Environmental Science Research Center

Faculty of Science,
Chiang Mai University

Organization Chart

รศ.ดร.สมพร จันทระ

Assoc. Prof. Dr.Somporn Chantara
Head of Research Center

รศ.ดร.จรูญ จักร์มุณี

Assoc.Prof. Dr.Jaroon Jakmunee

Associated Head of Research Center

ผศ.ดร.พิชญา มังกรอัศวกุล

Asst. Prof. Dr.Pitchaya Mungkornasawakul

Assistant Head for Research

อ.ดร.ภูมิศร์ ทับทิมแดง

Dr.Pumis Thuptimdang
Assistant Head for Academic

ผศ.ดร.ว่าน วิริยา

Asst. Prof. Dr.Wan Wiriya
Assistant Head for Academic Services and Corporate Communication

ผศ.ดร.สุทธาธร ไชยเรืองศรี

Assist. Prof. Dr. Sutthathorn Chiaruangsri
Chairman of Graduate Program

รศ.ดร.อลิส ชาร์ป

Assoc. Prof. Dr. Alice Sharp
Chairman of Undergraduate Program

Bachelor of Science Program

(International Program)

- Degree offered
  - Bachelor of Science (Environmental Science)
  - B.S. (Environmental Science)
- Duration:
  - 4 years
- Credit requirement
  - Regular Study Plan 138 Credits
  - Cooperative Study Plan 142 Credits

Master of Science Program

(Regular and International Program)

- Degree offered
  - Master of Science (Environmental Science)
  - M.S. (Environmental Science)
- Duration:
  - 2 years
- Credit requirement
  - Study Plan: 36 Credits

    (coursework 21 credits + thesis 15 credits)

Doctor of Philosophy Program

(International program)

Degree offered

- Doctor of Philosophy (Environmental Science)
- Ph.D. (Environmental Science)

Type 1.1 Student with Master degree

- 3 Years duration
- Thesis only (48 credits)

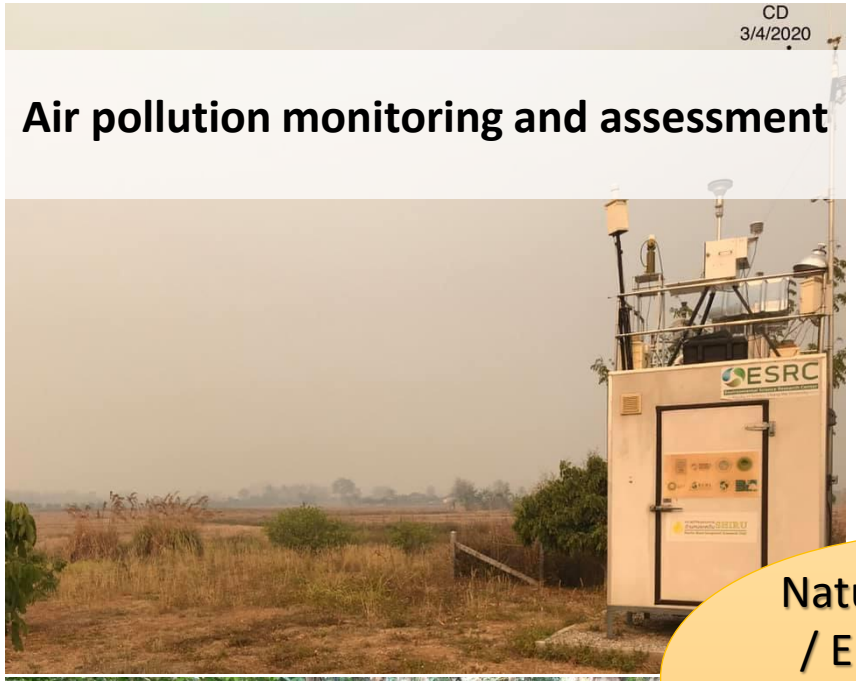
Type 1.2 Student with Bachelor degree

- 5 Years duration
- Thesis only (72 credits)

