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# MEDIA RELEASE

## Sensor trial hopes to empower managers to monitor bushfire risk

Bushfires are one of Australia's greatest challenges and are becoming more frequent and severe due to climate change.

Hazard reduction burns are used to reduce the likelihood and severity of bushfires, but the task of identifying suitable windows of opportunity for prescribed burns is an increasing challenge for fire management agencies due to shifting seasonality or a narrow window of opportunity.

Now scientists are trialling cost-effective sensors which will empower bushfire managers to efficiently monitor the moisture content of bushfire fuel in real time, therefore helping them to better identify prescribed burn opportunities and monitor fire risk.

The *Real Time Fuel Moisture Monitoring Using Low-cost Internet of Things Devices* project is being led by Dr Nicholas Wilson from the Bushfire Centre of Excellence at the Australian National University.

"Fire agencies currently monitor the moisture content of bushfire fuel using direct measurement, which often involves considerable travel time and results in limited location data," Dr Wilson says.

"The ANU's Bushfire Research Centre of Excellence has developed prototype low-cost devices for bushfire smoke detection which have temperature and relative humidity sensors that can estimate the moisture content of bushfire fuel in real time.

"These will be trialled as part of this project to better understand the challenges to their operational deployment, and how they can complement satellite derived fuel moisture monitoring."

Dr Wilson says while there are several solutions to this problem, cost and interpretation are consistent barriers to fire management agencies.

The project is a partnership with Western Sydney University, industry partner Indicium Dynamics, and government partners Forestry Corporation of NSW and ACT Parks & Conservation Service.

The co-investigator on the project is Associate Professor Rachael Nolan, a research scientist from the Hawkesbury Institute for the Environment at Western Sydney University.

The project received a NSW Smart Sensing Network Grand Challenges Fund grant earlier this year.

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**Declaration**

*The NSW Smart Sensing Network, a consortium of nine leading universities across NSW and the ACT, is a not-for-profit innovation network that brings together universities, industry and government to translate world-class research into innovative smart sensing solutions that create value for NSW and beyond.*