# GIRLS IN PHYSICS

## BREAKFAST

**MILDURA 2025**

VicPhys

**FOR STUDENTS IN YEARS 10,11 & 12 INTERESTED IN A CAREER IN STEM**

**Meet like-minded students and women who have a career in Physics and Engineering. Ask questions and explore different pathways that might work for you!**

## *The Fascinating World of Solar Energy!*

**Damaris Getanda**
**Project Engineer, Raygen**

Tuesday March 25, 2025
SuniTASTE, Mildura Campus,
Sunraysia Institute of TAFE

$15 per student
(Max. 12 Students per school)
Breakfast 8.30am to 11.00am

SCAN FOR MORE INFO

***Speak to your science teacher about attending the breakfast***

***"I was talking to a guest at my table and her career sounded so amazing. Then I realised that in eight years that could be me. I got so excited!" - Year 10 Student***

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# *The Fascinating World of Solar Energy!*

**Speaker Bio: Damaris Getanda, Project Engineer, Raygen**

Damaris Getanda is an electrical engineer with over 17 years' experience in large scale energy projects' delivery in Kenya, and more recently in Australia. Damaris grew up in Kenya where she was inspired to pursue a career in electrical engineering by the lack of electrical energy accessibility in many rural parts of her country. Her dream was to see electrical power distributed to the most marginalised communities in the arid areas of Kenya. She studied a Bachelor of Science in Electrical Engineering at the University of Nairobi and worked in the energy sector in Kenya for over 15 years, where she managed to fulfill part of her dream of electrifying rural and marginalised areas. She also worked with the US Department of State's Bureau of Overseas Building Operations in delivering crucial electrical infrastructure projects, including a 225kW solar PV installation within the US Embassy complex in Nairobi.

Damaris moved to Australia in 2023 and joined the renewable energy industry via RayGen (www.raygen.com), a company that's at the cutting edge of emerging solar technology. With a background in electrical engineering and a passion for sustainable energy solutions, Damaris has been heavily involved in developing high impact utility scale energy projects to roll out RayGen's PV Ultra and thermal hydro technology commercially.


**Abstract:**

Did you know that the Earth receives about 173,000 terawatts of energy from the Sun every hour? That's approximately 10,000 times more than humanity's total energy use per year! But how can we harness this solar power for real life applications? Let us embark on an enlightening journey into the realm of solar energy; into the captivating processes behind solar energy generation, from harnessing the sun's power to its transmission into the electrical grid. Along the way, we'll uncover quirky facts, innovative technologies, and unique applications that demonstrate why solar energy is not just powerful—but fascinating. With its transformative potential, solar energy stands as a beacon of sustainability and innovation.

That is why it is at the forefront of the global transition to clean energy, and advancements in solar technology are pushing its boundaries further than ever before. We'll touch on the underlying physics, engineering challenges, and applications of these technologies while addressing key hurdles like efficiency limits and energy storage. Join us as we uncover how these breakthroughs are reshaping the future of renewable energy and driving humanity toward a sustainable, solar-powered future.



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