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Chair on Renewable and
Clean Energy for
Sustainable development

UNESCO CHAIR on Renewable and Clean Energy for Sustainable Development



**PROGRESS COMPENDIUM
2024 – 2026
(01 YEAR & 04 MONTHS)**



PONDICHERRY UNIVERSITY



UNESCO CHAIR on Renewable and Clean Energy for Sustainable Development



**PROGRESS COMPENDIUM
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By
Prof. Ramaswamy Arun Prasath

UNESCO Chair on RCESD | Department of Green Energy Technology

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PONDICHERRY UNIVERSITY



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SUSTAINABLE DEVELOPMENT GOALS



UNESCO CHAIR ON

Professor R. Arun Prasath holds the established UNESCO chair on “Renewable and Clean Energy for Sustainable Development (RCESD)” in the UNESCO Madanjeet School of Green Energy Technologies (UMSGET) at Pondicherry University (2024-2028). The official inauguration of the 16th prestigious UNESCO chair in India was held on 10th December 2024 to promote green and clean energy technologies. The UNESCO chair at Pondicherry University was achieved through collaborative efforts involving the Ministry of Education - Govt of India, UNESCO - India, South Asia Foundation Madanjeet Singh Foundation (MSF) Trustee, and with endorsements from international partners (Germany, Australia, Brazil, USA, and UK), as well as national hosts and collaborators of Prof. R. Arun Prasath. Additionally, Prof. R. Arun Prasath’s extensive international experience in research and his extensive out-reach sustainable practices such as promotion of solar campus at PU campus, Invest in Our Planet Earth, Sustainable Campus Campaigns, Green Campus Auditing, Sustainability@PU, Net-zero Pondicherry University, has been instrumental in securing this chair.



Webpage



Renewable and Clean Energy for Sustainable Development



United Nations
Educational, Scientific and
Cultural Organization

 **Inaugural Report**

This initiative is part of the broader UNITWIN/UNESCO Chairs Programme, which aims to enhance institutional capacities through international cooperation and knowledge sharing among higher education institutions. The UNESCO Chair will serve as a platform to promote research, education, and capacity-building in sustainability, renewable energy, and community development. To work with governments, schools, colleges, universities, industries, NGOs, businesses, researchers, technology developers and environmentally conscious individuals working towards the promotion of renewable energy, also It will actively engage in fostering global partnerships, advancing knowledge-sharing, and supporting innovative practices that align with UNESCO's mission to build peace through education, science, and culture. This achievement marks a new chapter for Pondicherry University in its ongoing journey toward academic excellence and sustainable development.

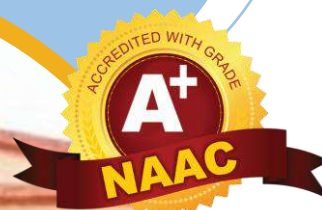
The official inaugural function of the UNESCO Chair on “Renewable and Clean Energy for Sustainable Development” was held on 10th December 2024. The Chair Establishment Report is attached here.

Chair ID	Region	Country	Type	Chair/Network Title	University/Institution	Year of establishment	All keywords	Chairholder(s)	Web Site
2020IN1417	Asia and the Pacific	India	Chair	UNESCO Chair on Experiential Learning For Sustainable Innovation and Development	Amrita Vishwa Vidyapeetham	2020	Sustainable Development; Climate action; Disaster risk reduction and resilience ; Education; Environment Protection	Maneesha Sudhee	https://www.amrita.edu/unescoco-chair/about/
2021IN1439	Asia and the Pacific	India	Chair	UNESCO Chair on Experiential Learning, Work Education and Community Engagement	Mahatma Gandhi National Council of Rural Education	2021	Teacher Training	W.G. Prasanna Kumar	
2021IN1452	Asia and the Pacific	India	Chair	UNESCO Chair on Inclusive Museums and Sustainable Heritage Development	Anant National University	2021	World Heritage	Anareswar Galla	https://inclusivemuseums.org/index.php/executive-director/
2021IN1691	Asia and the Pacific	India	Chair	UNESCO Chair on Indigenous Cultural Heritage and Sustainable Development	University of Calicut	2021	Indigenous knowledge; Indigenous peoples	E. Pushpalatha	
2022IN1563	Asia and the Pacific	India	Chair	UNESCO Chair in Vulnerability Studies	University of Hyderabad	2022	Tolerance; Social development; Resilience	Nayar Pramod K	https://indianwritinginenglish.uohyd.ac.in/
2024IN2770	Asia and the Pacific	India	Chair	UNESCO Chair on Renewable and Clean Energy for Sustainable Development	Pondicherry University	2024	Climate action; Education for Sustainable Development; Environment Protection; Education for Sustainable Development; Science, Technology and Innovation	Arun Prasad Ramaswamy	https://www.pondiuni.edu.in/
2016ID1180	Asia and the Pacific	Indonesia	Chair	UNESCO Chair on Communication and Sustainable Development	Universitas Pancasila	2016	Journalism	Andi Falsal Bakti	http://www.univpancasila.ac.id/
2020ID1419	Asia and the Pacific	Indonesia	Chair	UNESCO Chair on Bioethics	Universitas Gadjah Mada	2020	Bioethics	Yati Soenarto	
2023ID1674	Asia and the Pacific	Indonesia	Chair	UNESCO Chair on Research and Education of Local Natural Dyes	Universitas Gadjah Mada	2023	Science, Technology, Engineering and Mathematics; Health and wellbeing; Sustainable Development	Edia Rahayuningsih	https://indi.lppt.ugm.ac.id/
2024ID2782	Asia and the Pacific	Indonesia	Chair	UNESCO Chair in Heritage Cities Conservation and Management	Universitas Gadjah Mada	2024	Living heritage; Diversity of heritage; Education for Sustainable Development; Disaster risk reduction and resilience; World Heritage	Laretna T. Adishakti M.Arch; Dwita Hadi Rahmi M.A	http://ft.ugm.ac.id/
2008IR0822	Asia and the Pacific	Iran, Islamic Republic of	Chair	UNESCO Chair in Management, Planning, and Quality Assurance in Higher Education	Institute for Research and Planning in Higher Education	2008	Higher Education; Education for Sustainable Development; Inclusive, equitable and quality education; Science, Technology and Innovation; Skills Development	Mohammad Yamani Douzi Sorkhabi	https://irphe.ac.ir/
2010IR0908	Asia and the Pacific	Iran, Islamic Republic of	Chair	UNESCO Chair in Entrepreneurship	University of Tehran	2010	Global Citizenship Education; Journalism	Seyed Mohammad Moghimi; Reza Mohammadkazemi	https://ut.ac.ir/en
2014IR1038	Asia and the Pacific	Iran, Islamic Republic of	Chair	UNESCO Chair on Interdisciplinary Research in Diabetes	University of Tehran	2014	Health and wellbeing; Science, Technology and Innovation; Education for Sustainable Development; Sustainable Development; Higher Education	Ali A. Moosavi-Movahedi	https://ut.ac.ir/en

About Pondicherry University



Pondicherry University, established in 1985 is an Indian Central University is one of the most sought-after campuses amongst the students from across the nation as a destination for the Higher Education and Research. Pondicherry University has The University has 15 Schools, 41 Departments, 09 Centers, and 04 Chairs offering about 126 UG, PG, PG Integrated, P. G. Diploma /Certificate & Research programmes in University campuses and Pondicherry University Community Colleges offering about 19 UG/B. Voc, one M. Voc. and 40+ Diploma/Certificate courses.with a student strength of 7000+ including foreign students. Currently the University has more than 130 funded research projects including SAP & FIST Projects from various agencies like UGC, DST, CSIR and DBT. The University has two-off campuses, one located in Port Blair (Andamans) with two Departments viz., Ocean Studies and Marine Biology and Coastal Disaster Management and another Post-Graduate Centre at Karaikal. Fresh green sprawling campus spread over 880 acres, features great Instrumentation & Resource facility, 100% Wi-Fi connectivity with 100% power back-up, 24x7 Library facility, 22 well-furnished hostels, Round the clock medical facility, Placement Community Radio (Puduvai Vaani) and Study India Programme.





Vision

To serve as a world-class institution by producing Societal transformation through progressive education, impactful research and continuous innovation for Sustainable growth.



Mission

1. Fostering excellence in education, innovation and entrepreneurship to create change agents for inclusive growth.
2. Encouraging inter-disciplinary studies and research to embrace the changing dimensions of the society and industry.
3. Providing academic and research facilities with ambience that conform to global benchmarks.
4. Partnering with national and international institutions for leveraging synergies.
5. Engaging communities through extension activities for neighbourhood development.
6. Supporting policy development and practices through continuous engagement with stakeholders.

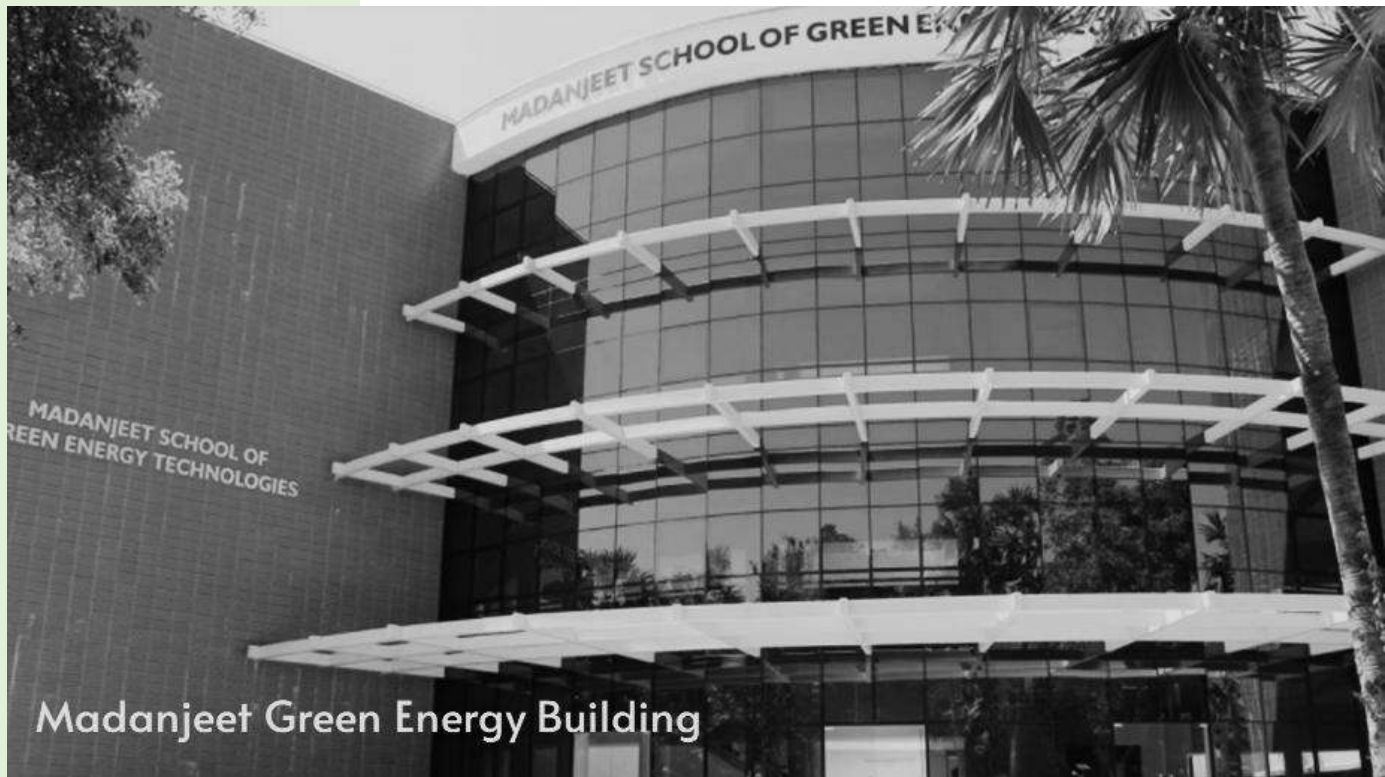
Madanjeet School of Green Energy Technologies (MSGET)

The Madanjeet School of Green Energy Technologies was established in 2010 through a landmark partnership between Pondicherry University and the South Asia Foundation (SAF), founded by the visionary UNESCO Goodwill Ambassador **Madanjeet Singh**. The School was envisioned as a regional hub of excellence to empower the SAARC nations through advanced education and research in sustainable energy. Housed in a GRIHA-rated green building, the school integrates state-of-the-art laboratory facilities with sustainable architectural practices. It serves as an umbrella for cutting-edge academic units, focusing on the development of trained human resources and innovative technologies to address the pressing energy security and environmental challenges.

Lt. Shri. Madanjeet Singh
UNESCO Goodwill Ambassador
Founder- SAF/MSF & UMSGETS



Department of Green Energy Technology



Madanjeet Green Energy Building

The Department of Green Energy Technology was established in 2010 under the aegis of Madanjeet School of Green Energy Technologies with a vision to promote education and research in Renewable and Green energy. DGET offers B.Tech (UG) in Energy Science & Technology, M. Tech (PG) in Green Energy Technology which is supported by South Asia Foundation and Ph.D. in the field of renewable energy & related subjects. The Ministry of New and Renewable Energy has recognized and approved the Department as a Nodal Centre in the fields of all clean energy sources. DGET has proficient faculties to teach, offer consultancy and take up research work in several core areas of energy.

DGET has several MOUs with leading academic institutions and industries specializing in energy. In 2024, under the effort of DGET, the Madanjeet School of Green Energy Technologies was recognized as UNESCO Chair on Renewable and Clean Energy for Sustainable Development. DGET is constantly evolving and excelling in various fields of energy technologies, both in research and product development.

Generated total project fundings of Rs. 26 Crore grants from several funding agents, DST, MNRE, UGC, SERB, CSIR, BRNS, DAE, SPARC. etc

- **Graduated :**
M.Tech – 250
PhD scholars – 30
- **Published 220 high valued research journal papers (cumulative h-index of 15.3 and 6,753 citations)**

The department promotes research in the fields of all clean sources of energy production, conversion and utilization like solar photovoltaic, solar thermal, energy storage, fuel cells, bio-fuels, wind energy, ocean energy, chemical energy, applications of nanotechnology for energy conversion, etc. The department has well trained faculties to teach, offer consultancy and take up research work in many core areas of green energy technology.

V I S I O N

- To teach, train and carry out research and development in niche areas of renewable energy technologies to contribute to energy self-sufficiency.
- To develop trained human resources to cater to the needs of existing and emerging renewable energy industries.
- To develop human resources to pursue cutting-edge and futuristic research in energy technologies.
- To become the nodal center to deliver consultancy and offer expertise to industries, governmental organizations, and entrepreneurs.
- To emerge as a hub for technology development, incubation and validation.





Prof. Ramaswamy Arun Prasath

UNESCO – Chairholder
Department of Green Energy Technology
Madanjeet School of Green Energy Technologies
Pondicherry University



- ★ UNESCO Chairholder to promote “Renewable and Clean Energy for Sustainable Development,” which was established with the support of UNESCO Madanjeet School of Green Energy Technologies (UMSGET) and his international partners at Pondicherry University (2024-2028).
- ★ Active member in promoting renewable energy and sustainability at the Pondicherry University campus. “Solar Campus Master Plan” initiative for Pondicherry University, Invest in Our Planet Earth, Sustainable Campus Campaigns, Green Campus Auditing, Sustainability@PU, “Net-zero Carbon Emission Pondicherry University by 2035” member of the QS Sustainability Ranking and the Times Higher Education World University Rankings, focusing on the campus's contribution to SDG-7, Affordable and Clean Energy.”



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Chair on Renewable and
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RAMASWAMY ARUN PRASATH is a Professor in the Department of Green Energy Technology at Pondicherry University. He received the prestigious DAAD fellowship (1999-2001) for his doctoral research work at the Max-Planck Institute for Polymer Research, Mainz, GERMANY. He worked as a material researcher in several prestigious institutes, as a research associate at the Indian Institute of Science, Bangalore, INDIA (2002-2004), a postdoctoral researcher at the University of Strathclyde, Glasgow, UNITED KINGDOM (2004-2006) and at University of New South Wales, Sydney, AUSTRALIA (2006-2008), and as a senior researcher in Ghent University (2008-2010), BELGIUM with special fellowship named BOF and received the prestigious RAMAN fellowship to work at University of Wyoming, UNITED STATES OF AMERICA in the year 2014-15. Currently, he is leading a research group on energy materials and sustainability. He extensively focuses on materials synthesis, characterization, and application in solar energy, bio-energy, batteries, fuel cells, and other green and clean energy technologies. He has authored over 60 peer-reviewed journal articles, proceedings, and book chapters and is a co-inventor in 3 International patents and 2 European patent applications to his credit. He has presented more than 80 oral presentations at various conferences, seminars, courses, and invited talks, mainly on research progress and outreach on renewable energy technologies. He was involved as PI/Co-PI in projects funded by DST-SERB, MNRE, and ICSSR. He has guided several students on their PG degree projects, and some Ph.D. students have obtained their doctoral degrees under his guidance on material development for solar cells, bio-energy, battery, and fuel cells.

Prof. R. Arun is also actively involved in the outreach and promotion of renewable energy technologies and sustainable development practices at Pondicherry University. His achievements include the detailed project report for the “Solar Campus Master Plan” for the Pondicherry University Main Campus, Invest in Our Planet Earth, Sustainable Campus Campaigns, Green Campus Auditing, Sustainability@PU, and Net-zero Pondicherry University. His team's project proposal to Pondicherry University in 2012-2013 for a “Solar Campus” has contributed to promoting Solar Energy Generation on campus, with a current installed capacity of ~3 MWp in 2021, making Pondicherry University one of the largest affordable and clean energy generators among educational institutions in India. He also served as chairman of the green audit for the Pondicherry University campus and as a member of the QS Sustainability Ranking and the Times Higher Education World University Rankings for the campus, focusing on SDG 7: “Affordable and Clean Energy.” In addition, he is a member of several university-administration initiatives that promote sustainable practices. Under his leadership, the UNESCO chair aims to promote greener and cleaner energy technologies, energy security, and sustainable development. The UNESCO chair advocates for a rapid and massive transformation toward greener and cleaner energy generation via solar, wind, hydro, ocean, wave, waste-to-energy, geothermal power, hydrogen energy, and the development of efficient technologies like fuel cells, hydrogen electrolyzers, electrical mobility, more efficient energy storage systems, carbon capture, utilization, and storage technologies, green building and, sustainable chemical technologies, etc. to address the global climate change issues for the promotion of sustainability in energy generation and use.

Chairholder Profile

Prof. Ramaswamy Arun Prasath

Professor, Department of Green Energy Technology
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Professor Ramaswamy Arun Prasath is an active member in promoting renewable energy and sustainability at the Pondicherry University campus. Among his landmark achievements is the "Solar Campus Master Plan" report for Pondicherry University, initiated in 2012 under the Ministry of New and Renewable Energy (MNRE), and very recently, the promotion of sustainability @ Pondicherry University campus by installing UNSDGs spots aimed to foster awareness and education on 17 UNSDGs. As Chairman of the green campus auditing committee covering Sustainability, Environment, Water, Waste, and Energy Management, he scored 92.11% compliance for Pondicherry University in 2024. His vision goes beyond research, focusing on engaging communities and inspiring sustainable living practices. Campaigns like "Invest in Our Planet Earth" and "Sustainable Sticker Campaigns" have incited the university community to embrace eco-friendly practices. His committed efforts to make Pondicherry University a model of sustainability, featuring initiatives such as carbon-neutral targets, grid-connected solar power, and green mobility, are commendable. Recently, his contribution included the release of Pondicherry University's Net Zero Carbon by 2035 Mission.

Education:

PhD: Anna University (DAAD student at Max-Planck Institute for Polymer Research, Germany, 1999 - 2001), Polymer Chemistry (2002),
MPhil: Anna University, Polymer Chemistry, (1996).
MSc: Bharathiar University, Chemistry, M.Sc. (1995).
BSc: Bharathiar University, Chemistry, B.Sc. (1993).

Achievements:

- 63 peer-reviewed journal articles published (National - 7 & International - 56)
- 9 full paper published in the proceedings
- 17 Book Chapters
- International patents published -3
- European patents published -2
- Above 100 oral presentations in various conferences/seminars/courses/invited talks/Panel member
- ~85 invited talks after joining Pondicherry University (from June 2010 onwards)
- h-index- 24 | i10 index- 44 (Google Scholar)
- UNESCO Chairholder on RCESD (2024-2028)
- Raman postdoctoral fellowship, University Grants Commission (UGC) of India 2014-15
- DST Fast-track young scientist award, (2012)
- BOF Fellowship, Senior Researcher, Ghent University, Ghent, Belgium, (2008-2009).
- DAAD Fellowship from German Academic Exchange service, Germany (1999-2001).

Professional Research Experience:

USA: UGC-RAMAN postdoctoral fellowship (2014-2015), University Of Wyoming, Laramie.
Belgium: Senior Researcher (2008-2010), Ghent University, Ghent.
Australia: Postdoctoral Fellow (2006-2008), University of New South Wales, Sydney.
United Kingdom: Postdoctoral Fellow (2004-2006), University of Strathclyde, Glasgow.
India: Research Associate (2002-2004), Indian Institute of Science, Bangalore.
Germany: DAAD Fellow (1999-2001), Max-Planck Institute for Polymer Research, Mainz.

Collaborations with international researchers:

Prof. Bruce Parkinson & Prof. Carrick Eggleston, University of Wyoming (USA),
Prof. Martina Stenzel, Prof. Vicki Chen and CRC Polymers (Australia),
Prof. Filip Du prez (Belgium),
Prof. K. Muellen, Dr. M. Klapper at MPIP (Germany),
Prof. Peter Cormack, Prof. W. E. Smith,
Prof. D. Graham and Oxonica Ltd., Oxford (United Kingdom).



PONDICHERRY UNIVERSITY

DEPARTMENT OF GREEN ENERGY TECHNOLOGY
MADANJEET SCHOOL OF GREEN ENERGY TECHNOLOGIES
R.V. NAGAR, KALAPET, PUDUCHERRY - 605 014

Professor RAMASWAMY ARUN PRASATH UNESCO Chairholder on RCESD

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I take great pride and a deep sense of responsibility in presenting this booklet, which documents the activities, achievements, and collaborative initiatives undertaken under the UNESCO Chair on Renewable and Clean Energy for Sustainable Development at Pondicherry University. I am deeply grateful to note that this prestigious UNESCO Chair (2024-2028), dedicated to promoting Renewable and Clean Energy Technology for Sustainable Development, has been established with the support of UNESCO, the Ministry of Education, Government of India, the generous support of the SAF/MSF Trustee, and the valued endorsements of distinguished international partners from Australia, Brazil, Germany, the UK, and the USA, along with our national collaborators. The Chair was officially inaugurated on 10th December 2024, beginning with its first event, the "National Workshop on Green Hydrogen: Technology to Application." This was followed by a series of impactful academic and outreach activities, including national and international conferences, workshops, training programs, and exhibitions, such as the National-level Green Energy Technology Conference, a collaborative International Conference on Energy and Water, and workshops on Nuclear Energy-Hydrogen, Additive Manufacturing, Academic Entrepreneurship Development, Drone Technology, and Ocean Energy & Water. A National-Level Competitive Exhibition has also been organized, with many more initiatives in the pipeline. Today, I am truly encouraged to witness how this initiative has evolved into a dynamic hub for collaboration and sustainability-driven action, encompassing a wide spectrum of academic and outreach activities that reflect our commitment to excellence. The chair has served, and will continue to serve, as a vibrant platform for researchers, students, industry experts, and innovators to come together, share ideas, showcase technologies, and foster meaningful collaborations.

The UNESCO chair advocates strengthening interdisciplinary research to advance innovation across key areas such as solar, wind, bioenergy, nuclear, hydrogen technologies, energy storage systems, electrical mobility, and integrated sustainable solutions (e.g., water & food), as well as outreach activities to address global climate change issues for a sustainable future. Initiatives such as the Solar Campus concept and our continued commitment to Net-Zero Carbon Emissions at Pondicherry University by 2035 reflect our determination to translate ideas into measurable outcomes. The achievements presented in this booklet reflect the UNESCO Chair's activities and commitment, the collective efforts of active team members, students, researchers, and collaborators, and institutional support. I sincerely acknowledge and appreciate the contributions of all stakeholders who have been part of this journey. This compilation is not merely a record of events, but a reflection of our shared vision for a sustainable future. I hope it inspires continued collaboration, commitment, and innovation in advancing sustainable technologies (e.g., energy, water, food, materials, etc) in areas that promote a sustainable environment.

On the 102nd Birth Anniversary of Madanjeet Singh (16 April 2026), I humbly dedicate this UNESCO Chair RCESD Progress Compendium to his enduring vision and legacy.

UNESCO CHAIRHOLDERS' MESSAGE

Prof. Ramaswamy Arun Prasath
UNESCO Chair on Renewable and
Clean Energy for Sustainable
Development, Pondicherry University



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Leadership & Collaboration



Prof. P. Prakash Babu

Hon'ble Vice Chancellor
Pondicherry University



Prof. K. Tharanaikkarasu

Director, SEI & RR,
Pondicherry University



Dr. P. Natarajan

Director (C&CR)
Pondicherry University



Shri. R. Gunasekaran

Registrar
Pondicherry University



Madame France Marquet

SAF/MSF Representative
to UNESCO



Dr. M. Krishna Murthy

Finance Officer
Pondicherry University



Dr. Ramaswamy Arun Prasath

UNESCO Chair - RCESD
Professor, DGET

Members of Department of Green Energy Technology



Dr. B.M. Jaffar Ali

Dean(i/c), UMSGETS
Pondicherry University



Dr. Prasanth Ravindran

Head of the Department
Professor, DGET



Dr. P. Elumalai
Professor



Dr. P. Thilakan
Professor



Dr. D.S. Sharada
Professor



Dr. A. Sreekumar
Professor



Dr. S. Sivasankari
Assistant Professor



Dr. Krishna Kumar Jaiswal
Assistant Professor



Dr. K. Karthik Selva Kumar
Assistant Professor



Dr. Krishna Villa Harika
DST-Inspire faculty



SOUTH ASIA FOUNDATION

Regional Cooperation Through Education and Sustainable Development



Founded by UNESCO Goodwill Ambassador Madanjeet Singh in 2000, the South Asia Foundation (SAF) is a secular, non-profit and non-political organization, comprising eight autonomous chapters: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

SAF's core objective is to promote regional cooperation through a number of UNESCO Madanjeet Singh Institutions of Excellence in the eight SAARC countries

- **Preservation of Cultural Heritage** (Kabul, Afghanistan),
- **Human Rights and Common Law** (Dhaka, Bangladesh),
- **Forestry Studies** (Bumthang, Bhutan),
- **Journalism** (Chennai, India),
- **Kashmir Studies** (Srinagar, India),
- **Regional Cooperation** (Pondicherry, India),
- **Green Energy Technology** (Pondicherry, India),
- **Climate Research** (Maldives),
- **Development Studies** (Kathmandu, Nepal),
- **Visual Arts** (Lahore, Pakistan),
- **South Asian Studies** (Lahore, Pakistan),
- **Water Management** (Moratuwa, Sri Lanka).

