Cellular Towers in the Urban Environment
Statement of the Problem

• Problem
  • Urban environments require more cellular towers due to high population density.
  • Traditional tower designs do not meet space constraints and aesthetic standards that are present in an urban setting.

• Solution
  • Design an innovative cell tower using IIT as the urban setting
Goals of the Project

• Develop a Cellular Tower for the Urban Environment
  • Monopole Structure
  • Aesthetically Pleasing
  • Promote Sustainability
• Prepare a proposal specific for the IIT Campus
Organization of the Team

**Design Team Tasks**
- Apply Design Criteria
- Prepare Design Specs
- Build Physical Model

**Technology Team Tasks**
- Research Cell Technology
- Gain Design Criteria
- Prepare Tower Proposal

**Combined Tasks**
- Decide on Designs
- Prepare Deliverables
- Collaboration when needed
Stakeholders
IPRO 344

Progress Towards Goals

- Researched existing tower designs and sustainability practices
- Obtained information from sponsor
- Prepared surveys
- Analyzed possible sites
- Investigated zoning requirements
- Established design criteria
Major Challenges

• Zoning approval and possible variances
  • Solution: Making sure that we follow all the steps properly for a variance and that all the proper people are contacted in a timely manner
• Approval from IIT officials
• Approval of Design from sponsor
  • Solution: Develop a set of alternative schemes to show that the tower design is flexible and can be tailored to suit campus needs and wants, as well as the Sponsor’s visions.
How You Can Help Us!

• Distributing survey to the IIT campus

• Identifying critical stakeholders
  • IIT
  • Surrounding community
Questions?