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Evolutionary Learning based Sustainable Strain Sensing Model for Structural Health Monitoring of High-rise Buildings

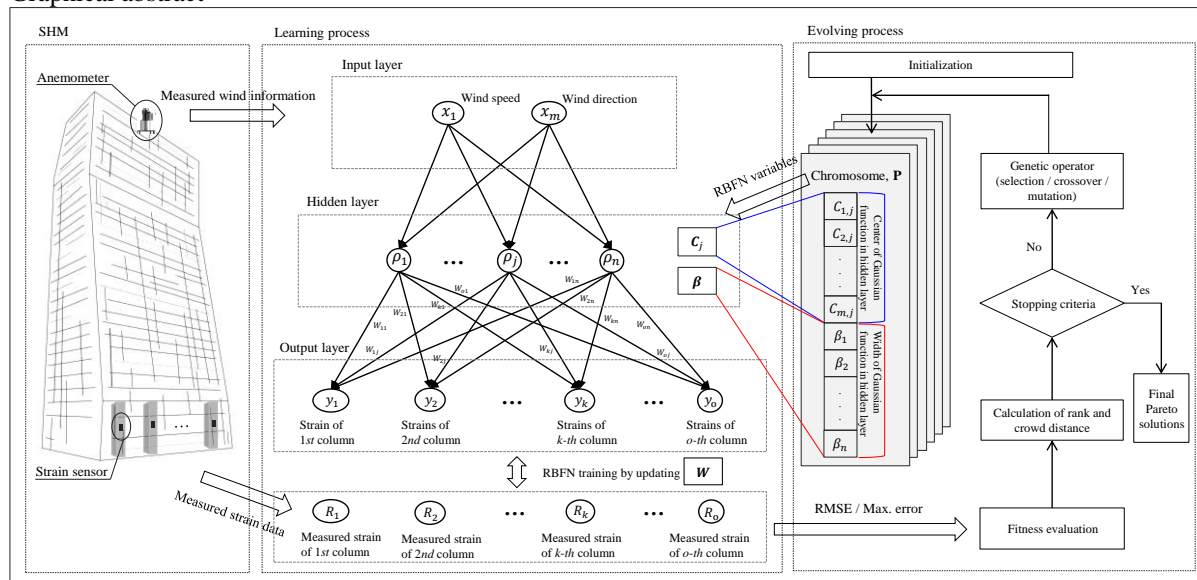
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Graphical abstract



Highlights

- Sustainable strain-sensing model is proposed for long-term monitoring of wind-induced responses of high-rise buildings.
- Evolutionary radial basis function neural network (ERBFN) is developed as a new ANN model.
- A wind tunnel test was performed to produce wind data and strains in column members in a high-rise building model.
- The proposed model can build a relationship between the wind data and wind-induced responses of high-rise buildings.

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