Desired Characteristics & Capabilities of Graduates

Research Focuses

Air pollution monitoring and assessment



Water quality monitoring and water resources management

Natural Resources / Environmental quality and Health Impacts

Forest restoration

Waste management

Assoc. Prof. Dr. Somporn Chantara

Dr. Nuttipon Yabueng

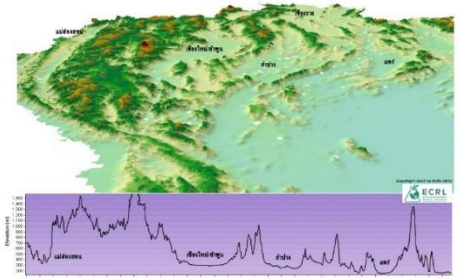
Asst. Prof. Dr. Wan Wiriya

ECRL Environmental Chemistry Research Laboratory Chiang Mai University

NO_2 passive sampler

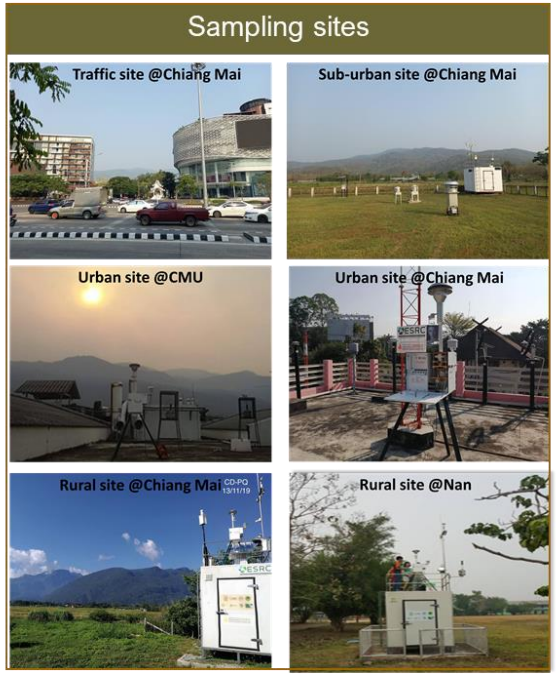
Environmental Chemistry Research Laboratory

