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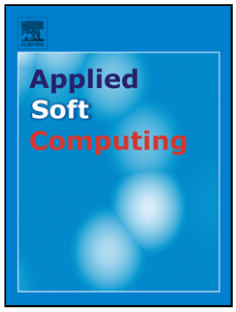

Title: Evolutionary Learning based Sustainable Strain Sensing Model for Structural Health Monitoring of High-rise Buildings

Authors: Byung Kwan Oh, Kyu Jin Kim, Yousok Kim, Hyo Seon Park, Hojjat Adeli

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

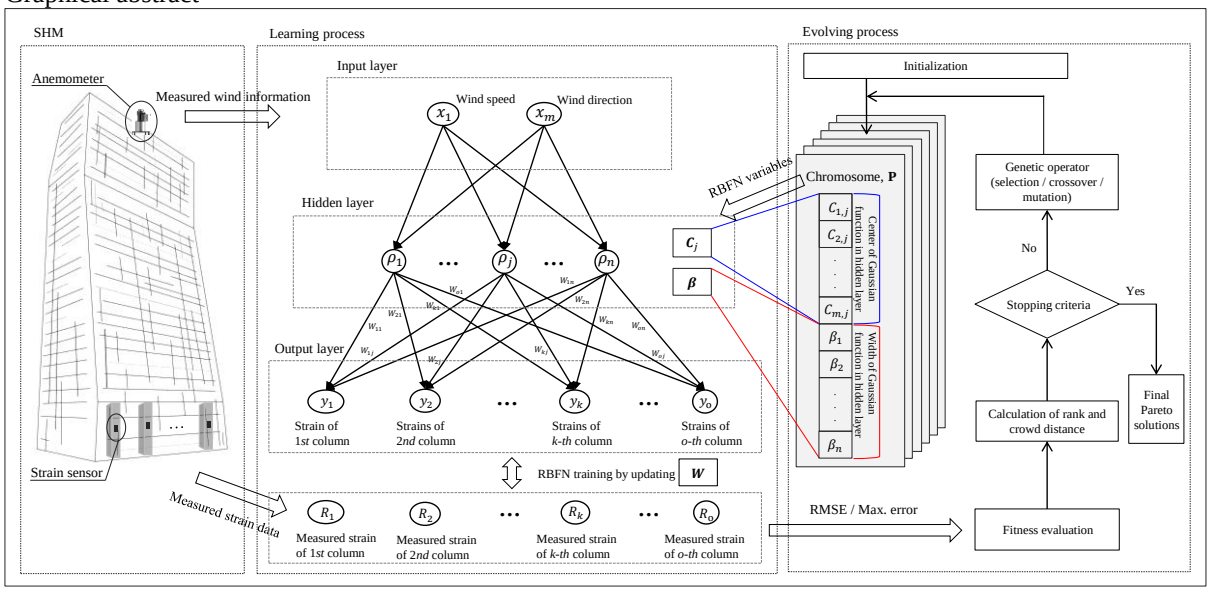
Byung Kwan Oh, Kyu Jin Kim, Yousok Kim, Hyo Seon Park, and Hojjat Adeli

B. K. Oh, K. J. Kim and Y. Kim are with the Department of Architectural Engineering, Yonsei University, Seoul, Korea (e-mail: aeioobk@yonsei.ac.kr, archermes@naver.com, yskim1220@yonsei.ac.kr).

H. S. Park is with the Department of Architectural Engineering, Yonsei University, Seoul, Korea (corresponding author; phone: 82-2-2123-2794; fax: 82-2-365-4668; e-mail: hspark@yonsei.ac.kr).

H. Adeli is with the Department of Civil and Environmental Engineering, electrical and Computer Engineering, Biomedical Informatics, Neuroscience, and Neurology, The Ohio State University, Columbus, OH 43210, USA (e-mail: adeli.1@osu.edu).

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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