excellence of Thai inventors on the global stage. This work supports teaching in chemistry and renewable energy, promoting students' practical and innovative skills, while also offering applications for industry and entrepreneurship to improve bioenergy production efficiency in line with the green economy and sustainable development goals.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>

#### **Teaching and Learning**

#### Pneumatic and Hydraulic Systems Training Program



The Office of Innovation, Management, and Technology Transfer (IMTT), in collaboration with the Faculties of Industrial Education and Technology, Business Administration, and Engineering, organized the Pneumatic and Hydraulic Systems Training Program to strengthen industry-ready skills. In partnership with Siam Michelin Co., Ltd. (Hat Yai, Songkhla), the IMTT developed a 2025 training course aligning with SDG 9 fostering technology transfer, innovation, and a skilled workforce for sustainable industry.

By enhancing technical expertise and problem-solving skills, the training supports industrial modernization, safety, and productivity helping participants advance their careers while contributing to smarter, more sustainable industrial operations.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>



#### STEAM4INNOVATOR Contest 2024



The Deep South STEAM4INNOVATOR Contest 2024 is an initiative to promote innovation, creativity, and problem-solving among students and young entrepreneurs in Southern Thailand. Integrating Science, Technology, Engineering, Arts, and Mathematics (STEM), the competition encourages participants to develop practical solutions supporting sustainable regional development and the UN Sustainable Development Goals (SDGs).

This initiative reinforces RUTS's and NIA's commitment to nurturing innovation-driven entrepreneurship and empowering youth in Thailand's Deep South to transform ideas into sustainable enterprises.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>

# **Curriculum Development Project : Food Innovation Management for Professional Entrepreneurship**

In the era of rapid global transformation, the Office of Innovation, Management, and Technology Transfer (IMTT) at RUTS plays a vital role in connecting academic research with industry needs. One of its key initiatives, the Food Innovation Management for Professional Entrepreneurship Project, aims to enhance students' capabilities in innovation management and entrepreneurship within the agro-food sector. The project conducted to promote innovation-driven entrepreneurship and the commercialization of intellectual property (IP) through the INNOVATOR for Food Coaching Program.

Delivered through lectures, hands-on workshops, and expert discussions, this initiative supports Thailand's Reinventing University policy, preparing graduates with industry-relevant skills to advance the nation's S-Curve food industry.











Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>



#### **Outreach and Engagement**

#### Enhancing the Value of Krill-Based Trang Shrimp Paste through Production Standard Upgrading toward a Provincial Identity Product of Trang

The project "Enhancing the Value of Krill-Based Trang Shrimp Paste through Production Standard Upgrading toward a Provincial Identity Product of Trang" embodies RUTS's Outreach and Engagement approach, linking academic expertise with local entrepreneurs to improve shrimp paste production quality, standardization, and value. As a result, local income and employment have increased creating jobs for vulnerable and low-income families and boosting local employment by 30%.

Beyond economic gains, the project has encouraged local producers to value quality, standards, and local identity. Collaborative learning between the university and community has empowered entrepreneurs to pursue Halal and FDA certifications, positioning Trang's shrimp paste as an innovation grounded in local resources and a model of University Engagement for Local Impact.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>

## **Learning Design of Withee Kon Withee Node**



The research project "Learning Design of 'Withee Kon Withee Node' for the Development and Utilization of Palmyra Palm in Sathing Phra, Songkhla Province" has made significant strides in fostering community innovation, technology development, and grassroots economic growth. Aiming to develope appropriate palmyra-based technologies, and assessing their socio-economic impact, the project covered 14 subdistricts using a participatory approach that empowered locals to become community innovators.

The project also launched the "Withee Kon Withee Node" network, now part of Songkhla's provincial development plan, serving as a sustainable model that integrates local wisdom with modern technology to strengthen rural innovation and resilience.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>



#### In 2024, 20 spin-off registered



The Office of Innovation Management and Technology Transfer (IMTT) actively promotes the development of university spin-offs, bridging academic research with real-world commercialization.

Aligned with RUTS's Sustainable Development Goals (SDG), university spin-offs are companies established to commercialize intellectual property (IP) created within the institution, with RUTS retaining partial ownership. In 2024, 20 spin-off companies were registered to utilize RUTS-generated IP. These initiatives reflect RUTS's growing innovation capacity and commitment to translating research into societal and economic impact. By cultivating a strong spin-off ecosystem, RUTS continues to expand the utilization of its IP assets, generate new economic value, and strengthen its role as a driver of regional development and innovation.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>

#### Rajamangala University of Technology Srivijaya Drives Sustainable Innovation through "Appropriate Technology" for Grassroots Development in Songkhla

One flagship initiative, Development of Community Innovation to Enhance the Grassroots Economy in the Songkhla Lake Basin, applies the concept of "Appropriate Technology" to create practical, locally adapted solutions. The project introduced innovations such as a water quality monitoring system for sea bass farming and a solar-powered incubator for salted fish processing, boosting production efficiency, hygiene, and output while reaching TRL 7, ATL-B, and SRL 5-7 ready for community use.

The initiative also developed 41 community innovators who now lead local Learning and Innovation Platforms (LIP) to transfer knowledge and sustain adoption. Through these efforts, RUTS has strengthened local economies, generated employment, and established a sustainable model for university community collaboration and real-world impact.













Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-9/">https://sdgs.rmutsv.ac.th/goal/en-9/</a>



REDUCE INEQUALITY
WITHIN AND AMONG COUNTRIES



#### **Policy and Operation**

#### Special quota for students with disabilities



In 2024, RUTS launched a public relations campaign for the 2025 academic year admissions, featuring a special quota for students with disabilities. This initiative aims to promote equal access to higher education, enabling students with disabilities to develop their potential and pursue studies on an equal basis with others.

RUTS provides academic support, assistive technologies, and specialized services to accommodate individual needs, ensuring educational equity and inclusion. This effort reflects the university's commitment to reducing social inequality and advancing inclusive, accessible education for all.



Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-10/">https://sdgs.rmutsv.ac.th/goal/en-10/</a>

#### **Scholarships for RUTS students**



Khanom Power Plant Co., Ltd. organized the 9th Annual Continuous Vocational and Higher Education Scholarship Program in Khanom District, Nakhon Si Thammarat, to support students pursuing vocational and higher education.

Through this program, three students from RUTS, Nakhon Si Thammarat Campus (Khanom Center) received scholarships of 40,000 baht each. The initiative helps reduce educational expenses, motivates students to continue their studies, and supports their personal development and future career readiness.







## SUSTAINABLE G ALS

#### **Teaching and Learning**

#### **RUTS STAR 2024**



RUTS hosted the 15th Freshmen' Night Contest ("RUTS STAR 2024"), themed "STAR OF THE UNIVERSE," celebrates first-year students with outstanding personality, skills, and leadership potential, selecting role models to represent the university in academic and public activities.

This year's contest encourages participants to express their unique identities freely, promoting inclusivity, diversity, and support for the LGBTQ community. Students showcase their talents, creativity, and positive attitudes, while the event emphasizes respect, equality, and acceptance within the university community.

Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/">https://sdgs.rmutsv.ac.th/goal/</a>

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#### Second New Generation Social Entrepreneurs Development Project RUTS



With Thailand's elderly population rapidly increasing, reducing inequality and enhancing quality of life is crucial. The Faculty of Management Technologypromotes lifelong learning for older adults to support self-development and social engagement.

The Faculty organized the Second New Generation Social Entrepreneurs Development Project to train students and elderly learners from the School for Older Adults, Nakhon Si Thammarat. The program focused on developing entrepreneurial skills, addressing social and environmental issues, and using social media safely for business.

The initiative supports national lifelong learning policies, equips the elderly with practical business knowledge, fosters self-worth, and enhances both physical and mental well-being.









Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-10/">https://sdgs.rmutsv.ac.th/goal/en-10/</a>

## **Encouraging Good Deeds for Children: Season 4**

Faculty of Management Technology organized the project "Encouraging Good Deeds for Children: Season 4" at Rajaprajanugroh 19 School, Nakhon Si Thammarat. The initiative provided underprivileged students with vocational training, guidance on higher education, and recreational activities to support their personal and academic development.

The project helped students gain practical skills, knowledge about higher education, and career guidance, promoting equal educational opportunities and informed decision-making for their future studies and careers.