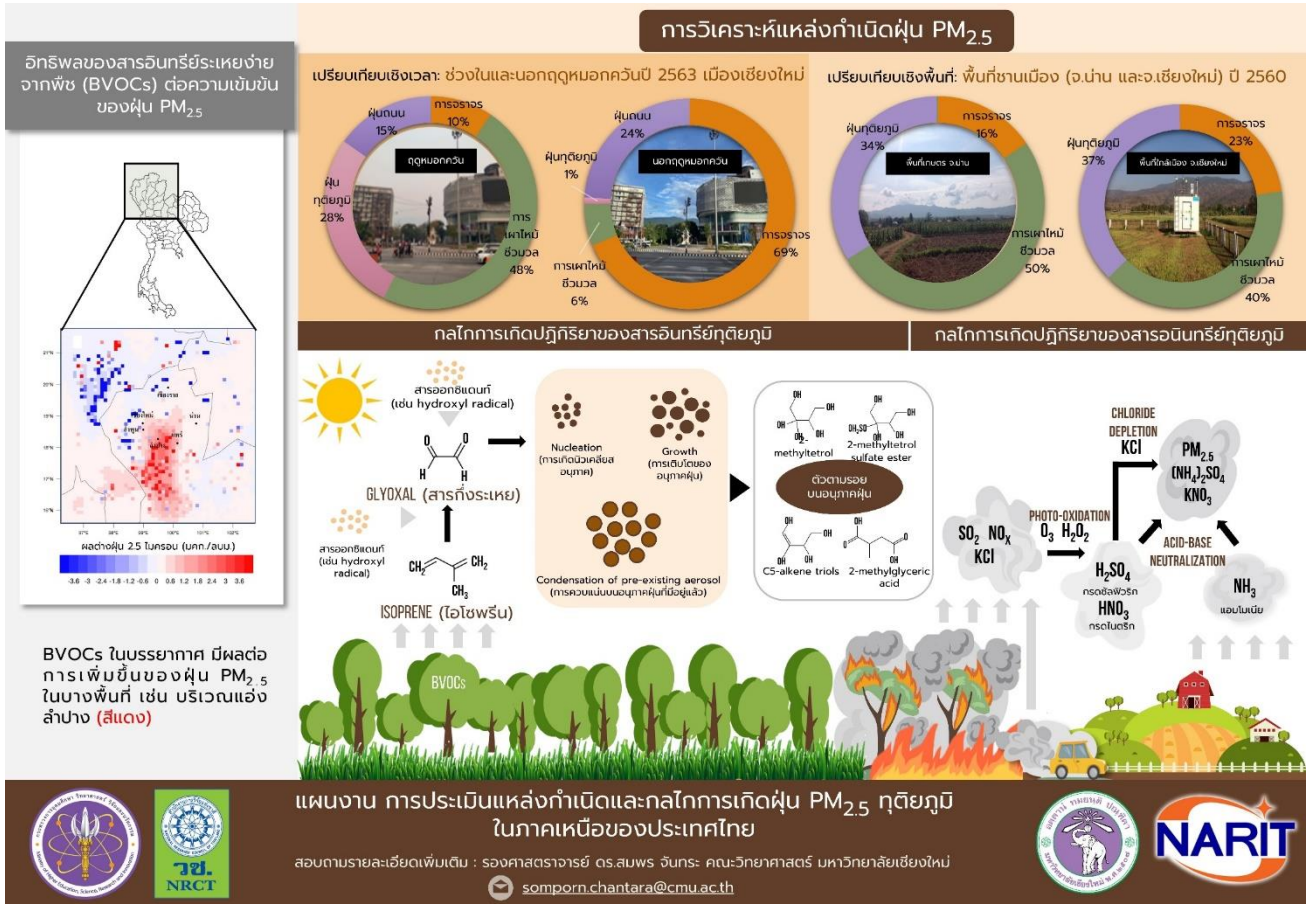
ESRC Environmental Science Research Center Faculty of Science Chiang Mai University



Air Quality Monitoring and Assessment

$PM_{2.5}$, Nano particles, and Volatile organic compounds (VOCs)





Environmental Chemistry Research Lab

ECRL Environmental Chemistry Research Laboratory Chiang Mai University

ESRC Environmental Science Research Center Faculty of Science Chiang Mai University

Emission of air pollutants from biomass burning

Analytical instruments

GC-MS @ Chemistry, CMU

- Analysis of aerosol chemical composition (PAHs, Water Soluble Ions, Metals, OC-EC)
- Analysis of gas phase; VOCs and pollutant gases.

Ion Chromatograph

ICP-OES @ Chemistry, CMU

GC-MSD-FID-TCD

Carbon analyzer (OC-EC)

Forest Restoration Research Unit

Department of Biology
website: www.forru.org

Assoc.Prof.Dr. Stephen Elliott
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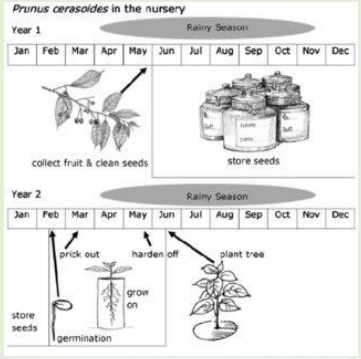
Our mission is to carry out research to develop efficient methods to restore tropical forest ecosystems for biodiversity conservation, environmental protection and carbon storage.