Shri. Madanjeet Singh

UNESCO Goodwill Ambassador(former)
Founder - South Asia Foundation



Madame France Marquet

SAF/MSF Representative to UNESCO



Shri Madanjeet Singh

Visionary | Diplomat | Humanist | Philanthropist

(16 April 1924 – 6 January 2013)

A distinguished Indian diplomat, author, artist, and humanitarian whose life was dedicated to fostering peace, tolerance, and cross-cultural understanding. Born in Lahore, he participated in India's freedom movement and later pursued higher studies in chemistry, art, and cultural history in Europe. Singh joined the Indian Foreign Service in 1953 and served with distinction in numerous countries across Asia, Africa, Europe, and South America, building bridges of dialogue and cooperation. Beyond diplomacy, he was an internationally acclaimed writer and artist. His extensive publications span topics from Indian sculpture and Himalayan art to renewable energy and cultural heritage, reflecting his interdisciplinary intellect and global perspective. His artworks were exhibited internationally, including at the Venice Biennale, and acquired by major institutions.

In 1995, in recognition of his lifelong devotion to peace and communal harmony, UNESCO established the **Biennial UNESCO-Madanjeet Singh Prize for the Promotion of Tolerance and Non-Violence**, a prestigious award recognising individuals and institutions advancing social empathy and peaceful coexistence. In 2000, his commitment to global dialogue was further honoured with the designation as a **UNESCO Goodwill Ambassador**.

In 2000, he founded the **South Asia Foundation (SAF)**, a non-profit organisation promoting regional cooperation through education, culture, and sustainable development across the SAARC region. Through SAF, he supported the establishment of educational institutions of excellence and scholarships for young scholars, reinforcing his belief in education as a catalyst for peace and progress. His vision, generosity, and dedication to universal human values continue to inspire peacebuilders and innovators worldwide.



Designing Sustainability:

The UNESCO Chair (RCESD) Journey 2024 – 26(till June)

1.

Ministry of Education, Department of Higher Education, Govt of India, forwarded the selected application to UNESCO, France

April 26, 2023

2.

Registered to UNESCO online platform & Application submission

April 28, 2023

3.

UNESCO chair application favorably evaluated by UNESCO

October 15, 2023

4.

UNESCO Chair Draft Agreement received for correction and correspondence

October 22, 2023

5.

UNESCO Chair Draft Agreement received for co-signatory

February 28, 2024

6.

PU MoU Evaluation Committee members' queries answered for co-signatory

March 26, 2024

7.

UNESCO Chair Agreement signed by co-signatory "Registrar, Pondicherry University"

March 28, 2024

8.

UNESCO Chair approval and Web-hosting

May 15th/April 3rd 2024

9.

Creation of a Dedicated Web-Page for UNESCO Chair

October 01, 2024

10.

Inauguration and first National Level event of the UNESCO Chair activity

December 10, 2024

11.

National Workshops on sustainable technologies with several Institutional Collaborations

- Green Hydrogen: Technology to Application on [December 10, 2024](#)
- NWNHSE - 2025 on [July 25, 2025](#)
- NWNHSE-2026 on [January 30, 2026](#)
- OEWSF 2026 on [March 19, 2026](#)

12.

International & National Conferences on sustainable technologies with several Institutional Collaborations

- NCGETS 2025 on [March 20 & 21, 2025](#)
- ICEWSE-2025 on [September 30 & October 01, 2025](#)
- IESCTECH – SRMIST [March 12 & 13, 2026](#)

13.

Skill development training programs on Innovation & Entrepreneurship

- Additive Manufacturing Workshop on [August 08, 2025](#)
- Hydrogen Electrolyzer Entrepreneurial Workshop on [October 31, 2025](#)
- Drone Technology Boot-Camp & Hands-on Training on [November 3 – 7, 2025](#)

14.

Leadership and mentorship on initiatives such as MoUs & interrelation collaboration

- MAGSCON 2026– Manipal(MAHE) on [March 24-26, 2026](#)

15.

National Competitive Exhibition on Sustainable technologies

- NLCEST 2026 on [April 16, 2026](#)



Achievements of the UNESCO Chair (RCESD)

As the UNESCO Chairholder on Renewable and Clean Energy for Sustainable Development, Prof. Ramaswamy Arun Prasath has played a pivotal role in advancing the mission of the Chair through visionary leadership, academic excellence, and international collaboration. His stewardship has elevated the Department of Green Energy Technology into a nationally and internationally recognized hub for Green and Clean energy research, innovation, and capacity building.

Key achievements of the Chairholder during 2025–2026 include:

- ❑ **National Capacity Building Initiatives:** Organized high-impact conferences, workshops, seminars and boot camps on green energy, hydrogen energy, nuclear energy, nuclear-hydrogen, hydrogen electrolyzers, ocean energy technologies, additive manufacturing, and drone technology, each combining expert lectures with hands-on training to empower students, researchers, and professionals.
- ❑ **Institutional Partnerships:** Strengthened collaborations with premier institutions, including Indira Gandhi Center for Atomic Research (IGCAR) – Kalpakkam, National Institute of Technology (NIT) Rourkela, National Institute of Ocean Technology (NIOT) Chennai, and SRM Institute of Science and Technology, Kattankulathur, reinforcing academia-industry linkages and fostering interdisciplinary research.
- ❑ **Leadership in International Collaboration:** Convened the International Conference on Energy and Water for a Sustainable Environment (ICEWSE 2025) in collaboration with the UNESCO Chair on SWRMSA, University of Moratuwa, Sri Lanka, the first joint UNESCO Chair international conference, bringing together global experts and institutions to deliberate on integrated approaches to sustainability.
- ❑ **Academic Entrepreneurship Promotion:** Championed programs such as workshops and seminars on academic entrepreneurship in green energy, clean energy, and hydrogen electrolyzers, inspiring researchers to translate laboratory innovations into entrepreneurial ventures aligned with India's clean energy roadmap.
- ❑ **Innovation Initiative:** First-ever National-level Competition on Sustainable Technologies on the occasion of the 102nd Birthday of UNESCO Goodwill Ambassador, Shri. Madanjeet Singh, held on 16th April 2026, was conducted to promote innovative and sustainable technological solutions among students, researchers, and young entrepreneurs, while encouraging the transformation of creative ideas into impactful start-ups for a sustainable future.
- ❑ **Mentorship and Guidance:** Provided sustained mentorship to students and research scholars, encouraging interdisciplinary projects and innovation pitching, thereby nurturing the next generation of leaders in renewable and clean energy.
- ❑ **For More details:** Visit our dedicated website for UNESCO Chair RCESD for links and coverage at <https://www.pondiuni.edu.in/departments/unesco-chair-on-renewable-and-clean-energy-for-sustainable-development/>

2024 – 2026 (ACCOMPLISHED)

1. Inauguration of UNESCO CHAIR(RCESD) & National Workshop on Green Hydrogen: Technology to Application & on Dec 10th 2024
2. National Conference on Green Energy Technologies for Sustainability (NCGETS 2025) 20th & 21st March 2025
3. National Workshop on Advances in Nuclear Energy for Sustainable Environment, NwaneSE-2025 25th July 2025.
4. Workshop on Role of Additive Manufacturing Applications Towards Sustainability, 8th August 2025
5. International Conference on Energy and Water for Sustainable Environment, ICEWSE-2025, 30th Sept and 1st Oct 2025. -Sustainable Synergies: Advancing Energy & Water Solutions for a Resilient Future
6. A Special Lecture and Workshop on “Academic Entrepreneurship Development in Hydrogen Electrolyzer”, 31st Oct.2025
7. Five-Day Boot-Camp & Hands-on Training Workshop on “Computational and Practical Aspects in Drone Technology Towards Sustainability, 3rd Nov to 7th Nov 2025
8. National Workshop on Nuclear-Hydrogen Synergy 2026, NWNHS-2026, 30th Jan 2026
9. National Conference on “Intelligent Electrical Systems and Clean Technologies” – SRMIST 12th & 13th March 2026
10. National Workshop on Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026, 19th March 2026.
11. National Level Competitive Exhibition on Sustainable Technologies, 16th April 2026.

EVENTS & ACTIVITIES

Pondicherry University
(A Central University)




Patrons

Prof. Clement S. L, Director, C&CR, PU
Prof. Rajneesh Bhutani, Registrar(i/c), PU
Prof. Subramania. A, Dean - MSGET

Guests of Honour

Madam France Marquet - MSF Trustee, France, Paris
Dr. Timothy Curtis - Director of the UNESCO Regional Office, New Delhi

SOUTH ASIA FOUNDATION(SAF) SPONSORED

**National Workshop on
Green Hydrogen:
Technology to Application**
(Inauguration of UNESCO Chair)

10.12.2024 **CCC Auditorium**

Chief Patron
Prof. K. Tharanikkarasu
Vice Chancellor (i/c), PU

Organized by
Department of Green Energy Technology
Madanjeet School of Green Energy
Technologies
PONDICHERRY UNIVERSITY

Registration (LIMITED SEATS)
To register for the workshop, fill out the following Google Form. Confirmation to participate will be informed by email based on the registration.

ELIGIBILITY: Scientists | Professors | Research Scholars |
UG & PG (Science & Engineering, Final year ONLY)

<https://forms.gle/2Z6Jx1wJv3yc4pd7>

* Registration is Mandatory for the Participation Certificate. First come first serve

CONTACT
Prof. R. Arun Prasath, The Head-Department of Green Energy Technology
Pondicherry University R.V. Nagar Kalapet, Puducherry-605 014
+91 80567 53040 raprasath@pondiuni.ac.in



H₂
Chair

Participation Certificate will be provided

SOUTH ASIA FOUNDATION SPONSORED TWO DAYS
**NATIONAL CONFERENCE ON
GREEN ENERGY TECHNOLOGIES
FOR SUSTAINABILITY**
UNESCO Chair activity
20 & 21 March 2025

About the NCGETS 2025
Two Days National Conference on Green Energy Technologies for Sustainability - NCGETS 2025 under UNESCO Chair activity is designed to deliberate research and technological development in various renewable energy technologies. Experts from various discipline of renewable energy shall present their research findings and thoughts on the subject matter. Young scientists and scholars shall have the opportunities to interact with their peers and present their recent research findings through oral and poster presentation.

About Pondicherry University
Pondicherry Central University, established in 1965 is an Indian Central University is one of the most sought after campuses amongst the students from across the nation as a destination for the Higher Education and Research. Pondicherry University has 15 Schools, 38 Departments, 11 Centers and 1 Chair offering over 144 PG, PG-Diploma certificate & Research programme with a student strength of 7000 including foreign students. Currently the University has more than 130 funded research projects including SAF & BTE Projects from various agencies like UGC, DST, CSIR and DBT. Fresh green sprawling campus spread over 800 acres, features green Instrumentation & Resource facility, 100% Wi-Fi connectivity with 100% power back-up, 24x7 Library facility, 22 well-furnished hostels, round the clock medical facility, Placement Cell, Community Radio and existing infrastructure.

About UNESCO CHAIR
The UNESCO chair on "Renewable and Clean Energy for Sustainable Development" was established in UNESCO Madanjeet School of Green Energy Technologies (MSGET) at Pondicherry University (2024-2028) to promote green and clean energy technologies. Collaborating with UNESCO, MSF, and SAF-India, the UNESCO Chair firmly commits to providing intellectual knowledge and professional training to promote renewable energy in South Asia and globally for sustainable development. The UNESCO chair is to work with governments, schools, colleges, universities, industries, NGOs, businesses, researchers, technology developers and environmentally conscious individuals working towards the promotion/development of renewable energy technologies for sustainable development.

PONDICHERRY UNIVERSITY
(A CENTRAL UNIVERSITY)





About The Department
The Department of Green Energy Technology was established in 2010 under the aegis of Madanjeet School of Green Energy Technologies with a vision to promote education and research in Renewable and Green energy. DGET offers M.Tech in Green Energy Technology which is supported by South Asia Foundation and Ph.D. in the field of renewable energy & related subjects. The Ministry of New and Renewable Energy has recognized and approved the Department as a Nodal Centre in the fields of all clean energy sources. DGET has proficient facilities to teach, offer consultancy and take up research work in several core areas of energy. Several MOUs with leading academic institutions and industries specializing in energy, DGET is constantly evolving and excelling in various fields of energy technologies, both in research and product development.

EXPERT SPEAKERS

Dr. Tapas K. Maji	Sr. CPRL, SAF-India, INCASR, Bangalore
Dr. Dipen Kumar Rathi	Sr. CSIR-APRIL, Bhopal
Dr. R. Sankaranarayanan	Sr. ARCI, Hyderabad
Dr. Mani Karthik	Sr. ARCI, Hyderabad
Dr. A. S. Prakash	Sr. CECRI, CSIR Complex, Chennai
Dr. Shrivastha Dinkar	Consultant, IISc-CIL, Hyderabad
Dr. N. Sivassubramanian	Former Chief General Manager, ISRO
Prof. Aninda J. Bhattacharyya	IISc, Bangalore
Prof. Chinnay Ranjan	IISc, Bangalore
Prof. B. Neppalli	Associate Professor, SPHIST, Chennai
Prof. Sandeep K. Lakhera	SPHIST, Chennai
Prof. M. Omkumar	Anna University, Chennai
Prof. P. Sankar Ganesh	BITS, Pilani, Hyderabad
Prof. Vinod Kumar, D	Graphic Era Hill University, Dehradun
Prof. Ravi Kumar Aashana	Bansari Hindu University Varanasi
Prof. Vuvrali Haldorai	PG College of Arts & Sci, Coimbatore
Mr. Terry Hart	Soken India Pvt Ltd, Hyderabad
Mr. Shumail Ahmad	Soken India Pvt Ltd, Hyderabad
Dr. Krishna Kumar Sarode	Soken India Pvt Ltd, Hyderabad
Ms. Shalini Kumar	Lead Sustainability Education, Yanshi Haridwar

TOPICS

Advanced Energy Materials
Photovoltaic Technology
Solar Thermal Energy Technology
Batteries & Supercapacitors
Photo/Electro Catalytic Materials

Bioenergy / Biofuels / Combustion Technology
Wind/Ocean/Tidal Energy Technology
Computational & Simulation Technology
Carbon Capture Utilization and Storage(CCUS)
Green Hydrogen Technology

Abstract Submission - Online Google Form
The abstract should be made according to the template. The title of the paper should be in bold font Times New Roman with the font size of 12. Names, Affiliation text & references in Times New Roman font of size 10 and content text in font size 12 with 1.5 line spacing. Corresponding author's email should be indicated by an asterisk (*). The name of the author presenting the paper must be underlined. Abstract should not exceed one page including figures, tables & references and uploaded in MS word format. Intimation of the abstract acceptance will be informed 7 days after the submission. Accepted participants mandated to register and pay the participation fee. SAF provides for Best Oral & Poster Presentations. Participant Accommodation will be provided on a first-come, first-served basis to out-of-town participants upon prior request, within the campus, at nominal charges.

Important Dates

Last date for abstract submission (EXTENDED)	05-03-2025
Notification of abstract Acceptance	07-03-2025
Last date of payment of registration fee (EXTENDED)	08-03-2025
Intimation on Accommodation	08-03-2025
Date of Conference	20 & 21-03-2025
Venue: Cultural-Cum-Convention Centre, Pondicherry University	

Registration Fees

ONLY Participation	U.G./PG, students / Research Scholars	Faculty / Scientists	Industry Professionals
₹ 600	₹ 750	₹ 1500	₹ 3000

*Registration fees are non-refundable

Name of the Account: UNESCO CHAIR
Account Number: 7913269251
IFSC CODE: IDIB000P152
BANK: INDIAN BANK, Pondicherry University Branch

Registration
<https://forms.gle/Vcxg3hQSpM5Cxx228>

Google Form **Abstract Template**

Click to Use Links **For More Details**

Conference Email: dgetconference@pondiuni.ac.in
Phone: 0413-2654431

QR Code <https://shorturl.at/BJmN4>

Chief Patron
Prof. K. Tharanikkarasu
Honorable Vice-Chancellor (V/C), Pondicherry University

Patrons
Prof. Rajneesh Bhutani
Registrar (i/c), Pondicherry University
Prof. B.M. Jaffer Ali
Dean, MSGET, Pondicherry University

Convener and UNESCO Chair holder
Dr. R. Arun Prasath, H.O.D., Professor

DEPARTMENT OF GREEN ENERGY TECHNOLOGY
Madanjeet School of Green Energy Technologies
Pondicherry Central University, Puducherry-605 014

Contact for Assistance

Registration	: Ms. Aishwarya	(+91 75984 15272)
Accommodation	: Mr. Praveen Bhattacharya	(+91 70035 56521)
General Enquiry	: Mr. Sudharshu Pandey	(+91 9046042277)

(2024 - 2026)

EVENTS & ACTIVITIES

Chief Patron
Prof. P. Prakash Babu
Hon'ble Vice Chancellor, Pondicherry University

Patrons
Prof. K. Tharanikkarasu
Director - Directorate of Studies,
Educational Innovations & Rural Reconstruction, Pondicherry University
Prof. Clement S. Lourdes
Director - Directorate of Culture & Cultural Relations, Pondicherry University
Prof. Rajneesh Bhutani
Registrar(Jd), Pondicherry University
Prof. B.M. Jaffar Ali
Dean, MSGETs, Pondicherry University

Guest of Honor
Madam France Marquet
Principal, Treefree, MSF

Programme Organizing Committee
Convener
Prof. R. Arun Prasath
Head, Department of Green Energy Technology,
UNESCO Chairholder in RCESD, Pondicherry University (PU)

Programme Coordinators
Dr. B.M. Jaffar Ali, Professor, PU
Dr. P. Elumalai, Professor, PU
Dr. P. Thibabalan, Professor, PU
Dr. Prasanth Ramadran, Professor, PU
Dr. D.S. Skandan, Professor, PU
Dr. A. Sreekumar, Professor, PU
Dr. S. Srinivasan, Assistant Professor, PU
Dr. Krishna Kumar Jeyaraj, Assistant Professor, PU
Dr. K. Karthik Selva Kumar, Assistant Professor, PU
Dr. Krishna Vella Harika, DSI-Manager Faculty, PU

Programme Advisor Committee
Dr. C.V. Srinivas, Head, EAD, SORING
Dr. S. Chandrasekaran, Head, HSE, SORING
Shri.S.Vijayaraghavan S, Head, PIRMO, SORING
Dr. Nikar Ranjan Das, SAI-MSF - India, New Delhi, India
Prof. B. Rajaram, Head of the Department of Physics, Pondicherry University
Prof. Alek Shanna, Head of the Department of Physics, Pondicherry University

About the Workshop

The National Workshop on Advances in Nuclear Energy for Sustainable Environment hosted by Department of Green Energy Technology, Madanjeet School of Green Energy Technologies (MSGETs), Pondicherry University with profound collaboration with Department of Atomic Energy, Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam - Mode focus on the role of Nuclear energy in addressing climate change and promoting a sustainable energy future, as well as showcasing India's advancements in nuclear technology and policy. This event would likely feature discussions on topics like nuclear contribution to energy security, sustainable development goals, and the latest innovations in nuclear technology (like SMRs, etc).

Workshop Topics

- Nuclear engineering
- Advances in Nuclear Reactor Technology for Clean Energy
- Environment Assessment, Nuclear Emergency Preparedness
- Health, radiation safety & Waste management
- Safety Engineering & research
- Materials for Nuclear Industry, Thin films, Smart materials

Pondicherry - A Glimpse
Pondicherry is known for its charming blend of French and Indian culture with its tropical beaches and vibrant street markets. Beachside attractions such as the renowned Auroville, the scenic Palk Beach, and its charming French city architecture, Pondicherry continues to entice tourists seeking a perfect blend of cultural and natural beauty.

Registration GOOGLE FORM
<https://forms.gle/uk8e5MRtqpoMafNQ/>

For More INFO
dgteconference@pondiuni.ac.in
0413-2664431
<https://sites.google.com/pondiuni.ac.in/nwanese-2025>

PONDICHERRY UNIVERSITY
(A Central University established by an Act of Parliament No. 53 of 1985)
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**NATIONAL WORKSHOP ON
ADVANCES IN NUCLEAR ENERGY FOR
SUSTAINABLE ENVIRONMENT**
NWANESE-2025

25.07.2025 (Friday)
CCC Auditorium, PU

QR Code

**MADANJEET SCHOOL OF GREEN ENERGY TECHNOLOGIES (MSGETS)
DEPARTMENT OF GREEN ENERGY TECHNOLOGY
PONDICHERRY UNIVERSITY
Puducherry - India**

In Collaboration with
**DEPARTMENT OF ATOMIC ENERGY
INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH (IGCAR)
GOVERNMENT OF INDIA
Kalpakkam - Chennai**

Chief Patron
Prof. P. Prakash Babu
Hon'ble Vice Chancellor, Pondicherry University

Patrons
Prof. K. Tharanikkarasu
Director - Directorate of Studies,
Educational Innovations & Rural Reconstruction, Pondicherry University
Prof. Clement S. Lourdes
Director - Directorate of Culture & Cultural Relations, Pondicherry University
Prof. Rajneesh Bhutani
Registrar(J/c), Pondicherry University
Prof. B.M. Jaffar Ali
Dean, MSGETs, Pondicherry University

Convener
Prof. R. Arun Prasath
Head / UNESCO Chairholder(RCESD)
Department of Green Energy Technology, PU

Coordinators
Dr. K. Karthik Selva Kumar
Assistant Professor
Department of Green Energy Technology, PU
Dr. Swetha Gandra
Manager - Skill and Incubation
NCAM, Hyderabad

Organizing Secretary / Coordinator
Co-Coordinator

Organizing Committee Members
All the Faculty Members,
Department of Green Energy Technology, PU

Pondicherry University
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One Day Expert Workshop On
**ROLE OF ADDITIVE
MANUFACTURING APPLICATIONS
TOWARDS SUSTAINABILITY**
08th August 2025
Timings: 9am to 5pm

Organised by
**Department of Green Energy Technology
Madanjeet School of Green Energy Technologies,
Pondicherry University**

In Collaboration with
**National Centre for Additive Manufacturing
ITE & C Department, Govt. of Telangana
Ministry of Electronics and Information Technology,
Govt. of India,**

No Registration FEE

QR Code

(2024 - 2026)

EVENTS & ACTIVITIES

UMSGET - UMCSAWM - MSF/SAF

FIRST INTERNATIONAL CONFERENCE ON ENERGY AND WATER FOR SUSTAINABLE ENVIRONMENT

SUSTAINABLE SYNERGIES: ADVANCING ENERGY & WATER SOLUTIONS FOR A RESILIENT FUTURE

30 September & 01 October, 2025



About the ICEWSE 2025

The two-day international conference focusing on energy and water for a sustainable environment, it is jointly organized by Pondicherry University, India, and the University of Moratuwa, Sri Lanka, under the guidance of their respective UNESCO Chairs. The conference aims to promote energy and water sustainability by bringing together global experts, policymakers, and industry leaders to discuss innovative solutions. The event will feature research presentations from experts in renewable energy and water resources, providing a platform for young scientists and scholars to share their work.

Abstract Submission

Submit your abstract in the Google Form as MS Word document using the template provided. Abstracts must be original, with no plagiarism, and must not exceed one page in length, including figures, tables, and references. The SAF Awards will be given for Best Oral & Poster Presentations. Presented abstracts can be submitted for full-length article in [Springer Proceedings](#). (Details regarding the submission procedures will be announced on the conference website and via email after the conference).

