



With the power of World Community Grid, researchers have

...discovered new compounds for harnessing solar power.

Krishal - Solar advances through the World Community Grid

This case study was transcribed from an interview. These are Krishal's words and opinions.

What was your goal and what did you achieve?

I set out to promote this new software that IBM is developing. The software is called the World Community Grid and it can be downloaded on anyone's computer and use any unused capacity to solve equations for IBM. IBM is getting together with Harvard University's Chemical and Sciences Department and helping in solar cell research.

Solar cells that can be 10 to 20 times more efficient than the ones we're using currently - but the thing is that to develop those solar cells you need to solve many molecular mechanic equations. With the resources that Harvard has right now, it'll take about 22 years to finish those equations, but if this software gets out and many

people start using it - there are about 700,000 now - and if there's more, then all these equations can be solved within two years so that's something big.

I've attended many Zoom meetings because obviously I can't go to the United States and meet with Harvard and IBM. They conducted many meetings and told me and countless others - I think there were about 30 people in Adelaide - how to promote it and what the software was about and how to get people to understand what it was.

What was your biggest success?

My biggest success was getting every laptop in my school to have the software.

Who did you work with?

The biggest contributors were Harvard and IBM of course, they gave me the software and told me what to do with it, but I feel on a more ground-level basis the biggest contributors were my supervising teachers. I had the Assistant Principal of my school was supporting me in everything I did.

How did you promote your work?

There are many online resources I use. I put a lot of newsletters in my school portal, and on Daymap on the school website, and word of mouth is a big thing - I told people about it and people got interested.

What will happen now?

Most of the things aren't finished yet, there's still a lot of scope for improvement. Many people don't know about this - no one knew in this group and then countless millions others that don't know and have those computers that can help in decreasing the amount of time so it's still going on, baby steps.

What have you enjoyed most?

What I enjoy the most is that with my involvement and many others' involvement that something that would have taken at least until I was in my mid-30s would be done before I graduate, so that's something I'm happy about day in day out whenever I'm working on this and that's one of the biggest things.

Your advice to other students?

One main advice would be understanding the impact you will have in the future and thinking about steps you could take right now that would lead to a better outcome in the coming few years or maybe months. Have fun along the way because you're doing something good for the people around you and it's satisfying.

Image source: <https://www.worldcommunitygrid.org/discover.action#impact>