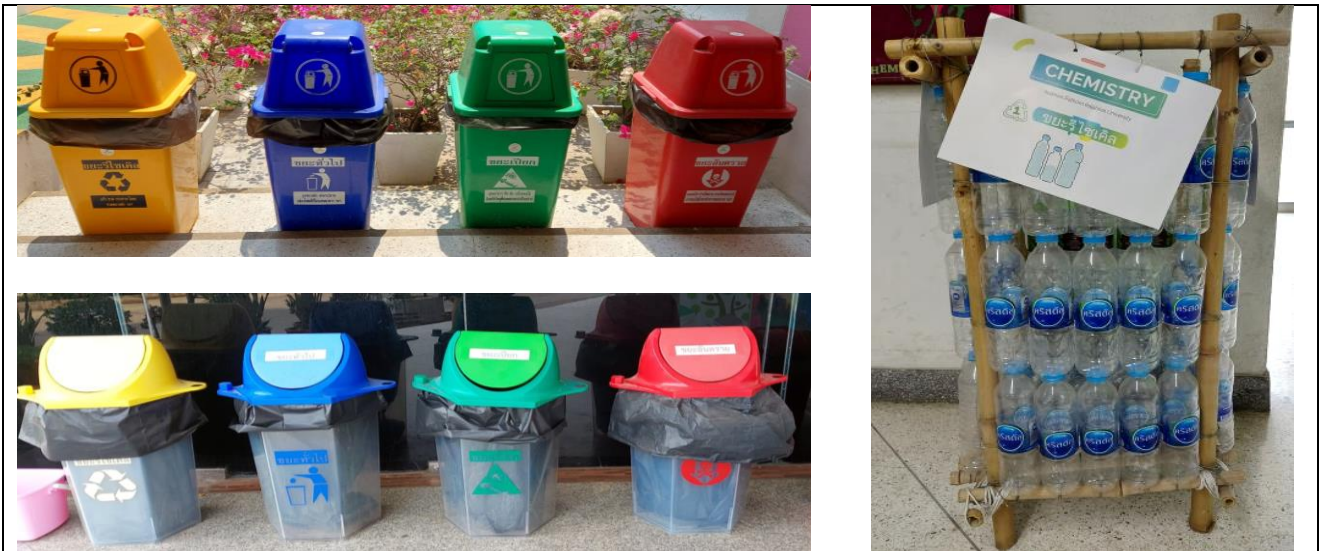




UI GreenMetric Questionnaire

University : Nakhon Pathom Rajabhat University
Country : Thailand
Web Address : www.npru.ac.th
[3] Waste (WS)

[3.1] Recycling Program for University Waste



Recycling Program for university waste to encourage students and staff to reduce the use of paper and plastic.



Recycling Program for university waste to encourage students and staff to reduce the use of paper and plastic.

Description:

Nakhon Pathom Rajabhat University has a formal policy regarding the recycling program. The recommendations emphasized the importance of effective and supportive participation in eliminating contamination by limiting the benefit of all plastics and moving to safe alternatives such as biodegradable plastic.



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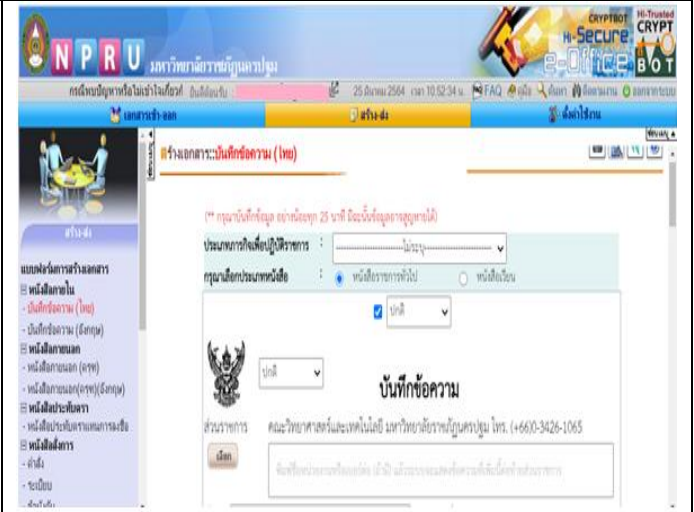
[3] Waste (WS)

[3.2] Program to Reduce the Use of Paper and Plastic on Campus

<p>Program to reduce the use of paper through employing NPRU E- Office System.</p>	<p>Program to reduce the use of paper through E-bidding, the system of NPRU Finance Division.</p>
<p>NPRU E-Learning Open Courseware System</p>	<p>NPRU Zero Waste Project</p>



The students' project and exhibition on the "Go Zero Waste" project.



