



AUSTRALIA
INDIA
INSTITUTE

Energy Transitions and Climate Change Resilience

Australia-India Research Collaboration Framework

AUGUST 5, 2025

Supported by



Australian Government
Department of Education

AUSTRALIA-INDIA RESEARCH COLLABORATION FRAMEWORK

Advancing Bilateral Research for Shared Impact

The **Australia-India Research Collaboration (AIRC) Framework** is a strategic initiative designed to support impactful research partnerships between Australia and India. It supports all stakeholders involved in research collaboration, including higher education, industry, government, and community sectors. The Framework revolves around three action areas:

- **Promote:** Encourage the development of new, interdisciplinary research collaborations.
- **Support:** Sustain and strengthen research partnerships over time, ensuring they remain impactful and mutually beneficial.
- **Translate:** Establish pathways to apply research into practical outcomes, with a focus on innovation, commercialisation, and early engagement with delivery partners.

The Framework is designed with a five-year outlook to guide, grow, and scale research collaboration with lasting impact across both countries. It focuses on four key thematic areas of shared importance to both countries:

- Energy Transitions and Climate Change Resilience
- Sustaining Healthy Communities
- Advanced Manufacturing Technologies
- Cybersecurity and Digital Governance

Online workshops on each theme will be hosted between August and September 2025. Each workshop is co-led by Australian and Indian experts and will gather practical insights and recommendations that will directly inform the Framework. The initiative is supported by the Australian Government Department of Education.

About the Australia India Institute

The **Australia India Institute** is Australia's leading centre dedicated to enhancing Australia-India relations. We aim to increase the policy and public importance of India as a crucial partner in Australia's future, and of Australia as a crucial partner in India's future. Our activities across the academic, political, business and community sectors have helped to shape engagement with India among Australian decision makers, change perceptions about Australia in India, promote trade and investment and activate bilateral networks.

CO-LEADS



Professor Frank Bruno is a recognised leader in sustainable energy and the South Australian Chair in Energy at the Future Industries Institute, University of South Australia. He also serves as the South Australian Node Leader for the Reliable Affordable Clean Energy for 2030 Collaborative Research Centre (RACE for 2030 CRC). With more than 30 years of experience, his expertise spans thermal energy storage, energy-efficient buildings, air conditioning, refrigeration, and solar thermal technologies, and he continues to drive innovation in the global energy transition.



Professor Dharam Buddhi is a leading figure in the field of sustainable energy, currently serving as Vice Chancellor of Uttarakhand University. With three decades of experience in research, education, and consultancy, his expertise spans renewable energy systems, thermal energy storage, energy-efficient buildings, and cold chain technologies. He is recognised among the top 2% of scientists worldwide in the field of energy research.

SPEAKERS



Professor Rangan Banerjee is the Director of the Indian Institute of Technology Delhi. His areas of interest include energy management, modelling of energy systems, energy planning and policy, hydrogen energy and fuel cells. Professor Banerjee has led the establishment of a megawatt-scale solar thermal research facility and advised national agencies – including NITI Aayog and the Ministry of New and Renewable Energy – on energy transition issues.



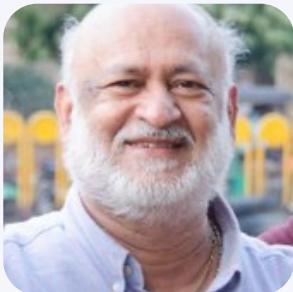
Ms Shalini Goyal Bhalla is the Managing Director of the International Council for Circular Economy in India. A leading expert in sustainability, she is the author of India's first book on the circular economy and the founding editor of the country's first journal dedicated to advancing research, innovation, and policy in this field.



Professor Renate Egan is the Executive Director for the Australian Centre for Advanced Photovoltaics, the national centre for photovoltaics research led by the University of New South Wales. Professor Egan has worked for 20 years in manufacturing and industrial technology within the energy sector and co-chairs the Australia-India Solar Task Force.



Distinguished Professor (Scientia) Deo Prasad AO, from the University of NSW, is an international authority and recognised leader in the field of sustainable buildings and cities. He is among the leading advocates for sustainability in Australia, with his contributions having been widely acknowledged at all levels of government and professions in Australia.



Mr Deepak Gadhia is the Chairman and Managing Director of Sunrise CSP India, with over 35 years of experience in the solar energy and sustainability sectors. He was instrumental in bringing the Scheffler Concentrating Technology to India and successfully commercialising it. In addition to his commercial ventures, Mr. Gadhia actively mentors start-ups and supports entrepreneurs in the clean-tech space.



Mr Alok Kumar is the Director General of All India Discoms Association & Partner, The Lantau Group. He brings over 35 years of experience in public policy and economic development through India's premier federal civil service. As former Secretary to the Government of India in the Ministry of Power, he oversaw one of the world's largest power systems and led major sectoral reforms.



