

SEATUC2024 Workshop 2: 13:15 - 14:45, Feb. 27, 2024 at Adegawa Theater

Microplastics in natural waters: in-situ measurement and effects on microorganisms

Objectives:

The universities in mid-town of Tokyo are required on contributions to preservation of water resources because there are a lot of canal and Tokyo city is faced with Tokyo bay. Additionally, microplastics spread in natural waters like river or sea becomes global significant problem. A lot of SIT laboratories research analysis methodologies and monitoring system. In the workshop, the plan or the results are presented.

Program:

13:15:WS2-0: Opening talk: *Yoshikazu Koike*(*Shibaura Institute of Technology*)

13:20: WS2-1:

(Invited) Baseline correction and carbonyl index (CI) calculations of microplastics,
Zijiang Yang(*Tokyo University of Marine Science and Technology*)

13:45: WS2-2:

Laser speckles in conjunction with deep learning algorithms in the discrimination of microplastics
and their use in brine shrimps mobility,
Uma Maheswari Rajagopalan (*SIT*)

13:55: WS2-3:

Surface plasmon biosensor for drug monitoring in liquid phase,
Koji Toma (*SIT*)

14:05: WS2-4:

The relationship between frequency and particle size in the capture of microplastic particles,
Hironori Seki (*SIT*)

14:15: WS2-5:

A microfluidic device for fluorescent-based marine microplastic separation,
Natsuo Hasegawa

14:25 : WS2-6:

Fabrication of optical waveguides with microfluidic channels for analysis of microplastics by Raman
spectroscopy,
Toru Imamura

14:35: WS2-7:

Study on concentration method of ocean microplastic for in-situ observation,
Takumi Ishiyama