

Title (en)
ACTIVE FEEDBACK CONTROL SYSTEM FOR TRANSIENT NARROW-BAND DISTURBANCE REJECTION OVER A WIDE SPECTRAL RANGE

Title (de)
AKTIVEN RÜCKKOPPLUNGSKONTROLLEANORDNUNG ZUR SCHMALBANDSTÖRUNGSUNTERDRÜCKUNG IN EINEM BREITEN
SPEKTRALBEREICH

Title (fr)
SYSTEME ACTIF DE COMMANDE DE RETROACTION POUR REJET DES PERTURBATIONS A BANDE ETROITE TRANSITOIRE SUR UNE
LARGE PLAGE SPECTRALE

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Application
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Abstract (en)
[origin: WO9746176A1] A control system provides active attenuation of excitations to a region or structure (1). A feedback sensor (14) generates a signal in response to excitations of the region (1) which is fed to a narrow-band feedback controller (5) having a frequency detector (4), a bandpass filter (6) controlled by the frequency detector (4), and a feedback control generator (8). The frequency detector (4) determines the peak frequency of the excitations. A bandpass filter (6) passes only those signals from the feedback sensor (14) in a narrow frequency band adjustably controlled by the frequency detector (4). The feedback control generator (8) receives the filtered signal from the bandpass filter (6) and produces a control output used by an actuator (13) to attenuate the excitations. Several bandpass filters (6) can be used in parallel to attenuate several frequency bands if the excitation source has a plurality of peaks. This configuration allows the bands to move across the frequency spectrum in response to the excitations.

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