(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :03/03/2017

(21) Application No.201741007517 A

(43) Publication Date : 17/05/2019

(54) Title of the invention : FUZZY GAIN SCHEDULING SPEED CONTROLLERS USING V/F METHOD OF INDUCTION MOTOR DRIVE

(51) International classification :G05B13/00
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
From the last fifty years the application of squirrel cage induction motor has increased very much. In particularly last few years the PV powered squirrel cage induction motor utilization is significantly increased in the industrial, agriculture side and domestic applications. The power consumption, performance and efficiency of induction motor can be adjusted by using control circuits. In most of cases the V/F scalar control technique and fuzzy logic control are applied. In this paper four types of V/F based AWP1 controllers and fuzzy based FGS controller are proposed. In this proposed work the settling time and unexpected overshoot problems reduced significantly by adjusting the kp and k; values during online with respect to load fluctuations. The performance and operating characteristics of squirrel cage induction motor with each control circuits has been collected at different operating conditions and compared. The PV system is been used for electric power supply.

No. of Pages : 10 No. of Claims : 8

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