**Evolution of Studies on Underwater Technology**

**Actual Benefit, Creation and Discovery, Exploration of Future**

- Rheem Lab. - Ocean Environmental Engineering
- Kawaguchi K. Lab.
- Kitazawa Lab. - Marine Ecosystem Engineering

**Multidisciplinary Seafloor Observatory Engineering**

- Maruyama Lab. - Ocean Renewable Energy
- Maki Lab. - Underwater Platform Systems
- Hasegawa Lab. - Interfacial Transport Engineering

**Seafloor mapping**

- Yokota Lab. - Underwater Information System
- Fukuba Lab. - Multi-modal Ocean Sensing Systems
- Thornton Lab. - Underwater Photonics

**Chemistry**

- Okabe Y. Lab. - Structural Health Diagnostics

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**Estimation of Scalar Field through Integration of Measurement Data into Computational Fluid Dynamics**

- Measurement signal obtained by AUV
- Scalar field estimated by flow simulation

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**Optical fiber ultrasonic sensor for structural health monitoring**

- Ultrasonic damage detection in composite structures