

Green roof artificial neural network (ANN)

Step 1 - Database creation

Parametric analysis



Hourly simulations throughout the year

252 different green roofs



Step 2 - ANN training and optimization

ANN design

Number of neurons

Number of hidden layers

Training database: 180 different green roofs

Inputs and outputs



Step 3 - ANN validation

ANN accuracy

ANN validation



Validation database: 72 different green roofs



The Heat Island Group's Green Roofs

United States

A series of research-based green roof designs that reduce the urban heat island effect and improve energy efficiency in buildings.

Affordable and Clean

Sustainable Cities and Communities

Climate Action

7 AFFORDABLE AND CLEAN ENERGY



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION

