

Integrated Structural Analysis and Design for Concrete Buildings Modeled in Autodesk® Revit® Structure

Florian Aalami – ADAPT Corporation

SE3106

Intended for structural engineers, this class covers an integrated process for the rapid analysis of complete concrete buildings and the detailed design of concrete floor and foundation systems modeled in Autodesk Revit Structure software. We will demonstrate a workflow through a step-by-step process of extracting concrete building information from a Revit model, creating a 3D finite element model of the building, and generating structural analysis results—all within minutes and without having to first fine-tune an analytical model. Analysis results include member forces, floor system deflections, building modal vibration responses, and load takedowns. This process saves time and gives engineers an easy method for quickly checking the structural response of concrete models. The class will also cover options that are available to carry out detailed design of the concrete floor and foundation systems of any building. We will use the latest concrete building design software from ADAPT and Revit Structure in this class.

Learning Objectives

At the end of this class, you will be able to:

- List best practices for the rapid analysis of concrete building models created in Revit Structure
- Integrate ADAPT software with Revit Structure and generate analysis results
- Design concrete buildings in Revit Structure more effectively by getting early structural analysis feedback
- Describe options for integrated design of concrete floor and foundation systems for your Revit Structure models

About the Speaker

Florian Aalami is President of ADAPT Corporation, a leading developer of software for the design of concrete floor and foundation systems. He specializes in the development of software and best practices for the efficient modeling, analysis, design and documentation of concrete structures. He also spearheads the integration efforts between Revit Structure, Robot Structural Analysis and the ADAPT suite of software. Florian earned his B.S. degree in Structural Engineering from UC Berkeley and M.S. and PhD. degrees from Stanford University.
florian@adaptsoft.com