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#### **Outreach and Engagement**

# RUTS – Non-Discrimination and Anti-Harassment Policy



Announcement from Rajamangala University of Technology Srivijaya On Non-Discrimination and Anti-Harassment Policy A.D. 2023

Rajamangala University of Technology Srivijaya (RUTS) recognizes and values difference and diversity to encourages building a "respect for people" working environment and ability to live together on individual differences. RUTS believes in upholding the principles of human rights in treating others with equality and without discrimination and harasament against other in the university or any other place related to the operation. Therefore, it is appropriate to determines Non-Discrimination and Anti-Harasament Policy for operations to progress smoothly.

Non-Discrimination and Anti-Harassment Policy applies broadly to the university community including all administrators, faculty, staff, and students and sets out clear intention and guidelines as follows:

- RUTS manages and operates on the principle of equality, honor each other, and respects for human digatity by considering equality and accepting fundamental differences and individual characteristics. RUTS does not accept any type of discrimination and harassment against others, whether it be sexual harassment or non-sexual harassment in the university.
- RUTS creates a corporate culture, cultivates values, and encourages all administrators, faculty, staff, and students of RUTS to treat each other with respect and respect human dignity.
- 3. RUTS ensures that all areas have a favorable environment and atmosphere, are safe and suitable to work and study, and does not support any type of harassment as well as to maintain a healthy campus, RUTS strongly prohibits harassment such as intimidating, insulting, or threatening others, whether verbally, in writing, physically, and/or using social media and similar channels.
- 4. RUTS communicates, educates, and develops an understanding with its administrators, faculty, staff, and students about discrimination and harassment against others in the university by incorporating it as part of the orientation, training sessions, and development programs, including public relations to raise awareness and ensure that everyone adheres to the Policy.
- 5. RUTS establishes mechanisms and processes for receiving complaints from people who are treated unfairly and/or barassed in the university to prevent and resolve issues related to any type of discrimination and harassment in the university, including communicating to whistleblowers about solutions.



President of Rajamangala University of Technology Srivijaya

RUTS values diversity and promotes a respectful, inclusive, and safe environment for all administrators, faculty, staff, and students. The university upholds human rights, equality, and dignity, prohibiting discrimination and harassment in any form sexual or non-sexual on campus or in any university-related setting. This policy ensures a respectful, equitable, and safe university environment while supporting smooth operations and community well-being.

Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/">https://sdgs.rmutsv.ac.th/goal/</a>

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## **RUTS** support for students with disabilities

RUTS provides accessible facilities, including ramps, elevators, accessible restrooms, and designated parking. In classrooms, students with disabilities receive priority seating, diverse teaching methods are used, and audio recording of lectures is permitted. Additional support includes scholarships, counseling, academic guidance, and career services.

RUTS also offers Accessibility Tools on its website to ensure equal access to online resources for all users, removing barriers for those with physical limitations or disabilities.

















Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-10/">https://sdgs.rmutsv.ac.th/goal/en-10/</a>



MAKE CITIES AND HUMAN SETTLEMENTS
INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE



#### **Policy and Operation**

## **RUTS Trang Campus Partners with Gogo Transtech to Launch Electric Bicycle Services**



RUTS, Trang Campus, has embraced its "Green Campus" initiative to promote an eco-friendly and energy-efficient environment. In response to the growing use of private vehicles on campus, the University has introduced electric bicycles as a convenient, agile, and sustainable transportation option. On September 2, 2024, Assistant Professor Sittichok Chanyong, Vice President of Trang Campus, signed a service agreement with Gogo Transtech Co., Ltd. to provide electric bicycle parking and services. The company will operate 35 service points across the campus, offering rides at a rate of 2 baht per minute. Users will be able to pay through the upcoming GOGO BIKE application, which is being prepared for launch, making the service available to students, staff, and the general public.

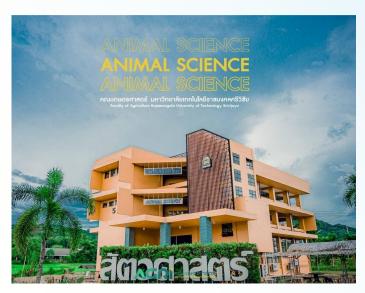


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## **Development planning-new building standards Year: 2024**

In 2024, Faculty of Agriculture showcased a building designed with energy-efficient principles suited to a hot, humid tropical climate. The design focuses on reducing solar heat gain through large horizontal overhangs, projecting balconies, and a light-colored façade that reflects heat. Trees and landscaping around the building provide additional shade and microclimate cooling. Together, these passive design strategies minimize heat absorption, lower air-conditioning demand, and support the University's sustainability and energy conservation goals.





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#### **Research and Innovation**

## **Culture Smart City: Songkhla Old Town**

Faculty of Architecture at Rajamangala University of Technology Srivijaya (RUTS), led by Asst. Prof. Dr. Piyaporn Aromut, is advancing the "Culture Smart City: Songkhla Old Town" project. Since 2017, the initiative has collaborated with Songkhla City Municipality, local partners, and Old Town communities to support place-based development through documentation, and preservation of local arts and culture. It also incorporates a virtual city platform to enhance learning and tourism engagement.

During the 3rd hands-on workshop, project teams presented workstream results, formally handed over outputs to partners, and discussed lessons learned to guide future development. The event was attended by Mr. Wanchai Parinyasiri, Mayor of Songkhla City, Asst. Prof. Udon Namsen, Vice President of RUTS, and representatives from government and civil society.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-11/">https://sdgs.rmutsv.ac.th/goal/en-11/</a>

#### Thailand's Lament to Korea: Cheongju Songkhla Art Exchange Exhibition" at Soyo Space Gallery



The Faculty of Architecture, RUTS, represented by lecturer Ekpong Khongchang from the Visual Arts (Fine Arts) Program, joined artists from Songkhla and across Thailand at international art events in Cheongju, South Korea. These included the 3rd Cheongju Social Digilog Art Festival (15 Oct–2 Nov 2024) and the "Thailand's Lament to Korea: Cheongju Songkhla Art Exchange Exhibition" at Soyo Space Gallery (late Oct–28 Nov 2024).

The exhibitions showcased contemporary visual art reflecting Songkhla's cultural heritage, local identities, and urban life, highlighting the Faculty's role as a bridge between academia, artists, and creative cities. The exchange fostered dialogue among artists, curators, and institutions, supporting future collaboration in research, workshops, and co-creative projects. These initiatives promote Thailand's intangible cultural heritage, enhance the soft power of Songkhla, and strengthen sustainable networks in the East Asian art scene.



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## **Teaching and Learning**

## **Songkhla Old Town Gateway Design Competition**

On August 19, 2024, students from the Architecture Program, Faculty of Architecture, RUTS, participated in the "Songkhla Old Town Gateway Design Competition," part of the regional event "Open House @ASA Cloud Songkhla Old Town" (17–25 Aug) organized by the Southern Architect Committee.

Under lecturer Jameekorn Malison's guidance, fourth-year students created symbolic gateway designs reflecting Songkhla Old Town's heritage, community narratives, and modern aesthetics. Fourth-year students Kanthaphong Juruwan and Nahathai Phonladech won First Prize for their design, praised for its blend of tradition, innovation, and cultural relevance.

The project highlights the Faculty's commitment to integrating design education with heritage conservation, sustainable cultural tourism, and community development, reinforcing Songkhla's identity as a creative heritage city.









Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-11/">https://sdgs.rmutsv.ac.th/goal/en-11/</a>

## 3D Virtual Urban Environment Model project



Faculty of Architecture launched the 3D Virtual Urban Environment Model project under the Culture Smart City: Songkhla Old Town Development Project, honoring Her Majesty Queen Sirikit's contributions to Thai arts and culture.

The project digitally recreated Songkhla Old Town, showcasing key landmarks, historic architecture, local crafts, and urban identity. Led by experts from the Faculty, it combined architectural precision, cultural insight, and innovative technology.

