





SERIS

Leading Solar Energy Research and Innovation

NATIONAL RESEARCH FOUNDATION
PRIME MINISTER'S OFFICE
SINGAPORE

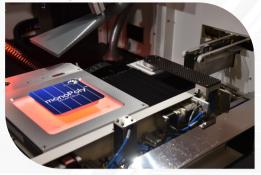




SERIS is a research institute at the National University of Singapore (NUS), SERIS is supported by NUS, the National Research Foundation Singapore (NRF), the Energy Market Authority of Singapore (EMA) and the Singapore Economic Development Board (EDB).

ABOUT SERIS

Founded in 2008 and located at the National University of Singapore (NUS), the Solar Research Institute of Singapore (SERIS) is Singapore's national institute for Enerav applied solar enerav research. SFRIS conducts research. development. and deployment. testina consultina on solar enerav technologies their integration power into urban infrastructures. buildinas. systems. and





MAIN R&D AREAS

In SERIS, the R&D focus is on solar cells, modules and systems, including solutions for densely built-up environments ("Urban Solar"). In these areas, SERIS generates innovations for industry, the financial sector and government agencies. The institute's application-oriented research and development is complemented by targeted fundamental research that forms the basis for a steady flow of innovations.

Solar Cells:

- Perovskite/silicon tandem solar cells
- Next-generation industrial solar cells
- Characterisation and simulation

PV Modules:

- Module testing (indoor and outdoor)
- Module development
- Building integrated PV (BIPV)
- Characterisation of optical properties
- Module reliability
- Recycling
- PV for vehicles

Solar PV Systems:

- System technologies, incl. Floating solar
- Innovative deployment concepts
- Urban Solar, incl. agrivoltaics
- PV grid integration
- Solar potential & energy meteorology (solar forecasting)
- Quality assurance of PV systems
- Solarisation of Singpore

The institute's R&D spectrum covers industrially relevant materials, components, processes, systems, and services, with an emphasis on solar photovoltaic (PV) cells, modules, and systems. in its three core areas: solar cells, modules and systems. SERIS is globally active but focuses on technologies and services for tropical regions, in particular for Singapore and South-East Asia.





SERVICES OFFERED BY SERIS

SERIS offers a wide range of scientific-technical services to clients from the private and public sectors.

Solar Cells:

- The "Solar Cell Doctor"
- Characterisation and testing of PV materials and solar cells
- Solar cell processing
- Magnetron sputtering of thin films (metals, TCOs)
- Griddler: The universal 2D solar cell simulator
- PV device modellin & simulation

PV Modules:

- The "PV Module Doctor"
- Development of PV modules
- PV module testing



- Module testing beyond the standard tests
 - PID testing of PV modules
 - Characterisation & reliability of PV modules

Solar PV Systems:

- The "PV System Doctor"
- Real-time monitoring of PV systems
- PV system design & evaluation
- On-site PV system assessments
- Glare analysis of PV installations
- Climate-specific testing of PV modules and systems
- Owner/lender's engineer services
- Technical & financial feasibility studies



Consulting (across all areas):

- Technical consulting
- Due diligence
- Feasibility studies
- Manpower training

EXCITING CAREER & STUDENT PROJECT OFFERINGS @ SERIS

We are looking for motivated students and researchers who are interested in shaping a sustainable future!

SERIS offers (in conjunction with NUS):

- A wide range of positions for researchers, technical & administrative professionals
- Final-year projects; Masters by research projects; PhD topics
- Internships opportunities

SERIS is an Equal Opportunity employer. All qualified applicants will receive consideration for employment through formally established guidelines specified by NUS.







VISIT SERIS:



SERIS at NUS, E3A building

At National University of Singapore: Solar Energy Research Institute of Singapore (SERIS) National University of Singapore (NUS) 7 Engineering Drive 1, Block E3A #06-01

Singapore 117574 Tel.: (+65) 6516 4119 Fax: (+65) 6775 1943

Email: seris-info@nus.edu.sg and seris-services@nus.edu.sg



SFRIS at CleanTech Park

At CleanTech Park: SERIS PV Modules for Urban Solar Cluster:

Solar Energy Research Institute of Singapore (SERIS)

No. 1 CleanTech Loop, CleanTech One #06-01

Singapore 637141 Tel.: (+65) 6567 8073 Fax: (+65) 6775 1943

Email: seris-info@nus.edu.sg and seris-services@nus.edu.sg

Visit us online at:

Website: www.seris.sg

National Solar Repository (NSR): http://www.solar-repository.sg/

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