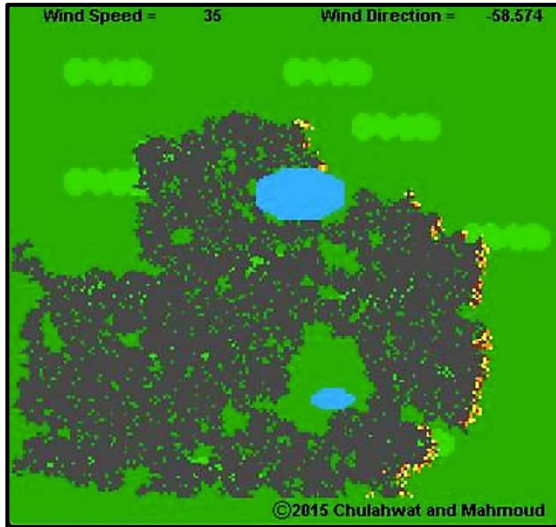


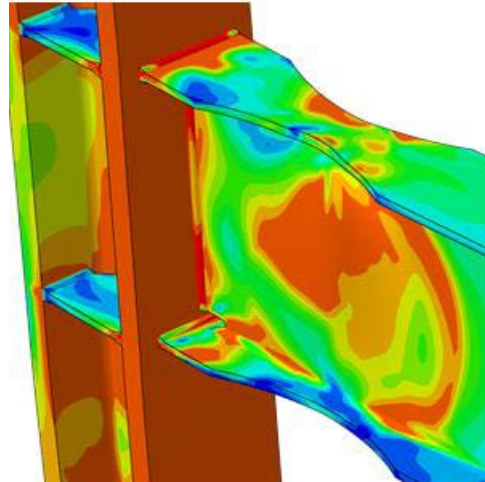
# Hazard Quantification, Response, and Mitigation

by: Hussam Mahmoud

## Quantification



## Response



## Mitigation

$$E[C(t, X)] = C_0(X) + E \left[ \sum_{i=1}^{N(t)} \sum_{j=1}^k C_j e^{-\lambda t_i} P_{ij}(t_i, X) \right] + \int_0^t C_m(X) e^{-\lambda t} d\tau$$

- Research is focused on hazard quantification, assessment, and mitigation
- Linking the fields of bioengineering, biology, & structural engineering for providing resilient infrastructure systems and communities

## Nature-Based Optimization