With active community participation, the initiative promotes creative tourism, preserves heritage, provides open digital access, and fosters collaboration between universities, communities, and creative industries, supporting sustainable development through the BCG Economic Model.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-11/">https://sdgs.rmutsv.ac.th/goal/en-11/</a>



## **Outreach and Engagement**

Songkhla Tourism for All, Initiative Promotes Inclusive and Accessible Urban Tourism: The United Nations Development Program (UNDP)



The Designated Areas for Sustainable Tourism Administration (DASTA) – Songkhla Lake Basin Office, in collaboration with the UNDP and local partners, launched the "Songkhla Tourism for All" initiative to promote accessible tourism in Songkhla Old Town.

The project focuses on improving public spaces and tourism areas for all visitors, including the elderly and people with disabilities. Two pilot zones were selected: Songkhla Old Town, highlighting heritage routes and cultural landmarks, and Songkhla Beachfront, emphasizing inclusive recreational spaces.

A meeting at Red Mill (Rong Si Daeng) facilitated discussions on accessibility assessments, design improvements, and community engagement. The initiative exemplifies partnership-driven sustainable tourism, enhancing inclusivity, cultural preservation, and positioning Songkhla as a model creative and heritage city.





Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-11/">https://sdgs.rmutsv.ac.th/goal/en-11/</a>

## **Songkhla Tourism for All" Inclusive Design Competition**

Students from Faculty of Architecture received certificates as the winners of the "Songkhla Tourism for All" Inclusive Design Competition. The contest promoted universal design principles for accessible and sustainable urban development in Songkhla Old Town, in collaboration with DASTA, RUTS, and local entrepreneurs.

Eight student teams participated, with four finalists each receiving a 4,000 THB scholarship funded by UNDP and local partners. The event recognized guidance from faculty, including Asst. Prof. Dr. Piyaporn Oramut and course instructors, as well as expert mentorship from Assoc. Prof. Trirat Jarutach, the Architect Council of Thailand (Taksin Chapter), and the Songkhla Provincial Association of Persons with Disabilities, supporting students in creating practical, accessible designs.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-11/">https://sdgs.rmutsv.ac.th/goal/en-11/</a>

## SUSTAINABLE G ALS

#### "Sand Art: Seamila Sand Walk" – Collaborative Coastal Art for Sustainable and Creative Communities



The Faculty of Architecture together with partner institutions from southern Thailand, hosted the "Sand Art: Seamila Sand Walk" event at Chalathat Beach, Songkhla. Lecturers and students from RUTS, PSU Pattani, and Songkhla Rajabhat University created large-scale sand sculptures celebrating local identity, coastal culture, and environmental awareness.

Part of the Seamila Sand Walk Festival, the project fostered collaboration, community engagement, and cultural expression, revitalizing the beach as a creative public space. It exemplifies how art and design can enhance tourism, preserve heritage, and promote sustainable coastal development, positioning Songkhla as a model creative city.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-11/">https://sdgs.rmutsv.ac.th/goal/en-11/</a>

## **Development of Eco-Friendly and Sustainable Landscape**

The Human Resource Development through Technology and Innovation for the New Coastal Tourism Industry (Coastal Tourist) project aims to enhance sustainable tourism along Thailand's southern coastline with a total budget of 2,650,000 THB. Integrating design innovation, environmental responsibility, and human resource development, it supports the Gulf of Thailand—Andaman coastal zone as a model for eco-tourism and creative economy growth.

A key activity, Eco-Friendly and Sustainable Landscape Architecture focused on designing public beachfront areas at RUTS using green infrastructure, low-impact design, and coastal resilience principles. The initiative creates accessible, safe, and inclusive outdoor spaces while serving as a learning site for students, researchers, and communities.









Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-11/">https://sdgs.rmutsv.ac.th/goal/en-11/</a>



# ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS



## **Policy and Operation**

## Eco-friendly Loy Krathong Festival at RUTS





RUTS is dedicated to preserving Thai art, culture, and the environment through its annual "Eco-friendly Loy Krathong Festival." The event promotes the use of natural materials such as banana leaves, flowers, and stalks instead of plastics to reduce water pollution and environmental impact while celebrating local wisdom and craftsmanship.

Alongside eco-friendly campaigns, the university hosts krathong-making contests, traditional performances, and educational activities to raise cultural and environmental awareness among students, staff, and the community. These efforts reflect RUTS's commitment to being a center of learning that fosters knowledge, creativity, and sustainability while passing on the beauty and values of the Loy Krathong tradition to future generations.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-12/">https://sdgs.rmutsv.ac.th/goal/en-12/</a>

## **Trang-Krabi Blue Swimming Crab Bank Project**





Trang–Krabi Blue Swimming Crab Bank Project, by Faculty of Fisheries Science, earned a gold Medal and two special Excellence awards at the international innovation forum "EURO POLITEHNICUS 2024" in Bucharest, held from November 22–24, 2024.

His award-winning research reflects over 30 years of work in sustainable crab conservation along Thailand's Andaman coast. The project established community-based Crab Banks as a model for marine ecosystem restoration and sustainable fisheries, promoting responsible resource use, waste reduction, and ecosystem -based management.

RUTS has transferred hatchery and broodstock management technologies to local fishing communities, developed recirculating water systems, and improved post-harvest handling to enhance quality and value. Through training in hatchery operations, processing, green marketing, and eco-tourism, the project strengthens community livelihoods, reduces waste, and boosts the competitiveness of local fishery products nationwide.









Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-12/">https://sdgs.rmutsv.ac.th/goal/en-12/</a>



#### **Research and Innovation**

#### Thai pepper product by RUTS



The collaboration among the nine Rajamangala Universities of Technology (RMUTs) and the Program Management Unit for Area-Based Development (PMU-A) marks a key milestone in advancing area-based development through academic knowledge and research-driven innovation. The initiative focuses on strengthening grassroots economies and promoting sustainable self-reliance.

Pepper research of RUTS which has applied appropriate technologies across the entire Trang pepper supply chain from production and processing to domestic and international marketing. This aligns with the "Ethical Sourcing of Pepper" concept, emphasizing quality, transparency, fairness, and environmental responsibility. The approach ensures fair compensation for farmers, minimizes exploitation, promotes resource sustainability, and enhances the global reputation of Thai pepper as a product of high quality and ethical value.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-12/">https://sdgs.rmutsv.ac.th/goal/en-12/</a>

## Utilizing Disposable Materials in Agriculture for Environmental and Circular Economy Benefits

The Photosynthetic Bacteria Bank, developed by Aquabiot Lab, RUTS, is a biotechnological innovation supporting safe, eco-friendly aquaculture. It supplies local farmers with high-quality bacteria for wastewater treatment, waste reduction, and healthier aquatic animals. By reusing drinking water bottles as culture containers, the project promotes resource efficiency and a circular economy, serving as a model for combining science and local wisdom to enhance community livelihoods and environmental sustainability.









Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-12/">https://sdgs.rmutsv.ac.th/goal/en-12/</a>

## SUSTAINABLE G ALS

#### **Recyclable Waste**



Faculty of Fisheries Science and Technology, RUTS, demonstrates recycling innovation through its student-led project "Plastic Bottle Broom - Reviving Recyclable Waste." Recognized with the Gold Standard by the Department of Climate Change and Environment's Green Youth Project 2024. the initiative transforms discarded plastic bottles into practical brooms, turning waste into value while providing students with income opportunities and real-world experience in sustainable design and entrepreneurship. Complementing this effort, RUTS also recycles organic waste through campus composting systems that convert food and landscape waste into nutrient-rich soil for landscaping and agricultural use. Together, these initiatives exemplify the circular economy in action reducing waste, lowering emissions, and fostering sustainability leadership among students while supporting the university's environmental goals.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-12/">https://sdgs.rmutsv.ac.th/goal/en-12/</a>











#### **Teaching and Learning**

#### **Waste Management Activities**



RUTS organized a series of activities in 2024 to promote environmental awareness and sustainable practices across its campuses.

Such as the Waste Management, Pollution Reduction, and Environmental Conservation Project at the Waste Management Learning Center, Thung Song District. A volunteer beach cleanup at Chalatat Beach to honor His Majesty the King's 6th Birthday Anniversary.

Moreover, transforming 2-Page Paper into World-Friendly Paper campaign at the College of Industrial Technology and Management was also held. The project promotes the Green Campus policy, reducing plastic and paper waste by reusing single-sided paper and recycling two-sided sheets for various purposes.