Dr. Watit Khokthong
tae.watit@gmail.com

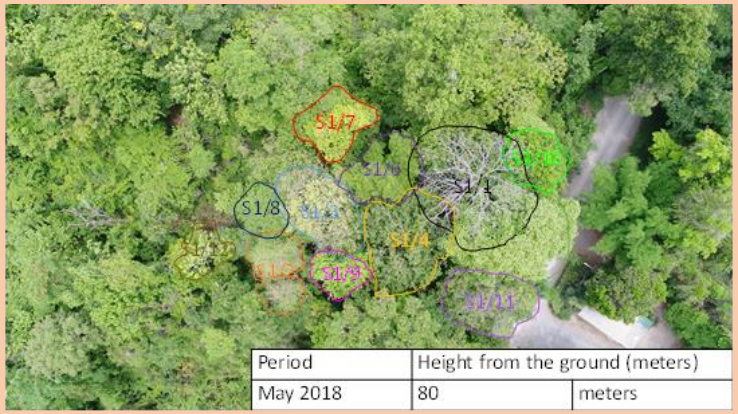
Forest Restoration Research Unit

Department of Biology
website: www.forru.org

Tropical forest restoration

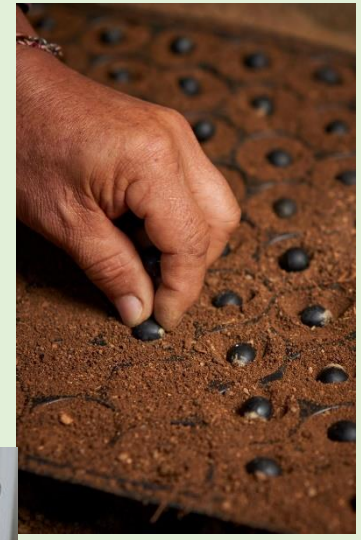


Automated forest restoration



Seed conservation

MILLENNIUM SEED BANK PARTNERSHIP
Kew

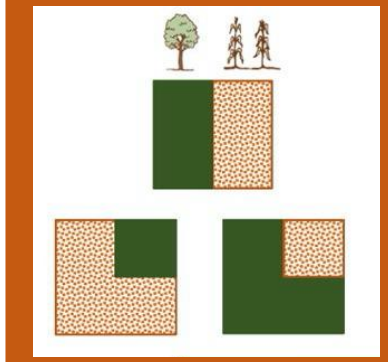


Dr. Watit Khokthong

Department of Biology

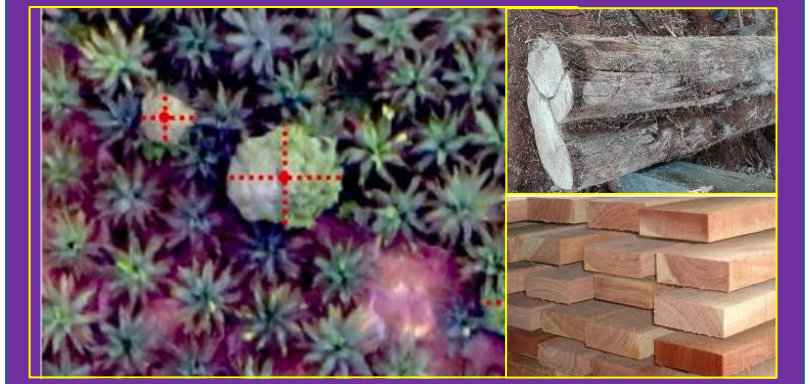
Email: watit.khokthong@cmu.ac.th

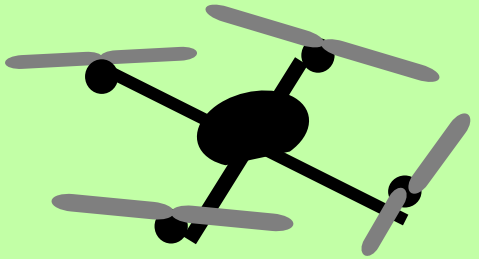
ResearchGate



Landscape Ecology : spatial and temporal dimensions

Agroforestry and Forestry : native trees, 3D structures for timber measurements





