

Joint Initiative of CII- IGBC and Enterprise Singapore (ESG)



Technologies for Buildings and Built Environment to achieve Net Zero

Facilitating Transfer of Technologies and
Services from Singapore to India



CII - IGBC and Enterprise Singapore (EnterpriseSG) launched a joint initiative in 2022 to collaborate and support the built environment and construction sector in achieving Net Zero (Energy, Water, Waste and Carbon) Status. The joint initiative would facilitate projects to explore innovative technologies & business solutions to design new projects and convert existing buildings to achieve Net Zero status.

A series of workshops, B2B and B2C meetings would be organised throughout the year. Indian projects with Net Zero ambitions would be introduced to curated solutions from Singapore that are new, innovative, and cost-effective in achieving Net Zero targets.

The initiative would offer benefits to Building Owner, Sustainability Professionals, Facility Heads of Corporates, Architects/Designers, Builders/ Real Estate Developers, Leading Engineering firms and Green Building Consulting Organizations to explore Technological & Business solution for their projects to achieve.

Zero Waste to Landfill



Net Zero Energy



Net Zero Carbon



Net Zero Water

The Net Zero programme co-organized by CII-IGBC and EnterpriseSG can help raise awareness on emerging, new/innovative technological solutions that would enable projects to achieve Net Zero targets.

Key Technologies and Business Solutions



Integrated energy management solutions for buildings to aspire Net Zero



Comprehensive BIPV (Building Integrated Photovoltaic) systems



Energy Storage Solution (Capex & Opex Business Solutions) integrated with Grid and Renewable Energy systems



Waste management (Dry, Wet and E-Waste)



Harness alternate water (project specific solutions), for Net Zero Water Performance



Feasibility study to implement Net Zero Carbon solutions in projects

The initiative has been joined by 12 Singaporean companies that offer robust technological solutions capable of supporting projects in achieving Net Zero Status



EcoSense Enviro Solutions 01

ECOSENSE ENVIRO SOLUTIONS is committed to the development of sustainable societies by enabling organizations & communities in achieving their goals towards Net Zero via our solutions on carbon measurement and mitigation strategies, energy management and integrated waste management. We bring in a holistic perspective combined with digital tools and technologies.



Key Services

- ▲ Feasibility for Net Zero
- ▲ IoT, Energy Management
- ▲ Integrated Waste Management

Mr Pushkar Pradhan
CEO
pushkar.pradhan@ecosense-enviro.com

EnvironSens Pte Ltd 02

EnvironSens is a spin-off from National University of Singapore in 2018 and the team has worked closely with PUB, Singapore's National Water Agency over the last 7 years for I2BioS development and are supported by Enterprise Singapore.



Key Services

- ▲ Scalable Waste water Treatment Solutions (specific to the project)
- ▲ Real time water quality monitoring products

Dr Shailesh Kharkwal
CEO
shailesh@environsens.com

Genplus 03

Genplus is a Singapore-based company incorporated in 2013. The company designs and manufactures proprietary battery solutions and energy storage systems (ESS), offering customizable turnkey ESS which are ready for connection to medium or high voltage grids



Key Services

- ▲ Energy storage Solutions
- ▲ Integrated Energy Storage with renewable technologies

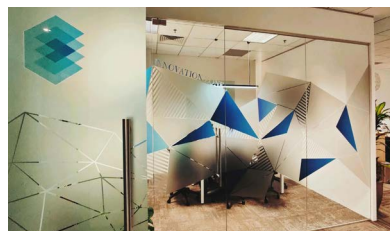
GenPlus®
POWERING A SUSTAINABLE FUTURE

Mr. Ming Chiat Lim
CEO
limmc@genplus.sg

Krosslinker Pte Ltd 04



KrossLinker is a venture capital backed, Aerogel Solutions start-up based in Singapore founded by a team of scientists. Their mission is to innovate and develop new, high-performance, energy-conserving Aerogel products. The aim is to make this premium material affordable and accessible to diverse mainstream applications.



