



Women in Sensing

Tuesday 21 March, 12-1:30pm

Charles Sturt University

Port Macquarie



**Charles Sturt
University**

Women in Sensing: A Regional Perspective

Join us for lunch at Charles Sturt University's Port Macquarie campus for a Women in Sensing event featuring a stellar line-up of speakers from the Port Macquarie and Charles Sturt ecosystem.

A panel of experts working in aged care, environment and agtech, will share their insights on the significant impacts of research and technology in regional Australia and the challenges, advantages, and outlook.

Speakers:



Associate Professor Lihong Zheng
Computer Science
Charles Sturt University

Sensing our Environment

[Associate Professor Lihong Zheng](#) is conducting collaborative research in a multi-disciplined team to provide innovative machine learning and image processing solutions to real agriculture applications. She has developed the VitiDoc model in the Vine Nutrition project (Funded by Wine Australia) for a rapid diagnostic tool to assess vine nutritional disorders for grape growers and vineyard managers with an accuracy of 97%. The model has been transferred to an industry for research commercialisation. Moreover, her team developed a smartphone-based weeds identification App to identify around 20 different cropping weeds with good accuracy in the project of "Rapid on-site weed identification" with researchers from the DPI weeds team. Those developed technologies can help the team obtain accurate ground truth images.

Deanna Duffy arrived back in Australia 15 years ago after having lived overseas in London and San Francisco, and was appointed as a Spatial Analyst with the Spatial Data Analysis Network (SPAN) soon after returning.

Having earned a Bachelor of Geography and Natural Resource Management in the U.S., Deanna obtained a Master of GIS and Remote Sensing through Charles Sturt. She really enjoys working at the ‘eco-friendly’ Albury campus and can often be found walking around the wetlands at lunch time. This has led to her being an active participant in the Albury Wodonga Campus Environment Committee.



Deanna Duffy
Spatial Analysis Officer
Spatial Data Analysis
Network
Charles Sturt University

Artificial Intelligence & Sensing

Past remote sensing projects Deanna has been involved in that will be discussed:

- Using satellite imagery to track turbidity in the Edwards River after the 2022 floods
- Using satellite imagery to assess mangrove health after bushfires using NDVI
- Using UAV imagery to assess vegetation around waterholes visited by ungulates
- Using LiDAR and satellite imagery to calculate tree height to determine shadows in parks in Albury for the Batter Parks for People Project
- Using data from radio trackers to map animal movement

As technology continues to evolve, so do SPAN’s capabilities. It’s an exciting time with the emergence and advancements of IoTs, LiDAR, 3D and UAV mapping technologies. SPAN staff are always adapting and learning.



Kate Koivu
Home Companion Lead
(Emmaus Village)
St Agnes’ Catholic Parish

Kate’s passion for health started early in her life, firstly in the Australian Army as an Advanced Medic specialising in counter terrorism medical treatment. This led her to 18 years working in NSW Ambulance Service as an Intensive Care Paramedic and then into a management and leadership role on the Mid North Coast.

Kate has now taken a sabbatical from emergency health care to continue her passion of enabling the lives of people living with dementia, using her UTAS dementia education by now working with St Agnes Catholic Parish’s on the new Emmaus Village a new innovative small house model designed to assist people living to dementia.

Sensing the future of Aged Care

Kate fills any of her spare time with her family, doing all things adventurous.

Panel Moderator:

Kate Wood-Foye
Director of External
Engagement, Port Macquarie
Office of Engagement and
Enterprise

Port Macquarie Local Woman
of the Year 2022



**Welcome
Address:**

Dr Diana Day
Board Member
NSSN