Drone Mapping & Lidar Surveying for Forest Restoration Processes

Dr. Alice Sharp

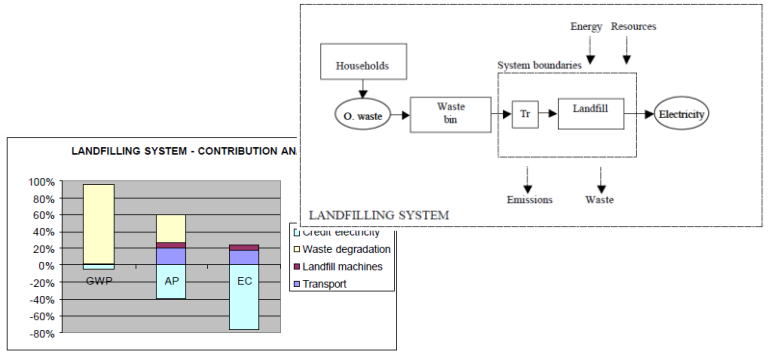
Department of Biology

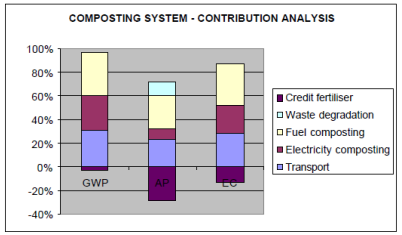
Email : alice.sharp@cmu.ac.th

Solid waste management/ Climate change vulnerability assessment/ Mammal ecology

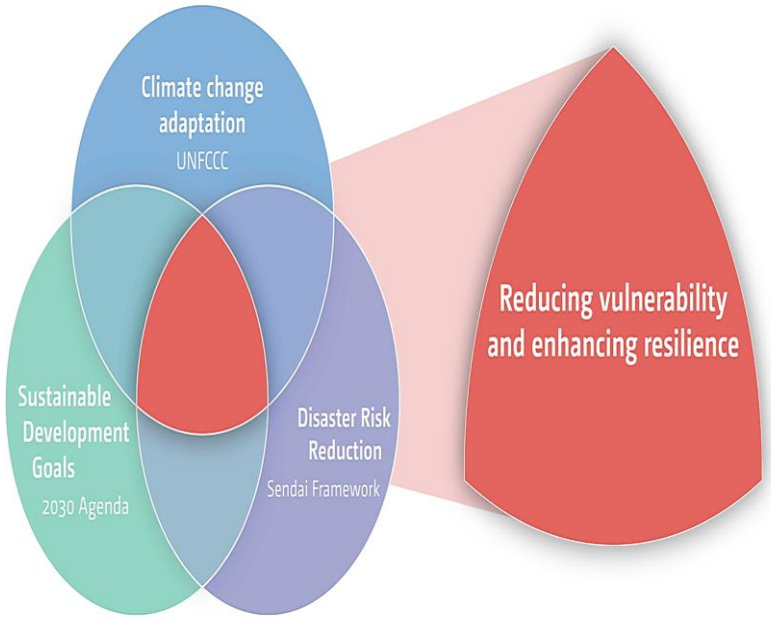
Solid waste management (Modeling)

System Dynamics (SD)
Life Cycle Assessment (LCA)
Material Flow Analysis (MFA)

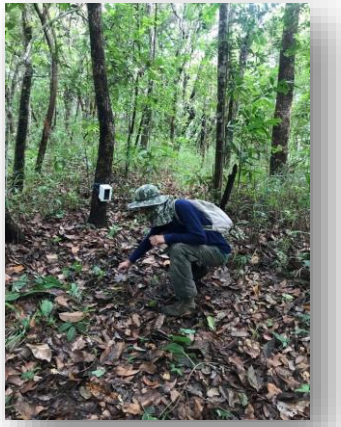


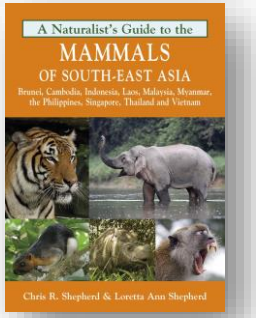


Climate change vulnerability assessment (Modeling)



Mammal ecology (Field work)

