



Flight Parameter Prediction Using Neural Networks

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Summary

The University of North Dakota has patented a method for alerting aviators of potentially dangerous situations. The method includes training an artificial neural network with a flight information database. Training the neural network consists of comparing a predictive value from the neural network to a measured value of a flight parameter and modifying structural components of the neural network to bring the predictive value closer to the measured value. The trained neural network can then be used to detect and warn of anomalous conditions.



Advantages

- Increases aviation safety by providing “early-warnings” to pilots, aircraft technicians, and aircraft maintenance staff
- Resources National General Aviation Flight Information Database (NGAFID) developed at the University of North Dakota
- Suitable for both piloted and unmanned aerial vehicle applications
- Works with existing aircraft sensors

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