Topics to be covered

Advanced Energy Materials
Solar Photovoltaic/Thermal Energy Technology
Bioenergy/Biofuels/Combustion Technology/ CCUS
Green Hydrogen Technology
Batteries & Supercapacitors
Green Buildings & Sustainable Materials
Catalysis - Photo/Electro/Bio
Wind/Ocean/Tidal Energy Technology
Wastewater Recycling
Climate-Resilient Water Resources/Irrigation Systems
Sustainable Urban Water Management/Infrastructure
Socio-hydrology & Indigenous Water Wisdom
Data-Driven Hydrology for Flood/Drought Modelling
Computational & Simulation Technology

Prospective Speakers (Tentative)

Dr. S. Sakthivel	Centre for Solar Energy Materials, ARCL, Hyderabad, INDIA
Prof. Setish Patil	Indian Institute of Space, Hyderabad, INDIA
Dr. Raman Vedarajan	Centre for Fuel Cell Technology, ARCL, Hyderabad, INDIA
Dr. Raghuram Chetty	Indian Institute of Technology, IIT-Madras, INDIA
Dr. Santosh Kumar. D. Bhat	CSIR-Central Electrochemical Research Institute, CSIR Madras Complex, INDIA
Dr. A. S. Prakash	CSIR-Central Electrochemical Research Institute, CSIR Madras Complex, INDIA
Prof. Lalith Rajapakse	Water Resources Management Ecology and Climate Specialist - UMCSAWM, Dept of Civil Eng., UoM, Sri Lanka
Dr. Nimal Wijayarathna	Hydrologist, Coastal Engineering and Water Resources Specialist - UMCSAWM, Dept of Civil Eng., UoM, Sri Lanka
Dr. Kasun de Silva	Coastal Wave/Sedimentation/Erosion Modelling Specialist - UMCSAWM, Dept of Civil Eng., UoM, Sri Lanka
Dr. Luminda Gunawardhana	Climate & Ground/Surface Water Expert - UMCSAWM, Dept of Civil Eng., UoM, Sri Lanka
Dr. Chamal Perera	Socio-hydrologist, Disaster Risk Reduction Specialist - UMCSAWM, Dept of Civil Eng., UoM, Sri Lanka
Dr. Chatura Dissanayake	Irrigation Engineering & Flood Risk Management Expert - UMCSAWM, Dept of Civil Eng., UoM, Sri Lanka

Last date for abstract submission (extended) : **14-09-2025**
Notification of abstract acceptance within 7 days of submission
 Early Bird registration closes : **11-09-2025**
 Last date of payment of registration fee : **26-09-2025**
 Date of Conference : **30 September & 01 October, 2025**
 Venue: Cultural-Cum-Convention Centre, Pondicherry University

Payment can be made via Online transfer
 Name of the Account: UNESCO CHAIR
 Account Number : 7913269251
 IFSC CODE : IDIB000P152
 SWIFT CODE : IDIBINBBPON
 AD CODE : 0260284
 BANK : INDIAN BANK
 Pondicherry University Branch

Registration FEE (Registration fee is non-refundable)	Participation without Presentation	P.G. students & Research Scholars	Post Doc/ Faculty/ Scientists/ Industry	International participants
Rs. (₹)	Rs. (₹)	Rs. (₹)	Rs. (₹)	USD (\$)
EARLY BIRD (11.09.2025)	700	1000	2000	150
STANDARD (14.09.2025)	850	1250	2500	200
SPOT (18.09.2025)	1000	1500	3000	250

Please go to action menu to be refundable

Registration

<https://forms.gle/cue3e9Ns7Am8PnfY6>

Google Form

Abstract Template

Click on the links

Convenors & UNESCO Chairholders

Prof. R. Arun Prasath

Head, Dept. of Green Energy Tech., UNESCO Chairholder on RCESD, Pondicherry University (PU)

Prof. Lalith Rajapakse

Dept. of Civil Eng., Director of UMCSAWM, UNESCO Chairholder on SWRMSA, University of Moratuwa (UoM)

Website : <https://shorturl.at/9sgDH>
 Conference Email : dgetconference@pondiuni.ac.in
 Phone : +91(0)413-2654431

Springer



Contact for Assistance

Registration : Ms. Agiya Fathima (+91 75984 15372)
 Accommodation : Mr. Pratyay Bhattacharya (+91 70035 56521)
 General Enquiry : Mr. Sudhanshu Pandey (+91 9044043277)

(2024 - 2026)

EVENTS & ACTIVITIES

A Special Lecture and Workshop on

"ACADEMIC ENTREPRENEURSHIP DEVELOPMENT IN HYDROGEN ELECTROLYZERS"

Organised by
Industry Academic Cell (IAC),
CED Committee,
Department of Green Energy Technology
under UNESCO CHAIR activity



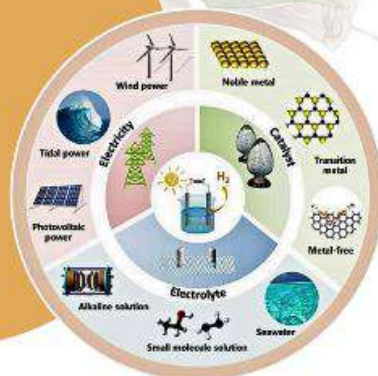
Dr. M. SANKARA RAO,
Director, Nanosol Energy Pvt. Ltd.,
Telangana, India

Hands-on Training

Live demonstration of

- Single-cell assembly for Fuel Cell
- Electrolyzer applications

Showcasing the customised cell and Stack components



Refreshment & Lunch
will be provided

Certificate will be issued upon
completion of the workshop

31st

OCTOBER 2025

START FROM
9.30 AM

**SEMINAR
HALL**

Dept. of Green Energy Technology,
Pondicherry University



Scan for registration

Click the link for Registration

<https://forms.gle/Y2dTQxBpMpi8JyVp7>

REGISTRATION FEE

LAST DAY & DATE:
29.10.2025 wednesday

₹150

(2024 - 2026)

EVENTS & ACTIVITIES



Registration Fee

B. Tech/B.Sc. Students	Rs. 800/Participants
M.Tech/M.Sc.	Rs. 1000/Participants
Ph.D. Scholars	Rs. 1300/Participants
Academicians/Post-Doctoral Fellows	Rs. 1500/Participants
Persons from Industries	Rs. 3000/Participants

Account Details

Bank Account Name : DGET PU SKILL DEVELOPMENT
 Account Number : 7920112277
 IFSC Code : IDIB000P152
 Branch : Pondicherry University



Registration Link
<https://forms.gle/MmBor4MasXULWzYb9>
 Last Date for Registration: 24th October 2025

Contact Details
 Dr. K. Karthik Selva Kumar
 Convener & Organizing Secretary
 Email: kst200@ponduni.ac.in, Phone: 7217874435

Chief Patron
Prof. Prakash Babu
 Hon'ble Vice-Chancellor, Pondicherry University

Patrons
 Prof. K. Tharanikkarasu
 Director, SGR, Pondicherry University
 Prof. Clement Sagaradja Lourdes
 Director, C&C, Pondicherry University
 Prof. Rajneesh Bhutani
 Registrar, Pondicherry University
 Prof. B.M. Jaffer Ali
 Dean (Ac. MS&S), Pondicherry University

Convener's NIT Rourkela
 Prof. P. S. Balaji
 Department of Mechanical Engineering, NIT Rourkela

Prof. J. Srinivas
 Department of Mechanical Engineering, NIT Rourkela

Dr. Chikesh Ranjan
 Project Engineer, Department of Mechanical Engineering, NIT Rourkela

Convener's Pondicherry University
 Prof. R. Arun Prasad
 Department of Green Energy Technology, Pondicherry University

Dr. K. Karthik Selva Kumar
 Department of Green Energy Technology, Pondicherry University

Organizing Committee Members
 All the Faculty Members of the Department of Green Energy Technology, Pondicherry University

All participants should bring ID/ Aadhaar & fill the details in forms provided

Pondicherry University
 (A Central University established by an Act of Parliament No. 53 of 1986)
 Accredited with A+ Grade by NAAC - 1st Cycle

5-Day Boot-Camp & Hands-on Training workshop on "Computational and Practical Aspects in Drone Technology Towards Sustainability"

Nov 03rd - 07th 2025

Funded by the Ministry of Electronics & Information Technology (MeitY)
 Under The Project of Capacity Building for Human Resources in Unmanned Aircraft Systems (Drone & Related Technology)

VENUE: Seminar Hall, CCC, Pondicherry University



Organised by
 Department of Green Energy Technology
 Madanjeet School of Green Energy Technologies, Pondicherry University
 In Collaboration with
 National Institute of Technology
 NIT - Rourkela

Sponsored by
 South Asia Foundation (SAF)

Chief Patron
Prof. P. Prakash Babu
 Hon'ble Vice Chancellor, Pondicherry University

Patrons
 Prof. K. Tharanikkarasu
 Director, SGR, Pondicherry University
 Sri. R. Ganesan
 Registrar, Pondicherry University
 Dr. M. Krishna Murthy
 Finance Officer, Pondicherry University

Programme Organising Committee
Chairman
 Prof. B.M. Jaffer Ali
 Dean (Ac. MS&S), Pondicherry University
Co-Chairman
 Prof. Praveen Ravindran
 Head, Department of Green Energy Technology, Pondicherry University
Convener
 Prof. R. Arun Prasad
 Department of Green Energy Technology, UNESCO Chair on H-CEST, Pondicherry University

Members
 Dr. P. Elumalai, Professor, PU
 Dr. P. Thibekam, Professor, PU
 Dr. D.S. Shanmugam, Professor, PU
 Dr. A. Sreenivasan, Professor, PU
 Dr. S. Srinivasan, Assistant Professor, PU
 Dr. Krishna Kumar Jaiswal, Assistant Professor, PU
 Dr. K. Karthik Selva Kumar, Assistant Professor, PU
 Dr. Krishna Vella Hanika, DST Inspire Faculty, PU

Programme Advisory Committee
 Dr. V. Jayaraman, Director - NC & MFG, IGCAR
 Shri. S. Sridhar, Director - RIG, IGCAR
 Shri. S. Chandrasekhar, Associate Director - FRIG, IGCAR
 Dr. Nikun Ranjan Das, SVP-NHF - India, New Delhi
 Prof. B. Rajaraman, IIT, Pondicherry
 Prof. Atul Sharma, Head, Department of Physics, PU

About the Workshop

The National Workshop on Nuclear-Hydrogen Synergy 2026: Pathways for India's Clean Energy Transition would likely focus on the role of nuclear energy in addressing climate change and promoting a sustainable energy future, as well as showcasing India's advancements in nuclear technology and policy. The event would likely feature discussions on topics like nuclear contribution to energy security, sustainable development goals, and the latest innovations in nuclear technology like SMRs, etc.

Workshop Topics

- Advances in Nuclear-Green Hydrogen Production Technology
- Green Hydrogen from Fast Breeder Reactors (FBRs)
- Controlled Hydrogen Evolution, Sensing and Safety Measures - FBRs
- Sodium-heated Steam Generators
- Hydrogen Storage and Transportation

Pondicherry - A Glimpse

Pondicherry is known for its charming blend of French and Indian culture, with its tranquil beaches and vibrant street markets. Boasting attractions such as the renowned Auroville, the scenic Rock Beach, and its charming French city architecture, Pondicherry continues to enchant tourists seeking a perfect blend of cultural and natural beauty.

Registration GOOGLE FORM
<https://forms.gle/BLJA2NbnWNTqkGA>

For More INFO
dgetconference@ponduni.ac.in
 0413-2654431
<https://sites.google.com/ponduni.ac.in/nwnhs2026>

PONDICHERRY UNIVERSITY
 (A Central University established by an Act of Parliament No. 53 of 1986)
 Accredited with A+ Grade by NAAC - 1st Cycle

One-Day National Workshop on Nuclear-Hydrogen Synergy 2026
 Pathways for India's Clean Energy Transition

NWNHS-2026

30.01.2026
 CCC Auditorium, PU



MADANJEET SCHOOL OF GREEN ENERGY TECHNOLOGIES (UMSGETS)
 DEPARTMENT OF GREEN ENERGY TECHNOLOGY
 PONDICHERRY UNIVERSITY
 Puducherry - India

In Collaboration with
 DEPARTMENT OF ATOMIC ENERGY
 INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH (IGCAR)
 GOVERNMENT OF INDIA
 Kalpakkam - Chennai

(2024 - 2026)

EVENTS & ACTIVITIES

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Prof. P. Prakash Babu, Vice Chancellor, Pondicherry University
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Prof. M. Lenu Jesu Marlin, Dean, CET, SRMIST, Kattankulathur
Prof. K. Vijayakumar, Professor and Chairperson (SoEE), SRMIST, Kattankulathur

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Prof. R. Sridhar, Professor and Head, EEE, SRMIST
Prof. R. Arun Prasad, Professor and Head, Dept of Green Energy Technology, UNESCO Chair on Renewable & Clean Energy for Sustainable Development, Pondicherry University

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Dr. M. Jagabar Sathik, SRMIST
Prof. Karthik Selva Kumar, Pondicherry University

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Prof. J. Preetha Roselyn, SRMIST
Prof. D. Suchitra, SRMIST
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Prof. P. Elumalai, Pondicherry University
Prof. P. Thilakan, Pondicherry University

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Prof. A. Sreekumar, Pondicherry University

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Prof. K. Shanti Swamy, IIT, Madras
Prof. S. Arul Daniel, NIT, Trichy

Accreditation

NAAC Category 1 with 2.5 Star
NIRF 2025
QS World Ranking
THE World Ranking
Shanghai Ranking
Times Higher Education
UFLIVE Index

Prof. Kartik Chandra Jana, IIT, Dharwad
Prof. S. Senthil Kumar, NIT, Trichy
Prof. M. P. Selvan, NIT, Trichy
Prof. A. Kimbikaran, NIT, Warangal
Prof. B. Venkatesa Perumal, NIT, Karnataka
Prof. S. Thangavel, NIT, Puducherry
Prof. S. S. Dash, Government College of Engg., Kalyandurg
Prof. Rijil Ramchand, NIT, Calicut
Prof. Thanga Raj Chelliah, IIT, Roorkee
Dr. Altaf Q H Badar, NIT, Warangal
Prof. B. Chitti Babu, IITDM, Kancheepuram
Prof. K. Vijayakumar, IITDM, Kancheepuram
Prof. P. Somasundaram, Anna University, Guindy

For further communications, Contact

Dr. C. S. Boopathi - 90475 16228
Dr. A. Geetha - 98844 29825
(iesctech.srmist@gmail.com)

Important Dates

Call For Papers 01st Oct 2025
Final Submission Deadline 31st Dec 2025 - 15th Feb 2026
Acceptance Notification/ Open For Registration on Camera Ready paper / Final Registration 21st Jan 2026 - 20th Feb 2026
Conference Dates 25th Feb 2026
12th & 13th March 2026

Awards

The awards will be given for the best oral and poster Presentations

Excellence Across Disciplines, Ranked Among Top Indian Universities



NATIONAL CONFERENCE ON INTELLIGENT ELECTRICAL SYSTEMS AND CLEAN TECHNOLOGIES

IESCTECH 2026

12th & 13th March 2026

(Hybrid Mode – applicable to participants except those from Tamil Nadu and Puducherry)



Organised by
Department of Electrical and Electronics Engineering
SRM Institute of Science and Technology
Kattankulathur, Tamilnadu, India - 603 203.
Website: <https://www.srmist.edu.in>

and
In partnership with
Department of Green Energy Technology
Pondicherry University, Puducherry, India - 605 014
Website: <https://www.pondiuni.edu.in>

Conference Website: <https://www.iesctech.com>

Chief Patron

Prof. P. Prakash Babu
Hon'ble Vice Chancellor, Pondicherry University

Chief Guest

Prof. Balaji Ramakrishnan
Director, National Institute of Ocean Technology

Patrons

Prof. K. Thirumalarasa
Convenor, SRMIST, Pondicherry University
Shri. R. Govindarajan
Registrar, Pondicherry University
Dr. M. Krishna Murthy
Finance Officer, Pondicherry University

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Pondicherry University

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Head, Dept of Green Energy Technology,
Pondicherry University

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Prof. R. Arun Prasad
Department of Green Energy Technology,
UNESCO Chair on WCEED, Pondicherry University

Departmental Committee Members

Dr. P. Elumalai, Professor, PE
Dr. P. Thilakan, Professor, PU
Dr. D. S. Shanmugam, Professor, PU
Dr. A. Sreekanth, Professor, PU
Dr. S. Sureshchandra, Assistant Professor, PU
Dr. Krishna Kumar Jayaram, Assistant Professor, PU
Dr. K. Karthick Selva Kumar, Assistant Professor, PU
Dr. Krishna Vella Hanika, DGT Inspect, Faculty, PU

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Dr. Vijaya Ramchandran, Scientist G, NIOT
Dr. Neelam Kumar Jena, Scientist G, NIOT
Dr. Nishu Ranjan Das, SAE/MSF-India, New Delhi
Prof. K. Srinivasan, Department of Earth Sciences, PU
Prof. S. M. Sundarapandian, Department of Ecology & Environmental Science, PU

About the Workshop

The National Workshop on "Ocean Energy & Water for Sustainable Future (OEWSF-2026 - Potential and Challenges)" is being organized by the Department of Green Energy Technology, under the prestigious UNESCO Chair on Renewable and Clean Energy for Sustainable Development at Pondicherry University, in proud collaboration with the National Institute of Ocean Technology (NIOT), Chennai. This high-impact event is meticulously designed to bring together a powerful cohort of leading academics, researchers, industry professionals, and policymakers. Our mission is to intensely discuss the immense, yet largely untapped, potential of ocean energy sources as a viable pathway to achieving India's sustainable development goals. The workshop will serve as a crucial platform for cutting-edge knowledge exchange, technology showcase, and strategic dialogue aimed at forging a robust national roadmap for Marine Renewable Energy.

Workshop Topics

- Ocean Energy Technologies and Resource
- Potential Engineering and Infrastructure
- Challenges for Ocean Energy
- Environmental Sustainability and Policy
- Marine Engineering and Infrastructure Resilience
- Policy, Economics, and the National Roadmap
- Environmental Stewardship and Coastal Zone Management

Registration: GOOGLE FORM

<https://forms.gle/9Dnqpi7NfwwXQXlWA>



For More INFO

dgetconference@pondiuni.ac.in
0413-2654431

<https://sites.google.com/pondiuni.ac.in/nwosf2026>

PONDICHERRY UNIVERSITY

(A Central University established by an Act of Parliament No. 53 of 1986)
Accredited with A+ Grade by NAAC – Vth Cycle



ONE-DAY NATIONAL WORKSHOP ON
OCEAN ENERGY & WATER FOR
SUSTAINABLE FUTURE:
POTENTIAL & CHALLENGES 2026
SAMUDRA SHAKTI-SUSTAINABLE SEAS THROUGH
ADVANCED TECHNOLOGY



19.03.2026
CCC Auditorium, PU

MADANJEET SCHOOL OF GREEN ENERGY
TECHNOLOGIES (MSGETS)
DEPARTMENT OF GREEN ENERGY TECHNOLOGY
PONDICHERRY UNIVERSITY
Puducherry - India

In Collaboration with
MINISTRY OF EARTH SCIENCES
NATIONAL INSTITUTE OF OCEAN TECHNOLOGY
GOVERNMENT OF INDIA
Chennai

(2024 - 2026)

EVENTS & ACTIVITIES



NLCEST 2026

102nd Birth Anniversary of

South Asia Foundation(SAF/MSF) Sponsored

16 April

NATIONAL LEVEL COMPETITIVE EXHIBITION ON SUSTAINABLE TECHNOLOGIES

Under UNESCO Chair(RCESD) activity

www.nlcestexpo.in

Showcase your innovation in sustainable technology by becoming an Exhibitor-Competitor !

Shri. Madanjeet Singh
UNESCO Goodwill Ambassador |
Founder- South Asia Foundation

Important Dates

Last date for Exhibitor Submission	: 20 th March 2026
Notification of Exhibitor Confirmation	: within 7 days from date of submission
Last Date for Exhibitor Registration	: 10 th April 2026
Last Date for Visitor Registration	: 10 th April 2026
Date of Event	: 16 th April 2026

Venue: Mahakavi Subramania Bharati International Convention Centre, Pondicherry University, India

 <https://forms.gle/mQbmkR75fbmTvn258>

Shri Madanjeet Singh Memorial Awards

1st Prize (Gold) ₹50,000	2nd Prize (Silver) ₹25,000	3rd Prize (Bronze) ₹12,500
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Registration Fees (EXHIBITOR)

UG / PG / PhD Students	₹1,000 per person ₹2,500/ Team
Start-ups & General Public	₹2,000 per person ₹5,000/ Team

*Only selected exhibitors have to pay!

FREE FOR VISITORS

TA will be provided for participants above 200 KM	Accommodation at university premises will be provided	Transport facility from Pondicherry Bus stand will be available	Consolation prizes for deserving projects
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Exhibitor Instructions

- Eligibility:** UG & PG students, PhD scholars, startups (with proper ID)
- Team Size:** Participation can be individual or in teams, with a maximum of 4 members per team.
- Original Work:** Only original projects. Copied or internet-sourced exhibits are strictly prohibited.
- Exhibit Format:** Exhibits may be presented as models, prototypes, posters or paper presentations.
- Exhibit Size:** The total display area for each exhibit must not exceed 3 ft x 4 ft.
- Screening & Selection:** All submissions are subject to expert screening.
- Logistics & Accommodation:** Selected team has to arrive by 15 April 2026. Detailed stall information will be shared in the Exhibitor Guide after selection.

INNOVATE & COMPETE

CHIEF PATRON
Prof. P. Prakash Babu
Hon'ble Vice Chancellor Pondicherry University

SPECIAL GUEST
Madame France Marquet
SAF/MSF Representative to UNESCO

Patrons

Prof. K. Tharanikarasu Director, SEI & RR, Pondicherry University	Shri. R. Gunasekaran Registrar, Pondicherry University	Dr. M. Krishna Murthy Finance Officer, Pondicherry University
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Chairman
Dr. B.M. Jaffer Ali
Dean(V/C) UMSET
Pondicherry University

Co-chairman
Dr. Prasanth Ravindran
Head of the Department
Professor, DGET, PU

Convenor
Dr. R. Arun Prasath
UNESCO Chair - RCESD
Professor, DGET, PU

Program Advisory Committee

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Dr. Divijen, CEO, GSES, New Delhi
Prof. B. Radjeram, MWIT, Pondicherry
Dr. R. Saravanan, PRL, Pondicherry
Prof. Srinivasanmorthy, Earth Science, PU
Prof. S. K. V. Jayakumar, Computer Science, PU

Department Committee Members

Dr. P. Elumalai, Professor, PU
Dr. P. Thilakan, Professor, PU
Dr. D.S. Sharada, Professor, PU
Dr. A. Sreekumar, Professor, PU
Dr. S. Sivasankari, Assistant Professor, PU
Dr. Krishna Kumar Jaiswal, Assistant Professor, PU
Dr. K. Karthik Selva Kumar, Assistant Professor, PU
Dr. Krishna Villo Hanka, DSEngineering Faculty, PU

For more information and queries. Kindly contact the NLCEST 26th TEAM

Prof. R. Arun Prasath
Convener - NLCEST 2026 | UNESCO Chair - RCESD
Department of Green Energy Technology,
Pondicherry University, R.V. Nagar, Kalapet,
Puducherry - 605 004
nlcestconference@ponduni.ac.in | rprasath@ponduni.ac.in
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EVENT TECHNICAL SUPPORT

* Mr. Sudhanshu Pandey
In-charge, DGET - +91 90440 40277 | sudhanshu812@gmail.com
* Mr. Pragyaj Bhattacharya
PhD Scholar, DGET - +91 710 09 30021 | pragyajbhattacharya@ponduni.ac.in

WHERE INNOVATION MEETS SUSTAINABILITY

(2024 - 2026)

Inauguration of UNESCO CHAIR & National Workshop on Green Hydrogen: Technology to Application

DECEMBER
10TH 2024



The National Workshop on Green Hydrogen Technology to Application marked the inaugural event of the UNESCO Chair on Renewable and Clean Energy for Sustainable Development at Pondicherry University. The workshop was held alongside the formal establishment of the Chair and was inaugurated by **Madam France Marquet**, Trustee of the Madanjeet Singh Foundation and South Asia Foundation Representative to UNESCO, together with **Dr. Timothy Curtis**, Director of the UNESCO Regional Office, New Delhi. The event featured distinguished speakers from premier institutions, including **Dr. Sakthivel** (ARCI, Hyderabad), **Dr. Balaji Rengarajan** (ARCI - Centre for Fuel Cell Technology, IIT-M Research Park), **Dr. Sreekuttan M. U.** and **Dr. Santoshkumar D. Bhat** (CSIR-CECRI, Chennai), **Dr. Aravind Kumar Chandiran** (IIT Madras), **Dr. Raman Vedarajan** (ARCI, Hyderabad), and **Er. Dwipen Boruah** (CEO, GSES India Pvt. Ltd., New Delhi). Together, they addressed the scientific, technological, and industrial pathways for advancing green hydrogen, underscoring the Chair's mission to foster knowledge-sharing, innovation, and sustainable energy solutions for the region and beyond. The workshop witnessed active participation from more than **250 delegates** representing diverse institutes across India, including universities, national laboratories, and industry organizations.



<https://sites.google.com/pondiuni.ac.in/unesco-chair-inauguration/home>

National Workshop on Green Hydrogen: Technology to Application

DECEMBER
10TH 2024

INVITED SPEAKERS



Dr. Sakthivel
Head, Centre for Solar Energy
Materials, ARCI, Hyderabad



Dr. Balaji Rengarajan
Sr. Scientist, ARCI -Centre for Fuel cell
technology, IIT-M Research Park, Chennai



Dr. Sreekuttan M. U.
Senior Scientist
CSIR Madras Complex Chennai



Dr. Santoshkumar D. Bhat
Senior Principal Scientist
CSIR Madras Complex - Chennai



Dr. Raman Vedarajan
Scientist, Centre for Fuel Cell
Technology, ARCI- Hyderabad



Dr. Aravind Kumar Chandiran
Professor, Department of Chemical
Engineering, IIT Madras



Dr. Dwipen Boruah
CEO, GSES, India Pvt. Ltd.
New Delhi

<https://sites.google.com/pondiuni.ac.in/unesco-chair-inauguration/home>

National Conference on Green Energy Technologies for Sustainability (NCGETS 2025)

MARCH

20TH & 21ST

2025



The National Conference on Green Energy Technologies for Sustainability (NCGETS 2025), organized by the Department of Green Energy Technology, Pondicherry University under the auspices of the UNESCO Chair on *Renewable and Clean Energy for Sustainable Development*, was the first major initiative conducted under this Chair. Spanning **2 days**, the conference brought together eminent guests, distinguished speakers, and researchers from across the country, fostering dialogue on sustainable energy solutions.

The event was inaugurated in the presence of Prof. P. Prakash Babu, Hon'ble Vice-Chancellor of Pondicherry University, and was supported by a strong network of sponsors and partners. The **Gold Partners** included Berger Paints India Pvt. Ltd., Puducherry and Solon India Pvt. Ltd., Hyderabad, while the Silver Sponsors comprised TVS Motorcorp, Puducherry, Puducherry Council for Science and Technology, Canara Bank, Puducherry, The National Scientific Suppliers, Puducherry, Sai Scientific & Surgicals, Puducherry, and HYMA Synthesis Pvt. Ltd., Hyderabad. Their contributions ensured the successful execution of the conference, which attracted **210 participants** engaging in oral presentations, poster sessions, and interactive discussions. This landmark event not only showcased cutting-edge research but also strengthened academic and industry collaborations, setting a precedent for future activities under the UNESCO Chair.



National Conference on Green Energy Technologies for Sustainability (NCGETS 2025)

MARCH

20TH & 21ST

2025

INVITED SPEAKERS



Dr. N. Sivasubramanian
ISRO(Retd.),
Thiruvananthapuram



Prof. Aninda J. Bhattacharyya
IISC, Bangalore



Prof. B. Neppolian
SRMIST, KTR, Chennai



Prof. Chinmoy Ranjan
IISC, Bangalore



Dr. Easwaramoorthi Ramasamy
ARCI, Hyderabad



Dr. Sandeep Lakhera
SRMIST, KTR, Chennai



Dr. Mani Karthik
ARCI, Hyderabad



Prof. Yuvaraj Haldorai
PSG College of Arts &
Science, Coimbatore



Dr. A. S. Prakash
CECRI, CSIR, Chennai



Prof. R. Kumar Asthana
Banaras Hindu University,
Varanasi



Prof. P. Sankar Ganesh
BITS, Hyderabad



Ms. Shalini Kumar
Yuvabe Auroville



Prof. M. Omkumar
Anna University, Chennai



Dr. Shivraj Dhaka
CII, Jaipur



Dr. Krishna K. Sarode
Solon India Pvt. Ltd.



Mr. Shamshad Ahamad
Solon India Pvt. Ltd.

National Workshop on Advances in Nuclear Energy for Sustainable Environment (NWANESE-2025)

JULY
25TH 2025



The National Workshop on Advances in Nuclear Energy for Sustainable Environment (NWANESE-2025) was successfully conducted on 25th July 2025 at Pondicherry University, organized by the Department of Green Energy Technology, Madanjeet School of Green Energy Technologies, under the UNESCO Chair activity, in association with IGCAR-Kalpakkam and with generous support from South Asia Foundation(MSF/SAF) and UNESCO-Chair on Renewable and Clean Energy for Sustainable Development. The workshop aimed to foster dialogue and knowledge sharing on the role of nuclear energy in combating climate change and achieving sustainability.

The workshop featured **six distinguished invited speakers** from IGCAR and they delivered insightful technical talks on fast breeder reactors, materials research, safety engineering, radiation safety, and environmental assessment in the nuclear domain. Dignitaries from UNESCO-INDIA, SAF-Madanjeet Foundation, UNESCO Chair, IGCAR and the Vice Chancellor of Pondicherry University graced the event. Participants hailed from reputed institutions. The event marked a significant step toward engaging youth, researchers, and academicians in India's clean nuclear energy mission and in aligning with global sustainable development goals.



