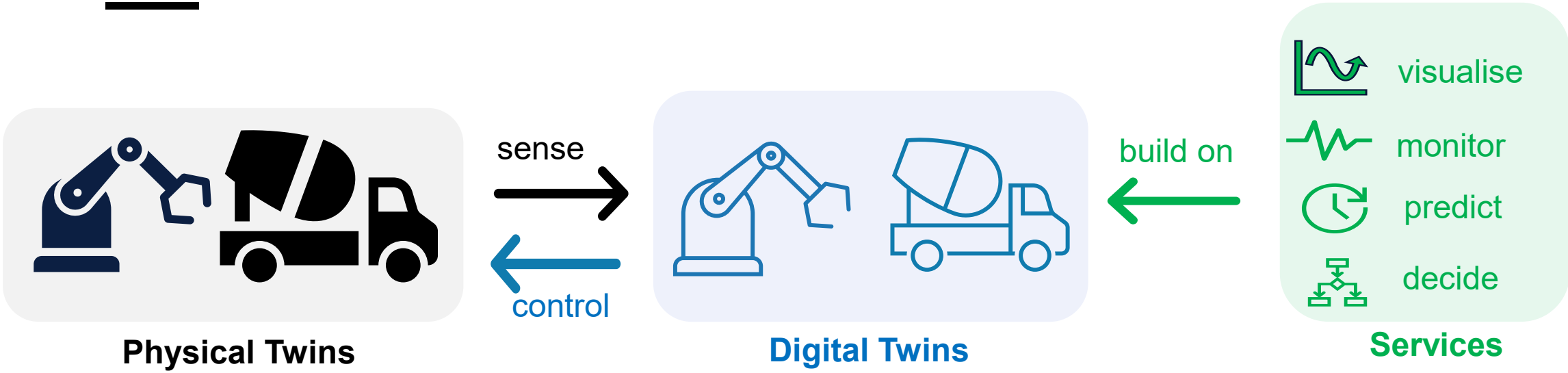
DTaaS

Digital Twin as a Service Software Platform

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What is a Digital Twin?

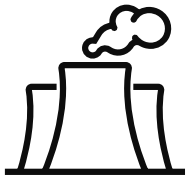


- ✓ Digital representation of a real-world entity which we call the physical twin.
- ✓ Connected in real-time with physical twin.
- ✓ Offers its stakeholders a range of services

What are the Application Domains?



Water Systems



Air Pollution



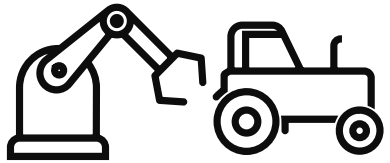
Cities



Lifestyle Interventions



Oceans



Industry 5.0



Transportation



Personalized Medicine

Digital Twin as a Service

What is DTaaS ?

It is a platform to:

Create, Use, and Share Digital Twins

Support Digital Twins from Many Engineering Domains

Provides private workspaces

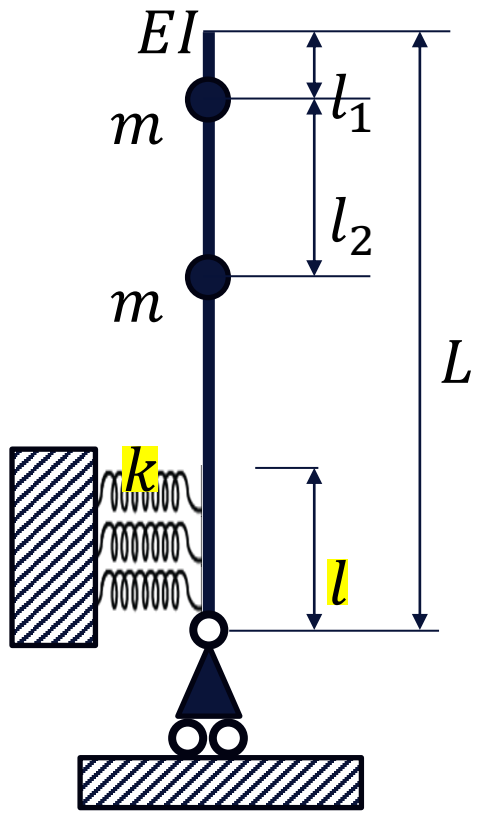
Run Digital Twins as Services

Scalable execution of Digital Twins

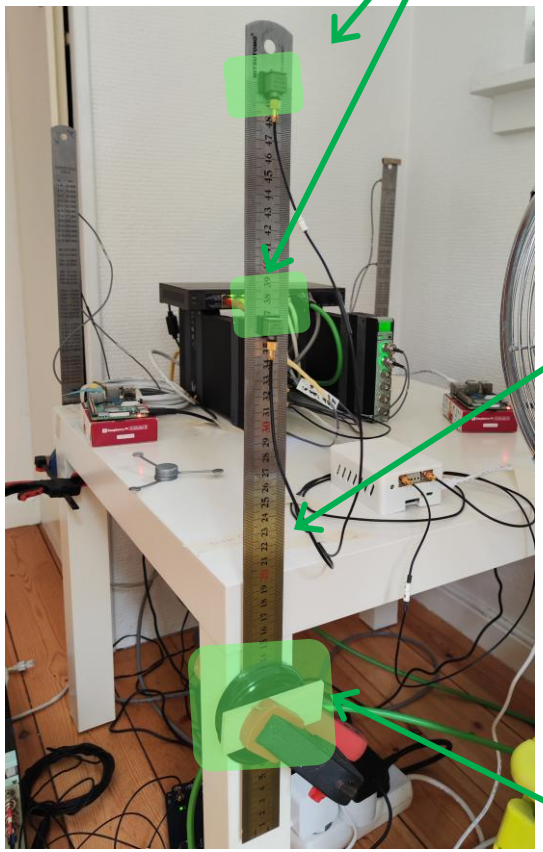
Use Case: Structural Health Monitoring of Wind Turbines (Lab Demonstration)