Together, these initiatives demonstrate RUTS's commitment to environmental sustainability and the development of eco-conscious practices within the university community.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-12/">https://sdgs.rmutsv.ac.th/goal/en-12/</a>

## **Integrating Sustainability into Food Service Training**

Students of the Faculty of Agro-Industry, majoring in Food and Service Management, receive both theoretical and practical training to meet professional industry standards. The program emphasizes sustainable operations, encouraging the use of reusable items such as ceramic plates, glass cups, and stainless-steel utensils instead of single-use materials. Students apply these principles in real service settings, including catering for the Bank for Agriculture and Agricultural Cooperatives (BAAC) and the Orachoon Farm Festival 2024. These activities foster environmental responsibility and support the university's vision for a sustainable food industry.







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## **Outreach and Engagement**

#### **Enhancing SME Businesses through the Application of the BCG Economic Model**



Office of Innovation Management and Technology Transfer (IMTT) in collaboration with the Industrial Promotion Center Region 11, Songkhla Province, has launched an upcycling product development initiative under the project "Enhancing SME Businesses through the Application of the BCG Economic Model, Fiscal Year 2024."

As part of this effort, faculty and students transformed fabric waste into upcycled products such as neck pillows and tote bags in collaboration with Archer Sport Co., Ltd. (Yala Province). Additionally, palm fiber from palmyra trees was used to create eco-friendly palm-fiber bags in partnership with Nodthing Co., Ltd. (Songkhla Province).











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## Proper Management of Black-Chinned Cichlids: Preventing Spread and Creating Community Value

The blackchin tilapia (Sarotherodon melanotheron) is an invasive species that threatens freshwater ecosystems in southern Thailand. To prevent its spread, proper disposal methods are essential. Research by RUTS found that freezing captured fish at –20°C for 24 hours completely destroys eggs, preventing reproduction. If freezers are unavailable, storing the fish on ice or refrigerating them for three days is an effective alternative. This method provides a safe, practical approach to managing biohazardous waste and supports ecological sustainability.









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# TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS



## **Policy and Operation**

## Minutes of the 7/2024 Meeting of the Western Southern River Basin Committee

Asst. Prof. Chayanat Buathongkuea, expert member of the Western Southern River Basin Committee, actively participated in several committee meetings throughout 2024 at the Phra Ya Ratsada Meeting Room, Trang Provincial Hall.

Across meetings 1/2024 to 8/2024, the committee reviewed and provided recommendations on key issues related to integrated water resource management, including:

- The current water situation and forecasts for the Western Southern River Basin.
- The Water Resources Management Master Plan (2023–2037) and Action Plans for Fiscal Years 2024–2026, comprising hundreds of projects with multi-million-baht budgets.
- The implementation progress of projects approved by the National Water Resources Committee (NWRC) and the development of subcommittees on water allocation, quality, and information management.
- The integration of flood and drought prevention measures, forest rehabilitation, and water-use efficiency strategies aligned with the Water Resources Act B.E. 2561 (2018) and the National Water Vision.

The committee emphasized proactive planning, inter-agency coordination, and local participation to ensure sustainable, efficient, and equitable water management across the Western Southern River Basin.



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#### **Research and Innovation**

**Air Pollution Early Warning System for Songkhla Smart City** 



Songkhla Municipality convened a meeting with researchers RUTS to advance the project "Air Pollution Early Warning System for Songkhla Smart City." Funded by the Program Management Unit for Area-Based Development (PMU-A) under the Fiscal Year 2020 research grant, the initiative seeks to establish a real-time air quality monitoring and public alert system that notifies residents when particulate matter (PM) or other pollutants exceed safe levels. The project includes the installation and maintenance of air quality monitoring stations at key locations throughout Songkhla Municipality, promoting proactive and data-driven environmental management for the city.



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#### Development of a Salinity Modeling System and Climate Change Adaptation Plan for Songkhla Lake Using Weather Forecast and Real-Time Rainfall Data

RUTS in partnership with the Southern Eastern Meteorological Center, convened a research team meeting to integrate forecasted and real-time rainfall data with a hydrological model for developing a salinity modeling system in Songkhla Lake. The initiative aims to enhance sustainable water resource and ecosystem management across the lake basin. project also includes downscaling The CMIP6 climate data to produce rainfall datasets that represent short-, medium-, and long-term climate change scenarios. These datasets will be utilized for adaptive planning in agricultural communities within the Songkhla Lake Basin, helping farmers respond more effectively to climate variability and changing salinity conditions.





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## **Automatic Water Hyacinth Flowerpot Processing Machine**



Faculty of Science and Technologyhas developed an innovative device called the "Automatic Water Hyacinth Flowerpot Processing Machine."This invention automatically transforms water hyacinth, an invasive aquatic plant that poses serious environmental challenges, into biodegradable flowerpots. The project aims to reduce plastic waste from agricultural activities, add value to water hyacinth by converting it into an eco-friendly product, and support community-based income generation. By combining engineering solutions with environmental innovation, the project not only helps address ecological issues but also advances sustainable development and circular economy practices within local communities.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-13/">https://sdgs.rmutsv.ac.th/goal/en-13/</a>



## **Teaching and Learning**

## Hands-On Learning with Engineers at a Power Substation

Assistant Professor Kittikorn Khankaeo, Dean of the Faculty of Engineering and Technology, led faculty members and third-year Electrical Engineering (B.Eng.) students from RUTS, Trang Campus, on a technical field study. The study tour included visits to Siam Cement Group (SCG) (Thung Song) Co., Ltd. and a solar power plant in Huai Yot District, Trang Province. The activity aimed to enhance students' practical understanding of industrial electrical systems and renewable energy technologies, bridging academic knowledge with real-world engineering applications.







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## Projects on Electricity, Energy, and Environment



Faculty of Engineering and Technology, RUTS, Trang Campus, organized the final-year student project presentation at the Activity Area, 60th Anniversary Building. The event showcased innovative projects focused on renewable energy, carbon credit awareness, and smart environmental systems. Highlighted projects included a solar-powered floating turbine for wastewater treatment in shrimp farms, a smart electrical outlet cabinet functioning as a portable power source for camping and compatible with solar panels, and a smart parrot farming system designed to improve bird survival rates and support conservation efforts. Other projects featured a hybrid wind turbine, a solar-powered recycling and compression unit to reduce community waste, and an IoT-based mushroom cultivation system adapted for high-temperature environments. The activity aimed to enhance students' engineering knowledge, creativity, and environmental responsibility, encouraging the development of sustainable energy innovations that contribute to both community improvement and environmental protection.



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Faculty of Engineering and Technology Partners with Innovation Technology Phuket Co., Ltd. to Conduct a Training Program on "Solar Rooftop Systems"



Faculty of Engineering and Technology, RUTS, Trang Campus, in collaboration with Innovation Technology Phuket Co., Ltd., organized a "Solar Rooftop Systems" training program for Electrical Engineering students. The program aimed to strengthen students' practical skills in solar PV installation, maintenance, and repair, while fostering entrepreneurial readiness in the renewable energy sector.

The event shared about the industry insights and hands-on expertise. A total of 30 participants attended the training, held at the 60th Anniversary Building, RUTS Trang Campus.





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## **Outreach and Engagement**

"Rajamangala Srivijaya Fair 2025" Featuring Academic Exhibitions and a Solar Cell Design & Installation Competition (Lighting Load Category)

Faculty of Engineering and Technology joined the "Rajamangala Srivijaya Fair 2025." Organized by the Academic Services and Student Affairs Division, the fair brought together teachers and students from local schools and colleges. Exhibits included solar cell system design and installation by the Electrical Engineering Program, and IoT device development with renewable energy applications by the Computer and Communication Engineering Program. The event promoted academic collaboration, career inspiration, and human resource development to drive Thailand's technological and industrial growth.





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## SUSTAINABLE G ALS

#### **Integrated Waste Management**



On January 9, 2024, an integrated study visit group from the Sikao District Learning Promotion Center, total of 15 participants joined the session by took part in a knowledge transfer and hands-on training activity on environmental conservation titled "Transforming Plastic Bottles into Brooms." Held at the Southern Royal Initiative Waste and Wastewater Management Technology Transfer Center, the activity aimed to provide participants with practical, eco-friendly skills to enhance their quality of life and promote self-reliance.











