Abstract:

This talk presents molecular sensing technologies being developed for real-time marine environmental monitoring. Molecular and biochemical analyses are used to detect biomarkers associated with ecosystem health and hazardous microorganisms, as well as for the direct measurement of organic contaminants. These analytical approaches are coupled with portable biosensors and analyzers to enable real-time measurements, with a view toward integration into automated in situ monitoring systems. The talk will focus on platforms emerging from the European projects TechOceanS and AquaBioSens and will outline new proposal ideas being developed at SDU that build on optical and nanotechnology-based approaches.