
Electromagnetic propagation in mining and regional environments

Supervisor:

Prof. David Davidson

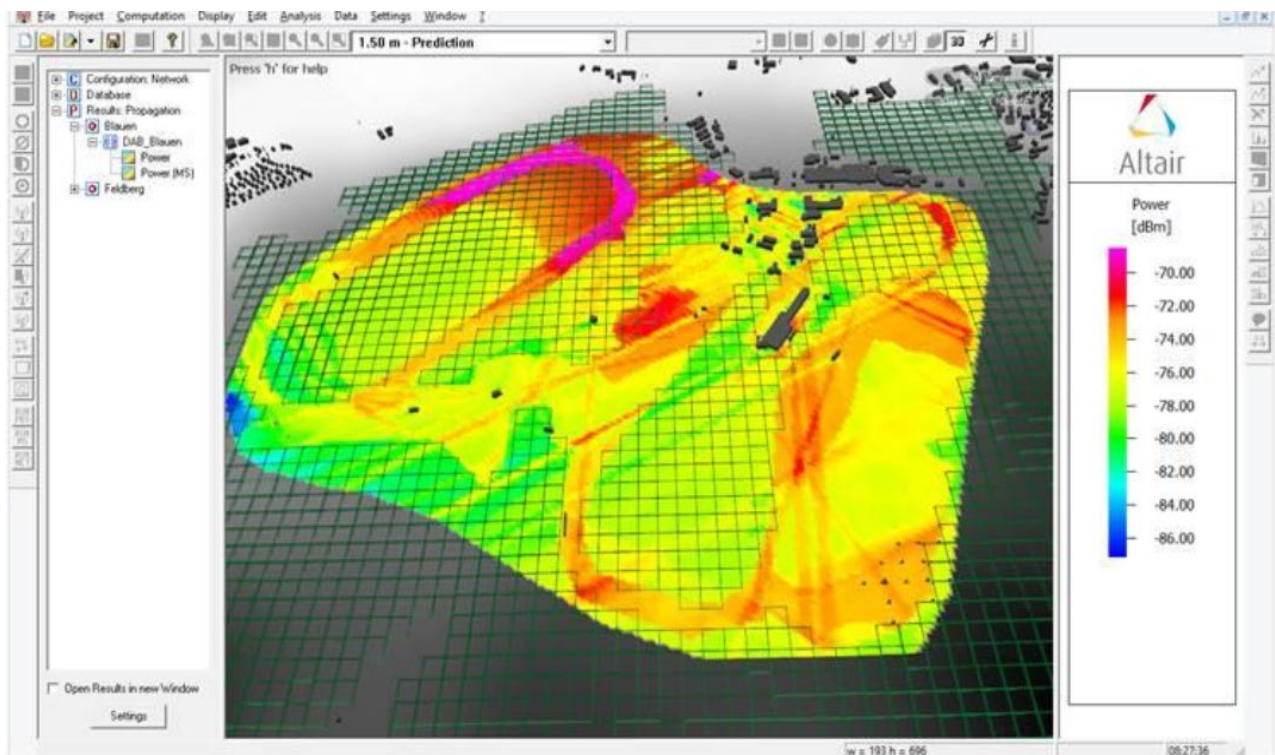
Co-supervisor:

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Description:

Developments in 5G and 6G are pushing the boundaries of conventional methods for predicting electromagnetic propagation. In particular, the widespread adoption in Australia of autonomous and remote-controlled equipment on mine sites has revealed significant issues with the reliability of propagation prediction methods. Propagation prediction is also important for the new generation of very sensitive radio telescopes, such as the Square Kilometre Array, as terrestrial radio frequency interference can propagate over long distances.

The project is best suited to students with a background in electrical/electronic engineering, and an interest in mobile radio/telecommunications. Propagation planning is an important component of communication systems planning and deployment, and the student will master a wide variety of industry-related skills during their degree.



Caption: A propagation planning tool in use. (Credit: Altair Engineering).
