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**Project Title:** Remotely Sensed Attribution of Active Wildfires Using Simulated Landscapes

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Information about active fire extent and intensity can assist in the prioritisation of resources for fire control, along with providing insight about the environmental impacts of wildfire. Current algorithms for the attribution of fire characteristics such as fire area, intensity and fire radiative power have limited verification with *in-situ* information. Providing land managers with an objective level of certainty for each of the current remote sensing algorithms aids in informing the use of particular sensors for active fire attribution.

Work is underway on the use of landscape simulation model to provide imaging sensors with synthetic temperature information similar to an active fire in the environment. This will provide the ability to test the attribution of modelled fires over a wide range of sensors without the impediment of factors such as sensor availability and non-coincident viewing of target heat sources. This model will also provide verification of existing weaknesses in the methods used to attribute fire, such as the effects of variable background temperatures and water vapour.

An additional focus of this research will be placed on emerging sensors for fire attribution in the Asia-Pacific, such as the Advanced Himawari Imager. Opportunities to provide fire attribution products with a much higher temporal resolution than current sensors used will assist in more timely detection and attribution of fire events, but the effects of reductions in spatial resolution on attribution accuracy must be evaluated.