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(54) Method of determining the number of hall passengers waiting for a car of an elevator system

(57) In an elevator system, the number of hall passengers waiting for a car at a stop is determined in accordance with a method comprising the steps of :

in proportion to the appropriate degrees of membership of terms of said traffic mode fuzzy set.

determining a first instantaneous passenger rate in response to a first signal indicating that the car has serviced a stop;
determining a second instantaneous passenger rate in response to a second signal indicating that a hall call button has been pressed;
scaling said first and second rates by dividing said rates by $(i-l)/(F-l)$, where i is the floor number and F is the total number of building floors, in response to said first and second rates being calculated at a down stop and by dividing said rates by $(F-l)/(F-i)$ in response to said first and second rates being calculated at an up stop;
averaging said first and second instantaneous passenger rates into an up-peak, down-peak, or off-peak quantity in proportion to the degrees of membership of terms of a traffic mode fuzzy set having terms indicative of the degree to which the elevator system exhibits up-peak, down-peak and off-peak characteristics; and
estimating the number of hall passengers waiting at particular elevator stop by multiplying the elapsed time since the particular stop was last serviced by said up-peak, down-peak, and off-peak quantities

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EUROPEAN SEARCH REPORT

Application Number
EP 96 20 1984

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	US-A-3 999 631 (IWASAKA TATSUO ET AL) 28 December 1976 * column 6, line 25 - column 7, line 2 * ---	1-3	B66B1/20 B66B1/34
A	EP-A-0 090 642 (TOKYO SHIBAURA ELECTRIC CO) 5 October 1983 * abstract * * claims 1-3 * ---	1,2	
A	EP-A-0 348 152 (OTIS ELEVATOR CO) 27 December 1989 * page 4, line 1-6 * * page 7, line 48 - line 51 * * page 11, line 3 - line 39 * ---	1,2	
A	DE-A-24 59 887 (HITACHI LTD) 20 November 1975 * page 4, line 23 - page 5, line 6 * * claim 1 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B66B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 September 1996	Examiner Salvador, D
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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