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## Fulfilling the Royal Initiative: Preserving and Continuing the Legacy of Conservation



The Southern Royal Initiative Waste and Wastewater Management Technology Transfer Center was invited by the Trang Municipality Office to conduct a knowledge-sharing session on natural resource and environmental conservation as part of the Plant Genetic Conservation Project under the Royal Initiative of Her Royal Highness Princess Maha Chakri Sirindhorn (RSPG), Batch 1.

The project aimed to honor and continue Her Royal Highness's legacy by fostering awareness and appreciation of Thailand's plant genetic resources. A total of 160 lower secondary students from schools under Trang Municipality participated in the event .

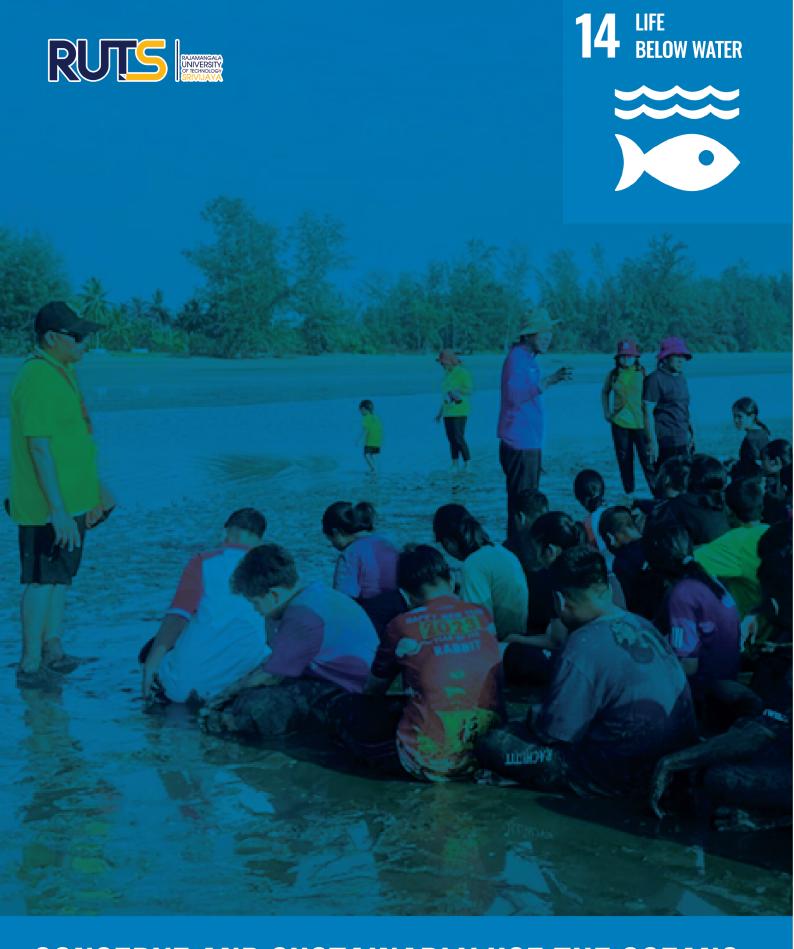








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CONSERVE AND SUSTAINABLY USE THE OCEANS,
SEAS AND MARINE RESOURCES FOR
SUSTAINABLE DEVELOPMENT



## **Policy and Operation**

RUTS Policy for Addressing Illegal, Unreported, and Unregulated (IUU) Fishing



## STOP ILLEGAL FISHING

Illegal, Unreported, and Unregulated (IUU) fishing is a global problem that threatens marine ecosystems, legal fisheries, and coastal communities. It includes fish and seafood harvested using destructive methods, from protected areas, or without proper permits.

To support the UN Sustainable Development Goals, RUTS has implemented a strict policy banning the procurement, sale, and consumption of IUU fish products on campus. All stakeholders must ensure that seafood comes only from verified, legal, and sustainable sources.



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## **RUTS Policies and Actions Against Marine Plastic Pollution**

Plastic pollution is a critical global crisis, with over 300 million tons produced annually and 14 million tons entering the oceans. RUTS supports the UN Sustainable Development Goals through active measures to reduce plastic waste. Include the Garbage Bank Program, which converts waste into income, and a ban on single-use plastics across all campuses.

In Trang Province, RUTS also conducts marine pollution research, promotes public education, and partners with local communities and businesses to advance sustainable waste management and protect marine ecosystems.







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#### **Research and Innovation**

## RUTS Microplastic Laboratory for Monitoring Pollution in Aquatic Ecosystem



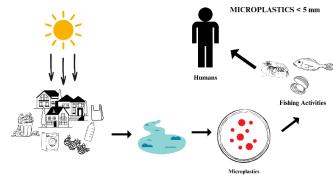
Thailand ranks sixth worldwide for plastic waste discharge, a major source of microplastic pollution. Improper waste disposal contaminates rivers and seas, leading to microplastic accumulation in aquatic organisms and the food chain.

RUTS established a Microplastic Monitoring Laboratory in 2021, equipped with a BRUKER LUMOS II FTIR Microscope to analyze contamination in coastal ecosystems and fishery products in Trang Province. The lab also provides hands-on training for veterinary students through microplastic analysis workshops.

In collaboration with Prince of Songkhla University and other partners, RUTS researchers study microfiber contamination in giant freshwater prawns from the Trang River, with findings published in scientific journals.

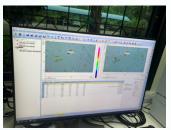
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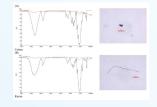
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## **Internet of Thing Based System for Watershed Management**

The Songkhla Lake Basin, Thailand's largest freshwater system covering about 11,991 sq km across Songkhla, Phatthalung, and Nakhon Si Thammarat provinces, faces increasing seawater intrusion due to rising sea levels. This salinity change has degraded freshwater habitats, reduced biodiversity, and disrupted local agriculture.

RUTS developed an IoT-based salinity warning system to monitor and forecast seawater intrusion in real time. Sensors collect water quality and environmental data every two hours, accessible via the LINE app. Also conducts training programs on equipment maintenance and sustainable farming, such as alternate wetting and drying (AWD) rice cultivation. These efforts empower local agencies and farmers to manage water resources more effectively and promote community-driven, sustainable water management in the Songkhla Lake Basin.











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## **Teaching and Learning**

International Marine Endangered Animals Camp 2024: International Dugong and Seagrass Workshop



RUTS hosted the "International Marine Endangered Animals Camp 2024: International Dugong and Seagrass Workshop" from December 13–15, 2024, at the RUTS Aquatic Animal Hospital, Trang Campus.

The workshop, led by experts from RUTS, the Department of Marine and Coastal Resources, and Chiang Mai University, aimed to enhance the conservation and sustainable management of endangered marine species. Activities included lectures, hands-on training in marine animal rescue, dugong necropsy, genetic studies, and seagrass ecosystem assessments.

Fifty-two participants engaged in practical sessions on physical examinations, imaging, and sample collection, along with a field survey to restore seagrass habitats around Ko Muk Island, Trang Province.







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#### **Marine Conservation Awareness Project**



RUTS Trang Campus organized a marine conservation awareness project featuring training in mangrove ecology, marine environmental assessment, water quality monitoring, and marine debris studies for 100 students from Benjamarachutit School, Nakhon Si Thammarat.

The program culminated in a field study at Hat Mod Tanoy Beach, Koh Libong Sub-district, where participants conducted seagrass surveys and restoration activities supporting habitats essential to marine life, including fish, blue crabs, sea turtles, and dugongs.











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## **Outreach and Engagement**

Oyster Knowledge Transfer for Sustainable Coastal Community Development in Trang Province



A shortage of oyster seed due to declining natural stocks has raised production costs and limited supply. Hatchery-based breeding provides a sustainable alternative through controlled, high-quality cultivation.

RUTS through the Faculty of Science and Technology of Fisheries, Trang Campus, promotes sustainable aquaculture by producing high-quality oyster seed and transferring hatchery techniques to local farmers. Led by Asst. Prof. Dr. Supatcha Chooseangjaew, the project "Technology Transfer for Quality and Safety Enhancement in Oyster (Crassostrea belcheri) Production for a High-Value Economy" included a hands-on workshop at the RUTS Oyster Research Unit, and a training session in Ban Bang Kang Khao community, Trang Province, to enhance farmers' technical skills and production efficiency.