Dr Anil Kumar is a Scientist- E with the Ministry of New and Renewable Energy, Government of India. He has authored over 67 publications, guided multiple research scholars, and is internationally recognised for his contributions to the fields of bio-energy and biorefinery.



Dr Keith Lovegrove is the managing director of ITP Thermal. He has over 30 years of experience in the energy field focusing on solar thermal energy, hydrogen and ammonia, combined with 15 years of teaching experience in undergraduate and postgraduate courses in Energy Engineering. He has been advising and working with the ITP India team for many years.



Dr Jaichander Swaminathan is an Assistant Professor at the Interdisciplinary Centre for Energy Research, Indian Institute of Science. He is an expert in the application of thermodynamics and heat and mass transfer, and was a recipient of Round 12 of the Australia-India Strategic Research Fund for the project *Harnessing Solar Energy to Attain Near Zero Carbon Emission Brine Treatment*, conducted in collaboration with the University of Technology Sydney.

AGENDA

10:00-10:05 IST 14:30-14:35 AEST	Welcome & Overview <ul style="list-style-type: none">• Professor Frank Bruno, South Australian Chair of Energy; and Research Professor, Future Industries Institute, University of South Australia• Professor Dharam Buddhi, Vice Chancellor, Uttarakhand University Dehradun, India
10:05-10:10 IST 14:35-14:40 AEST	Overview of the AIRC Framework <ul style="list-style-type: none">• Associate Professor Haripriya Rangan, Principal Consultant Government Projects, Australia India Institute
10:10-10:50 IST 14:40-15:20 AEST	Expert Presentations Mr Alok Kumar , Director General, All India Discoms Association & Partner, The Lantau Group Topic: India's energy transition: Achievements and challenges Professor Renate Egan , Executive Director, Australian Centre for Advanced Photovoltaics, University of New South Wales Topic: Solar and decarbonisation of the supply chain: The Australia-India opportunity Professor Rangan Banerjee , Director, IIT Delhi Topic: Renewable energy integration and climate change Dr Keith Lovegrove , Managing Director, ITP Thermal Topic: Supporting the International Solar Alliance on a new solar thermal program
10:50-11:20 IST 15:20-15:50 AEST	Breakout Session 1: Promote This session focuses on the 'Promote' pillar of the AIRC Framework: Encouraging the development of new, interdisciplinary research collaborations. <ul style="list-style-type: none">• Distinguished Professor (Scientia) Deo Prasad AO, School of Built Environment, University of New South Wales• Ms Shalini Goyal Bhalla, Managing Director, International Council for Circular Economy Breakout discussion: <ul style="list-style-type: none">• What existing successful collaboration models could be scaled or replicated?• What existing or new funding opportunities could help researchers initiate and grow Australia-India partnerships in this thematic area?

<p>11:20-11:30 IST 15:50-16:00 AEST</p>	<p>Short Break</p>
<p>11:30-11:55 IST 16:00-16:25 AEST</p>	<p>Breakout Session 2: Support This session focuses on the 'Support' pillar of the AIRC Framework: Sustaining and strengthening research partnerships over time, ensuring they remain impactful and mutually beneficial.</p> <ul style="list-style-type: none"> • Dr Anil Kumar, Scientist- E, Ministry of New and Renewable Energy, Government of India <p>Breakout discussion:</p> <ul style="list-style-type: none"> • What structures/mechanisms help sustain long-term partnerships in this thematic area? • How can we better support early-career researchers (ECRs), higher degree by research (HDR) students, and researchers who are not yet engaged in Australia-India collaborations in energy research?
<p>11:55-12:25 IST 16:25-16:55 AEST</p>	<p>Breakout Session 3: Translate This session focuses on the 'Translate' pillar of the AIRC Framework: Establishing pathways to apply research into practical outcomes, with a focus on innovation, commercialisation, and early engagement with delivery partners.</p> <ul style="list-style-type: none"> • Dr. Jaichander Swaminathan, Assistant Professor, Interdisciplinary Centre for Energy Research, Indian Institute of Science • Mr Deepak Gadhia, Chairman & Managing Director, Sunrise CSP India <p>Breakout discussion:</p> <ul style="list-style-type: none"> • Can you share examples or case studies of successful translation and commercialisation? What made them work, and what lessons can we apply to future collaborations? • Are there specific models (e.g., research parks, technology incubators, spin-offs) that worked well in the Australia-India context?
<p>12:25-12:30 IST 16:55-17:00 AEST</p>	<p>Final Reflections</p> <ul style="list-style-type: none"> • Professor Frank Bruno, South Australian Chair of Energy; and Research Professor, Future Industries Institute, University of South Australia • Professor Dharam Buddhi, Vice Chancellor, Uttarakhand University Dehradun, India
<p>12:30 IST 17:00 AEST</p>	<p>Close</p>

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