Actual Turbine in North Sea

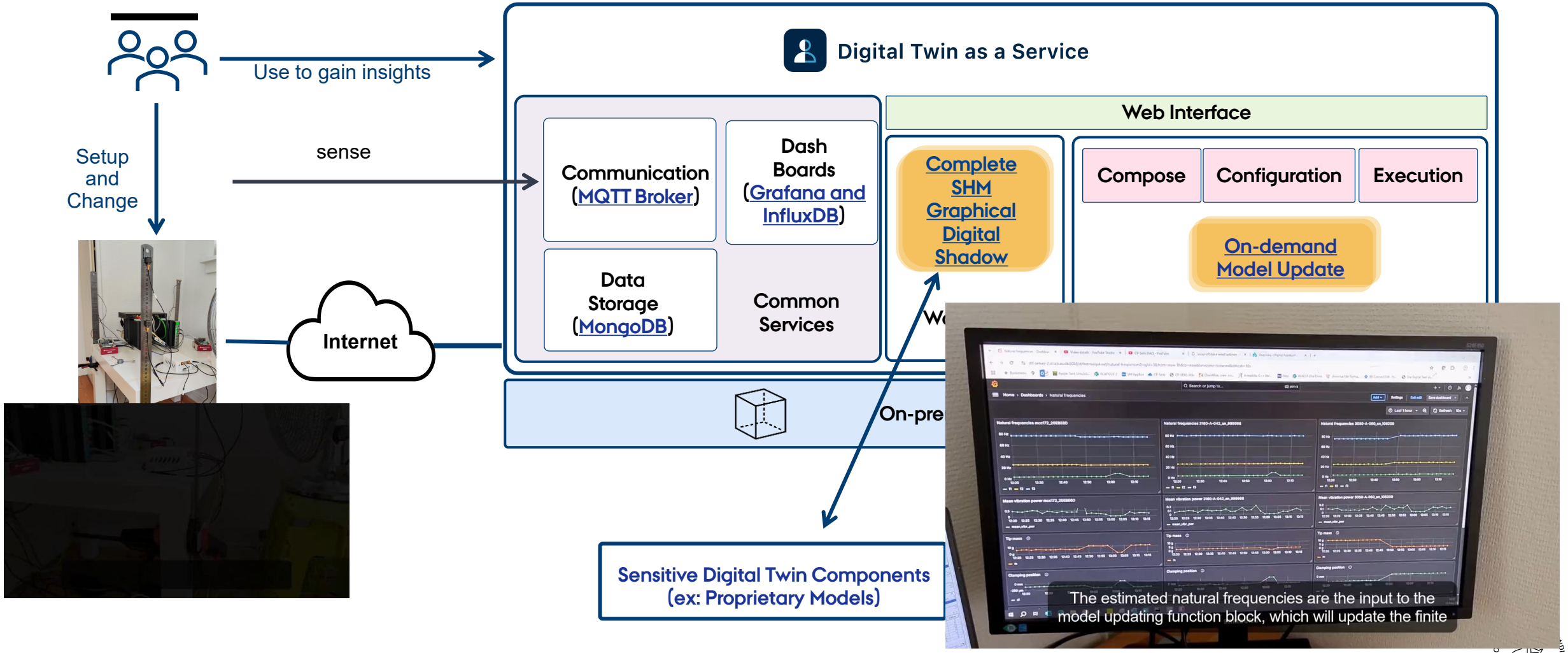


Mathematical Model



Lab Setup

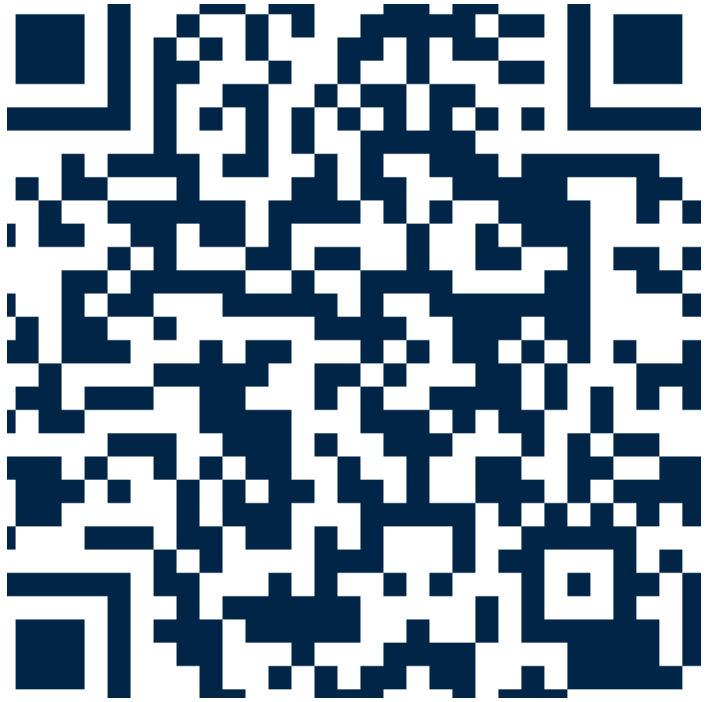
Use of DTaaS in Demonstration for Demonstrating SHM Digital Shadow



HOW TO GET IT?

Use existing installation:

prasad.talasila@ece.au.dk



Documentation home

into-cps-association.github.io/DTaaS/

Try it

`pip install dtaas` → `dtaas deployment generate --type localhost` single-user, HTTP, about 10 minutes. Platform services (InfluxDB, Grafana, RabbitMQ, MQTT, MongoDB, PostgreSQL, ThingsBoard): `pip install dtaas-services`

Docs: Admin → Installation → DTaaS CLI and Platform Services CLI

See it

v1.0 feature walkthrough (26 April 2026), plus the localhost and secure-server installation walkthroughs. Docs → Media Playlist

Read it

Talasila et al., “Composable digital twins on Digital Twin as a Service platform”, Simulation 101(3), 2025. doi.org/10.1177/00375497241298653