Control Co-Design Optimization of Floating Offshore Wind Turbines: OpenTurbineCoDe (A DOE ARPA-E ATLANTIS project by Bilgen, Martins, Ning, Burlion, et al.)

OpenTurbineCode Graphical User Interface (GUI) and Caller Functions (Modular Python and Matlab Wrappers)

- **Geometry Module**
  - High (3D)
  - Medium (2D Shell)
  - Low (Beam)

- **Structures Module**
  - High (3D FEM)
  - Medium (2D Shell & 1D)
  - Low (Beam)

- **Aerodynamics Module**
  - High (3D RANS)
  - Medium (ALM)
  - Low (BEM)

- **Aerostructural Module**
  - High (3D RANS)
  - Mixed-Fidelity (RANS/BEM + Beam)
  - Low (BEM+Beam)

- **Control Co-Design Module**
  - Advanced Robust H∞ Controllers with Reference Governors
  - ROSCO
  - Legacy

PRESENTATIONS on YouTube: www.obilgen.com (or use QR Code)

CODE REPOS on GitHub: https://github.com/OpenTurbineCoDe (to be Public in Spring 2023)