CONFERENCE PROGRAM

PHD SESSION
THE NATIONAL WINE CENTRE
CNR HACKNEY RD & BOTANIC RD, ADELAIDE

9.00am - 12.30pm

PhD Professional Development session
Session Chair: Professor Wei Xiang, Higher Degree Research Program Coordinator, SmartSat CRC

This professional development session aims to provide SmartSat PhD Students with valuable tools, information and connections to assist them as they progress their research. It will also provide an overview of career pathways and opportunities in the space sector.

While this session is open to all delegates, please note it is primarily aimed at SmartSat PhD students

CONFERENCE DAY ONE
THE NATIONAL WINE CENTRE
CNR HACKNEY RD & BOTANIC RD, ADELAIDE

1.15pm - 1.45pm

CONFERENCE REGISTRATION OPENS

1.45pm - 2.00pm

Conference Day One Welcome
Opening Address: Professor Andy Koronios, Chief Executive Officer, SmartSat CRC

Join us as we welcome partners, PhD students, staff, researchers and industry to the SmartSat CRC Conference 2023.

2.00pm - 2.30pm

Conference Day One Keynote
Keynote Address: Aude Vignelles, General Manager of National Space Capability, Technology & Programs, Australian Space Agency

Day One of the conference kicks off with an overview of the state of space across the country now and into the future from the Australian Space Agency.

2.30pm - 3.20pm

Project Session 1 | On the Launch Pad: Industry & Project Development (early stage)
Session Chair: Dr Sarah Cannard, Industry Director, SmartSat CRC

This session provides an overview of SmartSat's industry partners and their involvement in our research programs, and how those research programs are benefiting them in return.

- P2.52 SCARLET-α
  Professor Ryszard Kowalczyk, SmartSat Professorial Chair of Artificial Intelligence
- P1.30 Integrated Tactical Communications
  Professor Stephen Hanly, Macquarie University
- P5.01 (Vic Node) Advanced Cooperative Tasking and Intelligent Visualisation Environment for Space Domain Awareness
  Dr Sholto Forbes-Spyratos, CGI Space Defence and Intelligence Australia

3.20pm - 3.50pm

AFTERNOON TEA

3.50pm - 4.00pm

Professorial Chair Spotlight Session
Session Chair: Professor Craig Smith, SmartSat Mike Miller Chair in Telecommunications

In this session, Professor Craig Smith will provide an overview of his research portfolio, focused on optical and hybrid RF communications.

4.00pm - 4.25pm

PhD Presentations
Session Chair: Andrew Beveridge, Chief Operating Officer, SmartSat CRC

Hear from some of our brightest PhD students as they deliver a project overview as part of the SmartSat PhD Oral Poster Presentation competition.

4.25pm - 5.05pm

SmartSat Nodes | Projects & Initiatives
Session Chair: Andrew Beveridge, Chief Operating Officer, SmartSat CRC

This session explores the projects funded through the SmartSat New South Wales Node, Victoria Node and Queensland Earth Observation Hub in partnership with their state governments.

- P7.12 (NSW Node) Enabling Resilient Space Computing with Advanced Thermal Management
  Matt Ryall, Founder & CEO, Mawson Rovers
- P7.01 & P7.08 (NSW Node) Extraterrestrial Radiation Tolerant Silicon Solar Cells
  Peter Toth, CEO, Extraterrestrial Power
- P6.02 (QLD EO Hub) COASTS: Coastal Change Observation and Analytics (multi-) Scale (multi-) Technology System
  Dr Javier Leon, University of the Sunshine Coast
- Living and Playing Together: an interactive information and visualisation interface for the sustainability of multiple uses and values of Moreton Bay (QLD EO Hub)
  Dr Aiden Price, Queensland University of Technology

5.05pm - 5.10pm

Conference Day One Close
Session Chair: Andrew Beveridge, Chief Operating Officer, SmartSat CRC

A brief wrap up of the first day of the conference, including important details on the Conference Dinner and the second day of the program.

CONFERENCE DINNER
ADELAIDE FESTIVAL CENTRE
KING WILLIAM RD, ADELAIDE

6.30pm - 10.00pm

Networking drinks from 6.30pm, Dinner from 7.00pm

Opening Address: The Honourable Susan Close MP, Deputy Premier of South Australia
Guest Speaker: Professor Emily Hilder, Interim Head of the Advanced Strategic Capabilities Accelerator, Defence Science and Technology Group

Join us in the Banquet Room at the Adelaide Festival Centre for our SmartSat CRC Conference Dinner 2023 as we celebrate coming together to reflect on our research and its impact, all while looking out over Elder Park and the River Torrens.

CONFERENCE SPEAKERS

SmartSat CRC is proud to host these esteemed guest speakers throughout the conference.

PROF TANYA MONRO AC
CHIEF DEFENCE SCIENTIST, DEPARTMENT OF DEFENCE

THE HON SUSAN CLOSE MP
DEPUTY PREMIER OF SOUTH AUSTRALIA

PROF EMILY HILDER
INTERIM HEAD, ADVANCED STRATEGIC CAPABILITIES ACCELERATOR, DSTG

AUDE VIGNELLES
GENERAL MANAGER, NATIONAL SPACE CAPABILITY, TECH & PROGRAMS, AUSTRALIAN SPACE AGENCY

*Please note this program is subject to change

CONFERENCE DAY TWO

**THE NATIONAL WINE CENTRE
CNR HACKNEY RD & BOTANIC RD, ADELAIDE**

8.00am - 8.30am

CONFERENCE REGISTRATION OPENS

8.30am - 8.40am

Conference Day Two Welcome
Opening Address: Professor Andy Koronios, Chief Executive Officer, SmartSat CRC

Join us as we welcome delegates for the second day of the SmartSat CRC Conference 2023.

