
Dynamic Models for Electrical Power Systems On-board Aircraft

Georgios Alexandros Amarantidis
Prof. Roger Dixon, Dr. Peter Hubbard
Loughborough University

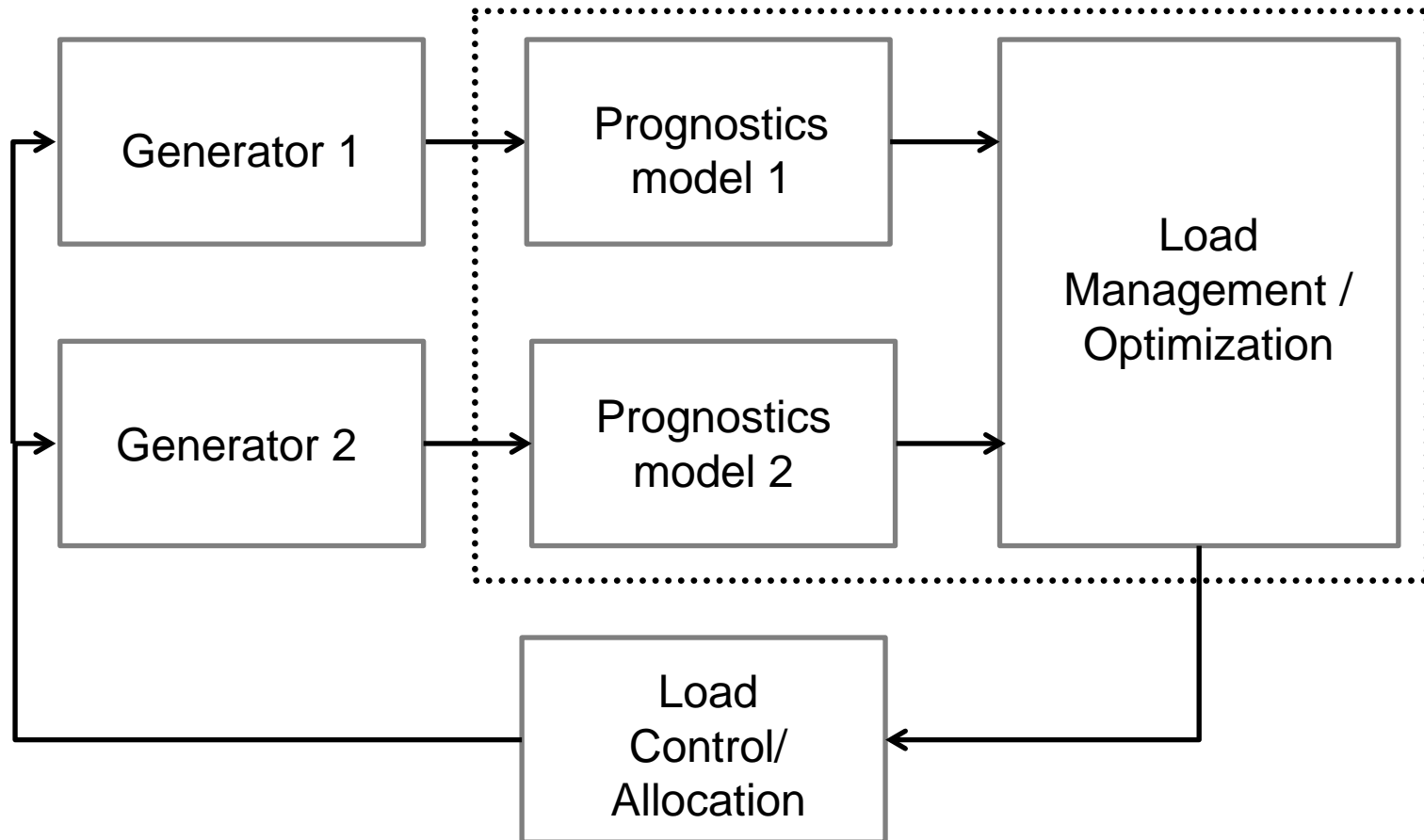


Introduction

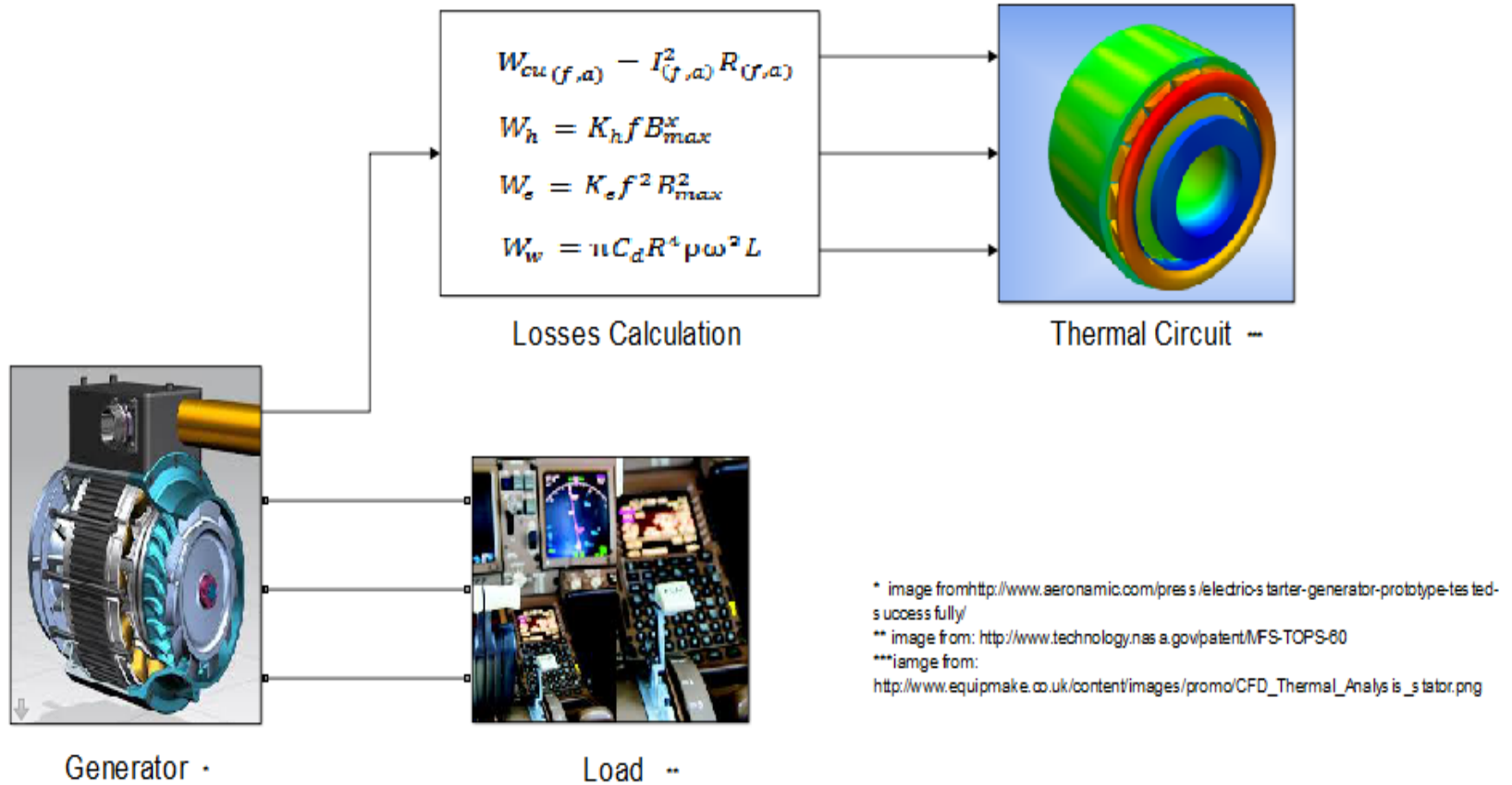
Aim: to develop intelligent models for aircraft generators that can be applied across a range of systems used within BAE systems. Potential uses can include fault detection and improved load management capabilities.



System Overview



Thermo-electrical model



Testing, Evaluation and Validation

- **Two simulation models are used, the first one has a fault injected while the second one is unaffected.**
- **Kalman filters will be used to make predictions regarding the future state of the system.**
- **The faulty generator will to be replaced by the generator rig and the results will be compared.**