National Workshop on Advances in Nuclear Energy for Sustainable Environment (NWANESE-2025)

JULY
25TH 2025



INVITED SPEAKERS



Shri T. Rajkumar

SO/G,
Reactor Core &
Assembly Division (RCAD),
Reactor Design Group (RDG),
IGCAR-Kalpakkam



Dr. Ram Kumar Maity

SO/G,
Thermal Hydraulics Section (THS),
Mechanics & Hydraulics Division (MHD),
Reactor Design Group (RDG),
IGCAR-Kalpakkam



Dr. C. V. Srinivas

Head,
Environment Assessment Division (EAD),
Safety, Quality & Resource Management
Group (SQRMG),
IGCAR-Kalpakkam



Dr. S. Chandrasekaran

Head,
Health and Industrial Safety Division (HISD),
Safety, Quality & Resource Management
Group (SQRMG),
IGCAR-Kalpakkam



Shri Sanjay Kumar Das

Head,
Safety Engineering Division (SED),
Fast Reactor Technology Group (FRTG),
IGCAR-Kalpakkam



Dr. S. Tripurasundari

Head,
Surface & Sensors Studies Division (SSSD),
Material Science Group (MSG),
IGCAR-Kalpakkam

Workshop on Role of Additive Manufacturing Applications Towards Sustainability

AUGUST
08TH 2025



The One-Day Workshop on the Role of Additive Manufacturing Towards Sustainability, jointly organized by the Department of Green Energy Technology, Pondicherry University and the National Centre for Additive Manufacturing, was held on 8 August 2025 at Pondicherry University. The workshop was inaugurated by Prof. P. Prakash Babu, Vice-Chancellor of Pondicherry University, who emphasized the transformative role of additive manufacturing in balancing industrial innovation with environmental responsibility. He highlighted how this technology reduces waste, conserves resources, and enables the use of recycled materials, positioning it as a powerful tool for achieving sustainability goals.



The event attracted **over 170 participants** from institutions across India, creating a vibrant platform for academic and industry interaction. Distinguished speakers included **Mr. G. Sudhakar (Polymer Application Lead, EOS GmbH)**, **Mr. P. Lakshmi Narayana (Assistant Vice President – Sales, Imaginarium)**, **Mr. Samarth Deshpande (Application Engineer, Philips Machine Tools India Pvt. Ltd.)**, and **Mr. Amit Saxena (Senior Executive – Sales and Marketing)**, who delivered expert lectures on cutting-edge additive manufacturing technologies. The sessions explored design flexibility, material optimization, localized production, and the integration of recycled or bio-based materials, while also addressing the role of additive manufacturing in extending product life cycles through repair and customization. By presenting real-world applications across diverse industries, the workshop showcased how 3D printing technologies contribute to building a greener, resource-efficient manufacturing ecosystem and serve as a key enabler of the **United Nations Sustainable Development Goals (SDGs)**. This initiative reinforced Pondicherry University's commitment to advancing sustainable technologies and fostering collaboration between academia, industry, and national innovation centers.

International Conference on Energy and Water for Sustainable Environment:

SUSTAINABLE SYNERGIES: ADVANCING ENERGY & WATER SOLUTIONS FOR A RESILIENT FUTURE

**30TH - SEPT &
01ST - OCT 2025**



ICEWSE 2025



The International Conference on Energy and Water for a Sustainable Environment (ICEWSE 2025) marked a historic milestone as the **first international joint conference organized under two UNESCO Chairs**, bringing together the UNESCO Chair on *Renewable and Clean Energy for Sustainable Development* at Pondicherry University, India, and the UNESCO Chair on *Sustainable Water Resources Management in South Asia* at the University of Moratuwa, Sri Lanka. Hosted at Pondicherry University's Cultural-Cum-Convention Centre on **30 September and 01 October 2025**, the event was **inaugurated by Prof. P. Prakash Babu, Hon'ble Vice-Chancellor of Pondicherry**, and **Madam France Marquet**, symbolizing the strong institutional and international collaboration behind this initiative.

The conference convened global experts, policymakers, industry leaders, and young researchers to deliberate on integrated approaches to energy and water sustainability. With **17 special lectures, 10 oral presentations, 90 poster presentations, and 88 registered participants**, ICEWSE 2025 provided a vibrant platform for academic exchange and collaborative innovation. The success of the conference was made possible through the generous support of its sponsors and partners, including leading academic institutions, industry collaborators, and financial supporters whose contributions ensured dynamic sessions, exhibitions, and meaningful discussions. Convened by **Prof. R. Arun Prasath**, Head of the Department of Green Energy Technology and UNESCO Chairholder on RCESD, and **Prof. Lalith Rajapakse**, Director of UMCSAWM and UNESCO Chairholder on SWRMSA, this pioneering initiative stands as a landmark in promoting sustainable development through cross-border knowledge-sharing and institutional cooperation, reinforcing the mission of UNESCO Chairs to advance the United Nations Sustainable Development Goals (SDGs).

<https://sites.google.com/pondiuni.ac.in/icwse2025>

International Conference on Energy and Water for Sustainable Environment:

**SUSTAINABLE SYNERGIES: ADVANCING ENERGY &
WATER SOLUTIONS FOR A RESILIENT FUTURE**

**30TH - SEPT &
01ST - OCT 2025**



INVITED SPEAKERS



Dr. S. Sakthivel
Centre of Solar Energy,
Materials, ARCI,
Hyderabad, India



Mr. Toine van Megan
Auroville Consulting
(Auroville Foundation),
India



Dr. Sahana M B
Centre of Automotive
Energy Materials,
ARCI, IIT-Madras Research
Park, India



**Dr. Selvaraju
Narayanasamy**
IIT, Guwahati, India



Dr. Raman Vedarajan
Centre for Fuel Cell Technology, ARCI,
IIT-Madras Research Park, India



Dr. Sandeep Lakhera
SRMIST, Chennai,
India



Dr. A.S. Prakash
CSIR- CECRI, CSIR Madras
Complex, India



Dr. V. Ganapathy
Centre for Solar Energy
Materials,
ARCI, Hyderabad, India



Dr. Shivraj Dhaka
Indian Green Building
Council (IGBC),
Confederation of Indian
Industry (CII), India



Dr. Dwipen Boruah
Global Sustainable Energy
Solutions Pvt. Ltd., India



Prof. Lalith Rajapakse
UMCSAWM, Dept. of Civil Eng.,
UoM, Sri Lanka



Dr. Luminda Gunawardhana
UMCSAWM, Dept. of Civil
Eng., UoM, Sri Lanka



Dr. Nimal Wijayarathna
UMCSAWM, Dept. of Civil Eng.,
UoM, Sri Lanka



Dr. Binal Chatura Dissanayake
UMCSAWM, Dept. of Civil Eng.,
UoM, Sri Lanka



Dr. Kasun de Silva
UMCSAWM, Dept. of Civil Eng.,
UoM, Sri Lanka



Dr. Chamal Perera
UMCSAWM, Dept. of Civil Eng.,
UoM, Sri Lanka



Dr. Nalintha Wijayaweera
UMCSAWM, Dept. of Civil
Eng., UoM, Sri Lanka



Ms. Sajina Karki
Global Eng. Surveyors.
Asian Democratic Leaders
Alliance (ADLA), Nepal

<https://sites.google.com/pondiuni.ac.in/icwse2025>

WORKSHOP AND HANDS-ON TRAINING : "Academic Entrepreneurship on Hydrogen Electrolyzers"

OCTOBER
31ST 2025



The Workshop and Hands-on Training on "Academic Entrepreneurship on Hydrogen Electrolyzers" was successfully conducted on 31st October 2025 by the Industry Academic Cell (IAC), CED Committee, Department of Green Energy Technology, Pondicherry University, under the UNESCO Chair activity. The program was convened by Prof. R. Arun Prasath, Head of DGET, with Dr. S. Sivasankari and Dr. Villa Krishna Harika serving as Co-Convenors, and was supported by student coordinators from the department.

The event was inaugurated with addresses by senior faculty, followed by a keynote lecture and technical sessions delivered by **Dr. M. Sankara Rao, Director, Nanosol Energy Pvt. Ltd.**, who provided insights into innovations in hydrogen electrolyzers, pathways for academic entrepreneurship, and design aspects of electrolyzer systems. The workshop attracted **64 registered participants** (61 present) from diverse disciplines including Chemistry, Physics, Pollution Control, Nano Sciences, and Auroville institutions, fostering interdisciplinary collaboration.



The program combined expert lectures with **hands-on training**, where participants assembled laboratory-scale hydrogen electrolyzers, learned about electrode selection, electrolyte management, troubleshooting, and explored prototype instrumentation. Interactive sessions, panel discussions, and Q&A segments encouraged knowledge exchange and entrepreneurial ideation. Certificates were distributed to all attendees, and feedback highlighted the relevance of the workshop to global hydrogen energy trends, with participants requesting advanced follow-up training. Overall, the workshop enhanced technical skills, inspired entrepreneurial thinking, and reinforced Pondicherry University's role in advancing clean hydrogen technologies through academic-industry collaboration.

Five-Day Boot-Camp & Hands-on Training Workshop on Computational and Practical Aspects in Drone Technology Towards Sustainability

NOVEMBER
3RD – 7TH
2025

The 5-Day Boot Camp and Hands-on Training Workshop on “Computational and Practical Aspects in Drone Technology Towards Sustainability” was organized from 3rd to 7th November 2025 at the Cultural Cum Convention Centre, Pondicherry University, by the Department of Green Energy Technology (MSGET), Pondicherry University, in collaboration with the Department of Mechanical Engineering, NIT Rourkela. Sponsored by the Ministry of Electronics and Information Technology (MeitY), Government of India, under its Human Resource Development initiative in Unmanned Aircraft Systems, and supported by the South Asia Foundation (SAF), the program aimed to build technical capacity in drone design, assembly, and sustainable applications. The inaugural session was graced by Prof. P. Prakash Babu, Vice-Chancellor of Pondicherry University (Chief Patron), Prof. K. Tharanikkarasu, Director SEI & RR (Presiding Officer), and Dr. M.K. Padmanabhan, Director, Virginia Tech India (Guest of Honour), with felicitation by Prof. B.M. Jaffar Ali, Dean MSGET, and Dr. P.S. Balaji, Convenor from NIT Rourkela. The welcome address was delivered by Dr. K. Karthik Selva Kumar, Convenor, and the vote of thanks by Prof. R. Arun Prasath, UNESCO Chairholder (RCESD) and Head, DGET. Across five days, the Boot Camp featured expert lectures and practical sessions covering drone architecture, aerodynamics, electronics,

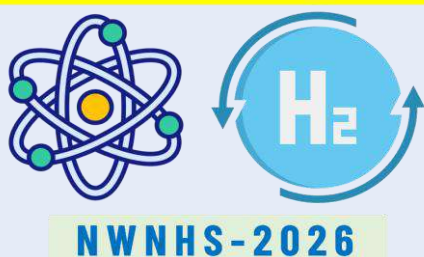


AI-driven aerial systems, GPS and telemetry setup, firmware basics, 3D design and printing of drone parts, swarm applications, and computational approaches. Participants engaged in hands-on training including drone assembly, calibration, sensor setup, wiring, ESC calibration, and flight demonstrations. The concluding valedictory session was addressed by Prof. Clement S. Lourdes, Director C&CR, with felicitation by Dr. P.S. Balaji and Dr. M. Vijayakumar, University Librarian, and a vote of thanks by Dr. K. Karthik Selva Kumar.

With wide participation from students, research scholars, and professionals across disciplines, the Boot Camp provided **Level-1 Certification in Fundamentals of Drone Technology**. The outcomes included enhanced skills in drone assembly and flight control, deeper understanding of AI-driven drone applications for sustainability, and strengthened collaboration between Pondicherry University and NIT Rourkela. The event reinforced the role of drone technology in advancing sustainable solutions for agriculture, energy, environment, and disaster management, aligning with national initiatives for technological self-reliance and capacity building.

National Workshop on Nuclear-Hydrogen Synergy (NWNHS-2026)

JANUARY
30TH 2026



The National Workshop on Nuclear-Hydrogen Synergy 2026 (NWNHS-2026): Pathways for India's Clean Energy Transition, held on 30th January, was organized under the UNESCO Chair activity in the Department of Green Energy Technology (DGET), Pondicherry University, in collaboration with Indira Gandhi Centre for Atomic Research (IGCAR). The inauguration commenced with the Pondicherry University anthem, followed by the traditional lighting of the lamp and honouring of the dignitaries and speeches from the Hon'ble VC, Prof. Prakash Babu, Delegates from IGCAR: Dr. K. I. Gnanasekar, Dr. Rajesh Ganesan, video message from Dr. Benno Boer, UNESCO Regional Head, NWNHS-2026 Team: Prof. Jaffer Ali, Head Dean (i/c), Prof. R. Prasanth, Head DGET, Prof. D. Shardha and Prof. R. Arun Prasath, Convenor of NWNHS-2026. The abstract book was released by VC Prof. Prakash Babu.

The National Workshop on Nuclear-Hydrogen Synergy 2026 (NWNHS-2026) was hosted to explore transformative pathways for sustainable energy generation in India. The core objective discussed about integrating advanced nuclear reactor technologies—including Small Modular Reactors (SMRs)—with the hydrogen economy to produce clean hydrogen without carbon emissions. This synergy is viewed as a critical component for achieving India's "Viksit Bharat 2047" vision and net-zero emissions by 2070.

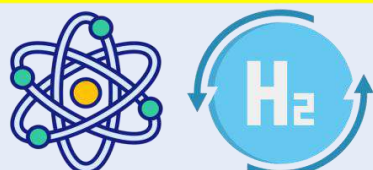
Key Themes and Technical Discussions: Delegates from the Indira Gandhi Centre for Atomic Research (IGCAR) presented specialized technical sessions on nuclear-hydrogen integration strategies: (a) Nuclear Energy and Hydrogen Production Technologies, Infrastructure, Sectoral Impact, Capacity Expansion from 8.8 GW to 100 GW by 2047 through breeder and modular reactors.

Participation and Outreach: The event successfully brought together 165 registered participants from several reputed institutions.



National Workshop on Nuclear-Hydrogen Synergy (NWNHS-2026)

JANUARY
30TH 2026



NWNHS-2026

INVITED SPEAKERS



Shri. Satyanarayan Sahoo

TSD, RFG, IGCAR



Dr. Arjun Pradeep

Head, EAS, SED,
FRTG, IGCAR



Dr. Rajesh Ganesan

Head, MCD, FMCG,
IGCAR



Dr. K. I. Gnanasekar

Head, NCSS, MCD,
FMCG, IGCAR



Shri S.Kishore

Head, PD&ES,
ETHD, IGCAR



Shri Ashish Kumar

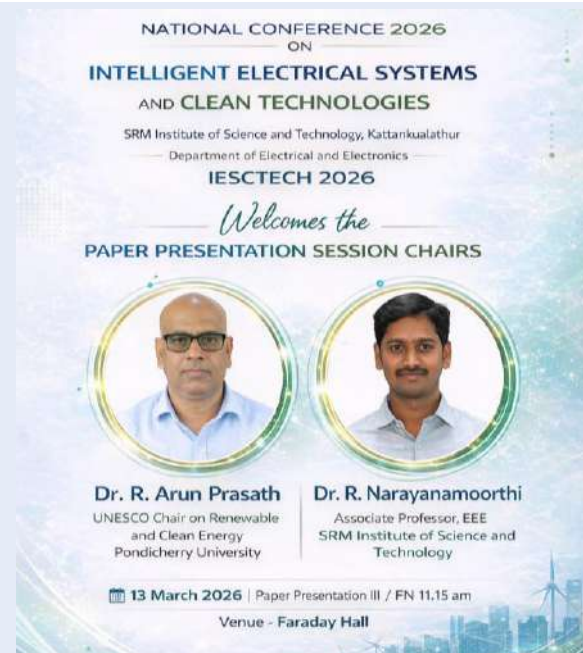
SE&CDD, FRTG,
IGCAR

National Conference on “Intelligent Electrical Systems and Clean Technologies”

MARCH
12TH – 13TH
2026

The National Conference on Intelligent Electrical Systems and Clean Technologies (IESCTECH 2026) was jointly organized by the Department of Electrical and Electronics Engineering, SRM Institute of Science and Technology (SRMIST), Kattankulathur, and the Department of Green Energy Technology, Pondicherry University, under the UNESCO Chair on *Renewable and Clean Energy for Sustainable Development*. Scheduled for 12th and 13th March 2026 in hybrid mode, the conference collaborated researchers, academicians, and industry professionals to deliberate on the latest advancements in **power electronics, renewable energy, smart grids, energy storage, and e-mobility**, fostering innovation and collaboration towards intelligent and sustainable energy solutions. The organizing committee is led by Prof. R. Sridhar (SRMIST) and Prof. R. Arun Prasath (Pondicherry University) as Convenors, with support from Co-Convenors Prof. N. Chellammal, Dr. M. Jagabar Sathik (SRMIST), and Prof. Karthik Selva Kumar (Pondicherry University). The conference is guided by distinguished Chief Patrons including Dr. T. R. Paarivendhar, Chancellor, SRMIST, and Prof. P. Prakash Babu, Vice-Chancellor, Pondicherry University, alongside an advisory committee comprising eminent experts from IITs and NITs across India.

The scope of IESCTECH 2026 included themes such as **energy conversion systems, clean and renewable energy technologies, decarbonization of power systems, low-carbon technologies, and energy policies**. Original research papers were invited with selected contributions to be published in **Scopus-indexed journals** and all accepted abstracts featured in the official proceedings with ISBN registration. Track-wise **Best Paper Awards** were also presented. With its strong academic-industry partnership and focused on sustainable energy solutions, IESCTECH 2026 served as a vibrant platform for knowledge exchange, innovation, and collaboration, reinforcing the mission of SRMIST and Pondicherry University in advancing clean technologies and intelligent electrical systems.



<https://www.srmist.edu.in/events/national-conference-on-intelligent-electrical-systems-and-clean-technologies/>

National Workshop on Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026

MARCH
19TH 2026



SUSTAINABLE SEAS
THROUGH ADVANCED
TECHNOLOGY

OEWSF-2026

The One-Day National Workshop on Ocean Energy & Water for a Sustainable Future: Potential and Challenges (OEWSF 2026) was jointly organized by the Department of Green Energy Technology (DGET), Pondicherry University, under the UNESCO Chair on *Renewable and Clean Energy for Sustainable Development*, in collaboration with the National Institute of Ocean Technology (NIOT), Chennai. The workshop was inaugurated by Prof. K. Tharanikkarasu, Director, SEI & RR, Pondicherry University, and convened by Prof. R. Arun Prasath, UNESCO Chairholder on RCESD. This high-impact event brought together leading scientists, academicians, industry experts, and policymakers to deliberate on the future of ocean energy and water sustainability. Distinguished NIOT scientists including Dr. S. V. S. Phani Kumar, Dr. G. Dharani, Dr. A. Ganesh Kumar, Dr. G. Venkatesan, Dr. V. Samson Packiaraj, Mr. S. S. Prakash Kumar Lagudu, Mr. Biren Pattanaik, Mr. Ashwani Vishwanath, and Mr. Abhijeet Sajjan enriched the technical sessions with their expertise. With over 180 participants, the workshop provided a vibrant platform for knowledge exchange, fostering dialogue on the potential and challenges of ocean energy and water technologies. Supported by Pondicherry University's UNESCO Madanjeet School of Green Energy Technologies and NIOT under the Ministry of Earth Sciences, Government of India, OEWSF 2026 reinforced the role of collaborative research in advancing India's ocean energy roadmap and strengthening sustainable coastal and marine development.



<https://sites.google.com/pondiuni.ac.in/nwosf2026>

National Workshop on Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026

**MARCH
19TH 2026**



**SUSTAINABLE SEAS
THROUGH ADVANCED
TECHNOLOGY**

INVITED SPEAKERS

OEWSF-2026



Dr. G. Venkatesan

Scientist-G, Group Director –Marine Energy & DOM Vertical-5, NIOT- MoES



Prof. K. Srinivasamoorthy

Professor & Head, Dept of Earth Sciences, PU



Dr. S V S Phani Kumar

Scientist-G, Group Director Water & Climate Change & Mission Mausam NIOT- MoES



Dr. A. Ganesh Kumar

SCIENTIST-E Marine Biotechnology, NIOT- MoES



Dr. Biren Pattanaik

Scientist-E, NIOT- MoES



Dr. V. Samson Packiaraj

SCIENTIST-E, Joint Project Director –OTEC, NIOT- MoES



Mr. Ashwani Vishwanath

Scientist-E , NIOT- MoES



Mr. S. S. Prakash Kumar Lagudu

SCIENTIST-E, NIOT- MoES



Mr. Abhijeet Sajjan

Scientist-D, NIOT- MoES



Dr. S. Sivasankari

Assistant Professor, DGET, PU



Dr. Krishna Kumar Jaiswal

Assistant Professor, DGET, PU

<https://sites.google.com/pondiuni.ac.in/nwosf2026>

Three- day International Conference on Manipal Global SDG Convergence (MAGSCON-26)

MARCH

24TH & 26TH

2026



The Manipal Global SDG Convergence (MAGSCON-26), held from 24-26 March 2026 at Manipal Academy of Higher Education (MAHE), brought together eminent leaders, academics, and innovators to deliberate on pathways for achieving the United Nations Sustainable Development Goals. Among the distinguished speakers was Prof. R. Arun Prasath, UNESCO Chair on Renewable and Clean Energy for Sustainable Development and Professor, Department of Green Energy Technology, Pondicherry University, who contributed to the panel discussion titled “*CSR, Sustainable Technology, AI & Innovation for People and Planet.*” In his intervention, Prof. Arun Prasath emphasized the transformative role of **corporate social responsibility (CSR)** in accelerating sustainable technology adoption, highlighting how industry-academia partnerships can drive innovation for societal benefit. He underscored the importance of **artificial intelligence (AI)** as a catalyst for clean energy solutions, resource optimization, and inclusive innovation, aligning with global sustainability imperatives. The discussion also explored how collaborative frameworks can integrate CSR initiatives with cutting-edge technologies to address pressing challenges in energy, environment, and social equity. Prof. Arun Prasath’s participation reinforced the visibility of the **UNESCO Chair RCESD** at an international forum, showcasing Pondicherry University’s leadership in sustainability-driven innovation. His contribution at MAGSCON-26 exemplified the Chair’s mission of fostering dialogue, collaboration, and actionable strategies for a greener, more equitable future.



<https://conference.manipal.edu/MAGSCON2026/>

National Level Competitive Exhibition on Sustainable Technologies NLCEST 2026

APRIL
16TH 2026

NLCEST
2026



The National Level Competitive Exhibition on Sustainable Technologies (NLCEST 2026) was successfully organized on 16 April 2026 at the MSB International Convention Centre, Pondicherry University, under the auspices of the UNESCO Chair on Renewable and Clean Energy for Sustainable Development. Hosted by the Department of Green Energy Technology, Madanjeet School of Green Energy Technologies, and sponsored by the South Asia Foundation (SAF/MSF), the exhibition commemorated the 102nd birth anniversary of Lt. Shri Madanjeet Singh, UNESCO Goodwill Ambassador and Founder of SAF/MSF.

102nd Birth Anniversary of
Lt. Shri Madanjeet Singh
UNESCO Goodwill Ambassador
Founder- South Asia Foundation

The inaugural session set the tone for the day, with addresses by Prof. R. Arun Prasath (UNESCO Chairholder and Convenor), Prof. R. Prasanth (Head, DGET), Prof. B. M. Jaffar Ali (Dean, MSGET), and Prof. P. Natarajan (Director, C&CR). A keynote address was delivered by Madam France Marquet, SAF Trustee and Representative to UNESCO, who emphasized the importance of innovation-driven sustainability. The release of the UNESCO Chair Progress Compendium (2024–26) marked a milestone in documenting achievements and institutional visibility.

The exhibition featured a diverse range of projects from universities, research institutes, and industry, showcasing innovative solutions in renewable energy, clean technologies, sustainable materials, and environmental engineering. Participants engaged in rigorous evaluation sessions, interactive displays, and academic-industrial dialogues, highlighting creativity and technical excellence. The event provided a platform for young innovators to present their work, fostering collaboration and entrepreneurial thinking.

The valedictory session concluded with awards and certificates recognizing outstanding contributions, followed by guest remarks and acknowledgments. With strong participation and impactful outcomes, NLCEST 2026 reinforced Pondicherry University's role as a national hub for sustainability-driven innovation, advancing the mission of the UNESCO Chair in promoting clean energy, sustainable technologies, and academic entrepreneurship.



WHERE INNOVATION MEETS SUSTAINABILITY

www.nlcestexpo.in

National Level Competitive Exhibition on Sustainable Technologies NLCEST 2026

APRIL
16TH 2026

NLCEST
2026



Future Projects

National events 2026-27 (Proposed)

- ✓ Powering the Future: The AI-Energy Synergy of 2026 (Industrial and academic workshop, August 2026).
- ✓ National Conference on Green Energy Technology for Sustainable Future NCGETSF-2026 (October 2026).
- ✓ Certificate Courses based on Ocean Science and Energy Technology, and an institutional visit to NIOT, Chennai, to explore Ocean Energy and Water Technologies for UG/PG students (from Nov 2026/ April 2027/July 2027). Minimum of TWO Events
- ✓ Skill-development Certificate courses to promote -Green Campus for a Sustainable Future in Schools and HEIs with required infrastructure and relevant to Renewable Energy (from January 2027/May 2027), Minimum of TWO Events
- ✓ Annual National-level Competition on Sustainable Technologies on the occasion of the Birthday of UNESCO Goodwill Ambassador, Shri. Madanjeet Singh, to be held in April/July 2027.
- ✓ Training and National Workshop series with IGCAR Kalpakkam, NIOT, and NLC. (Minimum of THREE Events)
- ✓ Outreach activities - As mentioned in the UNESCO Chair Application and priorities (as and when opportunities arise)

International event 2026-27 (Proposed)

- Partner for the International Conference on Energy, Water, and Disaster Risk Reduction for Sustainable and Resilient Environments (ICEWSE-DRR 2026), October 2026, at the University of Moratuwa, Sri Lanka.- jointly between the UNESCO chairs of Pondicherry University, India and the University of Moratuwa, Sri Lanka, in partnership with the UNESCO Regional Office, Delhi.
- International Convergence on UNSDGs in Higher Education Institutions for a Sustainable Future - 2027 (ICUHEGISF-2027)” during July/August 2027.
- International Conference on Energy and Water for Sustainable Future-2027 in collaboration with the UNESCO chair, University of Moratuwa, Sri Lanka.
- Joint international events between UNESCO chairs across the globe, partners (as and when opportunities arise).

Impact & Testimonials





Prof. P. Prakash Babu

Vice-Chancellor, Pondicherry University

“The international conference brings together eminent teachers, researchers, industry leaders, and young scholars from across the globe to advance discussions on the critical challenges and opportunities in the vital domains of energy and water.”

“I sincerely appreciate **Prof. R. Arun Prasath**... for his leadership and dedicated efforts in bringing forth this joint conference.”

“The knowledge, inspiration, and partnerships fostered... will lead to impactful outcomes in energy and water sustainability, benefitting communities locally and globally.”

Saroja Kumari Chaudhury

Under Secretary, Indian National Commission for Cooperation with UNESCO, Govt. of India

“**The Indian National Commission for Cooperation with UNESCO** recommends the proposal of Pondicherry University... for establishment of UNESCO Chair for Affordable Renewable and Clean Energy for Sustainable Development.”