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## **RUTS Blue Crab Restoration and Conservation**

The blue swimming crab (Portunus pelagicus) is a vital species for Thailand's coastal ecosystems and economy, generating billions of baht annually. However, declining populations have raised concerns over sustainability.

RUTS launched the "RUTS Crab Bank Project", a community-based initiative supported by the National Research Council of Thailand and the Ministry of Science and Technology. The project promotes conservation, sustainable fisheries, and community participation by encouraging fishers to protect and release gravid female crabs before selling them.

Since its establishment in 2018, the project has expanded to 77 crab banks and learning centers across 54 communities in Trang, Satun, and Krabi provinces, equipping local hatcheries with essential infrastructure and educational resources.











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#### Conserving Seagrass Beds: Collaboration Project for Seagrass Restoration



Trang Province, home to Thailand's largest seagrass beds of about 6,720 hectares, supports vulnerable dugongs (Dugong dugon). However, sediment from dredging and coastal erosion has led to severe habitat loss.

RUTS, led by Asst. Prof. Porntep Wirachwong, launched the Seagrass Restoration Project with local communities in four villages. The initiative repurposes uprooted seagrass rhizomes washed ashore during the monsoon, rehabilitating and replanting them to restore natural meadows.

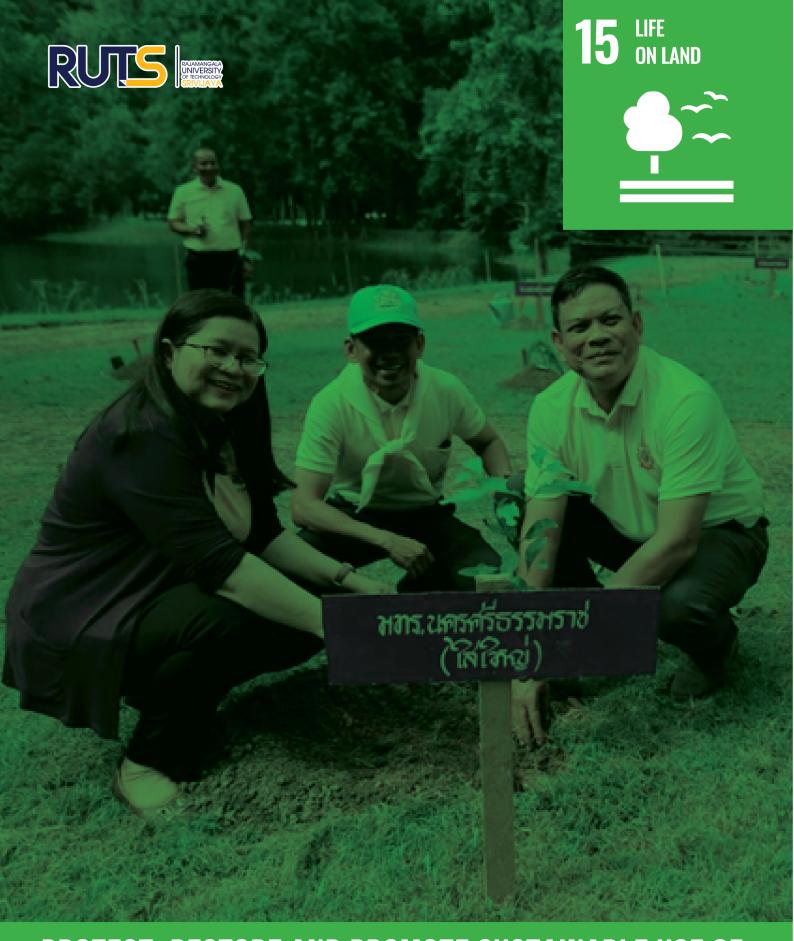








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PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, HALT AND REVERSE LAND DEGRADATION, AND HALTBIODIVERSITY LOSS

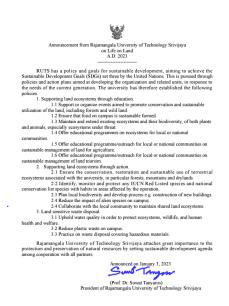


## **Policy and Operation**

## Creating agricultural technology professionals for sustainable national development

RUTS upholds the mission of "Creating agricultural technology professionals for sustainable national development," embedding environmental sustainability into all agricultural programs. This policy ensures students gain both theoretical and practical expertise in sustainable land management, soil conservation, and ecosystem restoration.

The Faculty of Agriculture enacts this mission through curricula emphasizing soil health, nutrient conservation, erosion control, and sustainable farming. By combining scientific study with field practice, the program equips graduates to apply sustainable land use strategies and address real-world agricultural challenges.







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## **Environmental awareness through birdwatching**



Faculty of Science and Technology conducted an avian diversity survey in the Ao Ai Yor Community Forest, revealing a rich ecosystem that supports both resident and migratory bird species. The study underscores Ao Ai Yor's ecological importance and demonstrates how scientific monitoring can guide local conservation efforts. The research team collaborated with the Ao Ai Yor Forest Community Committee to promote environmental awareness through birdwatching, data collection, and habitat observation. Training workshops and school field trips engaged residents and youth, fostering community pride and stewardship.

As a result, Ao Ai Yor is being developed into an eco-tourism site that balances conservation with sustainable livelihoods. Under regulated visitor management, tourism income now supports forest protection and education programs.









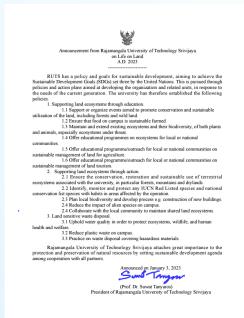
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## Creating artificial ponds and feeding stations

Faculty of Science and Technology, RUTS, launched the Avian Diversity Enhancement Project in Thung Song Municipality under RUTS's biodiversity and ecosystem policy. The project improved urban habitats by creating artificial ponds and feeding stations to sustain bird populations year-round, especially during dry seasons boosting bird diversity and urban ecological balance.

With strong community participation, residents, students, and municipal staff helped build and maintain habitats while learning about birds' ecological roles. The restored areas now serve as living classrooms for environmental education and urban sustainability. This initiative exemplifies RUTS's commitment to turning science and policy into practical, community-based conservation action.













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#### **Research and Innovation**

**Community-Based Research on Avian** and Wildlife Diversity in Thung Song City



Dr. Prasert Nonthakarn from the Faculty of Science and Technology, RUTS, led a study on avian diversity in Thung Song City, examining how urban and natural habitats support birds and wildlife. With participation from residents and students, the team recorded over 200 bird species, including the Greater Racket-tailed Drongo, Great Argus, and Asian Green Broadbill, underscoring the city's ecological richness.

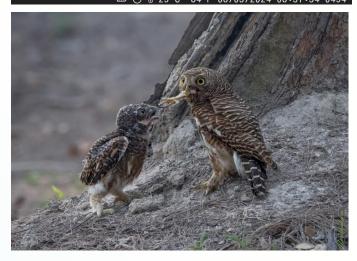
Camera traps in nearby forests and limestone hills captured monkeys, civets, wild cats, deer, and even an elephant, revealing strong wildlife connectivity. Through community engagement, exhibitions, and school activities, the project raised awareness and inspired local conservation. It stands as a model for urban biodiversity management and sustainable coexistence with nature.



## SUSTAINABLE G ALS







Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-15/">https://sdgs.rmutsv.ac.th/goal/en-15/</a>

## **Ecological Roles of Threatened Herpetofauna in Local Ecosystems**

Faculty of Science and Technology, RUTS surveyed herpetofauna diversity in Thung Song Municipality, assessing species and conservation status under the IUCN Red List. The study identified reptiles and amphibians as vital indicators of ecosystem health across the area's limestone hills, wetlands, and farmland.

Key findings include the Critically Endangered Elongated Tortoise, Endangered Southeast Asian Box Turtle, and Vulnerable King Cobra and Beautiful Pit Viper, underscoring the need to protect forest and limestone habitats. The research supports biodiversity management and urban planning, promoting habitat conservation, community awareness, and sustainable ecotourism.