Program to reduce the use of paper through employing NPRU E- Office System.



An Announcement of Intent and Cooperation Signing Ceremony on Waste Management in Nakhon Pathom Province



An Announcement of Intent and Cooperation Signing Ceremony on Waste Management in Nakhon Pathom Province

Description:

NPRU has started a campaign aimed at the university community to reduce single-use plastic and disposable products. The program to reduce the use of paper and plastic on campus is as the following;

NPRU received an electronic trash bin from AIS.

On November 23, 2021, Asst. Prof. Sommai Piathanom, Vice President Nakhon Pathom Rajabhat University, received electronic waste bins from company representative Advanced Info Service Public Company Limited in the project of Thai people without E-Waste save the environment with a campaign to invite "Students and staff without E-Waste."

Put your
university logo
here



E-Office system & E- Bidding system

E-Office System reduces paper use in daily work and affects CO2 emissions. Moreover, using the E-Bidding System Project for online procurement minimizes the use of paper. For this purpose, information technologies play an essential role in the university's management. In addition, they have benefits such as fast operation, budget, and labour savings.

NPRU E-Learning Open Courseware System

Nowadays, social networks are a frequent tool for communication and university dissemination. Moreover, digital material has helped reduce printing on paper to share information or advertise. NPRU E-Learning Open Courseware System is a beneficial tool for online teaching.

NPRU Zero Waste Project

Nakhon Pathom Rajabhat University organized a campaign to ban plastic bags and foam boxes inside the campus. The Education Technology and Innovation Departments' students organized the exhibitions and events, Faculty of Education "Go Zero Waste, Zero Waste." The presentations were held to invite people of all ages about attention to waste separation and reduce the use of paper and plastic.



UI GreenMetric Questionnaire

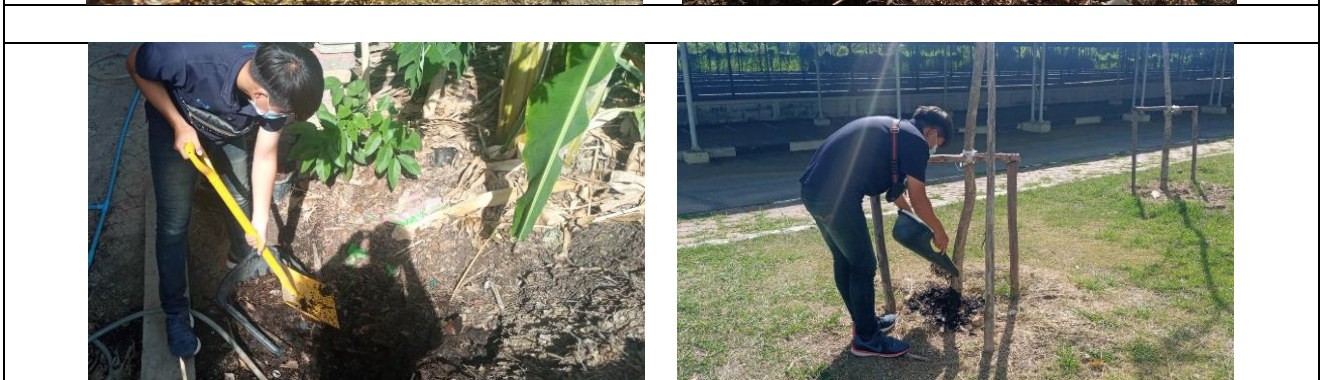
University : Nakhon Pathom Rajabhat University
Country : Thailand
Web Address : www.npru.ac.th

[3] Waste (WS)

