Modeling on waste generation and discharge

To support rational and effective decision making on municipal solid waste management toward sustainable society, our laboratory aims to accumulate the scientific base by the following research activities:

✓ Detail survey on municipal solid waste generation, demographics, 3R behavior, pro-environmental attitudes, lifestyle, and household expenditure in Japan and Vietnam

✓ Exploring influence factors and Bayesian modeling of waste generation and 3R behavior

✓ Political effect prediction on 3Rs and reliability verification

✓ Accuracy improvement on sales prediction of food items by Deep Learning toward food loss reduction

Conceptual framework on relationships between 3R promotion measures and 3R behavior

Actual daily sales variation of rice balls and Predicted sales amount by deep learning

Behavior modification on 3Rs

To establish and expand 3R good practices toward sustainable society, our laboratory tries some pilot studies including 3R promotion and effect measurement as the following activities:

✓ Experience-based activity for 3Rs in cooperation with trial dining event in downtown by gamification

✓ Development of beverage by returnable bottle with Carbon Footprint Ecolabel

To enhance the citizens understanding on the effect of Reuse, the label indicated "When you discard in one, you discharge 430g-CO_2e. When you reuse 5 times, you discharge 130g-CO_2e in one which means you can decrease 69% of GHGs.

Experience-based 3R promotion

Flyer of the carbonated drink provided by returnable bottle
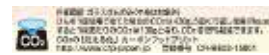
Ecolabel instruction on GHG mitigation effect by repeated use of returnable bottle

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