Prof. Carrick M. Eggleston

Worcester Polytechnic Institute, USA

“I look forward to collaborating... on conferences, seminars, workshops, training opportunities, and certificate classes.”

“I am particularly happy to collaborate and support this chair...”

“I first met **Prof. Prasath** and had the honor of working with him.....”

Prof. José Baltazar S. O. Guimarães

UNISUL, Brazil

“The team and **Professor Dr. R. Arun Prasath's** group have collaborated intensively for the last EIGHT years on renewable energy technologies.”

“The Chair activities could foster significant impact... to promote research/technology knowledge-sharing networks.”

Prof. Gurmeet Singh

Former Vice-Chancellor, Pondicherry University

“The Department of Green Energy Technology was established under the aegis of the South Asia Foundation with a vision from **the late UNESCO Goodwill Ambassador Madanjeet Singh** to provide high-quality education to South Asian students in renewable and clean energy.”

“Since energy influences the development, the Department's teaching and innovative research focused on addressing the UN's SDG7.”

Prof. Dr. Klaus Müllen

Max Planck Institute for Polymer Research, Germany

“I hereby confirm the strong interest of my research team... in collaborating with the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies.”

“We would be pleased to engage with UNESCO CHAIR activities outlined in the proposal by supporting **Prof. R. Arun Prasath's Team**”

“I am looking forward to the **establishment of the UNESCO Chair** and look for actively participating in sharing our expertise in energy materials for a sustainable development.”

Prof. Martina Stenzel

UNSW Sydney, Australia

“The UNESCO chair... will serve the university... committed to collaborating for the chair activities.”

“It is worth to mention that **Professor R. Arun Prasath** was a Postdoc researcher at UNSW under me...”

“I wish him and his team success in establishing the **prestigious UNESCO chair and achieving UNESCO's goals.**”



S. Shamsundar

Head, NIE-CREST, National Institute of Engineering, Mysuru

"This letter confirms our interest in partnering with the Department of Green Energy Technology..."
"Professor R. Arun Prasath and I are DAAD alumni..."
"Our team will be pleased to be a partner with the UNESCO chair academic activities."

"We will facilitate the renewable technology-related workshops and training courses..."

"I strongly support the establishment of a UNESCO chair at DGET, for which we will extend our full support for success."

Dr. Benno Böer

Chief, Natural Sciences Unit, UNESCO New Delhi

"I extend my deep appreciation to Prof. R. Arun Prasath... for his visionary leadership..."
"His leadership under the UNESCO Chair Programme deserves our sincere appreciation."

Madam France Marquet

Principal Trustee, Madanjeet Singh Foundation

"The recognition by UNESCO of the excellent and continuous work carried out by this Chair..."

"To Vice Chancellor Pondicherry University, Dear Prof Prakash Babu.

Allow me to share with you my appreciation of Prof Arun Prasath's work, as head of the UNESCO Chair on renewable energy.

Since its inception in December 2024 the Chair has emerged as a beacon of academic excellence, particularly with the successful execution of 11 impact events.

From International to National conferences, specialized workshops covering critical areas such as: green hydrogen, hydrogen synergy, nuclear clean energy, clean water solutions. Strong themes of sustainable development held on 16th April 2026 in cooperation with national Universities, leading to a transdisciplinary approach to sustainability."

Dr. Shanmugasundaram Sakthivel

ARCI, Hyderabad

"The Centre for Solar Energy Materials... is willing to collaborate closely with UNESCO chair activities..."

"I know Prof. R. Arun Prasath and his team for their work in solar energy technologies for sustainable development"

"We strongly support the training courses in-time with proposed UNESCO chair activities."

Dr. Jayakumar Ramasamy

Chief of Exe. Office, Natural Sciences Sector, UNESCO

"The UNESCO Chair at Pondicherry University has demonstrated commendable progress through its initiatives in renewable energy, education, and sustainability. We appreciate its commitment to fostering innovation, collaboration, and sustainable development."

Dr. C.G. Karhadkar

Former Director, IGCAR

"I extend my sincere appreciation to Prof. Arun Prasath... for his dynamic leadership and vision."

Dr. Sreekumar G Pillai

Outstanding Scientist & Director, IGCAR

"I extend my sincere gratitude to... Dr. Arun Prasath, UNESCO Chairholder... for hosting this insightful workshop and spearheading the valuable collaboration with IGCAR."

"Your visionary initiative strengthens our shared pursuit of nuclear-hydrogen advancements for a sustainable future."

Prof. Balaji Ramakrishnan

Director, NIOT

"I congratulate Prof. R. Arun Prasath... for his dedication and for spearheading this collaborative event."





IMPACTED INSTITUTIONS





global
sustainable energy
solutions



GOVERNMENT OF PUDUCHERRY
புதுச்சேரி அரசு



ATHER

INDUSTRIAL
CONTRIBUTIONS



The National
Scientific Suppliers



LASER SPECTRA SERVICES



APSCC



Sisco
Research
Laboratories



RECOMMENDATIONS



पांडिच्चेरी
PONDICHERRY
(केंद्रीय विश्वविद्यालय)



विश्वविद्यालय
UNIVERSITY
(A Central University)

பேராசிரியர் குர்மீத் சிங்
துணைவேந்தர்

आचार्य गुरमीत सिंह
कुलपति

Prof. GURMEET SINGH
Vice-Chancellor

आर.वेकटरामन नगर,
R. Venkataraman Nagar,
कालापेट / Kalapet,
पुदुच्चेरी - ६०५ ०१४.
Puducherry - 605 014.
भारत . India.

LETTER OF SUPPORT

"TO ESTABLISH THE UNESCO CHAIR AT PONDICHERRY UNIVERSITY"

I have the honour to express our support for the establishment of the UNESCO chair under the title "Affordable Renewable and Clean Energy for Sustainable development" in the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies at Pondicherry University. The Department of Green Energy Technology was established under the aegis of the South Asia Foundation with a vision from the late UNESCO Goodwill Ambassador Madanjeet Singh to provide high-quality education to South Asian students in renewable and clean energy. The Department offers M.Tech/Ph.D. programmes and planning for B.Tech/B.Sc/integrated programmes under new National Education Policy. The Department's vision overlaps with UNESCO's sustainability goal of SDG4 and thrives to fulfill this goal. Since energy influences the development, the Department's teaching and innovative research focused on addressing the UN's SDG7. Pondicherry University targets nearly every UN's 17 SDGs, particularly SDG13, SDG7, SDG6, and SDG5. I am proud to note that currently, our campus produces almost thirty percent of its energy from the established solar power plant on the main campus from 2021 onwards. The Department's role in the sustainable development activities of the University is commendable in terms of excellent teaching, research and outreach.

The UNESCO Chair aims to prioritize developing innovative training programs for initial education (awareness to the public), specialized certificate courses (for graduate and post-graduates) and provide intensive courses for industries/professional audiences from international, national and regional levels. The global and national events (conferences/seminars/workshops) aimed to increase the collaborative nature by connecting subject experts to promote a knowledge-sharing network through capacity building and dissemination for societal progress. All the training activities are based on an active pedagogy, focusing on operational and practical exercises on renewable and clean energy technologies. The Department aims to increase its visibility and serve society more socially responsibly under the UNESCO Chair.

.....2

The UNESCO Chair activities will be financially supported by the Indian chapter of South Asia Foundation (SAF-India), <https://www.southasiafoundation.org/>. Pondicherry University and SAF-India have a robust MOU for supporting financially the SAF scholarships for the 16 meritorious students per year comprising eight autonomous chapters: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka to carry out their M.Tech Green Energy Technology courses from 2010 onwards. Currently, SAF-India grants 200000 USD per year and extends support every year. To support the activities of the UNESCO Chair in UMSGET, 60000 USD has been earmarked every year, *i.e.*, 30% of the 200000 USD yearly grant for the Department. Hence for the four-year UNESCO chair, a total of 240000 USD will be provided by SAF-India to utilize for the chair activities.

I am delighted and strongly support for the establishment of the UNESCO chair in the DGET, Pondicherry University. I am confident that the UNESCO chair would bring a wide range of teaching, research, outreach and practice experts in renewable energy for Sustainable Development to care for our mother earth, people, and economy.

Wish you all success.



(GURMEET SINGH)



Tele No. : + 91-11-23384442
E-mail : inc.edu@nic.in

INDIAN NATIONAL COMMISSION FOR
COOPERATION WITH UNESCO (INCCU)
MINISTRY OF EDUCATION
DEPARTMENT OF HIGHER EDUCATION
GOVERNMENT OF INDIA
SHASTRI BHAWAN,
RAJENDRA PRASAD ROAD,
NEW DELHI - 110 001

No. 23-15/2023-UU

Dated: 27th April, 2023

To

Ms. Inga Nichanian
UNITWIN/UNESCO Chairs Programme
Future of Learning and Innovation
Education Sector
UNESCO, 7, place de Fontenoy
F-75352 Paris 07 SP
E-mail: i.nichanian@unesco.org

Subject: Proposal for establishment of UNESCO Chair at Pondicherry University, Kalapet, India for Affordable Renewable and Clean Energy for Sustainable Development under the UNESCO Chairs Programme.

Madam,

The Indian National Commission for Cooperation with UNESCO recommends the proposal of Pondicherry University, Kalapet, India for establishment of UNESCO Chair for Affordable Renewable and Clean Energy for Sustainable Development under the UNESCO Chairs Programme for favourable consideration.

Yours faithfully,

(Saroj Kumar Choudhary)

Under secretary to the Government of India

Tel: +91-11-2338 4442

Email: unesco.edu@nic.in

यूनेस्को के साथ सहयोग के लिये
भारतीय राष्ट्रीय आयोग
INDIAN NATIONAL COMMISSION
For Cooperation With UNESCO (INCCU)

Madanjeet Singh Foundation

France Marquet
Principal Trustee, MSF

Paris, 11 June 2024

On May 13th, 2024, Mr. Timothy Curtis, Director, UNESCO South Asia Regional Office and UNESCO Representative to Bangladesh, Bhutan, India, the Maldives, and Sri Lanka, announced the appointment of the new UNESCO Chair in India, joining the existing network of 19 other Chairs across South Asia.

Established in 1992, the UNITWIN/UNESCO Chairs Programme is an inter-sectoral network of higher education institutions which share their expertise to address complex interdependent development challenges. The Programme promotes international inter-university cooperation and networking to enhance institutional capacities through knowledge sharing and collaborative work.

The UNESCO Chair on **"Renewable and clean Energy for Sustainable Development"** was launched in the **Madanjeet School of Green Energy Technologies in Pondicherry University**, India, for four years period (2024-2028) on a renewable basis.

With the support of the Madanjeet Singh Foundation, The Chair aims to prioritize developing innovative training programs for promoting renewable and clean energy technologies for graduate/post-graduates/scholars and also to provide intensive courses for industries/professional audiences from international, national, and regional levels.

The UNESCO Chair aims to serve society on a more socially responsible scale.

We congratulate and warmly welcome **Profesor Arun Prasath Ramaswamy, Chair Holder** of the newly established **"UNESCO chair on Renewable and clean Energy for Sustainable Development"** (Pondicherry University), to our UNESCO family in South Asia.

France Marquet
Trustee Madanjeet Singh Foundation
Representative South Asia Foundation to UNESCO
madanjeetsaf@gmail.com
+33647478293
www.southasiafoundation.org



Madanjeet Singh Foundation
France Marquet
Principal Trustee, MSF

Paris, 29th October 2024

To
The Registrar
Pondicherry University
Puducherry 605014

Subject: Earmark the allocation of an annual grant ~30% of the yearly grant allocation for scholarship-related expenses towards UNESCO Chair Activities-Reg.

References: (I) UNESCO- Chair application submitted in April 2023, (II) MOU between UNESCO and Pondicherry University dated 28th March 2024, and (III) Welcome letter -Chairholder Professor Arun Prasath Ramaswamy from UNESCO.

I am writing to reinforce that the 30% of the annual grant allocation for Scholarship-related Expenses, amounting to USD 60,000 under the MOU (2010 and activated in 2022) between SAF-India and Pondicherry University for UMSGET has to be earmarked to support the activities of the newly established UNESCO Chair "Renewable and Clean Energy for Sustainable Development" under the chairholder Prof. Arun Prasath Ramaswamy at Pondicherry University as per cited references (I, II, & III). I am confident that the UNESCO chair activities enhance the university's reputation and contribute significantly to global academic activities by promoting renewable and clean energy technology for sustainable development.

Thank you for your kind attention to this matter.

Yours sincerely,



Madam France Marquet
MSF, Trustee

Copy to: UNESCO Chairholder Professor R. Arun Prasath, Department of Green Energy Technology, Pondicherry University.



MPI for Polymer Research · Postfach 3148 · 55021 Mainz

To
In-Charge
UNESCO-Chair
UNESCO

March 30, 2023

LETTER OF SUPPORT

I hereby confirm the strong interest of my research team at the Max Planck Institute for Polymer Research in collaborating with the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies. We anticipate significant advances and mutual benefits from interactions with the proposed UNESCO chair activities in the line of "Affordable Renewable and Clean Energy for Sustainable Development."

My group at Max Planck Institute for Polymer Research, Mainz, Germany is known for excellence in developing macromolecules of advanced carbon-based materials, functional nanoparticles, chromophores, conjugated semiconducting polymers, composite materials and catalysts for various applications. We have published more than 2200 papers in highly distinguished journals, I hold a Hirsch-Index of 180 and have guided more than 280 PhD students. More specifically, we would be pleased to engage with UNESCO chair activities outlined in the proposal by supporting Prof. R. Arun Prasath's team (who was a DAAD fellow under me from 1999-2001). The actual mechanisms would include the exchange of knowledge, samples and results *via* both offline/online through regular conferences/seminars on topics of common interest such as electronic and optoelectronic devices, electrocatalysis, photocatalysis, sensing and theranostics.. Our special attention will be paid to the efficiency of energy conversion mechanisms including not only photovoltaics, but also thermoelectrics and photothermal therapies.

We are convinced that the major societal challenges of our times such as energy, water, healthcare or sustainability will essentially depend on the availability of materials as basis of





MAX-PLANCK-INSTITUT
FÜR POLYMERFORSCHUNG

technologies. If needed, we jointly seek funding with German/international funding agencies to support our collaborative activities promoting, in particular, renewable energy technology for sustainable development. I am much looking forward to the establishment of the UNESCO Chair and look forward to actively participating in sharing our expertise in energy materials for a sustainable development.

Sincerely,

Prof. Dr. Klaus Müllen





Carrick M. Eggleston*, Ph.D.
Professor, Civil, Env. & Architectural Engineering
100 Institute Road • Worcester, MA 01609
Phone: 508-831-5421 • Fax: 508 831-5808
E-mail: ceggleston@wpi.edu

March 27, 2023

To Whom It May Concern:

I am happy to be able to write in support of the present application to establish the UNESCO Chair under the title “Affordable Renewable and Clean Energy for Sustainable Development” in the Department of Green Energy Technology within the Madanjeet School of Green Energy Technologies at Pondicherry University. I look forward to collaborating, through my role as head of the Civil, Environmental, and Architectural Engineering Department at Worcester Polytechnic Institute, on joint conferences, seminars, workshops, training opportunities, and certificate courses. I see this chair as an opportunity to promote knowledge-sharing network formation, and I am very familiar with the goals of capacity building and knowledge dissemination for the good of the population.

I am particularly happy to collaborate and support this chair because it has now been just over 10 years since I first met Prof. Prasath and had the honor of working with him while I was on a Fulbright teaching a course at Pondicherry University. Prof. Prasath and I were able to continue our collaboration in 2014-2015 when Prof. Prasath was able to spend a fellowship time with my university and research group. Our goal has always been to explore new renewable energy technologies that are appropriate to sustainable development.

Thank you for your consideration, and if I can provide any further information please do not hesitate to contact me.

Best regards,

Carrick M. Eggleston
Professor and Head
Civil and Environmental Engineering
100 Institute Road • Worcester, MA 01609
Phone: 508-831-5421 • Fax: 508 831-5808
E-mail: ceggleston@wpi.edu

WORCESTER POLYTECHNIC INSTITUTE

Sydney 29/3/2022

LETTER OF SUPPORT

This letter is to support our collaboration for the proposed UNESCO chair titled "Affordable Renewable and Clean Energy for Sustainable development" at the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies of Pondicherry University. In the event of successfully establishing the UNESCO chair, my team and our sister departments, such as the School of Photovoltaic and Renewable Energy from the University of New South Wales, Australia, committed to collaborating for the chair activities. The main activities of the chair are to promote international inter-university cooperation and networking to enhance institutional capacities through knowledge sharing and collaborative work through conferences, seminars, workshops, training, and certificate courses. It is worth to mention that Professor R. Arun Prasath was a postdoc researcher at UNSW worked under me on development of advance materials. His constant interaction makes it possible for future networking with UNSW in advanced material research and its application in renewable energy technology for sustainable development. I am sure we could have an exciting and helpful collaboration under the UNESCO Chair activities to which we are committed. I wish him and his team success in establishing the prestigious UNESCO chair and achieving UNESCO's goals.

A handwritten signature in black ink, appearing to read 'M. Stenzel'.

Scientia Professor Martina Stenzel – FAA, FRSNSW, FRACI
Co-Director-ARC Training Centre for the Chemical Industries
School of Chemistry
Science and Engineering Building SEB E8
University of New South Wales UNSW
2052 Sydney NSW
Australia

Phone: +61-2-93854656
E-mail: M.Stenzel@unsw.edu.au



LETTER OF SUPPORT

I am pleased to express our collaboration with the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies at Pondicherry University for the proposed UNESCO chair under the title "Affordable Renewable and Clean Energy for Sustainable development". Considering the UNESCO chair application is successful, my team and I from the University of South Santa Catarina, Brazil, will extend full support in partnering/collaborating with academic-level activities such as conferences, seminars, workshops, training, and certificate courses to support the activities of the proposed chair in our capacity. Our team and Professor Dr. R. Arun Prasath's group have collaborated intensely for the last EIGHT years on renewable energy technologies, climate mitigation action, environmental action, linkages between energy, food and water consumption and related sustainable development activities. We indeed planned to apply for additional funds for our joint chair activities once the chair is established in the Department of Green Energy Technology, Pondicherry University, for our collaborative activities between Brazil and India. The Chair activities could significantly impact both collaborating institutions to promote research/technology knowledge-sharing networks through capacity building. I look forward to our fruitful collaboration under the UNESCO Chair activities to achieve its goal and beyond.

I wish all the best for the successful application with UNESCO

Florianópolis, March 26th, 2023

José Baltazar Salgueirinho Osório de Andrade Guerra

Dean of the Graduate Program in Administration Unisul.

Fellow do Cambridge Centre for Environment, Energy and Natural Resource Governance, Universidade de Cambridge.

Director of the Center for Sustainable Development (Greens)

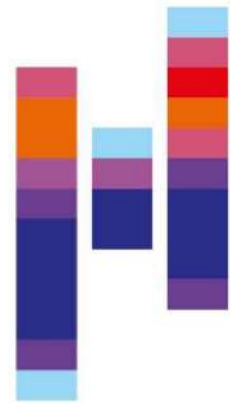
Diretor do Projeto BRIDGE - Building Resilience In a Dynamic Global Economy: Complexity across scales in the Brazilian Food-Water-Energy Nexus (CONFAP-RCUK).

Tel: (48) 32791927 ; Cel: (48) 99989891; E-mail: baltazar.guerra@unisul.br

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Brasil.
Tel: +55.4832611927

Hochschule Flensburg, Kanzleistraße 91 – 93, 24943 Flensburg

UNESCO



**Hochschule
Flensburg**
University of
Applied Sciences

Kanzleistraße 91 – 93
24943 Flensburg

Prof. Rajesh Saiju

Letter of Support

To whom it may concern

This letter confirms our interest in collaborating for the proposed UNESCO chair activities titled "Affordable Renewable and Clean Energy for Sustainable development" with the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies at Pondicherry University.

Flensburg, 29.03.2023

The proposed chair activities are planned to promote international inter-university cooperation and networking to enhance knowledge sharing via collaborative work. We and our team from the **Flensburg University of Applied Sciences, Germany**, have vast experience through our course on Renewable Energy Technologies. We have over 20 years of experience in teaching, research, technology development and outreach on various renewable energy technologies (Wind Energy, Photovoltaics, Grid Integration, Hybrid Power Systems and Energy Management Systems). Hence, we would be pleased to actively engage with chair activities such as conducting the international conference, providing technical lectures on advanced renewable energy technologies and training for workshops through professor exchange programs. We jointly would like to seek funding with German/international funding agencies to support our collaborative activities in promoting renewable energy technology for sustainable development to support the SDGs of the United Nations. We wish for success in establishing the UNESCO Chair and look forward to actively participating in sharing our expertise in renewable energy technologies for sustainable development.

Sincerely

Prof. Rajesh Saiju



INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS (ARCI)

An autonomous R&D Centre of Department of Science & Technology,
Government of India

Balapur PO, Hyderabad 500 005, India

Date: 31.03.2023

LETTER OF SUPPORT

This letter confirms our interest in partnering with the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies on the proposal for UNESCO chair activities entitled "Affordable Renewable and Clean Energy for Sustainable development."

The Centre for Solar Energy Materials (CSEM), under the umbrella of the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), is a leading research Centre globally for developing and demonstrating solar photovoltaic and solar thermal technologies. CSEM is committed to achieving excellence in various key research areas of PV and Solar thermal applications, and it has excellent state-of-the-art facilities for material synthesis from lab to semi-pilot scale and excellent characterization facilities for materials and coatings. Apart from that, the centre has facilities for prototyping, validation, and product durability study. CSEM has successfully developed many technologies and transferred them to a few industries, and a few other technologies are under the commercialization process. Our expertise in solar energy will complement the Department of Green Energy Technology's efforts in teaching, researching and outreach to solar energy technologies. I know Prof. R. Arun Prasath and his team for their work in solar energy technologies for sustainable development. The Centre for Solar Energy Materials team, ARCI has strong expertise in various solar thermal components and PV module developments and various functional coatings development for PV and solar thermal applications and having different validation and characterization facilities for evaluating the laboratory to commercial-size prototypes will be pleased to partner with the UNESCO chair academic activities. We will facilitate the solar energy technology-related workshops and training courses proposed in the chair activities based on vast experiences.

In summary, my team of scientists and I will be able to actively participate in promoting research/technology training courses in-line with proposed UNESCO chair activities. In this regard, I strongly support the establishment of a UNESCO chair at DGET, for which we will extend our full support for success.

Dr. Shanmugasundaram Sakthivel

Scientist-F & Head

Centre for Solar Energy Materials,

International Advanced Research centre for powder
Metallurgy and new materials (ARCI)

Balapur (PO) Hyderabad-500 005, India

E-mail: ssakthivel@arci.res.in

Tel : 91-40-24452454



NIE - CREST

NIE-Centre for Renewable Energy and Sustainable Technologies
The National Institute of Engineering, Mysuru, India



Ref no: 137

To
In-Charge
UNESCO-Chair
UNESCO

Date: 29/03/2023

LETTER OF SUPPORT

This letter confirms our interest in partnering with the Department of Green Energy Technology of UNESCO Madanjeet School of Green Energy Technologies on the proposal for UNESCO chair activities entitled "Affordable Renewable and Clean Energy for Sustainable development."

The Centre for Renewable energy and sustainable Technologies (NIE -CREST) of the National Institute of Engineering in Mysuru is a leading engineering department of the nation. The department's expertise spread in the field of renewable energy, power plant engineering, Biofuels, thermodynamics, microgrid and other thermal-related systems. Professor R. Arun Prasath and I are DAAD alumni who had research experiences from Germany before we joined our respective institutes for teaching, research and outreach on renewable energy technologies. Our team will be pleased to be a partner with the UNESCO chair academic activities. We will facilitate the renewable technology-related workshops and training courses proposed in the chair activities based on our vast experiences. My team and I can actively promote research/technology training courses in line with proposed UNESCO chair activities. I strongly support the establishment of a UNESCO chair at DGET, for which we will extend our full support for success.

Your sincerely

S Shamsundar
Head, CREST
NIE, Mysore





புதுவைப் பல்கலைக்கழகம்

(மத்திய பல்கலைக்கழகம்)

पांडिच्चेरी विश्वविद्यालय

PONDICHERRY UNIVERSITY

(A Central University)

பேராசிரியர் ப. பிரகாஷ் பாபு

துணைவேந்தர்

आचार्य. प. प्रकाश बाबू

कुलपति

Prof. P. Prakash Babu

Vice-Chancellor



ஆர். வெங்கटरாமன் நகர்

R. Venkataraman Nagar

காலாபேட் Kalapet

புதுச்சேரி 605 014.

Puducherry - 605 014.

भारत. India.

March 18, 2025

FOREWORD

Dear Participants,

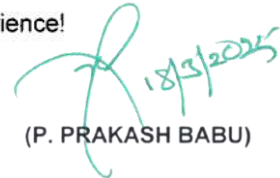
I extend my warm welcome to all the participants to the National Conference on Green Energy Technologies for Sustainability (NCGETS-2025), scheduled to be held on March 20th and 21st, 2025. This prestigious event is organized by the Department of Green Energy Technology, Pondicherry University, as part of the UNESCO Chair activity, with the valuable support of SAF/MSF partners and sponsors. The conference serves as a platform to unite experts from academia, industry, and government, fostering discussions on the latest advancements in green energy technologies and their role in sustainable development. This vibrant forum provides an excellent opportunity for participants and experts to explore, share, and deliberate on innovations in the field of Green Energy Technologies.

I am confident that NCGETS-2025 will facilitate fruitful discussions and knowledge exchange of the highest calibre. The event will feature insightful sessions, including talks by invited speakers, technical discussions, and poster presentations spanning a wide array of topics. These topics encompass diverse aspects of green energy technologies such as solar photovoltaic, solar thermal, bio-energy, ocean and wave energy, energy storage solutions, green building technologies, energy conservation, and efficiency strategies.

I encourage all participants to make the most of this opportunity to connect with fellow researchers and practitioners, exchanging ideas and sharing insights. I am certain that the outcomes of this conference will contribute significantly to the progress and application of green energy technologies in achieving sustainability.

I would also like to commend the UNESCO Chairholder on RCESD, Convenor of the conference, Prof. R. Arun Prasath, Head of the Department of Green Energy Technology, for his exemplary leadership and dedication in organizing this significant event.

Wishing all of you a productive, engaging, and enjoyable conference experience!


(P. PRAKASH BABU)

+91-0413-2655175 (Off.); 2656454 (Per.); 2655249 (Res.); Fax: (0413) 2655033; vc@pondiuni.edu.in

Madanjeet Singh Foundation

France Marquet
Principal Trustee, MSF

Paris, 20th March 2025



Good Morning,

Congratulations and thanks to the Vice Chancellor, the Registrar and the director of the Unesco chair to invite you all to this National Conference on Green Energy Technology for Sustainability (NCGETS - 2025).

With my apologies for not attending it, but UNESCO activities prevented me from being present.

For the second time, the newly established UNESCO Chair on Green Energy Technologies under the direction of Prof. Arun Prasath gathers together researchers academics, industry professionals and students to share and explore new venues in the environmental field on how to harness green technologies for a more sustainable world.