[3.3] Organic Waste Treatment



1. Making bio-fermented water from food scraps and use it for watering plants



2. Students made a bio-fermented compost from twigs and leaves to water the plants (Research project)



Description:

NPRU has generated garbage separation policies. For this purpose, it has deployed containers in all university facilities that indicate what type of garbage to deposit and has conducted awareness campaigns about the importance of garbage separation. In addition, organic waste is not delivered to the collection service; but remains at the university to reuse organic waste as compost in gardens. The organic waste treatment program is as follows;

1. The university staff make bio-fermented water from food scraps at the accommodation, and then the bio-fermented water is used to water the plants around the staff resident.
2. A research project to make a bio-compost from twigs and leaves to water plants. It helps to reduce waste from leaves and branches and decreases incineration.

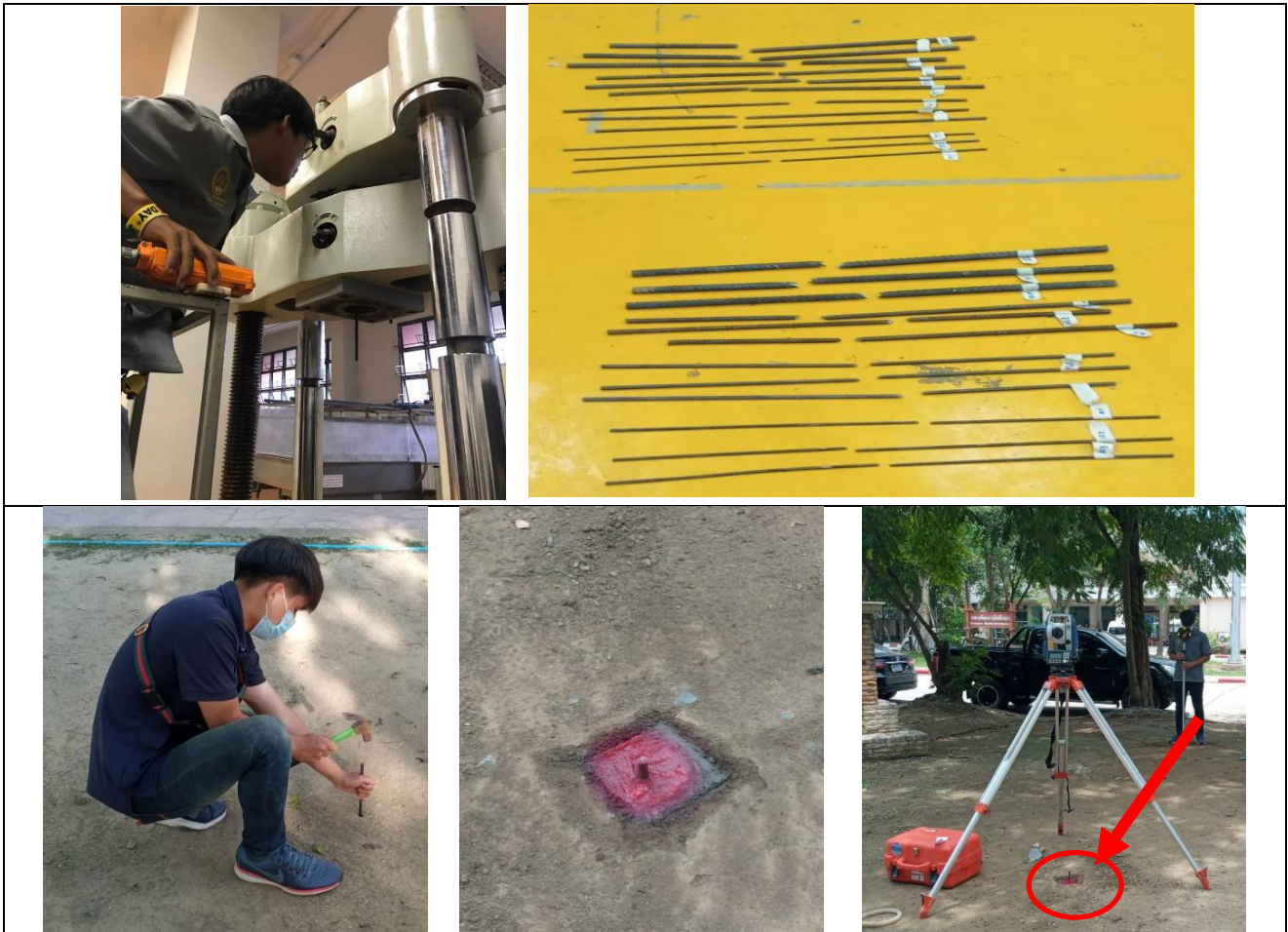


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[3] Waste (WS)

[3.4] Inorganic Waste Treatment



Example of inorganic waste treatment.