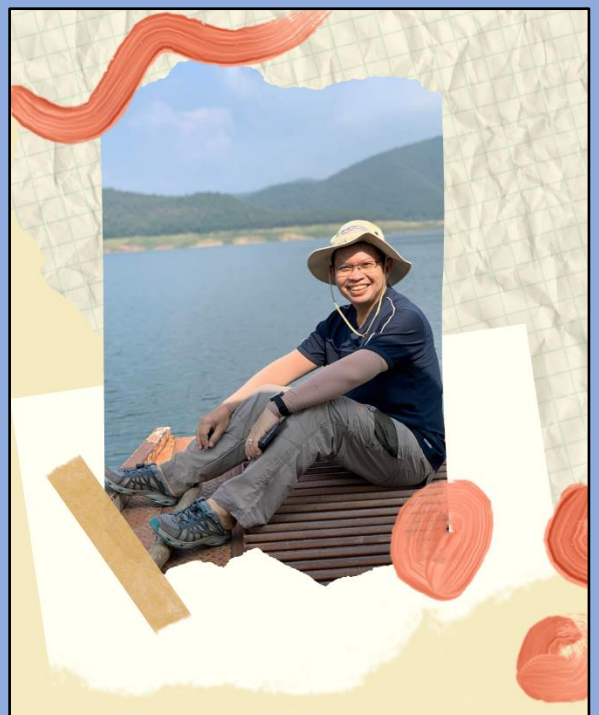




Freshwater Biomonitor Research Lab (FBRL)

CHIANGMAI UNIVERSITY

SCIENCE CMU



ASST.PROF.DR.CHITCHOL PHALARAKSH

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DR.NATTAWUT SAREEN

Environmental Science Research Center
Faculty of Science
Email: nattawut.sar@cmu.ac.th

Research themes

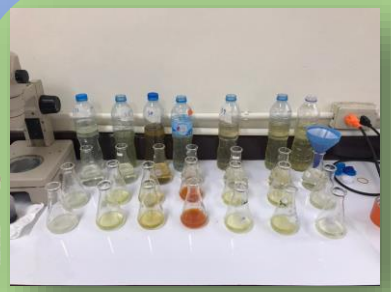
1. Aquatic Insect Diversity and Conservation
2. Anthropogenic Impact on Aquatic Ecosystem
3. Water Resource Management

Freshwater Biomonitor Research Lab (FBRL)

CHIANGMAI UNIVERSITY

SCIENCE CMU

Aquatic Insect Diversity and Conservation



Anthropogenic Impact on Aquatic Ecosystem

Water Resource Management Northern THAILAND

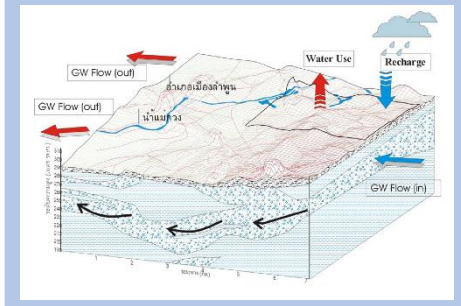
Water Resource Management

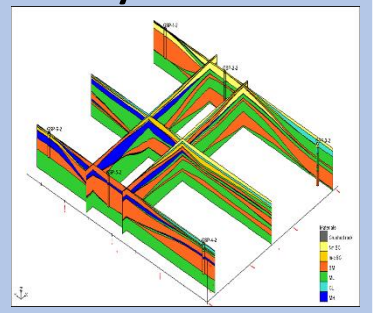
Dr. Schradh Saenton (Pom)