I want to express my gratitude to Pondicherry University and the entire organising team of the UNESCO Madanjeet Singh School of Green Energy Technology for making this possible.

The South Asia foundation and the Madanjeet Singh Foundation extend their heartfelt congratulations and success to the Director of the UNESCO Chair and convenor of the conference Prof Arun Prasath

I'm sure you will enjoy the visual benefits of the Coromandel coast of the Bay of Bengal.

Thank you,

A handwritten signature in black ink, appearing to be 'FM' or similar initials, written in a cursive style.

France Marquet
Principal Trustee
Madanjeet Singh Foundation
Representative of South Asia Foundation to UNESCO



புதுவைப் பல்கலைக்கழகம்

(மத்திய பல்கலைக்கழகம்)

पांडिचेरी विश्वविद्यालय

(केंद्रीय विश्वविद्यालय)

PONDICHERRY UNIVERSITY

(A Central University)

பேராசிரியர் ப. பிரகாஷ் பாபு

துணை வேந்தர்

आचार्य प. प्रकाश बाबू

कुलपति

Prof. P. PRAKASH BABU

VICE - CHANCELLOR



டாக்டர். அம்பேத்கர் நிர்வாக கட்டிடம்,
ஆர். வெங்கடராமன் நகர்,
ஓ. அனேகர் ப்ரஸானிக் பவன்
ஆர்.வீகடராமன் நகர்,
Dr. Ambedkar Administrative Building
R. Venkataraman Nagar,
காலாப்பட்டு, புதுச்சேரி,
காலாபெட் புதுச்சேரி,
Kalapet, Puducherry - 605 014.

FOREWORD

I am delighted to extend a warm welcome to you all to the International Conference on Energy and Water for Sustainable Environment (ICEWSE 2025), jointly organized by the Madanjeet School of Green Energy Technologies, Pondicherry University, and the Madanjeet Singh Centre for South Asia Water Management, University of Moratuwa, Sri Lanka. The international conference brings together eminent teachers, researchers, industry leaders, and young scholars from across the globe to advance discussions on the critical challenges and opportunities in the vital domains of energy and water. The diverse conference topics—including advanced energy materials, green hydrogen technologies, sustainable urban water infrastructure, catalysis, climate-resilient water resources, and data-driven hydrology—truly reflect the multidimensional approach needed to address global sustainability imperatives. ICEWSE 2025 is a timely and dynamic international platform for participants to share cutting-edge research, innovative solutions, and best practices that will shape the future trajectory of ENERGY and WATER for resilient societies. The deliberations and knowledge sharing at ICEWSE-2025 will contribute to strengthening collaborations and generating new ideas that are critical to achieving the United Nations Sustainable Development Goals—particularly SDG 6: Clean Water and Sanitation, SDG 7: Affordable and Clean Energy, SDG 13: Climate Action, and SDG 14: Life Below Water. I am especially encouraged by the multidisciplinary approach embraced to explore advancements in ENERGY and WATER and their integration into a sustainable environmental framework.

We are honored to host distinguished speakers and experts representing academia, government, and industry. The conference features invited lectures, technical sessions, poster presentations, and vibrant networking opportunities. I encourage all participants to take full advantage of this gathering—engage actively, exchange ideas, and build lasting collaborations for a sustainable future. I sincerely appreciate Prof. R. Arun Prasath, Convenor of the conference, for his leadership and dedicated efforts in bringing forth this joint conference between the University of Moratuwa, Sri Lanka, and Pondicherry University, India, under the UNESCO Chair on RCESD. I also commend the invaluable support of Sri Lankan team, whose commitment and spirit of collaboration have been pivotal in successfully organizing this important event. The knowledge, inspiration, and partnerships fostered at ICEWSE 2025 will lead to impactful outcomes in energy and water sustainability, benefitting communities locally and globally. I wish the organizers, participants, and sponsors a successful and enlightening conference. Extending my best wishes for the successful conduct of ICEWSE -2025.

 29/09/2025

Prof. P. Prakash Babu
Vice-Chancellor

UNIVERSITY OF MORATUWA

UNESCO Madanjeet Singh Centre for South Asia Water Management (UMCSAWM)
University of Moratuwa, Sri Lanka



PREFACE

It is with great pleasure that I extend a warm welcome to all participants of the International Conference on Energy and Water for Sustainable Environment (ICEWSE 2025), jointly organized by the Department of Green Energy Technology at Pondicherry University and the UNESCO Madanjeet Singh Centre for South Asia Water Management (UMCSAWM), University of Moratuwa in collaboration with South Asia Foundation (SAF/MSF). I am honored to serve as Convener for the Water Theme of this important event.

Water is at the heart of human survival, sustainable development, and climate resilience. Yet, increasing pressures from population growth, unsustainable use, and climate variability have led to widespread water scarcity, quality deterioration, and ecosystem degradation. The urgency to address these challenges has never been greater. In South Asia and beyond, sustainable water management must not only focus on resource allocation and technological innovation but also integrate climate change adaptation, ecosystem protection, and community resilience.

We must embrace forward-looking approaches ranging from advanced hydrological modelling and climate-risk assessment to integrated watershed management and managed aquifer recharge. Equally, the strong nexus between water and energy must be recognized: clean energy solutions reduce water stress, while sustainable water use underpins reliable energy generation. Together, these interconnections are vital for achieving the global goals of water and climate security.

ICEWSE 2025 provides a unique platform for researchers, practitioners, policymakers, and young professionals to exchange knowledge, debate pressing issues, and foster collaboration across disciplines. By addressing both water and energy challenges under the overarching theme of sustainability, this conference has the potential to inspire transformative strategies for climate-resilient futures.

I wish all participants a fruitful engagement and look forward to the innovative insights and collaborative pathways that will emerge from our discussions.



Prof. Lalith Rajapakse

Centre Chairman-UMCSAWM/UNESCO Chairholder-SWRM
Convener, Water Theme – ICEWSE 2025

20.09.25

France Marquet
Madanjeet Singh Foundation
Principal Trustee, MSF



22.09.25

Good morning !!

I warmly welcome all delegates, speakers and participants in the International Conference on Energy and Water for Sustainable Environment 2025, organised under the UNESCO Chair activity jointly by Pondicherry University, India and the University of Moratuwa, Sri Lanka.

I thank Honorable Vice Chancellor Professor P.Prakash Babu of Pondicherry University, Professor Rajneesh Bhutani, Registrar, Prof B.M Jaffar Ali, Dean Madanjeet Singh Green Energy technology, Prof R Arun Prasath, Head of the department and the UNESCO Chair of Green Energy Technology and Professor Lalith Rajapakse Director of the UNESCO Madanjeet Singh Center for Water Management and head of the UNESCO Chair on Water Management , Moratuwa University, Sri Lanka.

I also most warmly thank the entire conference organizing committee for making this event happen.

I recall and appreciate Prof R Arun Prasath interest in organising the joint event between the two complementary UNESCO Chairs and launching the invitation during our Alumni meeting in Kathmandu, in December 2024.

This endeavour is rooted in the vision of late UNESCO Goodwill Ambassador Madanjeet Singh who in 2000 founded the South Asia Foundation to foster peace and cooperation through education. The recognition by UNESCO of the excellent and continuous work carried out by these 2 Chairs is reinforced today by this event, bringing together on one platform for collaborative dialogue and innovation symbolizing a steadfast commitment to the United Nations Sustainable Development Goals: SDG 6 Clean Water Sanitation, SDG 7 Affordable and Clean Energy SDG 13 Climate Action.

I warmly encourage the young researchers and scholars to use this opportunity to share ideas and contribute with confidence to challenges such as climate change, resource scarcity and inclusive development.

In the name of my fellow Trustees and mine I thank all the colleagues of Pondicherry University and the University of Moratuwa whose efforts and commitment has made this gathering possible and extend our warmest wishes to Prof R Arun Prasath and Professor Lalith Rajapakse. Wishing you all an enriching and successful conference

Thank you.

**France Marquet
Principal Trustee Madanjeet Singh Foundation
Representative South Asia Foundation Ito UNESCO
madanjeetsaf@gmail.com | 33(0)647478293
Puducherry September 30, 2025**

46 Bd des Invalides 75007 Paris, France

madanjeetsaf@gmail.org



CHIEF OF NATURAL SCIENCES
UNESCO, SOUTH ASIA
REGIONAL OFFICE, NEW DELHI



Dr. Benno Böer

26.09.25

It is my great pleasure to welcome all participants to the SAF International Conference on Energy and Water for a Sustainable Environment 2025, jointly organised by the Department of Green Energy Technology, Pondicherry University, and the Centre for South Asia Water Management, University of Moratuwa, under the framework of the UNESCO Chair program.

We convene at a critical juncture for our planet. The world today faces an unprecedented convergence of challenges, including biodiversity loss, climate change, and pollution, collectively known as the Triple Planetary Crisis. At the heart of this crisis lie population dynamics coupled with the unbridled exploitation of natural resources, along with the energy paradox. These factors underscore the urgent need to transform how we produce and consume energy and water, resources that are foundational to human well-being, ecological stability, and indeed, to peace. These intersecting crises are not isolated; they are symptoms of a larger systemic imbalance, demanding bold, innovative, and integrated responses.

ICEWSE – 2025 provides a timely platform for scientists, policymakers, industry leaders, and civil society actors to come together in pursuit of sustainable solutions. In the face of the global energy crisis and growing water insecurity, this conference is not just a gathering of experts, but it is another in a series of vital calls to action. And such calls cannot be issued often enough, because we are confronting a deepening socio-ecological reality: we are exceeding the planet's limits.

Our shared goal must be to advance pathways that are resilient, inclusive, and environmentally just, aligning with the United Nations Sustainable Development Goals and the principles of intergenerational equity and the human rights to clean air, safe drinking water, and sufficient food.

On behalf of UNESCO, I extend my deep appreciation to Prof. R. Arun Prasath, UNESCO Chairholder at Pondicherry University, for his visionary leadership and commitment to fostering dialogue and research in critical areas of sustainability. I also commend the organizing institutions for creating this important space for global cooperation and knowledge exchange.

Let this conference serve as a catalyst for lasting partnerships, actionable insights, and transformative change. I encourage all the participants to engage actively, think boldly, and collaborate widely as we work together to shape a more sustainable and equitable future for all. Most importantly: make new friends, foster friendships, and take something meaningful back with you, something that inspires positive change in both your professional and personal environments.

I wish you all a successful and inspiring conference.

UNESCO House
1, San Martin Marg
Chanakyapuri
New Delhi, 110 021, India
Email: newdelhi@unesco.org

Dr. Benno Böer
Chief, Natural Sciences Unit
UNESCO – New Delhi

सी. जी. कर्हाडकर
प्रतिष्ठित वैज्ञानिक एवं निदेशक

C.G. KARHADKAR
Distinguished Scientist & DIRECTOR



भारत सरकार
परमाणु ऊर्जा विभाग
इन्दिरा गाँधी परमाणु अनुसंधान केन्द्र
कल्पाक्कम 603 102, तमिलनाडु, भारत

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH
KALPAKKAM 603 102, TAMIL NADU, INDIA



July 24, 2025

PREFACE

I am extremely delighted that Pondicherry University in association with IGCAR is organizing the One-Day National Workshop on, "Advances in Nuclear Energy for Sustainable Environment" on 25th July, 2025 under the auspices of the UNESCO Chair activity. It gives me great pleasure to extend a hearty welcome to all the participants. This workshop reflects collective commitment to advancing nuclear energy as a key enabler of a cleaner, safer and more sustainable energy and environment in the future.

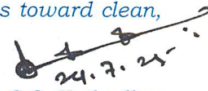
In the wake of global warming by fossil fuel consumption over the last century and growing energy demands a varied energy mix is required in India due to the country's fast expanding economy and population, which is also driving up energy consumption. A road to energy security and a decreased need on fossil fuels is provided by nuclear energy, a dependable and low-carbon source; as highlighted in the "Viksit Bharat" vision.

I take this opportunity to express my sincere appreciation to the entire faculty from IGCAR for sharing their insights at this workshop. Their involvement greatly enhances the academic rigor of the event, emphasising IGCAR's steadfast commitment to the advancement of nuclear science. It also highlights IGCAR's dedication to cultivating meaningful collaborations within the research communities, while simultaneously showcasing India's progress in nuclear technology and policy.

The topics address different aspects of Nuclear Energy, focusing on Fast Breeder Reactors, its indigenous technology development, engineering and radiation safety. The environment assessment, dosimetry and emergency preparedness of nuclear facilities at Kalpakkam is another important area that is covered. Finally, the opportunities and challenges in materials research for sustainable nuclear energy is also deliberated.

I extend my gratitude to the Honourable Vice Chancellor of Pondicherry University, Prof. Prakash Babu, for his support in advancing initiatives that link scientific innovation with sustainable development. I also commend Prof. R. Arun Prasath, UNESCO Chairholder and Convenor of this workshop, for his dedication to clean energy solutions and for fostering the vital collaboration between IGCAR and Pondicherry University. This partnership promises to be a strong foundation for future research, knowledge exchange, and capacity-building, benefiting both institutions and the broader scientific community.

I extend my best wishes for the success of this workshop and hope it sets the stage for continued collaboration and future initiatives that support IGCAR and Pondicherry University's shared mission of sustainable energy development. May today's discussions inspire meaningful contributions toward clean, secure, and inclusive energy solutions, both nationally and globally.


C.G. Karhadkar



दूरभाष/Phone: +91- 44 - 2748 0240 / 2748 0267 (O), फैक्स/Fax: +91 - 44 - 274 80060
मोबाइल / Mobile: 94985 99840 ई-मेल / E-mail: director@igcar.gov.in



புதுவைப் பல்கலைக்கழகம்

(மத்திய பல்கலைக்கழகம்)

पांडिच्चेरी विश्वविद्यालय

(केंद्रीय विश्वविद्यालय)

PONDICHERRY UNIVERSITY

(A Central University)

பேராசிரியர் ப. பிரகாஷ் பாபு

துணை வேந்தர்

आचार्य प. प्रकाश बाबू

कुलपति

Prof. P. PRAKASH BABU

VICE - CHANCELLOR



பாக்டர். அம்பேத்கர் நிர்வாக கட்டிடம்,

ஆர். வெங்கட்ராமன் நகர்,

டீ. அம்பேத்கர் நிர்வாக கட்டிடம்,

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காலாபெட் புதுச்சேரி,

Kalapet, Puducherry - 605 014.

July 23, 2025

FOREWORD

I am pleased to extend my warm greetings and best wishes on the occasion of the **One-Day National Workshop on 'Advances in Nuclear Energy for a Sustainable Environment'**, scheduled for **25th July 2025**. This important and timely event is organized by the Department of Green Energy Technology, Madanjeet Singh School of Green Energy Technologies, Pondicherry University, under the UNESCO Chair on Renewable Energy and Environment for Sustainable Development (RCESD), in collaboration with the Indira Gandhi Centre for Atomic Research (IGCAR).

In an era where balancing environmental sustainability with growing energy demands is imperative, nuclear energy emerges as a promising, clean, and reliable source. Fostering knowledge exchange and collaboration on innovative advancements and responsible practices in this field is therefore crucial. This workshop provides a valuable platform for experts, researchers, and policymakers to engage in meaningful dialogue on emerging technologies, research frontiers, safety considerations, and sustainable applications of nuclear energy. The insights and discussions generated here will undoubtedly strengthen our collective commitment to environmental stewardship and energy security.

I extend my sincere appreciation to Prof. R. Arun Prasath, Convenor of the workshop, for his visionary leadership and dedicated efforts in fostering this meaningful collaboration between IGCAR and Pondicherry University under the esteemed UNESCO Chair on RCESD. I also commend the invaluable support of his team, whose commitment and spirit of collaboration have been pivotal in successfully organizing this important event. I am confident that the outcomes of this workshop will have a meaningful impact and pave the way for continued collaboration between IGCAR and Pondicherry University. I extend my best wishes for the success of this initiative and for engaging and productive deliberations throughout the workshop.

(P. PRAKASH BABU)

France Marquet
Madanjeet Singh Foundation
Principal Trustee, MSF



Puducherry 25.07.25

Honourable Vice Chancellor, Pondicherry University, Prof. Prakash Babu, Director Prof. K. Tharanikkarasu, Registrar (i/c) Prof. Rajneesh Bhutani, and UNESCO Chairholder Prof. R. Arun Prasath.

It is an honour for me to be invited to represent the Madanjeet Singh-South Asia Foundations to this National Workshop on Advances in Nuclear Energy for a Sustainable Environment.

I must apologise because unfortunately due to previous commitments I will not be able to attend the conference.

Although our founder UNESCO Goodwill Ambassador Madanjeet Singh's career was in the Indian foreign service, he was basically a scientist, who wrote his thesis on Chemistry and more precisely on the use of rare sands in nuclear energy.

After seeing the horrific and devastating consequences of Hiroshima and Nagasaki explosions, he went against the military use of nuclear energy but admired XXth century French researcher Marie Curie winner of two Nobel prizes, one in chemistry and the other in physics, that changed the understanding of radioactivity and heralded the use of radiation in medicine.

May your meeting and research guide incite more young ladies to pursue their careers in this crucial development of sciences.

Thank you, Prof Arun Prasath, your team and the distinguished delegates of the Department of Atomic Energy and the Indira Gandhi Centre for Atomic Research, Kalpakkam. I want to express my sincere gratitude to the Honourable Director Shri C.G. Karhadkar for approving Prof. Arun Prasath's proposal to organize this inaugural event. I am confident that many more such events will follow in the future. I also thank Shri S. Vijayaraghavan and Dr. S. Chandrasekaran, who were instrumental in facilitating this meeting and helped bring this event to fruition.

I thank all the experts from IGCAR: Shri T. Rajkumar, Shri Ram Kumar Maity, Dr. C. V. Srinivas, Dr. S. Chandrasekaran, Shri Sanjay Kumar Das, Dr. S. Tripurasundari for opening a new era of collaboration in an essential field.

In the name of my fellow trustees and myself I wish you a fruitful day of exchange.

Thank you,

France Marquet

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madanjeetsaf@gmail.org



I warmly thank the organizers and participants of the National Workshop on Advances in Nuclear Energy for Sustainable Environment, held on 25 July 2025. This important event is part of the UNESCO Chair initiative at Pondicherry University, in partnership with IGCAR, Kalpakkam. Facing the twin crises of climate change and energy insecurity, we must remember that scientists long warned of the dangers of unsustainable resource use. By the 1970s, the impacts of pollution, overpopulation, and fossil fuel dependency were well documented. Climate change was no surprise. It was ignored for too long. We didn't lack knowledge. We lacked the will to act. Today, we face the consequences: deadly floods, persistent droughts, food insecurity, and displacement, burdens that fall hardest on the most vulnerable. The clean energy transition demands sustained investment in infrastructure, energy storage, education, and innovation. Every delay increases the cost, both economically and environmentally. A short-term mix of fossil fuels, nuclear, and clean energy may be a transitional necessity, but cannot serve as the final destination. Fossil fuels drive emissions. Fossil and nuclear power place a high strain on eco-hydrological resources. The long-term challenge of nuclear waste disposal remains unresolved, which limits its claim to sustainability. The future must be powered by truly clean and affordable energy. Peak oil likely occurred around 2007. Fossil fuel demand, however, may peak only by the 2030s, and its decline will be uneven unless supported by coordinated action. This requires more than technology. It demands education, awareness, and science-informed policies.

This is where institutions like UNESCO play a pivotal role in advancing climate and energy literacy, and in building scientific capacity, offering technical support to Member States, and fostering multi-stakeholder collaboration. Through initiatives such as the UNESCO Chair Programme, and the Green School Quality Standard, UNESCO supports countries in making science-based decisions for best environmental practices for climate resilience. Dialogue between scientific communities and policymakers is essential. Without it, scientific insights remain underutilized. Policies must correspond to environmental realities. Strengthening this bridge can ensure that knowledge translates into action. Public-private partnerships are essential in scaling clean technologies. The energy sector, which has long benefited from fossil and nuclear energy, must take a leadership role in accelerating clean energy. We missed the opportunity to act decisively in the 1970s. We are at risk of missing it again, particularly with respect to achieving Sustainable Development Goal 7 (Clean & Affordable Energy). Science and education are essential elements of our energy future. Let us lead with knowledge, act with responsibility, and build a future with clean and affordable energy as a joint global commitment. I commend Prof. R. Arun Prasath, UNESCO Chairholder at Pondicherry University, for his tireless work in advancing clean energy education. His leadership under the UNESCO Chair Programme deserves our sincere appreciation. I am confident this workshop will inspire meaningful exchange and collaboration toward realistic clean and affordable energy solutions.



Dr. Benno Böer

CHIEF OF NATURAL SCIENCES
UNESCO, SOUTH ASIA
REGIONAL OFFICE, NEW DELHI

20 July 2025

श्रीकुमार जी पिल्लै

उत्कृष्ट वैज्ञानिक एवं निदेशक

SREEKUMAR G PILLAI
Outstanding Scientist & DIRECTOR



सत्यमेव जयते

भारत सरकार
परमाणु ऊर्जा विभाग
इन्दिरा गाँधी परमाणु अनुसंधान केन्द्र
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GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH
KALPAKKAM 603 102, TAMIL NADU, INDIA



PREFACE

January 26, 2026

I'm truly delighted that Pondicherry University in association with Indira Gandhi Centre for Atomic Research (IGCAR) is organising the National Workshop on, "Nuclear-Hydrogen Synergy NWNHS-2026". It is exciting to see so many experts gathering to dive into this crucial topic where nuclear energy meets hydrogen production; right at the heart of tackling our world's push for sustainable energy.

Pairing nuclear power with hydrogen production is a game-changer for cutting carbon in tough areas like heavy industry, shipping, and manufacturing. Nuclear gives us steady, high-heat energy and power for making hydrogen through electrolysis or heat-based methods, delivering green hydrogen on a big scale without the ups and downs of solar or wind. This fits perfectly with India's Green Hydrogen Mission and our global drive to net-zero emissions, boosting energy independence along the way.

The workshop's six lectures cover critical facets of nuclear-hydrogen synergy, from green hydrogen production potential in Fast Breeder Reactors (FBRs) and pathways for production, storage, and transportation, to advanced hydrogen sensing for nuclear safety, steam leak scenarios in sodium-cooled systems, and sodium cleaning techniques with hydrogen safety measures. These sessions at NWNHS-2026 will deliver practical insights into safe, scalable integration of nuclear heat for hydrogen economies, equipping participants with actionable knowledge to advance India's green energy goals.

At IGCAR, we are committed to pioneering this domain through rigorous research and demonstration. Leveraging on our fast breeder reactor expertise and ongoing feasibility studies for green hydrogen production; conducted in collaboration with partners like BARC, we are advancing toward a pilot-scale demonstration plant to validate integrated nuclear-hydrogen technologies. Looking forward, our focus will be on homegrown technologies, sharing know-how, and teaming up with others to bring these ideas to life across India.

I extend my sincere gratitude to the Chancellor of Pondicherry University, Prof. P. Prakash Babu and Dr. Arun Prasath, UNESCO Chairholder and Convenor NWNHS-2026, for hosting this insightful workshop and spearheading the valuable collaboration with IGCAR. Your visionary initiative strengthens our shared pursuit of nuclear-hydrogen advancements for a sustainable future.

I extend my warmest best wishes to the organizers, speakers, and all participants. May this workshop ignite transformative ideas and forge lasting pathways to progress. Together, let's power a cleaner, hydrogen-driven future for generations to come.

(Sree Kumar G Pillai)
Director



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आचार्य प. प्रकाश बाबू

कुलपति

Prof. P. PRAKASH BABU

VICE - CHANCELLOR



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Kalapet, Puducherry - 605 014.
12.01.2026

Welcome to NWNHS- 2026

I am delighted to extend a warm welcome and pen this preface for the *National Workshop on Nuclear-Hydrogen Synergy 2026: Pathways for India's Clean Energy Transition*, a timely and forward-looking forum that brings together leading nuclear experts from IGCAR, academic faculties, researchers and students to explore the nexus of atomic energy and hydrogen production. The event is highly timed in the context of India's ambitious clean energy trajectory, the synergy between nuclear power and hydrogen production offers a compelling pathway to decarbonize energy systems, create reliable baseload power, and produce very low-carbon emission for hydrogen at large scale. Such integration enhances energy security and supports transformational applications across sectors—from industrial processes to transportation—while contributing to the achievements of national climate commitments. This workshop provides an invaluable platform to examine advancement in nuclear-hydrogen technologies, policy frameworks, and collaborative strategies that can accelerate the adoption of clean energy pathways in our country.

The workshop features SIX invited lectures by IGCAR experts on nuclear-hydrogen technologies and safety in Fast Breeder Reactors, along with vibrant networking opportunities. Participants are encouraged to engage actively and build lasting collaborations for a sustainable future. I thank the faculty of the Department of Green Energy Technology for making this event possible and appreciate Prof. R. Arun Prasath, UNESCO Chair RCESD, and Convenor of this workshop, for his visionary leadership and dedicated efforts in bringing IGCAR and Pondicherry together. I am confident that this workshop will foster insightful discussions and lasting collaborations, while contributing meaningfully to India's clean energy transition and technological advancements for a sustainable future.

(Prof. P. Prakash Babu)

France Marquet
Madanjeet Singh Foundation
Principal Trustee, MSF



I'm delighted to invite you to the vibrant "National Workshop on Nuclear-Hydrogen Synergy 2026: Pathways for India's Clean Energy Transition promises" vital discussions on clean energy innovation, organized under the UNESCO Chair of Green Energy Technologies, located in the Madanjeet Singh School of Green Energy technologies, Pondicherry University. The Department is one of the SAARC Institutions of Excellence promoting regional cooperation through UNESCO Madanjeet Singh Institutions. The workshop will be held on 30th January 2026. It will bring together IGCAR experts, researchers, academics, and students and thus create a synergy of sustainability globally.

Climate change due in particular to the use of fossil fuels has to be gradually replaced so the much-needed approach is to have alternative green and clean energy technologies such as solar photovoltaic, solar thermal, bioenergy, wind energy, wave energy and nuclear energy. The National Workshop on Nuclear-Hydrogen Synergy 2026: Pathways for India's Clean Energy Transition promises is a space for discussing alternatives and raising new ideas from researchers, academics, professionals and students from all over India.

On behalf of my fellow trustees and myself I wish to express my gratitude to Pondicherry University through its Vice Chancellor Prof Prakash Babu and the entire organizing team at the Green Energy technology in partnership with the UNESCO Chair Holder Professor Ramaswamy Arun Prasath convenor of the conference and Professor Prasanth Raveendran New director of the UNESCO Madanjeet Singh School of Greene Energy. I hope you will also enjoy the beautiful scenery of the Bay of Bengal.

Best regards & Thank you,
21.01.2026

France Marquet
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madanjeetsaf@gmail.org

20. 01. 2026

I warmly thank the organizers and participants of the Nuclear – Hydrogen Synergy 2026 (NWNHS-2026): Pathways for India's Clean Energy Transition, taking place on 30 January 2026 at Pondicherry University. This event, organized under the UNESCO Chair activities by the Department of Green Energy Technology in collaboration with the Indira Gandhi Centre for Atomic Research, brings together distinguished experts to advance the dialogue on nuclear science, hydrogen technologies, and sustainability.

