Voltage-source inverter duty cycle

In this paper a novel predictive control strategy with a fixed switching frequency for a voltage source inverter called as modulated model predictive control (M2PC) is proposed, with the aim of obtaining a ...

In this paper, a dual-vector modulated MPC is proposed based on the hypothesis that the duty cycle of each voltage vector is inversely proportional to the square root of its corresponding cost ...

source. A voltage source inverter employing thyristors as switches, some type of forced commutation is required, while the VSIs made up of using GTOs, power transistors, power MOSFETs or IGBTs, self ...

Since steady-state error exists in the output voltage of a proportional-integral (PI) controlled single-phase voltage source inverter (SP-VSI), the bandwidth of

This example introduces the working principles of a three-phase voltage source inverter and presents a simple technique to generate alternating currents in an open-loop manner, using the ...

This article proposes a duty cycle allocation method to make FL-VSI use the dc bus voltage more efficiently. In this method, the motor with a smaller common leg duty cycle requirement is set as the ...

Flowchart of the pro-posed MPVC with duty cycle optimization for obtaining the optimal output voltage vector and their optimal durations is illustrated in Figure 4.

The duty cycle of an inverter is the fraction of time that the output voltage is at its peak value. It is an important parameter in the control of inverters, as it affects the output voltage and ...

In this article, the unification between the duty cycles in time-domain and the duty cycles in frequency-domain is proposed to modulate the three-level NPC PWM inverter, as whereby it is ...

This paper presents an overview of contemporary voltage source inverter control system design. Design begins

with the theoretical considerations that lead to the creation of the system"s differential control ...

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