Related Link: <a href="https://sdgs.rmutsv.ac.th/goal/en-15/">https://sdgs.rmutsv.ac.th/goal/en-15/</a>



## Research on Herpetofauna Biodiversity in Thung Song Municipality for Environmental Management



Asst. Prof. Dr. Worawitoo Meesook is leading research on herpetofauna reptiles and amphibians as indicators of ecosystem health in Thung Song Municipality. The study compares species diversity in less disturbed habitats, such as forests and limestone hills, with more disturbed areas affected by human activity.

Endemic limestone species like the Beautiful Pit Viper (Trimeresurus venustus), Chanard's Rock Gecko (Cnemaspis chanardi), and Lekagul's Bent-toed Gecko (Cyrtodactylus lekaguli) highlight the importance of conserving intact ecosystems, while adaptable species like the Tokay Gecko (Gekko gecko) and Common Burrowing Frog (Kaloula pulchra) reveal resilience to disturbance. The findings demonstrate how human activity influences biodiversity and emphasize the role of herpetofauna as bioindicators for conservation and sustainable land management.



Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-15/">https://sdgs.rmutsv.ac.th/goal/en-15/</a>

## **Teaching and Learning**

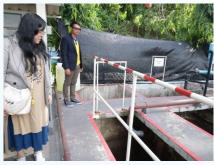
## **Green Hotel Standards and Environmental Management Training**

RUTS College of Hospitality and Tourism organized a study visit to Amari Phuket Hotel focused on Green Hotel standards and sustainable management practices.

Faculty and staff gained hands-on experience in energy efficiency, waste and water management, and sustainable procurement, while exchanging knowledge with Amari Phuket's management team. The initiative strengthened professional skills and promoted the integration of green hospitality principles into education, reinforcing the university's commitment to sustainable tourism and international environmental standards.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-15/">https://sdgs.rmutsv.ac.th/goal/en-15/</a>

## SUSTAINABLE G ALS

#### **Plant Diseases and Their Management**



On October 17, 2024, Associate Professor Dr. Pornsil Seephueak, lecturer in the Plant Science Program, conducted a lab class on Plant Diseases and Their Management. The session focused on producing bioproducts from Trichoderma spp. and soursop (Annona muricata) extracts to control Phytophthora spp.

Students learned to cultivate Trichoderma spp., extract plant compounds, and test their effectiveness against pathogens, gaining both theoretical and practical skills in biological control. The bioproducts were later applied in student planting plots, linking laboratory work to real-world practice. This hands-on training fostered innovation, problem-solving, and sustainable agricultural awareness.









Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-15/">https://sdgs.rmutsv.ac.th/goal/en-15/</a>

#### Milk and Dairy Products Learning

Faculty of Agriculture taught a Milk and Dairy Products class to 30 students. The session encouraged critical thinking through debates on "Milk Quality" and "Recent Trends in Milk Quality," linking theory with real-world dairy farming practices. Students enhanced their communication, analytical, and teamwork skills while learning about sustainable livestock management.

The program integrated theory, hands-on experience, and sustainability awareness, preparing students to become responsible and skilled professionals in livestock farming.













Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-15/">https://sdgs.rmutsv.ac.th/goal/en-15/</a>



## **Outreach and Engagement**

#### **National Moth Week activity**



Faculty of Science and Technology held a National Moth Week activity at Sirinthon Botanical Garden, Thung Song District, Nakhon Si Thammarat. Lecturers, students, and local participants observed and recorded moth diversity using light traps and night walks, uploading their findings to iNaturalist to support global research.

The event highlighted moths' roles as pollinators and environmental indicators while raising awareness of threats such as light pollution and habitat loss. It promoted simple conservation actions and strengthened collaboration between the university and community. Through hands-on learning, participants gained appreciation for nocturnal biodiversity and contributed to global conservation efforts.













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#### **Snake Knowledge and Skills Project**

RUTS in collaboration with The Secret of Lovely Snakes YouTube channel and the Betong Animal Lover Club, organized the Snake Knowledge and Skills Project in Yala Province to reduce human snake conflict and promote biodiversity conservation. The program aimed to correct misconceptions about snakes by providing accurate information, safe handling techniques, and fostering positive community attitudes.

By engaging healthcare workers, students, and rangers, the project successfully built awareness, practical skills, and collaboration helping communities coexist safely and sustainably with wildlife.







Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-15/">https://sdgs.rmutsv.ac.th/goal/en-15/</a>



PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVEINSTITUTIONS AT ALL LEVELS



#### **Policy and Operation**

#### 2024 RUTS Retreat Seminar



Office of the University Council held the 2024 Policy Retreat Seminar at Buri Sriphu Hotel, Hat Yai, bringing together University Council members and executives to discuss strategic directions under the Royal Decree on Rajamangala University of Technology, B.E. 2548.

The seminar featured on research and innovation management and on generating revenue from innovation. Participants exchanged ideas to enhance RUTS's policies and long-term strategic development.





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#### **Student Organization Committee**

RUTS promotes student participation through the University Student Organization Committee and Faculty/College Student Club Committees to enhance welfare and engagement.

The Student Development Division and Student Organization held the 2024 Executive Committee Seminar to review performance and prepare for the RUTS Star Contest and 15th Samphao Games. Moreover, the seminar was held and focused on strengthening teamwork, leadership, and regulatory compliance, while promoting good governance and anti-corruption awareness. Participants practiced the SWOT and PDCA approaches for effective activity planning.











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## University Council and Executive Engagement for Participatory Governance and Policy Integration



RUTS promotes transparent and participatory governance through engagement with University Council members, executives, and faculty.

Activies included the 235th University Council Meeting (Jan 25) at Thung Yai Campus with hybrid participation and a visit to the Thung Yai Agricultural Fair; the 5th University Executive Mobile Meeting (June 19) in Thung Song for decentralized decision-making; and the Policy Retreat Seminar (Aug 29–30) in Hat Yai, featuring sessions on research commercialization and revenue generation. These initiatives enhanced accountability, policy responsiveness, and stakeholder trust, positioning RUTS as a model of inclusive, evidence-based governance aligned with SDG 16.









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#### **Research and Innovation**

#### **Trang 360°: Challenge Every Discovery**

Trang 360°: Challenge Every Discovery was hosted as part of the project "From Crisis to Adaptation: Developing High-Quality Gulf of Thailand Andaman Marine Tourism". The initiative aimed to enhance knowledge of sustainable tourism, foster creative thinking, collaboration, and strengthen Trang's tourism competitiveness for inclusive economic growth.

Asst. Prof. Sitthichok Chanyong, Vice President of RUTS Trang Campus, emphasized tourism as a key economic driver, highlighting stakeholder participation, high-quality visitor experiences, and long-term sustainable development across social, cultural, economic, and environmental dimensions.







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### **Teaching and Learning**

## Guidelines for Developing Accommodation under the Green Hotel Standard for Sustainable and Equitable Management



College of Hospitality and Tourism held a learning activity to assess and improve hotel management standards according to Green Hotel criteria.

The project aimed to promote environmentally responsible and socially inclusive hotel management through participatory learning involving students. faculty, government agencies, and local businesses. Activities included a seminar on "Guidelines for Developing Accommodation under the Green Hotel Standard" and on-site assessments covering environmental policy, human resource development, waste management, and sustainable resource use. Students practiced negotiation and consensus-building, balancing economic and environmental priorities through collaborative dialogue. This network facilitated learning, negotiation, and sustainable tourism practices, helping reduce conflicts between business and community interests.



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## Project on the Development of Democratic Citizenship under the Constitutional Monarchy

Asst. Prof. Manoch Khumcharoen, Dean of the Faculty of Science and Fisheries Technology, opened the "Project on the Development of Democratic Citizenship under the Constitutional Monarchy." Organized by the Trang Provincial Election Commission under Mr. Sirasit Ngasaman, the program promoted civic knowledge and participation. Student leaders from three faculties were trained as peer educators and youth ambassadors, fostering understanding of citizenship, democratic governance, and constitutional responsibilities.







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## **Outreach and Engagement**

## **Soap Packaging and Online Marketing Development**



Mr. Hatschaipakorn Panma, Lecturer in Business Management from College of Hospitality and Tourism join the Kantang District Agricultural Office as a guest speaker for the "Soap Packaging and Online Marketing Development" training.

Held under the Project for Quality of Life Development, the session aimed to enhance local skills in product design, packaging, and marketing, promoting community self-reliance and equal access to economic opportunities.