Key Services

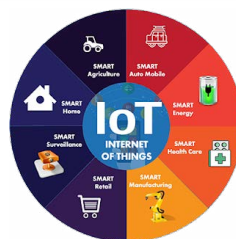
- ▲ Low carbon emitting materials (Aerogel-based insulating materials)
- ▲ Innovative solutions of enhancing Daylighting

Dr Mahesh Sachithanadam
Co-founder & Director
mahesh@krosslinker.com

Integratech Pte Ltd 05



Integratech Pte Ltd Established in 2003 with Headquarters in Singapore, specializes in delivering innovative customized and Industry standard web based enterprise solutions using the latest best proven practices.



Key Services

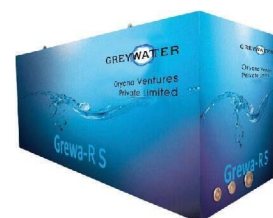
- ▲ Real time energy monitoring
- ▲ Optimize Building Performance
- ▲ Project Site Selection (along with Geo-tracking)
- ▲ Building automation

Mr. V.R.Harikrishnan
Director
hari@integratech.com.sg

Oryana Venture Pvt Ltd 06



Oryana is an Investment & Operating Company in the Environment & Clean Technology Segment. Oryana acquired Jaldhara Technologies (GreyWater) in 2017. They provide turnkey solutions right from conceptualization to commissioning of Water, Sewage & Effluent treatment plants & systems.



Key Services

- ▲ Customised, modular, packaged waste water treatment systems
- ▲ Monitoring of STP/ETPs for optimised Operations

Mr. Badri Narayanan
Founder
badri@oryana.in

RICE RENEWABLES

RICE Renewables Pte Ltd

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RICE Renewables is an emerging PV consultancy and knowledge disseminator in the Asian Solar market. Based in Singapore, they work on bridging the gap between stakeholders in the ZEB/Green building market segment, offering Technical & Commercial expertise and sustainable solutions for Asia's growing energy needs.



Key Services

- Comprehensive BIPV system (Design to Execution)

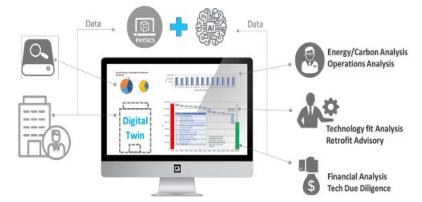
Mr. Shiva Subramanian
Director
shiva.subramanian@gogglesenergy.com

Qi Square Pte Ltd

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Qi Square Pte Ltd is a Singapore based company, setup in June 2017, and focusing on the digitalization of sustainable built environment. The AI-powered building simulation engine of BtrLyf by Qi Square accelerates the adoption of energy efficient/sustainable solutions through digitizing the industry ecosystem.



Key Services

- Simulation tool to predict energy performance
- Explore innovative Energy Conservation Measures (ECMs) to target Net Zero
- Quantification of energy/carbon/cost savings

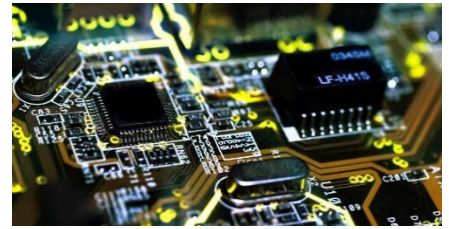
Mr Rupesh Umtol
CEO
rupesh@qisquare.sg

Vans Chemistry Pvt Ltd

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VANS CHEMISTRY is a Singapore-based company providing one-stop turnkey solutions to EEE-Waste Recycling, Battery Recycling, Data Protection, and Precious & PGM Metals Recovery & Refining.



Key Services

- e-Waste management (waste to wealth)
- Education on e-waste

Mr. Venkatesha Murthy
Founder & CEO
venky@vanschemistry.com

V-flowtech

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VFlowTech is a Singapore based company, founded in association with Entrepreneur First together with Nanyang Technological University. VFlowTech aims to develop the most affordable and reliable modular vanadium redox flow batteries in the world.

Innovative Stack Design
Compact & Scalable

Reduced Parasitic Losses
Improved Round-Trip Efficiency

Optimized Chemistry
Additives Allow Wider Operating Temperature Window



Higher Solubility Of Vanadium
25% Higher Energy Density

Proprietary BMS And EMS
IoT Enabled, Advanced Analytics To Optimize Load/Charge Management



Key Services

- Energy storage solutions
- Interated Energy Storage for achieving Net Zero

Dr. Avishek Kumar
Founder & CEO
avishek.kumar@vflowtech.com

Wah & Hua Pte Ltd

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Wah & Hua Pte Ltd – a multi-material recycling and waste Management Company that provides service for the collection of recyclables materials from small business to large corporations.



