

**Newsflash**

# The ocean is losing its breath: First International Global Ocean Oxygen (GO2NE) Summer School in Xiamen, China

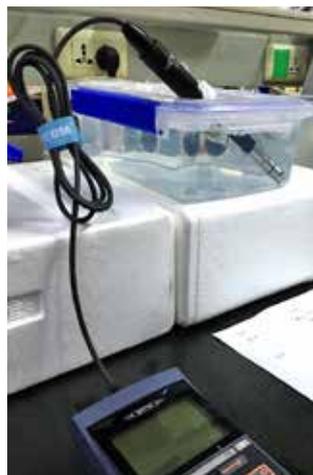
With burning of fossil fuels, causing rising temperatures, and higher populations close to the coasts, the stress on the marine environment increases. One way that this is manifested is by lower oxygen concentrations in the open ocean and coastal areas.

During the first international [IOC-UNESCO](#) GO2NE Summer School, from September 2<sup>nd</sup> - 8<sup>th</sup> 2019, in Xiamen (China), students and researchers from 25 countries gathered at the new Xiang'an campus of Xiamen University, hosted by Professor Minhan Dai, Director of the [State Key Laboratory of Marine Environmental Sciences](#). Focus was to give the students a deeper understanding of marine oxygen variability at a variety of spatio-temporal scales and its consequences as well as on the methods to measure, analyze and predict oxygen concentration in the ocean, but also on how to communicate scientific findings to scientists and stakeholders. The week included 2 days of hands-on training including respiration experiments, field measurements, water sampling, laboratory analyzing and modeling.

Instrumentation from Xylem was used both during a one day expedition at sea with the new Xiamen University research vessel Tan Kah Kee: [Aanderaa SeaguardII](#) with [Oxygen Optode](#), [YSI EXO2](#) with [Oxygen Optode](#) and [CastAway](#) and in the laboratory work [WTW oxygen lab systems](#).



CastAway selfie  
(Picture by Norma Lidia Oliva Mendez)



WTW equipment used  
for fish respiration  
experiments



SeaGuardII with Oxygen,  
Salinity, Temperature, Depth  
and Current sensors used for  
water column profiling from  
ships cabled CTD system

### About Eutrophication and Low Oxygen

Input of organic material and nutrients to the coastal environment is often caused by insufficiently treated sewage water and run-off from agriculture. When nutrient levels increase more algae can grow in the water, which sink to the bottom of the sea. This leads to a higher oxygen demand as the organic material is being respired. The consequence: Lower oxygen levels increase the stress on fish and other animals and change the chemical conditions.