Description:

Nakhon Pathom Rajabhat University has an inorganic waste treatment program, including the Survey Engineering Laboratory Program, which takes the rest of the steel from the Civil Engineering Material Course Tests, and then uses it to make proof pins. Besides, students' research project on Civil Engineering takes out old concrete and redesigns it for downcycling.



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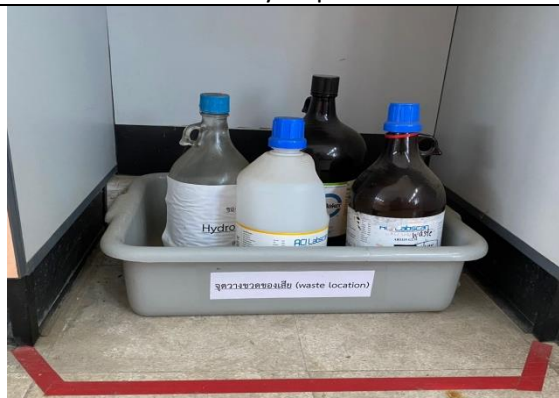
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Web Address : www.npru.ac.th

[3] Waste (WS)

[3.5] Toxic Waste Treatment



Toxic Waste Treatment by Department of Chemistry.



Toxic Waste Treatment by Department of Food Science and Technology.



Example of management of infectious waste (e.g., used medical mask)

การคัดแยกประเภทของเสีย
ของเสียประเภทที่เป็นอันตราย (Hazardous Waste Stream)

1. กลุ่มไซยาไนด์ (Cyanide)
2. กลุ่มปรอท (Mercury)
3. กลุ่มสารอินทรีย์ (Organic)
4. กลุ่มออกซิไดซ์ (Oxidizers)
5. กลุ่มโลหะ (Metals)
6. กลุ่มกรด-เบส (Acids/Bases)
7. ของเสียกลุ่มพิเศษ (Special waste)

การรวบรวมและจัดเก็บของเสีย

2. ใช้ภาชนะบรรจุของเสียที่เหมาะสมตามประเภท เช่น - ใช้ขวดแก้วในการเก็บของเสียประเภทกรด - ใช้ขวดพลาสติกในการเก็บของเสียประเภทด่าง - ของเสียเคมีที่จะนำมาเก็บของเสียต้องไม่ใช้สารที่เข้ากันไม่ได้กับของเสีย

การบำบัดและกำจัดของเสีย

2. สารเคมีที่สามารถทิ้งลงอ่างน้ำหรือท่อน้ำทิ้งได้ แต่ต้องทำให้เจือจางก่อน

VDO presentation to demonstrate the students and publish R-to-R research by scientists of Food Science and Technology, Faculty of Science and Technology.

Description:

NPRU has formal policies for managing toxic waste products of different activities carried out in the laboratories. Laboratory testing procedures produce much waste, which are risk factors that must be managed systematically to avoid spills of chemicals and their spread outside the laboratory.

All healthcare waste which includes (infectious waste, highly infectious waste, sharp waste, pathological and body parts waste, as well as chemical waste) treated on daily waste with a 25 % capacity



Toxic waste treatment program:

1. Chemical Waste Management, Chemistry Program.

The chemistry Program organizes a student-participated laboratory skills management program with cooperation from the Occupational Safety, Health, and Environment Administration Center.

NPRU has a safety assessment survey. They also handle the chemistry branch's laboratory system by the safety standards.

2. Chemical Waste Management, Program of Food Science and Technology.

The Food Science and Technology treatment program prepares and provides a suitable chemical waste container before being sent to the company for proper disposal.