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#### Ready-to-Use Technology for Sustainable Thai Communities

The Appropriate Technology Matching Day 2024, themed "Ready-to-Use Technology for Sustainable Thai Communities," was held on 7–8 March at RUTSVSongkhla Campus. The event promoted technology transfer to empower communities and strengthen grassroots economies.

Supported by MHESI, NSHEP, TSOR, PMU-A, and 47 universities, the event connected innovations with local needs, targeting low-income groups, farmers, and entrepreneurs. Backed by PMU-A's Community Innovation Program (FY2020–2023), 954 subdistricts across 43 provinces increased economic value by 10–20%, advancing livelihoods and sustainable development through the "Appropriate Technology for Social Mobility" framework.













Related Link : <a href="https://sdgs.rmutsv.ac.th/goal/en-16/">https://sdgs.rmutsv.ac.th/goal/en-16/</a>



STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALISE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT



## **Policy and Operation**

## RUTS in Cross sectoral dialogue about SDGs: Involving government or NGOs

In 2024, the Andaman Southern Coordination Centre of Rajamangala University of Technology Srivijaya (APST-RUTS) had the honor of welcoming Her Royal Highness Princess Maha Chakri Sirindhorn at the 8th Regional Academic Conference and Exhibition on School Botanical Gardens and Local Resource Bases at Suranaree University of Technology.

APST-RUTS also featured exhibits from Chalermprakiet School, Sawat Rattanapimuk School, and Ban Thung Sala, promoting the UN SDGs on quality education, sustainable communities, responsible resource use, and biodiversity conservation. The project highlights RUTS's commitment to education, community empowerment, and environmental stewardship under royal patronage.











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#### **Research and Innovation**

#### WorldInvent Singapore 2024 (WoSG)



In 2024, RUTS reinforced its commitment to the UN Sustainable Development Goals (SDGs 1-17) through active collaboration with international university partners. A key initiative was participation in WorldInvent Singapore 2024 (WoSG), held from July 9-11 at the Singapore Expo. RUTS researchers earned several awards, including the "Biodiesel Production Unit with Alkali Earth on Porous Ceramic as a Solid Catalyst" by Asst. Prof. Dr. Arisa Sopacharn and her team, an Indole-3-carbinol test kit for dietary supplement quality by Asst. Prof. Dr. Kosin Deepraksaphan and his team, and the "Red Calo Miracle Lip Balm" by Assoc. Prof. Dr. Wanninee Chankaew and her group. These achievements demonstrate RUTS's dedication to transforming academic research into practical, sustainable solutions.













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#### IoT System Innovation, Smart Energy Management, and Wireless Sensor Network Research



Rajamangala University of Technology Srivijaya (RUTS), in collaboration with Universiti Malaysia Perlis (UniMAP), hosted the 1st International Research Collaboration on 13 August 2024 at the Faculty of Engineering, RUTS. Under the theme "IoT System Innovation, Smart Energy Management, and Wireless Sensor Network Research," the event brought together researchers and students to exchange knowledge and advance emerging technologies for sustainable development. This initiative marked a meaningful step in strengthening cross-border research, delivering practical solutions to sustainability challenges, and supporting key SDGs particularly clean energy, innovation, and global partnerships. It also laid a strong foundation for future joint research to drive regional innovation and sustainable development across Southeast Asia.







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## "The Winner of Best Paper Award at IEE IcoCET 2024"

RUTS, in collaboration with Universiti Malaysia Perlis (UniMAP), participated in the IEEE 1st International Conference on Communication Engineering and Emerging Technologies (ICoCET), held from 2–3 September 2024 at Bertam Resort and Waterpark, Penang, Malaysia. Hosted by UniMAP, the conference featured the first jointly developed research paper between RUTS and UniMAP titled "Fruit Juice Dielectric Properties Characterisation Using Artificial Intelligence." Asst. Prof. Tanakorn Inthasuth, a lecturer in the Telecommunication Engineering Programme at the Faculty of Engineering, RUTS, served as a co-author on this paper.

The joint study received the Best Paper Award, highlighting the scientific excellence and innovative contributions of the research team. This achievement showcases the effectiveness of the collaborative framework in integrating academic rigor, applied research, and sustainability-driven innovation, while further strengthening the partnership between RUTS and UniMAP.







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## SUSTAINABLE GALS DEVELOPMENT

## **Teaching and Learning**

#### **RUTS and International Collaboration** for SDG Camp 2024



RUTS offers undergraduate programmes that embed sustainability and the SDGs throughout teaching, learning activities, and coursework. In 2024, RUTS collaborated with several international universities in Malaysia to implement experiential and collaborative learning approaches strengthen students' understanding of innovation and sustainable development. Through five International Collaboration Camps Engineering, Accounting, Smart Farm, Veterinary and Animal Nourishing, and Entrepreneurship students engaged in practical, hands-on learning supported by instructors from both countries. Complementary cultural activities and friendly sports further enriched the learning environment, fostering cross-cultural understanding, teamwork, communication, and leadership skills among Thai and Malaysian students.

Overall, the camps demonstrated the impact of innovative teaching and learning practices in enhancing students' technical capabilities, cultural awareness, and sustainability mindset, helping develop a new generation of globally engaged graduates committed to advancing the SDGs and regional cooperation







6th June, Accounting students join











Day3 - 4 Highlights Academic activities: Microbit and Siemens PLC















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## **RUTS's Commitment to Meaningful Education Aligned with the SDGs**

RUTS offers various courses on sustainability to help students adopt sustainable practices in their lives. As part of its commitment to meaningful education for the SDGs, the university requires all undergraduates to take a compulsory Sustainable Development course. This course covers the King's Sufficiency Economy Philosophy, the three pillars of sustainable development, the UN 17 SDGs, environmental, social, and economic challenges, and strategies for improving quality of life sustainably. Students learn to integrate SDGs into their attitudes, behaviors, and lifestyles.

For example, through the Saiyai Smart Farm initiative, RUTS applies the Sufficiency Economy Philosophy in practice, combining academic knowledge with hands-on agricultural experience. This approach fosters responsible learners who understand the balance between human needs, environmental stewardship, and economic sustainability.



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## **Outreach and Engagement**

RUTS and International Collaboration on measuring data for the SDGs



In 2024, Rajamangala University of Technology Srivijaya (RUTS) engaged in international collaboration with Times Higher Education to gather and measure SDG data. Dr. Lamun Kayurin, Assistant to the President (SDGs Leader), and Asst. Prof. Dr. Chanyut Sudtongkong represented RUTS at the Global Sustainable Development Congress 2024 in Bangkok, exchanging knowledge and strengthening partnerships with higher education, government, and industry stakeholders. Later, from October 25-27, RUTS hosted Impact Rankings 2025 training for nearly 60 participants from all 17 SDGs committees, focusing on data collection, evidence documentation, and platform use. These activities enhanced RUTS's capacity for international collaboration, knowledge sharing, and partnerships, reflecting SDG 17's goals of strengthening global cooperation to advance sustainable development.



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## SUSTAINABLE G ALS

## RUTS International Collaboration for SDG 17: Strengthening Global Partnerships



In 2024, Rajamangala University of Technology Srivijaya (RUTS) strengthened SDG 17: Partnerships for the Goals through a series of international academic camps with leading Malaysian universities, including UiTM, UTP, UniMAP, UMK, and UMT. These collaborations highlighted the importance of cross-border cooperation in advancing sustainable education, research, and innovation.

Each program ranging from accounting, entrepreneurship, and engineering to smart farming, veterinary science, and marine conservation brought together students and lecturers to engage in workshops, cultural exchange, and hands-on learning. The activities supported various SDGs such as SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry and Innovation), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 14 (Life Below Water), while consistently emphasizing partnership-building.

A key highlight was the RUTS-UniMAP Engineering Camp, which culminated in an official MoU signing to strengthen long-term academic cooperation. Similarly, the international camps on entrepreneurship, smart agriculture, accounting, and veterinary sciences created platforms for shared learning, joint research opportunities, and sustainable development initiatives.

Through these collaborative activities, RUTS demonstrated how strong international partnerships can broaden educational opportunities, enhance regional sustainability efforts, and empower students to contribute to global SDG achievement reflecting the true spirit of SDG 17: Partnerships for the Goals.



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