METEC STUDENT:
Likhitha Chandra, MS Computer Science

PROJECT:
Methane Emission Estimation Tool (MEET) for the prediction of methane emissions with fine-scale temporal and spatial resolution.

With the rapid increase in natural gas production, there is an increase in natural gas that is released into the atmosphere through leaks. Methane is one of the main elements of natural gas. Even though it is non-toxic, it is highly flammable and also a greenhouse gas with high heat-trapping capacity. Existing methods for calculating methane emission are either suitable for the long-term duration or shorter time periods with higher spatial resolutions. MEET is designed to model time scales varying from seconds to years, resolved to the spatial resolution of individual facilities or major equipment units. The results can be used to estimate the benefits and costs of various Leak Detection and Repair methods. MEET is also used to detect activity distributions and extremely skewed distributions.