**Transcript**

***Edhem Custovic – The next generation of high frequency radar***

So as part of my PHD work I’ve been working on the design and development of a high frequency radar. The radar is used to study the impact of the sun’s solar winds on our Earth’s upper atmosphere. In severe cases these storms can actually cause total blackout, total power blackouts and can also disrupt communication systems.

So, currently La Trobe University operates two radars of similar type. These radars are obviously technologically limited as they were built about 10 years ago. So with the novel concepts we have developed for the next generation of the radar we’ll be able to better track the phenomena which is occurring in the upper atmosphere. The new radar will have a much better resolution and will also have extended range.

So better understanding what is going on in the upper atmosphere will help scientists and engineers develop technologies which will one day almost become immune to the effects of the solar storms. On the other hand, the radar has been shown to be able to image the state of the oceans around Australia and obviously wherever it’s positioned and in turn can be used as an early warning system for tsunamis.