Dr. Jagjit Singh

Expert in Heat Transfer, Cooling Technologies, Green Energy, and Water Systems

Engineering Solutions for a Sustainable Future

📞 *+91 9958001230* | ✉️ *cstenvirotech@gmail.com*

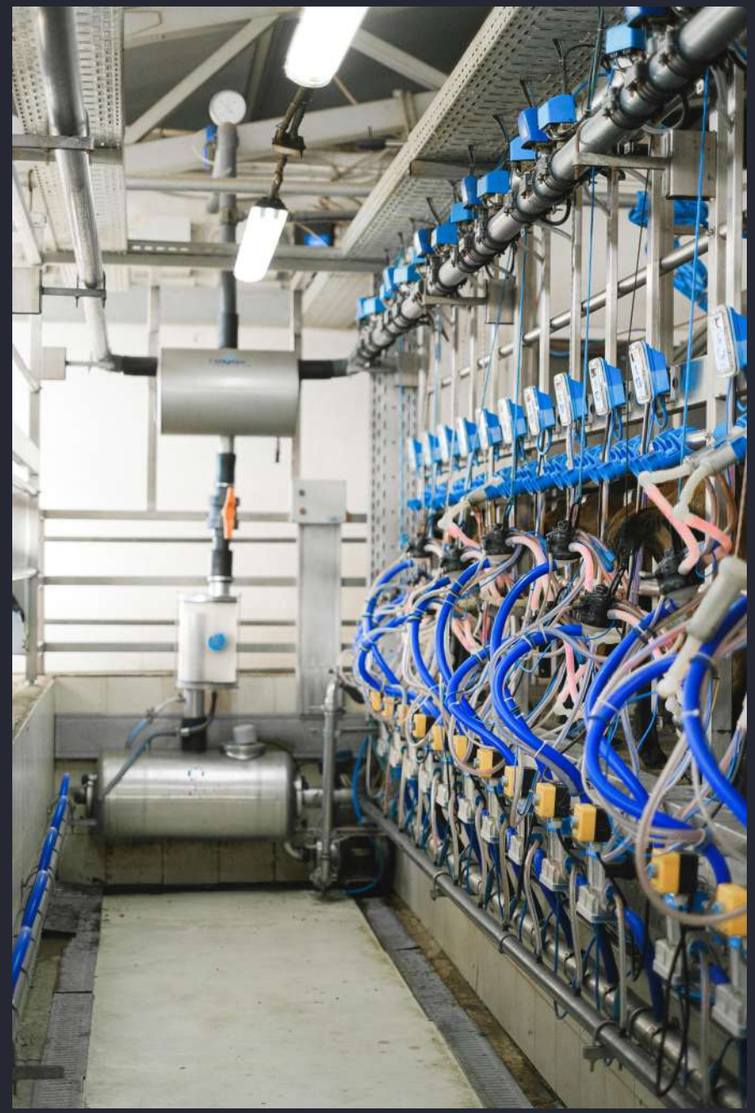
📍 *Sector 67, Gurgaon, Haryana, India*

Professional Summary

*With over **four decades of distinguished experience**, Dr. Jagjit Singh stands at the forefront of heat exchange, cooling systems, air conditioning, and sustainable energy solutions. His comprehensive expertise spans manufacturing, research and development, project management, sales, and environmental sustainability.*

*Recognised with an **Honorary Doctorate in Water & Energy (2019)**, Dr. Singh has delivered innovative engineering solutions across diverse geographies including India, the Middle East, Africa, Australia, Europe, and Southeast Asia. His work bridges traditional engineering excellence with cutting-edge sustainable technologies.*

A pioneer in thermal management and green energy systems, he continues to drive innovation in industrial cooling, power generation, and water conservation technologies.



Core Expertise Areas

Heat Transfer & Cooling Systems

Advanced thermal management solutions for industrial applications

Power Generation Solutions

Cooling systems for diesel, gas, and renewable energy plants

Industrial Air Conditioning

Energy-efficient climate control for commercial and industrial facilities

Water Generation & Conservation

Innovative water-from-air and dry cooling technologies

Food Processing Heat Systems

Thermal solutions for major FMCG manufacturers

Hydroponics & Renewable Tech

Sustainable agriculture and green energy integration

Power Generation Excellence

Dr. Singh has been instrumental in revolutionising cooling technologies for power generation across India and internationally. His pioneering work includes developing ***India's first Remote Radiator system for Mico-Bosch in 1988****, setting new standards for engine cooling efficiency.*

1

1988

India's 1st Remote Radiator (Mico-Bosch)

2

1990s-2000s

Cooling systems for Diesel, Gas & HFO Engines (1000+ MW projects)

3

International Scale

Installations in Bangladesh, Saudi Arabia, Australia.

