Title (en)
SYSTEM AND METHOD FOR CONTROLLING MODEL AIRCRAFT

Title (de)
SYSTEM UND VERFAHREN ZUR STEUERUNG EINES MODELLFLUGZEUGS

Title (fr)
SYSTEME ET PROCEDE DE CONTROLE D'UN AERONEF

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Application
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Abstract (en)
[origin: WO2004108524A2] In one embodiment, a method for controlling an aircraft (10) comprises providing an attitude error (214) as a first input into a neural controller (202) and an attitude rate (216) as a second input into the neural controller (202). The attitude error (214) is calculated from a commanded attitude (218) and a current measured attitude (220), and the attitude rate (216) is derived from the current measured attitude (220). The method also comprises processing the first input (214) and the second input (216) to generate a commanded servo actuator rate (222) as an output of the neural controller (202). The method further comprises generating a commanded actuator position (226) from the commanded servo actuator rate (222) and a current servo position (224), and inputting the commanded actuator position (226) to a servo motor (204) configured to drive an attitude actuator (206) to the commanded actuator position (226). The neural controller (202) is developed from a neural network, wherein the neural network is designed without using conventional control laws, and the neural network is trained to eliminate the attitude error (214).

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