Key Services

- Waste Collection (tie-up with recycle vendors)
- Recycling & Waste Management (town/city level)
- Waste-to-Energy (WTE) and Waste-to-Product (WTP)

Ms Roxie Wang
Business Development Manager,
roxie_wang@wahhua.com

Venturer Modular Pvt Ltd

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Venturer Timberwork is a full service "Design and Build Mass Timber Specialist" undertaking Shell-and-Core Contracts across International Markets. Founded in 1995 at Singapore their approach for India is hybridization of locally available Concrete and Steel where it's possible to reduce cost and create resource efficiency.



Key Services

- Carbon Negative Industrialised Construction
- Timber construction (all type of buildings)

Mr Hams Tino
Country Manager, APAC & EMEA
hams@venturer timberwork.com



Upcoming Workshop/Training

2023

Webinars/
Workshop

B2B
Interactions

Sessions with
potential
off-takers

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
16 th	08 th		12 th		14 th		09 th		
	15 th	15 th	19 th	17 th	21 th	12 th	16 th	13 th	11 th
				24 th	23 th	25 th	23 th		18 th

About Us



Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, playing a proactive role in India's development process since 1895. It is India's premier business association with over 7,400 members, from the private and public sectors, including SMEs and MNCs.

Enterprise
Singapore

Enterprise Singapore is the government agency championing enterprise development in Singapore. The organisation supports the growth of Singapore as a hub for global trading and startups. As the national standards and accreditation body, Enterprise Singapore continues to build trust in Singapore's products and services through quality and standards.

With Enterprise Singapore's global network in over 35 locations spanning many developed and emerging markets, it connects businesses with relevant Singapore companies for their business expansion.

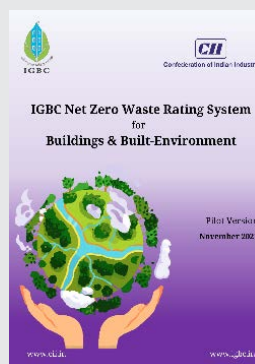
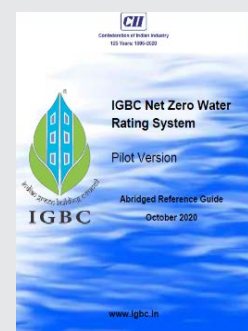
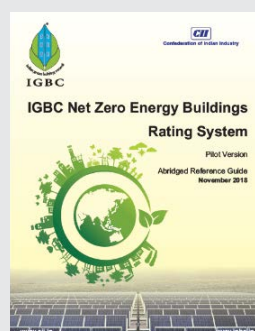


IGBC

CII formed Indian Green Building Council (IGBC) in 2001. IGBC has been promoting the green building concept in India for the past two decades. At present, over 10,296 projects with a footprint of about 10.24 billion sq. ft. are registered with IGBC and implementing green concepts. Further to transform Indian Building Sector, IGBC initiated dialogues on Advancing Net Zero in 2014. The Net Zero Energy Building framework was developed and launched in 2018, to inspire projects to demonstrate Net Zero Energy performance.

IGBC'S mission on Net Zero is to facilitate 'India to become one of the foremost countries in transforming to 'Net Zero' by 2050' and it has been launched in 2021, as to date, more than 300+ leading corporates and organisations have already joined IGBC's Net Zero Movement.

IGBC NET Zero Rating Systems





Confederation of Indian Industry

**Enterprise
Singapore**



CII Sohrabji Godrej Green Business Centre,

IGBC Head Quarters
Survey # 64, Kothaguda Post,
Hyderabad – 500 084, India

For any support and information, please feel free to contact us

Enterprise Singapore

Ms Leena Vanvani
leena_vanvani@enterprisesg.gov.sg

IGBC

Ar Nikita Korgaonker | **Dr Shivraj Dhaka**
nikita.korgaonker@cii.in | shivraj.dhaka@cii.in