8.40am - 9.15am

Conference Day Two Keynote
Keynote Address: Professor Tanya Monro AC, Chief Defence Scientist, Department of Defence

Join us for an overview of the Defence context of space research from Chief Defence Scientist, Professor Tanya Monro AC.

9.15am - 10.10am

Project Session 2 | On the Launch Pad: Innovation & Technology - Advancing Autonomy
Session Chair: Dr Carl Seubert, Chief Research Officer, SmartSat CRC

This session highlights how our research and innovative technology is building the foundation for a strong, successful industry as we enter a new space future with autonomous systems and artificial intelligence.

- P2.54 SCARLET-β
  Dr Nathan Wallace, University of Sydney
  Natalie Stevens, Defence Science and Technology Group
- P1.27 Cognitive Satellite Radios
  Associate Professor Akram Al-Hourani, RMIT University
- P2.31 Compact Clock for Small Satellite Applications – Engineering Model
  Dr Jordan Scarabel, QuantX Labs

10.10am - 10.20am

Professorial Chair Spotlight Session
Session Chair: Professor Hanna Kurniawati, SmartSat CRC Professorial Chair for System Autonomy, Intelligence and Decision Making

Professor Hanna Kurniawati provides insight into her research portfolio, focused on robotics, robot motion planning, integrated planning and learning, and computational geometry applications.

10.20am - 10.50am

MORNING TEA

10.50am - 11.45am

Project Session 3 | Lifting Off: End-users, Earth Observation and the Environment
Session Chair: Dr Andrew Barton, Research Program Manager, SmartSat CRC

How is SmartSat tailoring its research projects to meet the needs of everyday Australians? This session looks at our Earth Observation projects and their real world applications.

- P3.04 Real Time Fire Analytics
  Professor Simon Jones, RMIT University
- P4.17 Kanyini: SA Space Services Mission
  Dr Catherine Grace, South Australia Space Industry Centre
- P5.03 (Vic Node) HYMS Hyperspectral Microwave Sounder
  John LeMarshall, ESS Earth Sciences Pty Ltd
  Fiona Smith, Satellite Data Assimilation Team Leader, Bureau of Meteorology

11.45pm - 12.30pm

PhD Presentations
Session Chair: Elizabeth Weeks, Research Portfolio Manager, SmartSat CRC

Hear from some of our brightest PhD students as they deliver a project overview as part of the SmartSat PhD Oral Poster Presentation competition.

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12.30pm - 12.50pm

Poster Session

View the Technical Posters on display and meet the PhD students and project teams behind them.

12.50pm - 1.50pm

LUNCH

1.50pm - 3.00pm

Project Session 4 | In Orbit: Phase 2 and beyond – achieving impact
Session Chair: Peter Kerr, Defence & National Security Coordinator, SmartSat CRC

How are SmartSat projects delivering real-world impact to Australia's Defence & National Security? This session will highlight projects that are transitioning from the research phase to implementation with high potential for rapid translation into capability to support National Defence.

- P1.18 Coherent Free Space Optical (FSO) Phase 2 for Talisman Saber/Australian Space Agency Demonstrator Grant
  Dr Sascha Schediwy, The University of Western Australia
- P1.26 Emergency Comms for LunaSAR (RESARC Phase 2) for ASCEND2LEO
  Dr Mark Rice, Safety From Space
  Dr Feng Rice, Safety From Space
- P1.24 Spectrum Sensing from Space
  Dr Jody McKerral, Flinders University
- P1.19 Compact Hybrid Optical RF (CHORUS) Phase 2 for Space Segment Demonstration
  Dr Gerald Bolding, Defence Science and Technology Group

3.00pm - 3.10pm

Impacts to Defence
Session Chair: Peter Kerr, Defence & National Security Coordinator, SmartSat CRC

This session looks at how SmartSat is creating collaboration opportunities, managing projects and bringing demonstrated value to Defence.

3.10pm - 3.20pm

Impacts to Industry
Session Chair: Dr Sarah Cannard, Industry Director, SmartSat CRC

This session looks at how SmartSat is creating collaboration opportunities, managing projects and bringing demonstrated value to our industry partners, as well as to the space sector more broadly.

3.20pm - 3.50pm

AFTERNOON TEA

3.50pm - 4.40pm

Applications for space tech in agricultural sector: challenges and opportunities
Session Chair: Dr Jasmine Muir, Principal Scientist in Earth Observation, SmartSat CRC
Panel:
- Tim Neale, Managing Director, DataFarming
- Darren Plett, Manager AgTech (National), Grains Research & Development Corporation (GRDC)
- Peter Hayman, Principal Scientist Climate Applications, South Australian Research & Development Institute (PIRSA-SARDI)

How can space technologies help Australian farmers to reduce risk and boost agricultural productivity? Find out how SmartSat's research project Maya Nula will create agricultural intelligence capability from space.

4.40pm - 5.00pm

Conference Day Two Close
Session Chair: Professor Andy Koronios, Chief Executive Officer, SmartSat CRC

Join us as we announce the winners of the SmartSat PhD Presentation Competition and Poster Awards, wrap up the findings from the Conference and preview SmartSat's future strategic direction.

5.00pm - 6.00pm

NETWORKING DRINKS

6.00pm

CONFERENCE CLOSE