4

Gas Turbine Innovation

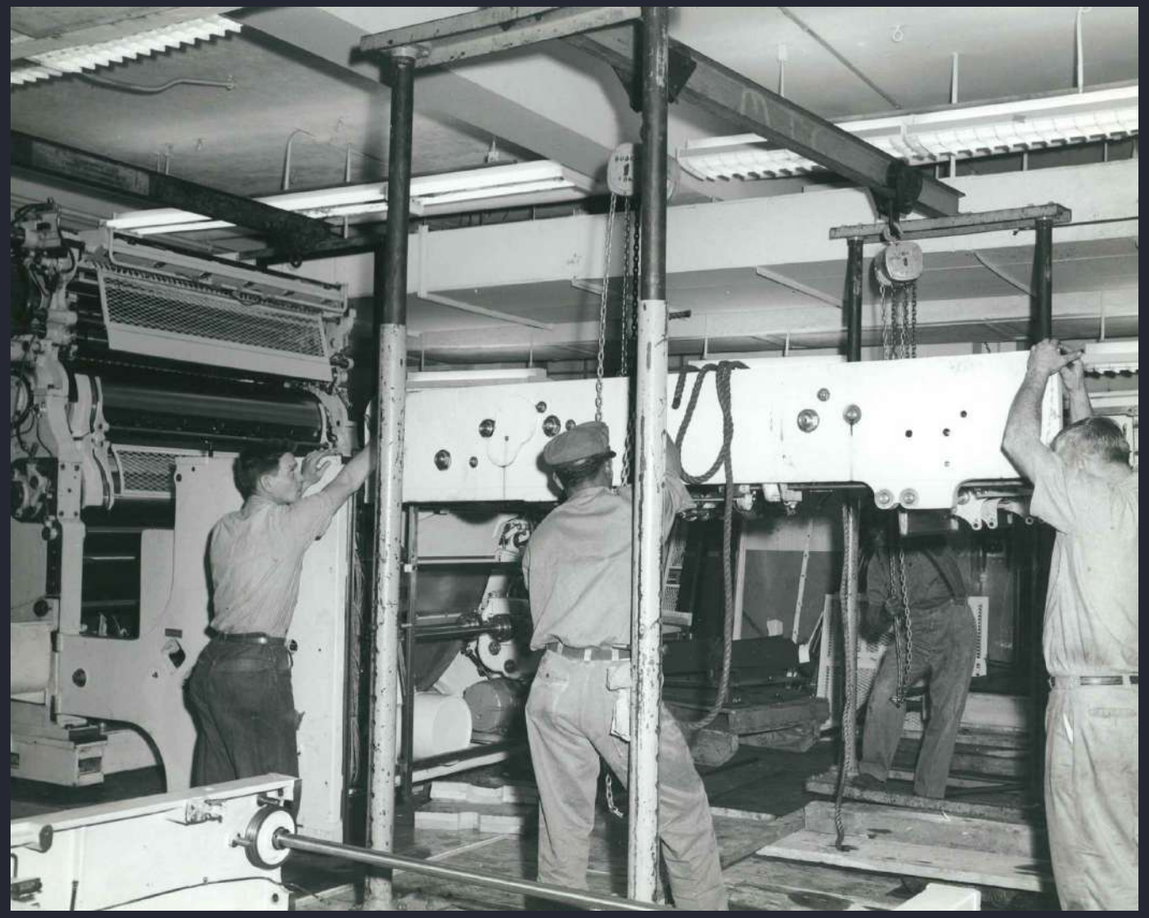
TIAC and Waste Heat cooling (IOCL Vadodara)

Air Conditioning Innovation

Diverse Technology Portfolio

*With over **45 years of specialised experience**, Dr. Singh has designed sophisticated air conditioning systems utilising multiple technologies: electrical chillers, vapour absorption machines (VAM), waste heat recovery, and solar-powered solutions.*

*His expertise in **adiabatic cooling** has enabled significant water savings in thermal systems, addressing both efficiency and environmental concerns simultaneously.*



Swiss Embassy

Precision climate control for diplomatic facilities

NTPC Ramagundam

Large-scale industrial cooling infrastructure

PDO Oman

Desert climate cooling solutions for oil & gas sector

Water Generation & Conservation Leadership

Addressing one of the world's most critical challenges, Dr. Singh has developed groundbreaking solutions in water conservation and generation. His expertise encompasses dry cooling technologies, adiabatic closed-loop towers, and innovative water-from-air systems that extract moisture from atmospheric conditions.

