

# Jonathan Lun wins SingularityU's Southern Africa Global Impact Challenge



16 May 2017

Last week saw Jonathan Lun win the judges' vote at the final pitch event for the 2017 SingularityU (SU) Southern Africa Global Impact Challenge (GIC).

Lun will attend SU's Global Solutions Program (GSP) next month, where he'll join forces with some of the world's greatest minds to create moonshot innovations that will positively impact the future of humanity, and this year climate change in particular.



Lun's background in mechanical engineering and interest in space technology led to him co-found "the first and only dedicated plasma propulsion research facility in South Africa". A couple of years later, he was recognised by the International Astronautical Federation (IAF) as an Emerging Space Leader.

After completing his PhD, he moved to Stellenbosch to take on the role of Denel Spaceteq's senior mechanical engineer, where he helped design earth science and observation satellites for the South African government.

His idea is to use rocket technology or asteroid-metal-fuelled rockets, which consume asteroid metal as fuel, to achieve industrial-scale transport of mined asteroid material, which he believes will alleviate the demand for scarce earth metal

#### resources.

"I was able to demonstrate a small hand-sized propulsion system that could use a simple rod of iron as fuel to produce an efficient jet of thrust, comparable to the performance of more established satellite propulsion systems. There are still many more technical hurdles to overcome, but the basic technology was proven and showed great potential," he told <u>Memeburn</u>, Singularity U Cape Town and Johannesburg Chapters' official media partner.

"Building a propulsion system to move asteroids around in space is a pretty hard, but worthwhile goal. It's going to take the best minds to make it work. SU is the perfect place to share and refine this idea with like-minded people who pursue ambitious and grand efforts to build the future."

Here, a quick-fire Q&A with the winner...

## **Congratulations on the win! How do you feel about it?**

Pretty amazing. The world suddenly feels full of possibility.

### **## What are you most excited about?**

Getting to meet and brainstorm with visionaries, business and technology leaders who are shaping our world.

### **## What do you hope to give and get out of the Global Solutions Program?**

I'm looking forward to getting a more complete understanding of how our world can be positively transformed by people and ideas. Hopefully I can make a small contribution to that.

**## Why do you believe we ought to be thinking ahead and solving potential or inevitable problems before they exist?** Sometimes we don't realise it's a problem until a solution is found. Sometimes a solution is too late by the time the problem occurs (e.g. massive global climate change). In other words, prevention is often better than a cure.

#### ABOUT JESSICA TENNANT

Jess is Senior Editor: Marketing & Media at Bizcommunity.com. She is also a contributing writer. marketingnews@bizcommunity.com.

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