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(54) **Title:** METHOD AND SYSTEM FOR CONTROLLING AN ELECTRIC MOTOR IN A HYBRID VEHICLE

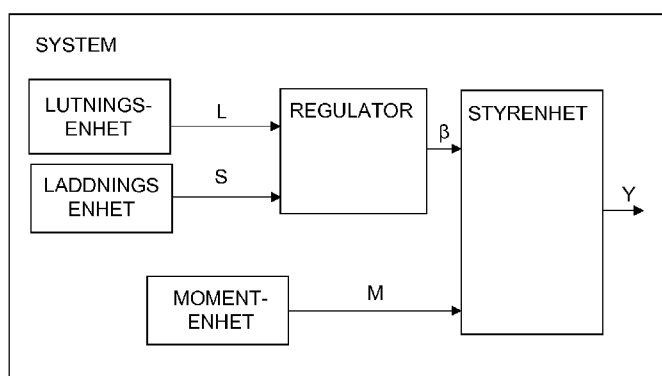


FIG. 4

(57) **Abstract:** The invention comprises a system and a method for controlling an electrical machine in a hybrid vehicle in which the power train comprises a combustion engine and a battery which is connected to said electrical machine, which system comprises: a gradient unit for determining the road gradient alpha; when the vehicle is in motion and for generating a gradient signal (L) on that basis, - a charge unit for determining the battery's state of charge (SOC) and generating a SOC signal (S) on that basis; a regulator adapted to using the gradient signal (L) and the SOC signal (S) as input signals for calculating a weighting factor and generating a weighting signal (beta) on that basis, - a torque unit adapted to determining a torque desired by the driver and to generating a torque signal (M) on that basis; a control unit adapted to calculating for the electrical machine a control signal (Y) based on the weighting signal (beta) and the torque signal (M), whereupon the electrical machine is controlled according to the control signal (Y).



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