Florida International University
Department of Civil and Environmental Engineering
CGN5930: Unsteady Flows in Rivers and Pipe Networks,
Term Project, Spring 2019
Instructor: Arturo S. Leon

The topic of the term project will be selected by the student group (at most two students per group). Some examples of past projects are:

1. An in-depth analysis of river flooding using the unsteady HEC-RAS model (1D or 2D) for the Baxter River.
2. Evaluate the effect of hydraulic structures on river flooding (e.g., effect of bridges or culverts on flooding).
3. Use the CEE Laboratory of Mechanic of Fluids to perform experimental tests and compare simulation and experimental results of laboratory-generated bores (unsteady hydraulic jumps).

For the numerical simulations, at the least, the project should include mesh convergence in space and time. The document you produce should have the standard of a professional report and should have an in-depth analysis showing the competence of the student to perform river flow or pipe network analysis.

Due date: The due date of the semester project will be April 17, 2019, in class. On this day, the students will make a presentation of their project.