

Girls in Physics Breakfast

Friday, 22nd March, 7:30am to 9:30am *

SMB Campus, Lydiard St South, Ballarat

To: Women in, or planning for, a career in Science or Engineering
Would you like to:

- Have breakfast with a table of keen students and like-minded women?
- Answer the students' questions about university or working in Science and Engineering?

Then you are invited to the Girls in Physics Breakfast and ... to also hear Dr Dianne Ruka from Monash University speak on:

' Future Computing and Low Energy Electronics. '

- * From 9:30am to 10:00am, there are Careers in STEM Activities which are of value to students and guests alike.

Abstract Computing has transformed the world, but there is a price: the huge amount of energy being consumed by massive, factory-sized data centres means that information and communications technology already consumes about 8% of global electricity, and is doubling every decade. At the same time, we are running out of achievable ways to improve the efficiency of existing, silicon-based (CMOS) electronics. Without a 'beyond CMOS' solution, energy will become the limiting factor on further computational growth. Research is being undertaken in various areas of physics and engineering, such as ultra-cold atoms, to combat this problem. However along the way, accidental discoveries are being made in surprising areas, such as cancer research and water filtration.

Dr Dianne Ruka completed a BSc at the University of Melbourne before working in a genetics lab. She worked as a secondary school teacher, but then returned to research to complete a PhD in Materials Engineering at CSIRO and Monash University. She currently worked at Monash University as the Education & Training Coordinator with FLEET (the ARC Centre of Excellence in Future Low-Energy Electronics Technologies), where she takes research being completed in physics and materials engineering and translates it into educational tasks and demonstrations.



To attend, please register at www.vicphysics.org/breakfast.html by Thursday, 14th March. **There is no cost to you.** Any queries, vicphys@vicphysics.org.

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