

CEMENTO-AI

Advancing Decarbonization

Decarbonizing cement industry with data-driven insights



www.gord.qa

What's Cemento-Ai?

Developed by the Gulf Organisation for Research and Development (GORD), Cemento-Ai is a physics-informed AI platform designed to optimize cement production in real time. By integrating plant data and advanced thermodynamic models, it predicts process parameters, clinker compositions, and product quality. Cemento-Ai is aimed at supporting operators in making informed decisions, enabling fuel or material switching, reducing downtime, and improving efficiency without the risks associated with traditional reactive controls.

Optimizing
cement
production for
a low-carbon
future



AI OPTIMIZER

ADVANCED MACHINE
LEARNING

PLANT DATA

DYNAMIC MODEL

Why Cemento-Ai?

The global cement industry faces a dual challenge: ambitious emission reduction goals amid a projected production increase. With slim profit margins, high operational costs, and mounting regulatory pressure, adopting new technology is difficult.

Cemento-Ai addresses these challenges by leveraging AI and advanced thermodynamic modeling for real-time process optimization, resulting in:



Reduce Carbon Footprint to help producers meet emissions regulations through smarter fuel and material use.



Minimized Downtime and Risk by enabling virtual testing for new materials and processes.



Carbon Emission Monitoring to turn emissions regulations into financial opportunities.

KEY FEATURES

CEMENTO-AI



Real-Time
Optimization



Instant
Deployment



Scenario Planning
Capability



Powerful Virtual
Sensors



Intuitive
Dashboard



Actionable Data
Analytics



Environmental Impact
Monitoring



Virtual
Testing

Who Can Cemento-Ai Help?

Cemento-AI can be used by any cement manufacturer, but particularly:

- Independent Manufacturers (due to its low investment and downtime).
- Manufacturers looking to explore fuel switching with little R&D.
- Manufacturers who are looking to monitor emissions and explore carbon financing.

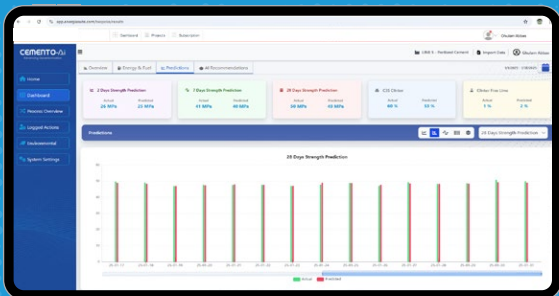
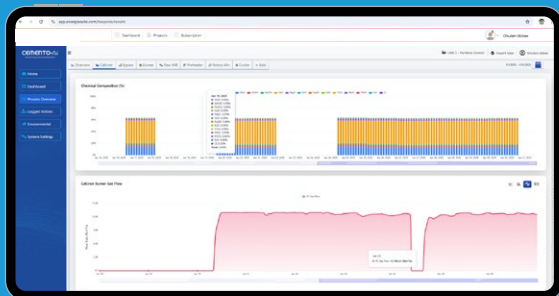
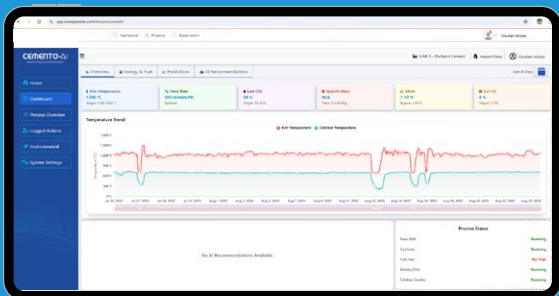
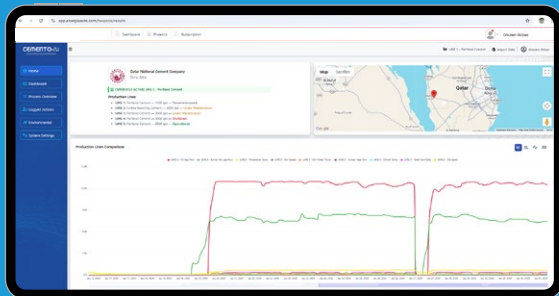
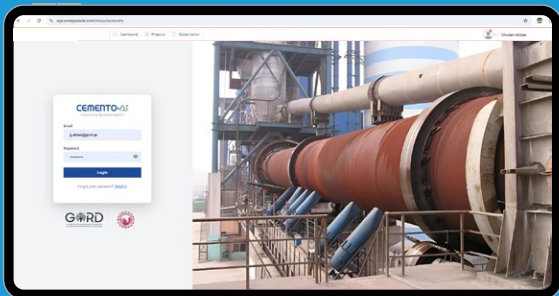


Potential Impacts

- **Operational Impact:** A single platform for operators to process and laboratory data and get AI-informed insights, enabling smart decision making.
- **Economic Impact:** Allow for predictive maintenance reducing shutdown. Reduce material use and fuel use.
- **Environmental Impact:** Lowers CO₂ emissions and enables carbon credit generation.
- **Strategic Impact:** Supports digital transformation and risk-free scenario planning.



CEMENTO-AI DASHBOARD



Production Line	Unit	Value
CLM1	kg 1000/mg	4,990.00
CLM2	kg 1000/mg	4,990.00
CLM3	kg 1000/mg	4,990.00
CLM4	kg 1000/mg	4,990.00
CLM5	kg 1000/mg	4,990.00
CLM6	kg 1000/mg	4,990.00
CLM7	kg 1000/mg	4,990.00
CLM8	kg 1000/mg	4,990.00
CLM9	kg 1000/mg	4,990.00
CLM10	kg 1000/mg	4,990.00
CLM11	kg 1000/mg	4,990.00
CLM12	kg 1000/mg	4,990.00
CLM13	kg 1000/mg	4,990.00
CLM14	kg 1000/mg	4,990.00
CLM15	kg 1000/mg	4,990.00
CLM16	kg 1000/mg	4,990.00
CLM17	kg 1000/mg	4,990.00
CLM18	kg 1000/mg	4,990.00
CLM19	kg 1000/mg	4,990.00
CLM20	kg 1000/mg	4,990.00

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DEVELOPED BY



Accelerating Green Solutions
for a Sustainable Future



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