11,500

CMH Capacity

India's largest adiabatic cooling project at Hindustan Zinc

1000+

MW Scale

Water footprint reduction in major power installations

45+

Years

Pioneering water-positive power plant models

*As a leading advocate for **water-positive power plant models**, Dr. Singh continues to push the boundaries of what's possible in industrial water conservation, proving that large-scale operations can operate sustainably.*

Food Processing Thermal Solutions

Serving Global FMCG Leaders

Dr. Singh has provided comprehensive heating and cooling solutions to some of the world's leading consumer goods manufacturers, including ***Nestlé, Hindustan Lever, and Procter & Gamble****.*

His expertise covers multiple heating modalities:

- *Steam-based heating systems*
- *Thermic fluid solutions for high-temperature processes*
- *Hot water-based heating infrastructure*
- *Fluid bed drying technologies*
- *Tray drying systems for food preservation*
- *Indirect air heaters for sensitive products*

These systems ensure optimal product quality whilst maximising energy efficiency and meeting stringent food safety standards.

Research & Development Excellence

NTPC NETRA Collaboration

Dr. Singh's commitment to innovation extends to formal research partnerships with India's premier power generation organisation. His R&D support for ***NTPC NETRA*** *has resulted in breakthrough pilot cooling systems that are reshaping the industry's approach to thermal management.*

01

Innovation Leadership

Developed India's first 450 CMH adiabatic system specifically designed for power plant applications

02

Large-Scale Implementation

Successfully reduced water footprint in 100+ MW scale setups through advanced cooling technologies

03

Continuous Improvement

Ongoing collaboration to refine and optimise thermal management solutions for next-generation power facilities

Vision for Future Technology

Dr. Singh's forward-thinking approach positions him at the intersection of sustainable energy, water conservation, and food security. His innovative vision encompasses integrated solutions that address multiple global challenges simultaneously.

Hydroponic Innovation

Water distribution systems powered by industrial waste energy for urban and vertical farming models

Water Recovery

Advanced systems for extracting clean water from municipal waste streams

Green Hydrogen

Hydrogen-based cooling and power generation for zero-emission industrial applications

Modular Food Systems

Fresh vegetable delivery infrastructure integrating cooling and sustainable agriculture

Cutting-Edge Recent Projects

Dr. Singh continues to push technological boundaries with innovative assignments that address emerging challenges in energy storage, sustainable transport, and renewable power. His recent portfolio demonstrates versatility across multiple cutting-edge domains.

Phase Change Materials

Advanced heat exchangers utilising PCM technology for enhanced thermal storage and efficiency

Battery Thermal Management

Li-ion battery cooling systems for Wärtsilä marine and industrial applications

Solar-Powered Cooling

Innovative air conditioning installation at Patna Sahib Gurudwara using renewable energy

Hydrogen AC Systems

Pioneering hydrogen-based air conditioning for clean, efficient climate control

Electric Vehicle Solutions

Advanced EV battery cooling and charging infrastructure for sustainable transport

Academic Foundation & Recognition

1

1983

B.Sc. (Non-Medical) *Foundation in scientific principles*

2

1985

Post Diploma in Business Administration *Combining technical expertise with business acumen*