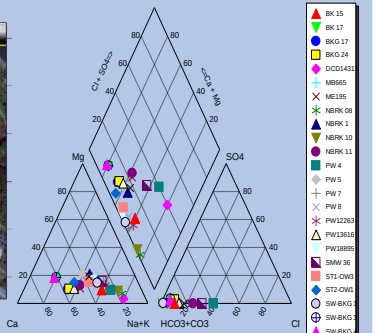
Department of Geological Sciences

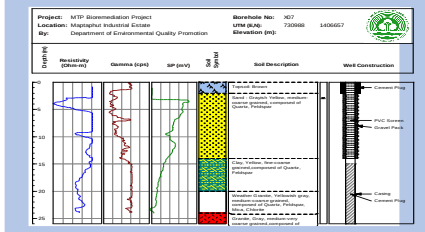
Email : schradh.saenton@cmu.ac.th

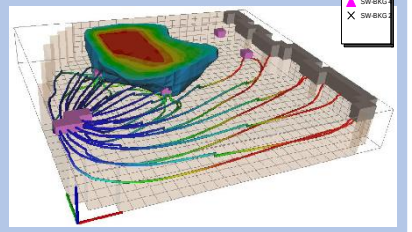
Groundwater Hydrology and Geochemistry



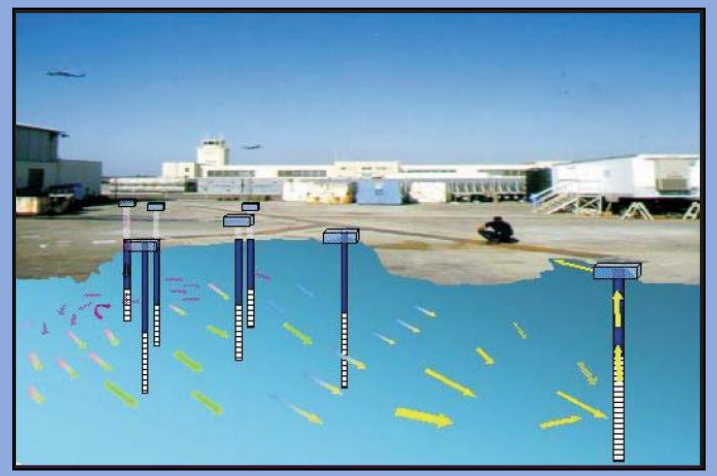


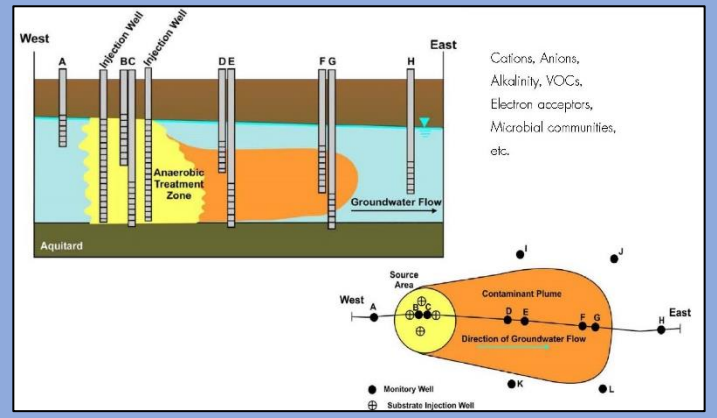






Soil & Groundwater Remediation





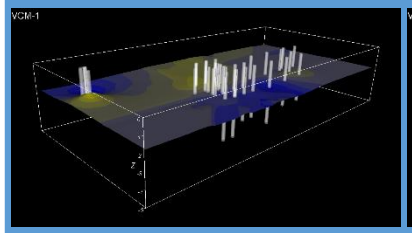
Environmental Modeling and Assessment

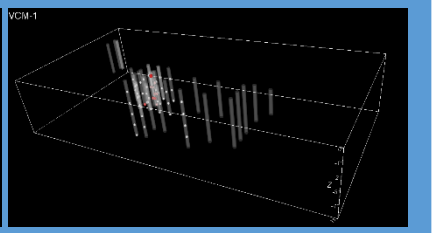
Flow

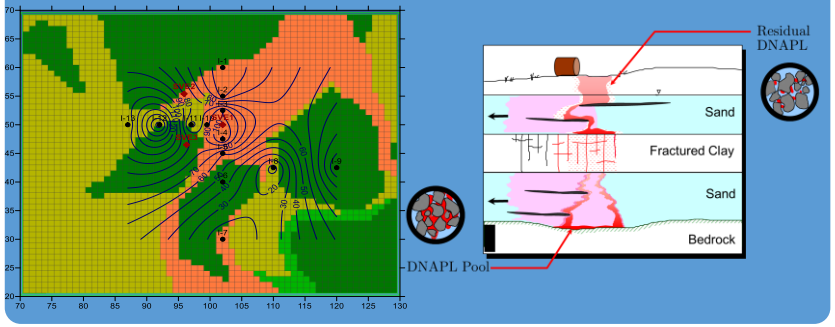
$$\phi_{air}\frac{\partial \rho_{air}}{\partial t} = \vec{\nabla}\cdot\left[\frac{k_{air}\cdot\rho_{air}}{\mu_{air}}\nabla p\right]$$

Transport

$$\frac{d}{dt}\int_{V_n} M^{\kappa}\,dV_n = \int_{\Gamma_n} \mathbf{F}^{\kappa}\bullet\mathbf{n}\,d\Gamma_n + \int_{V_n} q^{\kappa}dV_n$$







Dr. Pumis Thuptimdang

Department of Chemistry

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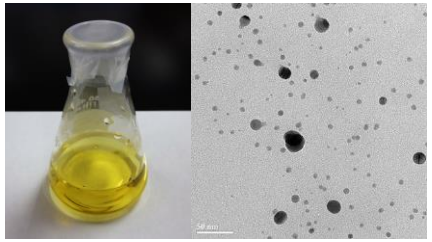