3. Management of infectious waste.

During the COVID-19 pandemic, NPRU provides a bin to collect used masks. (Infectious waste) for proper disposal.



UI GreenMetric Questionnaire

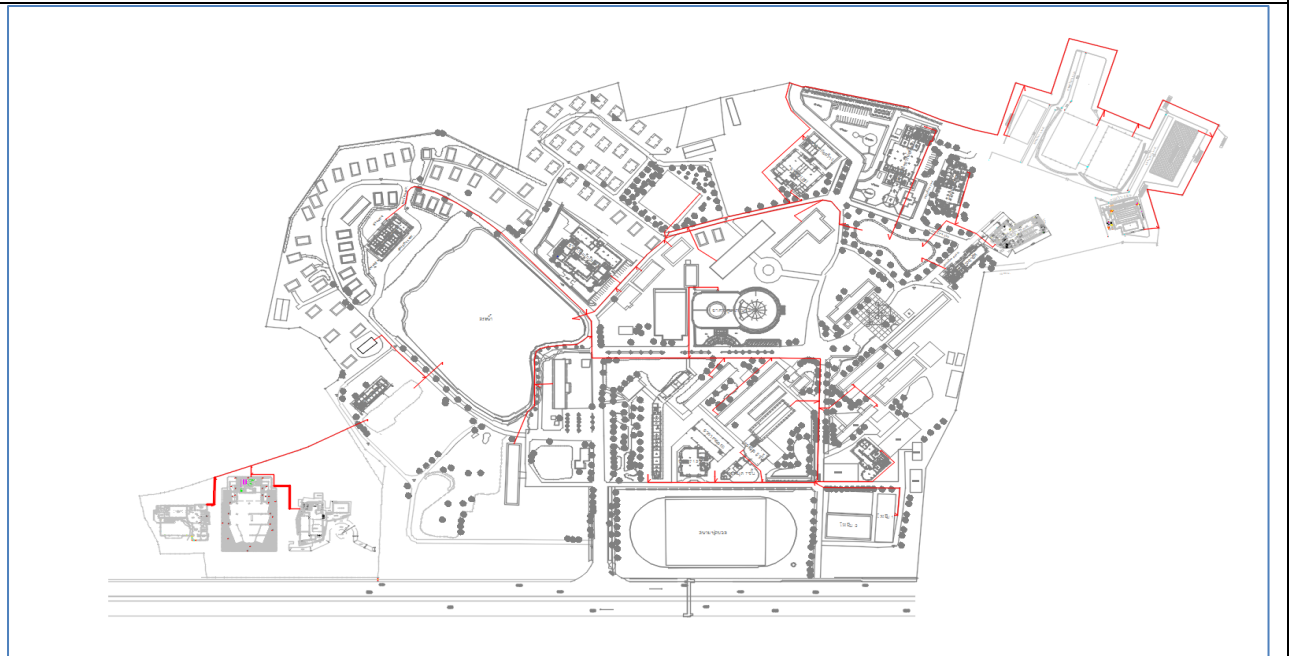
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[3] Waste (WS)

[3.6] Sewage Disposal



Aerated Lagoon and Paddle Wheel Aerator in NPRU



The layout of Nakhon Pathom Rajabhat University shows the flow of water passing through the treatment tanks from various buildings. Into the pool to fill the air.



Building and service capacity of the building's septic tank



Building and service capacity of the building's septic tank



Building and service capacity of the building's septic tank





Building and service capacity of the building's septic tank



Building and service capacity of the building's septic tank

Description:

NPRU Wastewater Treatment Plant is to treat the total raw sewage collected from various university applications. The suspended solids and biodegradable organic matter reduce through the treatment stages to an acceptable limit. The plant can produce treated water that meets water reuse standards in volume and quality. The technology used is as follows;

1. Paddlewheel Aerator

To fill the air before releasing it to the public system for water treatment. The treated water from various buildings will gather in the Emerald pool.

2. Treatment tank

The water treatment tank from various buildings flows to the pool to fill the air with an average water volume of 300 cubic meters per day.

Combining Extended Aeration System and Paddlewheel Aerator technology to achieve the best water quality among other typical wastewater treatment processes simultaneously saves space and cost.