3

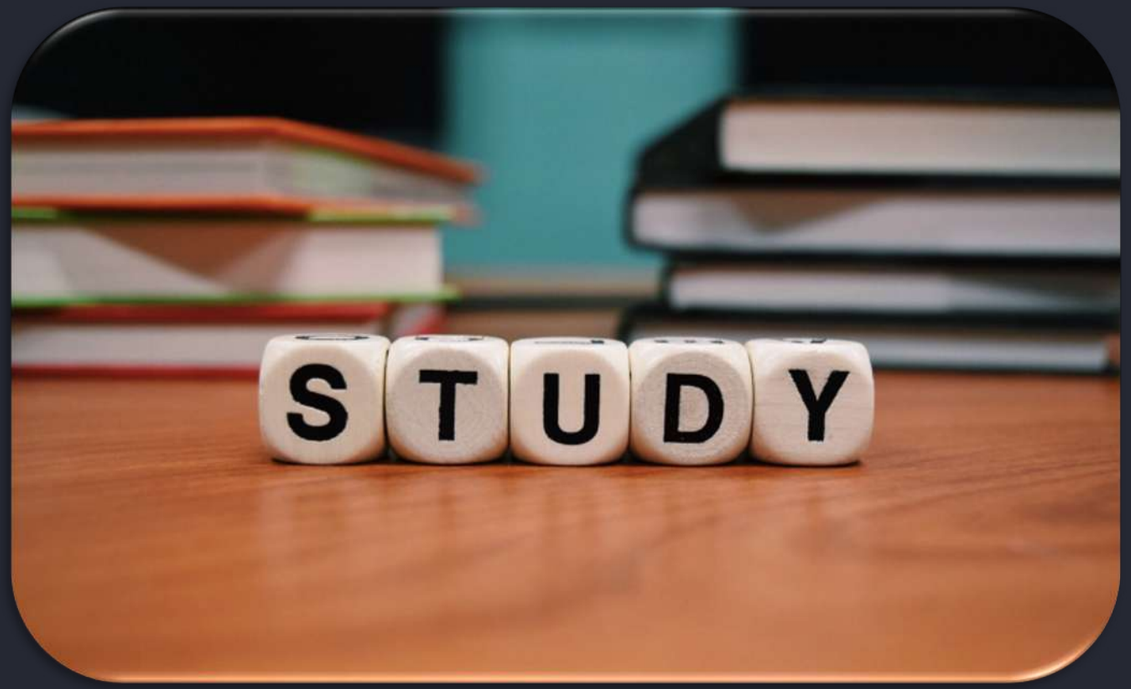
2019

Honorary Doctorate (Water & Energy) *Recognition of lifetime contributions to sustainable engineering*

4

45+ Years

Industry Leadership*Driving innovation and transformation across multiple sectors*



Dr. Singh's academic qualifications, combined with four decades of hands-on industrial experience, create a unique blend of theoretical knowledge and practical expertise that drives meaningful innovation in sustainable engineering.

Global Project Footprint

Dr. Singh's influence extends across continents, with successful project implementations in diverse climatic and operational environments. His solutions have been deployed from the intense heat of Middle Eastern deserts to the tropical conditions of Southeast Asia.

🇮🇳 India

Hundreds of installations across power, industrial, and commercial sectors

🌍 Middle East & Africa

Saudi Arabia, Oman, UAE: Extreme climate cooling solutions

🌏 Asia-Pacific

Bangladesh, Australia, Southeast Asia: Diverse applications

🇪🇺 Europe

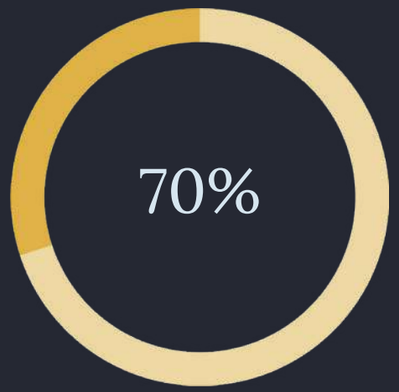
Precision engineering for diplomatic and commercial facilities

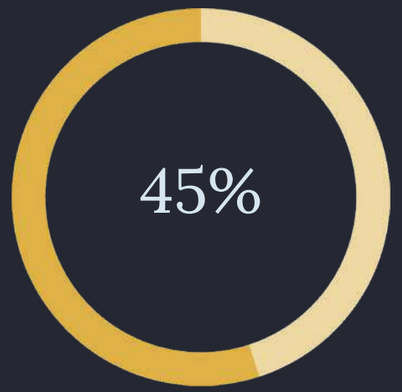
Sustainability at the Core

Engineering for Tomorrow

Every project undertaken by Dr. Singh integrates sustainability principles at its foundation. His approach demonstrates that industrial efficiency and environmental responsibility are not competing priorities but complementary goals.

> *"True engineering excellence lies not just in solving today's problems, but in ensuring our solutions don't create tomorrow's challenges."*





Partnership Opportunities

Dr. Singh welcomes collaboration with organisations seeking innovative, sustainable engineering solutions. Whether you require thermal management expertise, water conservation technologies, or renewable energy integration, his comprehensive experience delivers results.

Consultation

Expert guidance on thermal and energy systems

Design & Engineering

Custom solutions for unique challenges

Implementation

Project management and execution

Optimisation

Continuous improvement and innovation

Let's Build a Sustainable Future Together

> *"Let's combine energy, innovation, and empathy to build a sustainable tomorrow."*

Get in Touch

Dr. Jagjit Singh

📞 *Phone: +91 9958001230*

✉️ *Email: cstenvirotech@gmail.com*

🌐 *Website :- www.cstenvirobreeze.com*

📍 *Location: Sector 67, Gurgaon, Haryana, India*

Engineering excellence. Environmental responsibility. Lasting impact.

Areas of Engagement

- *Power generation cooling systems*
- *Industrial air conditioning solutions*
- *Water conservation technologies*
- *Sustainable energy integration*
- *Food processing thermal systems*
- *Research & development partnerships*