Optimizing biogas production with an integrated distributed edge computing and artificial intelligence system

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Introduction

Problem:

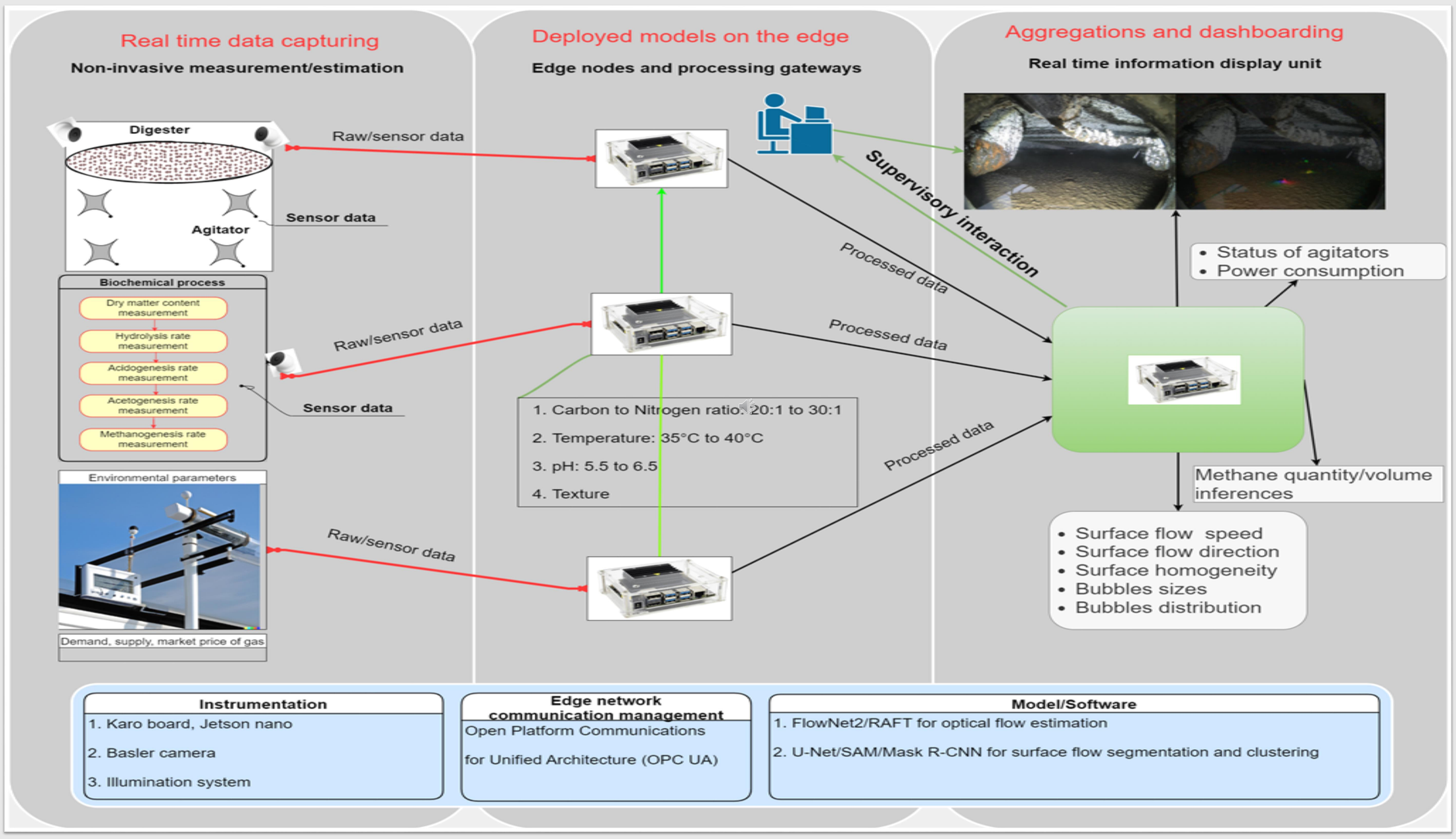
- High cost of achieving homogeneous mixing
- Manual observation of digester surface flow
- Lack of real time process understanding

Approach:

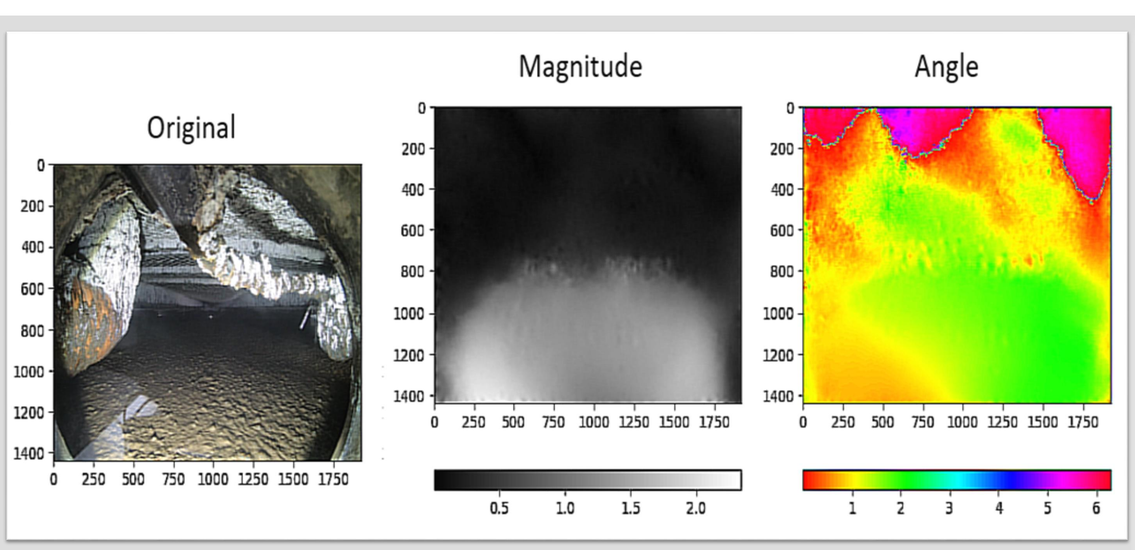
- Develop edge computed AI visioning for optimizing biogas production
- Energy autarchic operation of edge computing framework
- Demonstration of the developed concept at a biogas plant

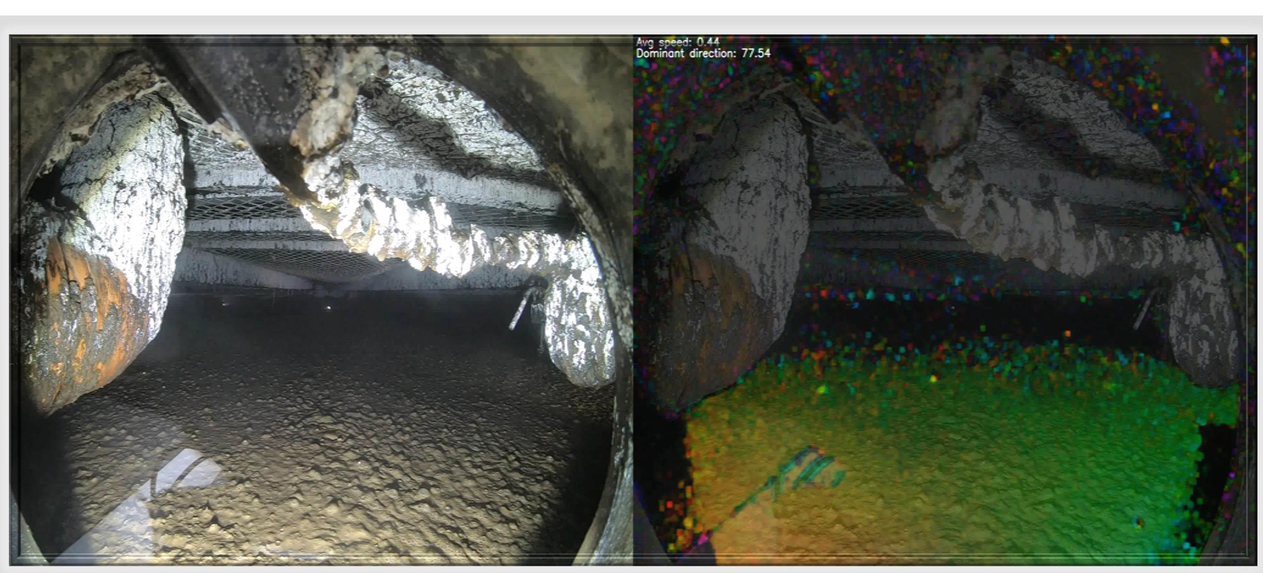
Experimental setup and measurement technique

Surface flow tracking and inference on edge computing framework



First results of digester surface flow tracking





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Funded by:
FKZ 16ME0573