We are confronting a global energy crisis at the same time as climate change impacts are accelerating. Yet our societies remain deeply dependent on fossil fuels for agriculture, food security, water purification, and transport, and that will remain so for some time, whether we like it or not. Today, the world is home to approximately 8.3 billion people, a number that continues to grow, and all of them, all of us, really, need reliable energy, adequate food, and safe water. This places us in a period of energy paradox: the very systems that sustain human life rely on energy sources that undermine environmental stability, either via carbon emissions, or via the need for cooling water, and via the question of nuclear waste storage. This reality makes the transition more complex, but also more urgent.

The clean energy transition must therefore be rapid, but carefully managed. A short-term mix of fossil fuels, nuclear power, and clean energy may be a transitional necessity in some contexts, but it cannot be the end goal. Fossil fuels remain the main driver of emissions, and both fossil and nuclear systems place significant pressure on eco-hydrological resources. It is essential that the energy sector turns within a realistic timeframe toward clean energy as a clear priority, without creating new crises in water availability, energy access, or food security. In this context, the themes of NWNHS-2026, including nuclear-enabled green hydrogen production, hydrogen storage and transport, sensing technologies, sodium-heated steam generators, and hydrogen safety, are highly relevant, particularly when assessed through the lens of long-term sustainability and environmental safeguards.

UNESCO Biosphere Reserves offer an important framework for advancing these efforts. Designed as places to test, apply, and demonstrate sustainable development solutions, Biosphere Reserves function as living laboratories for living in harmony with nature. They provide appropriate settings to pilot clean energy solutions while protecting biodiversity, water resources, and local livelihoods.

In 2026, the UNESCO Regional Office in South Asia will prioritize the advancement of Biosphere Reserves, with particular attention to Bhutan and Nepal, two ecologically rich countries that currently have no Biosphere Reserves. This presents a timely opportunity to integrate clean energy innovation into conservation and development planning from the outset. Through initiatives such as the UNESCO Chair Programme, the Man and the Biosphere Programme, and the Green School Quality Standards, UNESCO supports climate and energy literacy, scientific capacity building, and dialogue between scientists and policymakers. We must not miss this opportunity to act decisively toward Sustainable Development Goal 7: Clean and Affordable Energy. Let us lead with knowledge, act with responsibility, and commit to a clean energy future that secures food, water, and energy for all while respecting ecological limits.

I commend Prof. R. Arun Prasath, UNESCO Chairholder at Pondicherry University, for his leadership and dedication, and I am confident that NWNHS-2026 will inspire meaningful collaboration toward sustainable clean energy pathways, within UNESCO Biosphere Reserves and beyond.



Dr. Benno Böer

CHIEF OF NATURAL SCIENCES
UNESCO, SOUTH ASIA
REGIONAL OFFICE, NEW DELHI

20.1.26

DR. BENNO BÖER
CHIEF, NATURAL SCIENCES, SOUTH-ASIA

PONDICHERRY UNIVERSITY
DEPARTMENT OF GREEN ENERGY TECHNOLOGY
MADANJEET SCHOOL OF GREEN ENERGY TECHNOLOGIES



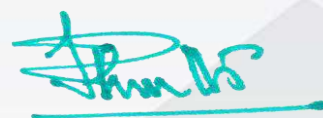
It gives me immense pleasure to extend a warm and cordial welcome to all the distinguished speakers, delegates, researchers, academicians, industry experts, and students to the one-day workshop on **“Nuclear–Hydrogen Synergy 2026”**, hosted at Pondicherry University.

This workshop is jointly organized by the **Department of Green Energy Technology, Pondicherry University, the South Asia Federation (SAF)**, and **IGCAR**, under the esteemed banner of the **UNESCO Chair activity**. The convergence of these institutions reflects a shared commitment toward advancing sustainable, secure, and future-ready energy systems through interdisciplinary collaboration.

As the world transitions toward low-carbon and resilient energy pathways, the synergy between nuclear energy and hydrogen production has emerged as a promising solution to address energy security, climate change mitigation, and industrial decarbonization. Nuclear-assisted hydrogen generation offers the potential for large-scale, continuous, and clean hydrogen production, positioning it as a key pillar in the global clean energy transition. This seminar aims to provide a focused platform to deliberate on recent technological advancements, policy frameworks, safety considerations, and future prospects of nuclear–hydrogen integration.

Pondicherry University, through its Department of Green Energy Technology, remains committed to fostering cutting-edge research, capacity building, and international cooperation in the field of renewable and advanced energy technologies. The association with UNESCO Chair activities further strengthens our mission to promote knowledge dissemination, sustainable development goals, and regional collaboration across South Asia.

I am confident that the technical sessions, expert lectures, and interactive discussions during this seminar will stimulate meaningful dialogue, inspire innovative ideas, and pave the way for collaborative research and policy initiatives. On behalf of the organizing committee, I once again welcome you all and wish the seminar every success.

A handwritten signature in blue ink, appearing to read 'Prasanth Ravindran', with a horizontal line underneath.

Prof. R. Prasanth Ravindran
Head of the Department, DGET, PU
Co - Chairman of NWNHS 2026



राष्ट्रीय समुद्र प्रौद्योगिकी संस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY

पृथ्वी प्रणाली विज्ञान संगठन/Earth Systems Sciences Organisation

(पृथ्वी विज्ञान मंत्रालय, भारत सरकार)

(Ministry of Earth Sciences, Government of India)

एन.आई.ओ.टी. केम्पस, वेलच्चेरी ताम्बरम मेन रोड, पल्लिकरणै, चेन्नै-६०० १०० भारत.
NIOT Campus, Velachery - Tambaram Main Road, Pallikaranai, Chennai-600 100 INDIA.

प्रो. बालाजी रामकृष्णन
निदेशक

Prof. BALAJI RAMAKRISHNAN
DIRECTOR

02.03.2026

Welcome Message to OEWSF- 2026

It is my privilege to welcome the participants, scholars, and experts to the National Workshop on "Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026 (OEWSF-2026)." As the Director of the National Institute of Ocean Technology (NIOT), Ministry of Earth Science (MOES), I am particularly heartened to see this collaborative initiative held under the prestigious UNESCO Chair on Renewable and Clean Energy for Sustainable Development at Pondicherry University.

Our oceans represent the final frontier for sustainable development. With India's expansive coastline, the transition toward a "Blue Economy" is no longer a peripheral goal but a national priority. This workshop arrives at a critical juncture where the integration of Ocean Energy Technologies and Clean Water Solutions is essential to meeting the growing demands of our population while adhering to global climate commitments. I am pleased that our leading researchers and experts from NIOT are joining this forum to share technical insights into groundbreaking areas such as Ocean Energy Technology, Ocean Thermal Energy Conversion (OTEC), Deep-sea pipeline engineering, and advanced Desalination techniques. The inclusion of Artificial Intelligence (AI) applications and infrastructure resilience in the agenda highlights our shared vision of using "smart" engineering to overcome the unique challenges of the marine environment. The synergy between a national premier research organization like NIOT and an esteemed academic institution like Pondicherry University is the ideal catalyst for innovation. It is through such partnerships that laboratory breakthroughs are transformed into scalable, real-world technologies that can provide infinite energy and life-sustaining water.

I extend my gratitude to Prof. Prakash Babu, Vice Chancellor of Pondicherry University, and congratulate Prof. R. Arun Prasath, UNESCO Chairholder and Convenor, for his dedication and for spearheading this collaborative event between NIOT and Pondicherry University under the UNESCO chair activity. I am certain that the deliberations at this workshop will inspire the next generation of engineers and scientists to look towards the horizon for the solutions of tomorrow.

I wish the workshop every success and look forward to continued collaboration.


(PROF. BALAJI RAMAKRISHNAN)



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துணை வேந்தர்

आचार्य प. प्रकाश बाबू

कुलपति

Prof. P. PRAKASH BABU
VICE - CHANCELLOR



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Kalapet, Puducherry - 605 014.

17.03.2026

MESSAGE

I am pleased to note that the UNESCO Chair at Pondicherry University is hosting the first-ever National Workshop on "Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026" (OEWSF-2026) in collaboration with the premier institute, National Institute of Ocean Technology (NIOT), which marks another milestone in our academic journey toward sustainability. In an era defined by the urgent need for climate resilience and resource security, the dual challenges of sustainable energy and clean water access remain at the forefront of the global developmental agenda. India, with its vast coastline and strategic maritime position, holds immense untapped potential in ocean-based resources. This workshop serves as a vital platform to explore these frontiers, aligning perfectly with the United Nations Sustainable Development Goals (SDGs) and India's commitment to a "Blue Economy."

I am especially pleased to note that this landmark event is being organized in collaboration with the NIOT, Chennai, an institution of premier national importance in the maritime sector. The presence of EIGHT leading experts and researchers from NIOT brings an invaluable synergy between academic research and practical technological application. Their insights into Ocean Thermal Energy Conversion (OTEC), desalination, deep-sea pipelines, and marine engineering will undoubtedly provide our participants with a comprehensive understanding of the technical and logistical complexities involved in offshore energy and clean water harvesting. The focus on cutting-edge subjects like **AI-driven ocean energy solutions** and **marine infrastructure resilience** reflects Pondicherry University's strategic commitment to fostering innovation at the intersection of technology and sustainability.

I am confident that the deliberations at OEWSF-2026 will serve as a powerful catalyst, inspiring students, researchers, and policymakers to transform immense natural potential into tangible solutions for a sustainable, energy and water-secure future.

I wish the organizers, collaborators, and all the participants a highly productive and intellectually enriching experience.

(P. PRAKASH BABU)

Madam France Marquet

Principal Trustee, Madanjeet Singh
Foundation, Representative of the South Asia
Foundation (SAF) to UNESCO



Welcome Message to OEWSF- 2026

I am pleased to extend my warmest greetings to the organizers, collaborators and participants of the National Workshop on "Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026 (OEWSF-2026)." This landmark event, under the UNESCO Chair activity hosted by the Department of Green Energy Technology at Pondicherry University, beautifully aligns with the vision of the Madanjeet Singh Foundation and the South Asia Foundation to foster regional cooperation and sustainable development through education and innovation.

The choice of theme is both timely and vital. As we confront the global climate crisis, the pursuit of clean water and renewable energy is no longer a choice but a necessity for our collective survival. This workshop serves as a testament to the power of academic synergy in addressing the most pressing challenges of our time. The collaboration with the National Institute of Ocean Technology (NIOT), Chennai, is particularly heartening to me regarding the chosen topic. By convening EIGHT leading experts to share their knowledge on Ocean Thermal Energy Conversion (OTEC), desalination, and AI-driven marine solutions, this workshop provides a unique platform for young scholars and researchers to learn from the vanguards of ocean science. Such initiatives are essential for building the technical capacity and "Green Energy to Clean Water" leadership that South Asia requires to thrive in a blue economy.

On behalf of my fellow trustees and me, I express my gratitude to Prof Prakash Babu, Vice Chancellor of Pondicherry University, for his administrative support. I took this opportunity to express my appreciation to Prof. R. Arun Prasath, UNESCO Chairholder and Convenor of this workshop, for his unwavering commitment to UNESCO's ideals and to those of the Madanjeet Singh Foundation, which made this important event possible. Your efforts in bringing together high-level expertise to solve real-world problems regarding water and energy security are truly commendable. I extend my thanks to Prof. R. Prasanth, Head of the Department of Green Energy Technology, and his team for their support for this event.

I wish all participants an intellectually stimulating experience and look forward to the innovative ideas that will emerge from these deliberations, paving the way for a more sustainable and resilient future.

Best regards & Thank you,
16. 03. 2026

France Marquet

46 Bd des Invalides 75007 Paris, France
madanjeetsaf@gmail.org



Dr. Benno Böer

CHIEF OF NATURAL SCIENCES
UNESCO, SOUTH ASIA
REGIONAL OFFICE, NEW DELHI

Dear Professor Arun Prasath, UNESCO Chair on Renewable and Clean Energy and Sustainable Development at Pondicherry University, Distinguished Scientists from the National Institute of Ocean Technology, Esteemed Colleagues, Dear Students, Ladies and Gentlemen, It is a great honor to address you at this pioneering workshop on Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026. We are living in a decisive decade. Climate change, freshwater scarcity, and rising energy demand are redefining our responsibilities. The solutions we design today will determine the resilience of our societies tomorrow. Increasingly, the answer lies in the ocean. The ocean is not only a climate regulator and biodiversity reservoir, but also one of the greatest untapped sources of sustainable energy.

Let me share a few practical examples showing that this future is already unfolding. In Scotland, the MeyGen project has installed seabed-mounted tidal turbines that harness predictable tidal currents to generate electricity. Because tides follow the rhythm of the moon, tidal energy is among the most reliable renewable sources available. Similarly, Orbital Marine Power has developed a floating tidal turbine capable of powering around 2,000 homes. Floating on the surface, its underwater rotors capture the kinetic energy of moving water, essentially functioning like an underwater wind turbine.

In India, Lakshadweep is preparing to launch its pioneering OTEC plant in 2026, which will harness the ocean's vast thermal energy to generate sustainable electricity and fresh water, reduce fossil fuel dependence, protect the environment, and showcase how innovation can build climate-resilient, self-sufficient island communities. These examples demonstrate that ocean movement, driven by gravitational forces, can provide predictable, clean base-load electricity. But the future goes further. Kinetic turbines placed in strong marine currents could form underwater energy farms, generating power for coastal cities with minimal environmental impact. Beyond electricity, the ocean can also generate renewable biomass. A visionary initiative supported by UNESCO in collaboration with the University of New South Wales is exploring floating mangrove forests. Inspired by experimental work in Qatar and now field-tested near Fiji, these platforms cultivate mangroves directly on seawater. Mangroves are salinity tolerant, and they produce biomass. In the future, such ocean-grown biomass, floating on buoyant modules, could be harvested for bioenergy production, making available a carbon-negative pathway while restoring marine ecosystems. At the same time, large-scale seaweed cultivation is emerging globally. Seaweed grows rapidly, requires no freshwater or arable land, and can be processed into biofuels and sustainable materials, offering major opportunities for coastal nations.

What unites these examples is a systems perspective:

- Harnessing tidal forces
- Capturing kinetic ocean energy
- Integrating Ocean Thermal Energy Conversion with desalination
- Cultivating marine biomass
- Strengthening resilient marine infrastructure
- And applying artificial intelligence to optimize these systems

This is a technological innovation and a transformation of our relationship with the ocean. For centuries, we treated the ocean as a resource to extract from. The 21st century calls us to treat it as a partner, working with its rhythms and designing regenerative technologies. Workshops like this, aligned with UNESCO's commitment to sustainable development, are essential. They bring together engineers, scientists, policymakers, and young innovators to develop solutions that are both scientifically sound and socially responsible. The young researchers of today are the architects of the future blue economy. Your work may power communities, secure freshwater supplies, and strengthen coastal resilience. India, with its long coastline and scientific excellence, has enormous potential to lead in ocean-based sustainability solutions. Let this workshop inspire bold and responsible energy pilot projects. The ocean holds vast energy. Our responsibility is to unlock it wisely. Let me recognize Prof. Ramaswamy Arun Prasath's remarkable efforts under UNESCO Chairholder initiatives, fostering renewable and clean energy solutions that illuminate the path toward a sustainable world with clean water and resilient communities. May your discussions be forward-looking, your partnerships enduring, and your innovations contribute to a sustainable ocean future for India and the world. With my very best wishes for a successful workshop.



Dr. Benno Böer
Chief, Natural Sciences, South Asia

PONDICHERRY UNIVERSITY
DEPARTMENT OF GREEN ENERGY TECHNOLOGY
MADANJEET SCHOOL OF GREEN ENERGY TECHNOLOGIES



It gives me immense pleasure to extend my warm greetings to all participants, academicians, researchers, industry professionals, and students on the occasion of the one-day **National Workshop on Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026**, organized by the Department of Green Energy Technology, Pondicherry University, under the aegis of UNESCO Chair Activities, in collaboration with National Institute of Ocean Technology, Ministry of Earth Sciences, Govt. of India. The chosen topic of workshop aptly reflects our pursuit for sustainable development and to realize the commitment toward net-zero goals.

The rapid transition in global energy scenario and our shared commitment towards net-zero demands innovative and sustainable technological interventions to solve the problems. This one-day workshop **OWESF- 2026** aimed for dissemination of pioneering research in Ocean Technologies, Renewable Energy, Sustainable Development, Carbon Sequestration and Decarbonization strategies can serve as a stimulant for intellectual exchange and research collaboration among the stake holders.

The **Madanjeet School of Green Energy Technologies** has always been committed to promoting excellence in education, research, and industry collaboration in sustainable energy domains. The Department of Green Energy Technology, recognized for its contributions to renewable energy technologies, continues to play a pivotal role in nurturing competent human resource and impactful research for national development. I am happy to note that a wonderful workshop sponsored by UNESCO Chair Activities is being held by the department.

I congratulate the organizing committee, convenors, advisory members, and all stakeholders for their dedicated efforts in bringing together distinguished Scientists of NIOT as resource persons for the workshop. I am confident that this workshop will stimulate meaningful discussions, foster research collaborations and contribute significantly to sustainable development goals.

I extend my best wishes for the grand success of OWESF- 2026.



Prof. B.M. Jaffar Ali

Chairman, OWESF-2026

Dean i/c, MSGET

Pondicherry University, Puducherry, India

PONDICHERRY UNIVERSITY
DEPARTMENT OF GREEN ENERGY TECHNOLOGY
MADANJEET SCHOOL OF GREEN ENERGY TECHNOLOGIES



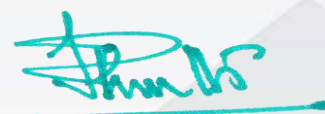
It gives me great pleasure to welcome all participants to the **One Day National Workshop on “Ocean Energy & Water for Sustainable Future: Potential & Challenges 2026”** organized by the **Department of Green Energy Technology, Pondicherry University**, as part of the activities under the **UNESCO Chair in Green Energy Technologies**.

The growing global demand for clean energy and sustainable water resources has made it imperative to explore alternative and renewable solutions. Ocean energy—encompassing wave, tidal, ocean thermal, and salinity gradient energy—represents one of the most promising yet underutilized renewable resources available to humankind. At the same time, the increasing stress on freshwater resources calls for innovative and energy-efficient technologies for water production, desalination, and management. Integrating ocean-based renewable energy with sustainable water technologies offers a powerful pathway toward addressing these twin global challenges.

India, with its vast coastline and rich marine resources, possesses significant potential for harnessing ocean energy. However, realizing this potential requires multidisciplinary research, technological innovation, and collaborative efforts among scientists, engineers, policymakers, and industry stakeholders. Platforms such as this workshop play a crucial role in bringing together experts and young researchers to discuss emerging technologies, share research findings, and examine the practical challenges associated with ocean energy systems and sustainable water solutions.

This workshop aims to provide an academic and professional forum for meaningful discussions on recent advances, resource assessment, system design, environmental considerations, and the techno-economic feasibility of ocean energy technologies. It will also highlight the role of ocean energy in powering desalination and water treatment systems, thereby contributing to a resilient and sustainable future.

I sincerely hope that this workshop will stimulate insightful discussions, inspire innovative research ideas, and foster collaborations among participants from academia, research institutions, and industry.



Prof. R. Prasanth Ravindran
Co - Chairman , OWESF-2026
Head of the Department, DGET
Pondicherry University, Puducherry, India

11. 05. 2026

7 place de Fontenoy, 75007,
Paris, France



Dr. Jayakumar Ramasamy

Chief of Executive Office, Natural
Sciences Sector - UNESCO

Dear Arun,

Thank you for your email and for sharing the Progress Compendium Booklet documenting the achievements and future plans of the UNESCO Chair on Renewable and Clean Energy for Sustainable Development at Pondicherry University.

Warm congratulations to you and your entire team for the impressive and substantive body of work achieved within a relatively short timeframe. The Compendium clearly demonstrates strong leadership, effective institutional coordination, and productive national and international partnerships. The wide range of activities undertaken – including high-impact conferences, specialised technical workshops, capacity-building and skill development initiatives, student engagement, and outreach activities – reflects both scientific depth and a strong commitment to sustainability and societal relevance in line with UNESCO's mandate.

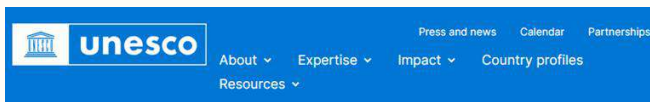
We also particularly appreciate the effort invested in preparing such a comprehensive and well-structured Compendium. It provides a clear overview of the Chair's objectives, governance arrangements, key achievements, collaborations, and forward-looking agenda. As such, it serves not only as an important record of progress and accountability under the UNITWIN/UNESCO Chairs Programme, but also as a valuable reference for visibility, knowledge sharing, and future planning.

We commend your continued focus on linking scientific excellence with innovation, education, and sustainable development outcomes, and on positioning the Chair as a platform for regional and international collaboration.

We wish you every success in continuing and further strengthening this important work. Please do not hesitate to remain in contact as activities move forward. If any guidance, coordination, or support is required at country or regional level, you may reach out to UNESCO New Delhi, including Benno, or to me directly.

With best regards and good wishes for the way forward,

PRESS & MEDIA RELEASES



Two new UNESCO Chairs appointed in Bangladesh and India

In 2024, two new UNESCO Chairs were appointed in India and Bangladesh, joining the existing network of 19 other Chairs across South Asia.

In 2024, two new UNESCO Chairs were appointed in India and Bangladesh, joining the existing network of 19 other Chairs across South Asia. Established in 1992, the UNITWIN/UNESCO Chairs Programme is an inter-sectoral network of higher education institutions which share their expertise to address complex interdependent development challenges.



Pondicherry University

13 May 2024

The Programme promotes international inter-university cooperation and networking to enhance institutional capacities through knowledge sharing and collaborative work.

The first of these Chairs focusing on "Renewable and Clean Energy for Sustainable Development" has been established in the Department of Green Energy Technology, Madanjeet School of Green Energy Technologies in Pondicherry University. The chair will promote greener and cleaner energy technologies (solar, wind, biomass, hydro, ocean, green hydrogen, etc.) to address critical global challenges such as climate change, global warming, environmental pollution, and energy crisis for sustainable development. The chair will also advocate for the development of efficient technologies like fuel cells, hydrogen, electrical mobility, energy efficient storage systems, carbon capture, green building and green chemical technologies, etc. for the promotion of sustainability in energy generation and use.

The second UNESCO Chair dedicated to "Industry Integration in Higher Education Systems" is established in the Bangladesh University of Engineering and Technology. This Chair will promote an integrated system of research, teaching and training, as well as community engagement and communication, enhancing collaboration among researchers and educators both within the host institution and internationally. With the establishment of these two new Chairs, there are now 21 UNESCO Chairs in South Asia. They will help to mobilize university expertise and foster collaboration around the 2030 Agenda for Sustainable Development, and contribute significantly to UNESCO's strategic objectives on Education, Natural and Social Sciences, Culture and Communication. The Chairs serve as think tanks and act as bridges between academia, civil society, local communities, research and policymakers.

"I warmly welcome Prof. Arun Prasath, UNESCO Chair on Renewable and Clean Energy for Sustainable Development at DGET, Pondicherry University and Dr. Talukder, UNESCO Chair on Industry Integration in Higher Education Systems at Bangladesh University of Engineering and Technology into our UNESCO family in South Asia."

Tim Curtis

Director, UNESCO South Asia Regional Office & UNESCO Representative to Bangladesh, Bhutan, India, the Maldives, and Sri Lanka

[Gandhisatvi/Kalvimalar/News/PU, IGCAR host national workshop on nuclear energy for sustainable development](#)

PU, IGCAR host national workshop on nuclear energy for sustainable development

UPDATED: 25 May 26, 2025 10:00 AM
ADDED: 25 May 26, 2025 09:42 AM

Puducherry: Pondicherry University (PU) and the Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, jointly organized a national workshop on "Advances in Nuclear Energy for a Sustainable Environment" (NWAENE-2025) under the UNESCO Chair activity. The event, hosted by the university's Department of Green Energy Technology, was inaugurated by Vice Chancellor Prof. P. Prakash Babu, who stressed the need for nuclear safety, public awareness, and the role of nuclear technology in societal development. The workshop explored the growing significance of nuclear energy in India's clean energy transition and climate action efforts. Prof. R. Arun Prasath, Head, DGET and UNESCO Chairholder, delivered the welcome address and outlined the Government of India's nuclear energy roadmap under "Viksit Bharat 2047." He noted that India aims to expand its nuclear power capacity from 8 GW to 100 GW by 2047, targeting 500 GW of non-fossil fuel energy by 2030 and achieving net-zero emissions by 2070.



Eminent scientists from IGCAR, including Shri T. Rajkumar, Dr. S. Tripurasundari, and Dr. C.V. Srinivas, delivered technical sessions on nuclear advancements. Dean (I/c), MSGET, Prof. B. M. Jaffer Ali, highlighted the integration of nuclear with other renewables to ensure energy security. The event drew over 300 participants, including scientists, faculty, and students, and featured messages from UNESCO representatives. The workshop served as a platform for policy and research dialogue, emphasizing nuclear energy's critical role in India's sustainable development goals.

THE HINDU Emphasis on transitioning to green and clean energy technologies

Updated - March 21, 2025 07:19 pm IST - PUDUCHERRY
THE HINDU BUREAU



Dignitaries release a publication during the two-day conference on green energy technologies at Pondicherry University. | Photo Credit: Special Arrangement

A national conference on green energy technologies for sustainability (NGCETS-2025), under the auspices of the UNESCO Chair and Department of Green Energy Technology at Pondicherry University, has underscored the importance of transitioning from carbon-based fossil fuels to greener and cleaner energy technologies. R. Arun Prasath, UNESCO Chairholder and convener of NGCETS-2025, said such a transition to green technologies was crucial to tackle global challenges like climate change, environmental pollution, and energy security. This would also hinge on global collective efforts by governments, businesses, researchers, technology developers, and environmentally conscious individuals. Professor Prasath said the department maintained strategic MoUs, notably with the South Asia Foundation through MSF, with several more MoUs in the pipeline. Among the initiatives led by the department was the development and implementation of a blueprint for the promotion of a solar campus that had made significant progress. Since 2010, the campus raised solar photovoltaic production to approximately 3.5 MU of the total annual energy consumption of 11 MU. This is also estimated to have led to a reduction of 3,000 tonnes of CO2 emissions annually, aiming for Pondicherry University to achieve net-zero emissions by 2050 through renewable energy, energy efficiency, and sustainable practices. Pondicherry University Vice-Chancellor Phanithi Prakash Babu lauded the department's dedicated efforts in renewable energy and sustainability. N. Sivasubramanian, Chief General Manager (retd.), ISRO, Aninda Jiban Bhattacharya from IISc Bengaluru, Ravi Kumar Asthana from the Institute of Science, BHU, B. M. Jaffer Ali, Dean (in-charge), UMSGET, D. S. Sharada, conference coordinator, and representatives of IISc, IITs, Central universities and research organisations participated.

