

H13N-1184 Openly Published Environmental Sensing (OPeNS) | Advancing Open Environmental Instrumentation



Monday, 9 December 2024



13:40 - 17:30



Hall B-C (Poster Hall) (Convention Center)

Abstract

Questions that we ask, things that we observe - are shaped by our instrumentation. What we make, makes us.

Scientific instrumentation ought to be driven by the questions we want to ask, not by what we know how to measure. Sharable digital files can readily become physical objects (through 3D printing); low-cost sensor technologies are becoming relatively more accurate and less expensive; wireless communication is ubiquitous and capable; and there is a growing community of researchers who seek to apply these capacities to advance scientific observations. Barriers persist which have largely obviated the adoption of these transformative technologies including: learning curves, assembly and management of interdisciplinary teams, and access to the required equipment. The OPeNS Lab (founded 2016) is a USDA and NSF initiative where engineering students help researchers expand instrumentation. We present ongoing projects, learned insights, best practices, and mechanisms for getting involved in this research.

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