Toxicity and Bioremediation of Hazardous Pollutants in Wastewater

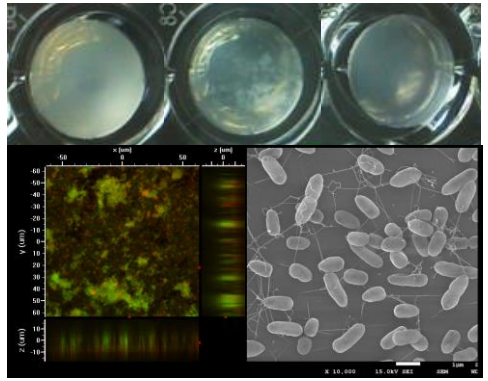
Antimicrobial Toxicity

Effect of nanoparticles on biofilms

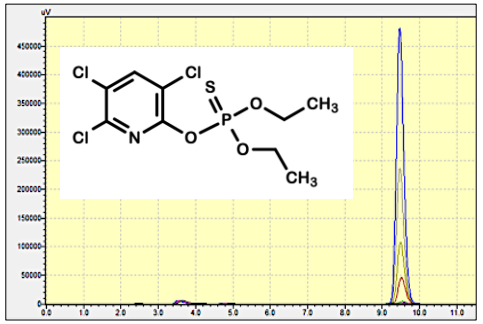
Nanoparticle characterization



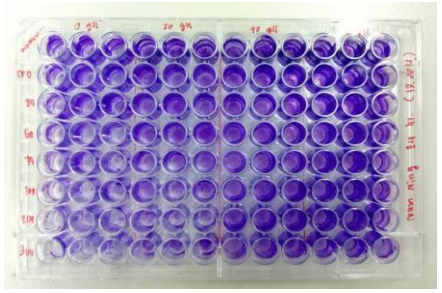
Toxicity to:
- Biomass
- Structure
- Formation



Effect of pesticides on biofilms under stress



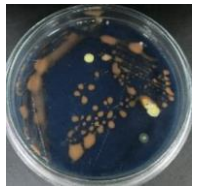
Toxicity to:
- Biomass
- Structure
- Formation



Bioremediation

Biodegradation of textile dyes

Bacterial Isolation



Decolorization

Entrapped cell technique

Biodegradation of pesticides

Bacterial isolation
from contaminated sites

Biodegradation of drugs

Utilization of sludge from wastewater treatment plant for biodegradation

Treatment by Moving Bed Biofilm Reactor (MBBR)

Thank You


ESRC ศูนย์วิจัยวิทยาศาสตร์สิ่งแวดล้อม
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