Experts see bigger role for nuclear energy to attain sustainability goals

Published - August 01, 2025 10:17 pm IST - PUDUCHERRY

THE HINDU BUREAU

READ LATER PRINT

Experts who addressed a recent workshop have advocated for exploring an expanding role for civilian nuclear power in India's clean energy transition and meeting its sustainability targets. The speakers were participating in the "National Workshop on Advances in Nuclear Energy for Sustainable Environment" (NWAENE-2025) held under the auspices of the Pondicherry University's Department of Green Energy Technology with the Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, under UNESCO Chair initiative. They called for increasing use of nuclear energy domain for energy diversification and fulfilling the nation's sustainability objectives, particularly in the context of climate change. Presiding over the inaugural, Pondicherry University Vice-Chancellor P. Prakash Babu underscored the crucial importance of nuclear safety, the need for increasing public awareness, and the vital societal applications of nuclear technologies. B. M. Jaffer Ali, Dean (I/c), MSGET, highlighted the synergies between nuclear, hydroelectric, solar, and wind power sources to ensure India's energy security and progress toward decarbonisation. A panel of nuclear scientists and experts from IGCAR, including T. Rajkumar, Ram Kumar Maity, S. Tripurasundari, Sanjay Kumar Das, C. V. Srinivas, and S. Chandrasekaran delivered technical talks over sessions.

R. Arun Prasath, Head and UNESCO Chairholder, stressed the urgency of climate action and outlining India's clean energy roadmap. The Government of India's Nuclear Energy Mission under "Viksit Bharat 2047," aims to scale up nuclear capacity from 8 GW to 100 GW by 2047, he said.



Mr. Arun said the country's India's energy transition is guided by a multifaceted commitment to sustainability and climate responsibility. Noting that India had made remarkable progress in green energy, now obtaining nearly 35% of its energy from renewable sources—well above the global average, he said the country faced rapidly growing energy demands while aiming to generate 500 GW of non-carbon-based energy by 2030. As part of its global climate commitments, India has pledged to meet 50% of its total energy requirements from renewable and clean sources, and has submitted Nationally Determined Contributions (NDCs) to reduce carbon emission intensity by 35% by 2030, compared to 2005 levels. This was in addition to the commitment to achieving net-zero carbon emissions by 2070. France Marquet, Principal Trustee, Madanjeet Singh Foundation and Benno Boer of the UNESCO Regional Office, New Delhi, shared their messages for the event. The event brought together more than 300 participants including faculty members, scientists, research scholars, and UG/PG students, the press note said.

Published - August 01, 2025 10:17 pm IST

Pondicherry University launches national workshop on nuclear-hydrogen synergy for India's clean energy transition

By: medias2 February 2, 2026



Pathways for India's Clean Energy Transition, organized under the UNESCO Chair activity in the Department of Green Energy Technology (DGET), Pondicherry University, commenced with the Pondicherry University anthem, followed by the traditional lighting of the lamp and honouring of the dignitaries on the dais.

Prof. R. Arun Prasath then delivered the welcome address, setting the tone for the workshop by underlining its national significance in the context of clean energy transition and nuclear-hydrogen synergy. In his address, Prof. Arun Prasath expressed gratitude to the Honorable Vice Chancellor, Prof. Prakash Babu, for his guidance and support, to the Director of IGCAR, Shri S. G. Pillai, for enabling the participation of eminent nuclear experts, and to the workshop's key supporters, including MSF Trustee Madam France and UNESCO Regional Officer Dr. Benno. He warmly welcomed the nuclear experts from IGCAR, the Dean, HoD, faculty members, students, researchers, media representatives, and all participants. He highlighted the twin challenges of rapid economic growth and climate change, noting that India is projected to remain one of the fastest-growing economies, with a steep rise in energy demand, while still relying heavily on carbon-based fuels.

He emphasized India's strong international commitments, including increasing the share of clean and renewable energy to 50% by 2030, reducing carbon emission intensity by 35% by 2030 (from 2005 levels), achieving net-zero emissions by 2070, and progressing toward the UN Sustainable Development Goals.

Prof. Arun Prasath stressed that meeting these commitments requires a shift from carbon-based fuels to alternatives such as hydrogen, explaining that coal-based power generation emits nearly ~800 g of CO₂ e per unit of power, compared to around ~12 g of CO₂ e for hydrogen-based energy.

He outlined the potential of hydrogen produced from fossil, renewable, and especially nuclear sources, positioning nuclear energy as a clean, reliable option for large-scale hydrogen production. He referred to the Government of India's Nuclear Energy Mission for a "Viksit Bharat 2047," targeting an expansion of nuclear capacity from 8.8 GW to 100 GW by 2047 through fast-breeder reactors, sodium-cooled fast-breeder reactors, small modular reactors, and micro-modular reactors.

He underlined that nuclear-hydrogen synergy, supported by nuclear-assisted electrolysis, thermo-electrochemical processes, advanced sensors, and robust hydrogen storage and transport systems, can help decarbonize high-energy-intensive sectors such as steel, cement, fertilizers, aluminum, refineries, heavy transport, and emerging technologies like advanced drones. He proudly noted that NWNHS-2026 is the first-ever national-level workshop hosted by an academic institution in India dedicated exclusively to nuclear-driven clean hydrogen, and expressed confidence that it will strengthen linkages between academia and research institutions and inspire the next generation of nuclear scientists, engineers, and technologists.

Following the welcome address, a pre-recorded video message from Dr. Benno Boer, UNESCO Regional Head, New Delhi, was played, in which he commended the department and the convenor, Prof. Arun Prasath, for organizing this timely workshop and highlighted its importance for the future of students and the nation's clean energy journey. Prof. R. Prasath, Head of the Department of Green Energy Technology, then introduced the department, outlining its academic activities, research strengths, and milestones, and emphasized its growing contributions in the fields of green and sustainable energy.

Dean (IC) Prof. B. M. Jaffar Ali delivered the felicitation address, appreciating the department's initiative in conducting a cutting-edge workshop on nuclear-hydrogen synergy and encouraging the organizers to plan similar programs in the future to enhance academic-industry-research collaborations. The Vice Chancellor of Pondicherry University, Dr. Prakash Babu, delivered the presidential address, expressing keen enthusiasm for the workshop's theme and underlining its relevance to national priorities in clean energy, innovation, and capacity building.

Delegates from IGCAR then addressed the gathering, briefly presenting their ongoing work in nuclear and hydrogen-related technologies and offering an overview of the technical sessions and themes to be covered during the workshop. Their interventions provided participants with a glimpse of advanced research, reactor technologies, and nuclear-hydrogen integration strategies that would be elaborated on in subsequent sessions. The inaugural session concluded with a formal vote of thanks proposed by Prof. D. S. Sharada, who acknowledged the support and presence of all dignitaries, IGCAR experts, university authorities, sponsors, faculty members, students, and participants. She also thanked the organizing team and volunteers for their efforts in successfully planning the inaugural program. With the rendition of the Indian National Anthem, the inaugural ceremony of NWNHS-2026 came to a dignified close, marking the beginning of an intensive and forward-looking national workshop on nuclear-hydrogen synergy for India's clean energy transition.

முகப்பு / புதுச்சேரி

தேசிய முன்னுரிமைக்கு பசுமை ஆற்றல் முக்கியம்: புதுச்சேரி மத்திய பல்கலை, துணைவேந்தர்

தேசிய முன்னுரிமைக்கு பசுமை ஆற்றல், கண்டுபிடிப்புகள், திறன் மேம்பாடு ஆகியவை முக்கியம் என்று புதுச்சேரி பல்கலைக் கழக துணைவேந்தர் பேராசிரியர் பி. பிரகாஷ் பாபு கூறினார்.



புதுச்சேரி மத்திய பல்கலை, நடைபெற்ற இந்தியாவின் பசுமை ஆற்றல் மாற்றத்தக்கான பாதைகள் என்ற கருத்தரங்கில் பேசுகிறார் துணைவேந்தர் பி. பிரகாஷ் பாபு.

தேசிய முன்னுரிமைக்கு பசுமை ஆற்றல், கண்டுபிடிப்புகள், திறன் மேம்பாடு ஆகியவை முக்கியம் என்று புதுச்சேரி பல்கலைக் கழக துணைவேந்தர் பேராசிரியர் பி. பிரகாஷ் பாபு கூறினார்.

புதுச்சேரி மத்திய பல்கலைக் கழகத்தின் பசுமை ஆற்றல் தொழில்நுட்பத் துறை சார்பில் 2 நாள் தேசிய அணு-ஹைட்ரஜன் ஒத்திசைவு கருத்தரங்கு பல்கலைக் கழகத்தில் வெள்ளிக்கிழமை தொடங்கியது.

இதைத் தொடங்கி வைத்து துணைவேந்தர் பிரகாஷ் பாபு பேசுகையில், தேசிய முன்னுரிமைக்கு பசுமை ஆற்றல், கண்டுபிடிப்புகள், திறன் மேம்பாடு ஆகியவை முக்கியம். இந்த முக்கியத்துவத்தை நிறைவேற்றும் வகையில் புதுச்சேரி பல்கலைக் கழகம் இந்தக் கருத்தரங்கை நடத்துகிறது. மேலும், இந்தக் கருத்தரங்கில் பங்கேற்றுள்ள பிரதிநிதிகள் தொடர்பாகவும், அணு மற்றும் ஹைட்ரஜன் தொடர்பாகவும் உதவுகின்றனர்.

இத்துறையின் பேராசிரியர் ஆர். அருண் பிரசாத் பேசுகையில், இந்தியாவின் பசுமை ஆற்றல் மாற்றம் மற்றும் அணு-ஹைட்ரஜன் ஒத்திசைவு தேசிய முக்கியத்துவம் பெற்றுள்ளது. இந்தியாவின் வேகமான பொருளாதார வளர்ச்சி, காலநிலை மாற்றம் ஆகிய இரட்டை சவால்களையும் எடுத்துரைத்தார். மேலும், அணு-ஹைட்ரஜன் ஒத்திசைவு, எல்கு, சிமென்ட், உரங்கள், அலுமினியம், சுத்திகரிப்பு நிலையங்கள், கனரக போக்குவரத்து போன்ற உயர் ஆற்றல் துறைகளையும், மேம்பட்ட டிரோன்கள் போன்ற புதிய தொழில்நுட்பங்களையும் கார்பன் குறைவாக உதவுகின்றனர்.

யுனெஸ்கோ பிராந்தியத் தலைவர் டாக்டர் பென்னோபோரின் விடியோ செய்தி ஒளிபரப்பப்பட்டது. பசுமை ஆற்றல் தொழில்நுட்பத் துறை தலைவர் பேராசிரியர் ஆர். பிரசாத்த் இடைக்காலம் பேராசிரியர் பி. எம். ஜாக்கர் அலி, பேராசிரியர் டி. எஸ். சாரதா உள்ளிட்டோர் பேசினர். சிறப்பு பிரதிநிதிகள், நிபுணர்கள், பல்கலைக்கழக அதிகாரிகள், ஆசிரியர்கள், மாணவர்கள் மற்றும் தன்னார்வலர்கள் பலர் கலந்து கொண்டனர்.

National Workshop on Nuclear-Hydrogen Synergy: Pathways for India's Clean Energy Transition

1/31/2026 10:57:33 PM



Early Times Report
NEW DELHI, Jan 31: The inaugural ceremony of the National Workshop on Nuclear-Hydrogen Synergy 2026 (NWNHS-2026): Pathways for India's Clean Energy Transition, organized under the UNESCO Chair activity in the Department of Green Energy Technology (DGET), Pondicherry University, commenced with the Pondicherry University anthem, followed by the traditional lighting of the lamp and honouring of the dignitaries on the dais. Prof. R. Arun Prasath then delivered the welcome address, setting the tone for the workshop by underlining its national significance in the context of clean energy transition and nuclear-hydrogen synergy.

In his address, Prof. Arun Prasath expressed gratitude to the Vice Chancellor, Prof. Prakash Babu, for his guidance and support, to the Director of IGCAR, S. G. Pillai, for enabling the participation of eminent nuclear experts, and to the workshop's key supporters, including MSF Trustee Madam France and UNESCO Regional Officer Dr. Benno. He warmly welcomed the nuclear experts from IGCAR, the Dean, HoD, faculty members, students, researchers, media representatives, and all participants. He highlighted the twin challenges of rapid economic growth and climate change, noting that India is projected to remain one of the fastest-growing economies, with a steep rise in energy demand, while still relying heavily on carbon-based fuels. He emphasized India's strong international commitments, including increasing the share of clean and renewable energy to 50% by 2030, reducing carbon emission intensity by 35% by 2030 (from 2005 levels), achieving net-zero emissions by 2070, and progressing toward the UN Sustainable Development Goals.

National Workshop on Nuclear-Hydrogen Synergy 2026 inaugurated at Pondicherry University

CHENNAI

The National Workshop on Nuclear-Hydrogen Synergy 2026 (NWNHS-2026): Pathways for India's Clean Energy Transition was inaugurated at Pondicherry University, marking a significant step towards advancing India's clean energy goals and Net-Zero 2070 vision. The workshop is being organized under the UNESCO Chair activity by the Department of Green Energy Technology (DGET), Pondicherry University.

The inaugural ceremony began with the Pondicherry University anthem, followed by the traditional lighting of the lamp and felicitations of dignitaries. Prof. R. Arun Prasath, Convenor of NWNHS-2026, delivered the welcome address, highlighting the national importance of nuclear-hydrogen synergy in the context of India's rapidly growing energy demand and climate commitments. He thanked Vice Chancellor Prof. Prakash Babu, IGCAR Director Shri S. G. Pillai, MSF Trustee Madam France, and UNESCO Regional Officer Dr. Benno Boer for their guidance and support.



Prof. Arun Prasath underlined India's commitments to increase clean energy share to 50 per cent by 2030, reduce carbon emission intensity by 35 per cent, and achieve net-zero emissions by 2070.

He emphasized hydrogen as a key decarbonisation pathway and stressed the role of nuclear energy as a clean, reliable source for large-scale hydrogen production. Referring to the Government of India's Nuclear Energy Mission for "Viksit Bharat 2047," he noted plans to expand nuclear capacity to 100 GW by 2047 through advanced reactor technologies. He stated that nuclear-driven hydrogen can help decarbonise sectors such as steel, cement, fertilisers, refineries, heavy transport and other energy-intensive industries. A video message from Dr. Benno Boer, UNESCO Regional Head, New Delhi, praised the initiative and its relevance to students and the nation's clean energy future. Prof. R. Prasanth, Head, DGET, introduced the department and its contributions to green energy research. Dean (IC) Prof. B. M. Jaffar Ali delivered the felicitation address. Vice Chancellor Prof. Prakash Babu, in his presidential address, released the NWNHS-2026 booklet and lauded the workshop's relevance to national priorities. Experts from IGCAR outlined upcoming technical sessions. The programme concluded with a vote of thanks by Prof. D. S. Sharada and the National Anthem.

தேசிய முன்னுரிமைக்கு பசுமை ஆற்றல் முக்கியம்: புதுச்சேரி மத்திய பல்கலை துணைவேந்தர் பேச்சு

புதுச்சேரி, பிப். 2-
தேசிய முன்னுரிமைக்கு பசுமை ஆற்றல், கண்டுபிடிப்புகள், திறன் மேம்பாடு ஆகியவை முக்கியம் என்று புதுச்சேரி பல்கலைக் கழக துணைவேந்தர் பேராசிரியர் பி. பிரகாஷ் பாபு கூறினார். புதுச்சேரி மத்திய பல்கலைக் கழகத்தின் பசுமை ஆற்றல் தொழில்நுட்பத் துறை சார்பில் 2 நாள் தேசிய அணு-ஹைட்ரஜன் ஒத்திசைவு கருத்தரங்கு பல்கலைக் கழகத்தில் தொடங்கியது. இதைத் தொடர்ச்சி வைத்து துணைவேந்தர் பிரகாஷ் பாபு பேசுகையில், தேசிய முன்னுரிமைக்கு பசுமை ஆற்றல், கண்டுபிடிப்புகள், திறன் மேம்பாடு ஆகியவை முக்கியம். இந்த முக்கியத்துவத்தை நிறைவேற்றும் வகையில் புதுச்சேரி பல்கலைக் கழகம் இந்தக் கருத்தரங்கை நடத்துகிறது. மேலும், இந்தக் கருத்தரங்கில் பங்கேற்றுள்ள பிரதிநிதிகள் தொடர்பாகவும், அணு மற்றும் ஹைட்ரஜன் தொடர்பாகவும் உதவுகின்றனர்.



ஆர். அருண் பிரசாத் பேசுகையில், இந்தியாவின் பசுமை ஆற்றல் மாற்றம் மற்றும் அணு-ஹைட்ரஜன் ஒத்திசைவு தேசிய முக்கியத்துவம் பெற்றுள்ளது. இந்தியாவின் வேகமான பொருளாதார வளர்ச்சி, காலநிலை மாற்றம் ஆகிய இரட்டை சவால்களையும் எடுத்துரைத்தார். மேலும், அணு-ஹைட்ரஜன் ஒத்திசைவு, எல்கு, சிமென்ட், உரங்கள், அலுமினியம், சுத்திகரிப்பு நிலையங்கள், கனரக போக்குவரத்து போன்ற உயர் ஆற்றல் துறைகளையும், மேம்பட்ட டிரோன்கள் போன்ற புதிய தொழில்நுட்பங்களையும் கார்பன் குறைவாக உதவுகின்றனர். யுனெஸ்கோ பிராந்தியத் தலைவர் டாக்டர் பென்னோபோரின் விடியோ செய்தி ஒளிபரப்பப்பட்டது. பசுமை ஆற்றல் தொழில்நுட்பத் துறை தலைவர் பேராசிரியர் ஆர். பிரசாத்த் இடைக்காலம் பேராசிரியர் பி. எம். ஜாக்கர் அலி, பேராசிரியர் டி. எஸ். சாரதா உள்ளிட்டோர் பேசினர். சிறப்பு பிரதிநிதிகள், நிபுணர்கள், பல்கலைக்கழக அதிகாரிகள், ஆசிரியர்கள், மாணவர்கள் மற்றும் தன்னார்வலர்கள் பலர் கலந்து கொண்டனர்.

REGION

Pondicherry University set to embrace energy-efficient practices

Pondicherry University's Silver Jubilee Campus set to be powered by the sun

It will be the first such varsity campus

Staff Reporter

PONDICHERRY: Pondicherry University's Silver Jubilee Campus is looking at converting itself into a solar campus where they generate the energy required for their functioning from the sun. The project will be supported by the Ministry of New and Renewable Energy.

This will be the first project in the country for a solar powered university campus under the MNRE scheme, as principal investigator of the project G. Pragasam said. The Ministry of New and Renewable Energy.

After an initial survey of the area along with consultant Deepak Baruah, it has been decided that all the buildings including the new phase will be powered by the solar energy. The Silver Jubilee Campus had already installed solar panels on its roof.

In the central lawn area, it was possible to generate 1000W of power. MNRE would potentially fund 30 per cent of the project, Mr. Baruah said.

The MNRE was currently giving the University Rs. 10 lakh to prepare the Master Plan and the Detailed Project Report. They were also considering small wind turbines on the periphery of the Campus, for which they would get a 20 per cent subsidy.

The 1 MW solar power potential would generate around 1.75 Mega-watt hours of power per year, which was more than the requirement of the Silver Jubilee Campus. Any excess power that was generated would be sold to the general grid.

The University was also considering small wind turbines on the periphery of the Campus, for which they would get a 20 per cent subsidy.

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Pondicherry University Silver Jubilee Complex to Go Green

Pondicherry: The Silver Jubilee Complex of the Pondicherry University will be powered by solar energy to be built as the building and the surrounding area.

Prof. Pragasam, principal investigator, Centre for Green Energy Technology, said the office there looked the way the campus should be.

and with the setting up of the project.

Earlier, an assessment study on solar energy for this campus. Pragasam

7 AFFORDABLE AND CLEAN ENERGY

Rooftop Solar Photovoltaic System Design and Assessment for the Academic Campus Using PVsyst Software

Srinivasan and E. Arun Pragasam
Centre for Green Energy Technology, Pondicherry University, Pondicherry, India
Email: srinivasan@pau.ac.in, arunpragasam@pau.ac.in

Deepak Baruah
10000 Light House Road, New Delhi, India
Email: deepak@baruah.com

PONDICHERRY UNIVERSITY

Master Plan & Detailed Project Reports for Development of Pondicherry University Silver Jubilee Campus as Solar Campus

Draft Master Plan II DFRs
22 March 2013

Solar VISION in 2012

Pondicherry University gets a 2.4 MW solar plant

The rooftop solar plant, commissioned by Amp Energy India, will supply about 40% of the university's energy requirement and help offset around 2,900 tons of carbon emissions every year.

SEPTEMBER 16, 2021 UMA GUPTA

pv magazine

COMMERCIAL & RESIDENTIAL | SOLAR POLICY | PONDICHERRY

Solar Achievement in 2021

UNESCO CHAIR on 2024

Renewable and Clean Energy for Sustainable Development awarded in

Pondicherry University : Roadmap to Net-Zero Carbon by 2035

Target Mission for 2035

Prof. Ramaswamy ARUN PRASATH

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4 பக்கம் ரூ.500 காசு

புதிதேரி (17-4-2026) வெளிக்கிழமை
PUDUCHERRY (17-4-2026) FRIDAY

புதுவையில் புது வற்றி கட்டிடம்
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National level competitive Exhibition at Pondicherry University

Puducherry, Apr 17.

As part of the UNESCO Chair's activities to commemorate the 102nd birth anniversary of UNESCO Goodwill Ambassador, late Madanjeet Singh, a National Level Competitive Exhibition on Sustainable Technologies (NLCEST-2026) was held at the Pondicherry University.

According to a University release, the event was organized by the Department of Green Energy Technology (DGET), Pondicherry University, on Thursday. It featured over 70 exhibits from across the country, with more than 200 participants, promoting innovation, interdisciplinary collaboration, and practical solutions across 12 themes of sustainable technologies.

Prof. R. Arun Prasath, UNESCO Chairholder and NLCEST-2026 Convenor, who welcomed the gathering, emphasized the event's role in advancing sustainable development and innovation. Prof. P. Natarajan, Director (i/c), Culture & Cultural Relations, Pondicherry University, presided over the event. In his presidential address, Mr. Natarajan highlighted the importance of fostering innovation-driven academic platforms to address emerging sustainability challenges.

Madame France Marquet, Trustee of the Madanjeet Singh Foundation and



South Asia Foundation who participated as the chief guest appreciated the sustained efforts of Pondicherry University in advancing sustainability-oriented education, research, and outreach initiatives. She also formally inaugurated the event.

Prof. B. M. Jaffar Ali, Dean (i/c), Madanjeet School of Green Energy Technologies, delivered the felicitation address, emphasizing the role of interdisciplinary integration and institutional collaboration in advancing sustainable energy systems. Prof. R. Prasanth, Head of the Department of Green Energy Technology, spoke about the department's continued commitment to developing sustainable technologies through teaching, research, and innovation-driven initiatives.

The program was attended by faculty members, industry experts, collaborators, and participants from institutions across India, reflecting strong national-level engagement.

Establishment Report

UNESCO chair on "Renewable and Clean Energy for Sustainable Development" established in UNESCO Madanjeet School of Green Energy Technologies (UMSGET) 2024 - 2028



Host Institution: Pondicherry University
UNESCO Chairholder: Professor Ramaswamy ARUN PRASATH



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UNDER UNESCO CHAIR ACTIVITY

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PONDICHERRY UNIVERSITY



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BOOK OF ABSTRACTS
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NCGETS
2025



PONDICHERRY UNIVERSITY

Master Plan & Detailed Project Reports for Development of
Pondicherry University Silver Jubilee Campus as Solar
Campus

Draft Master Plan & DPRs
22 March 2013

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Alternatives
&



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30 September & 01 October, 2025



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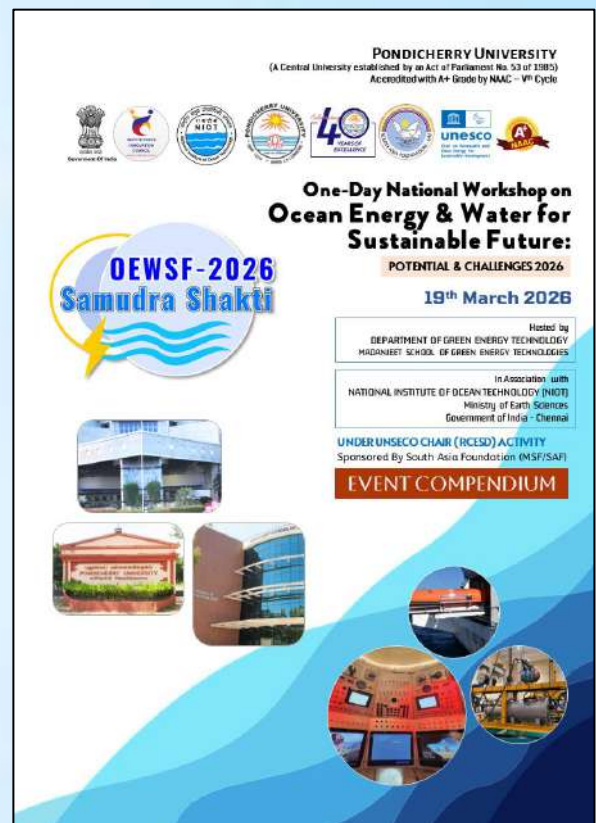
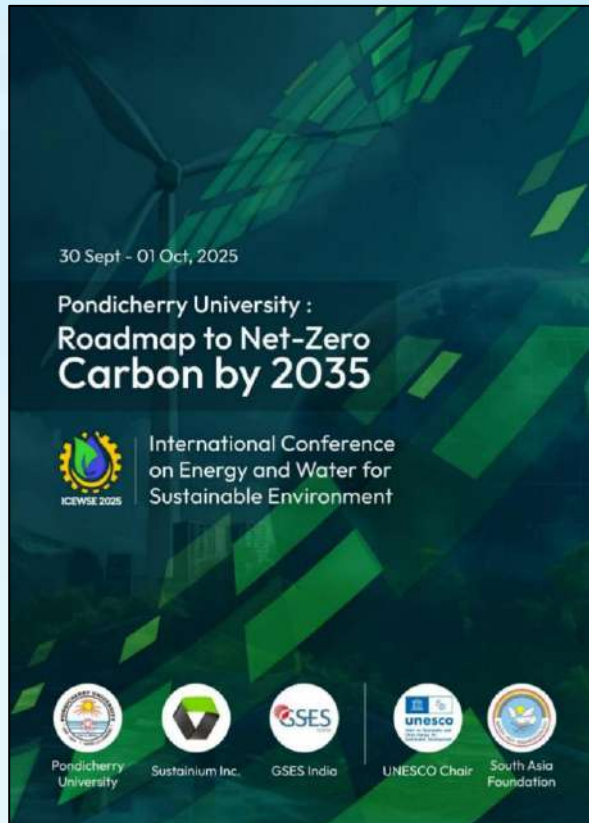
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Chair on Renewable and
Clean Energy for
Sustainable development

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