



KISEM

Kotak - IIT M Save Energy Mission



Who we are

Kotak - IIT M Save Energy Mission

Kotak Mahindra Bank under the CSR initiative, has collaborated with IIT Madras for a national-level decarbonization mission called **Kotak - IIT M Save Energy Mission (KISEM)**. This primarily supports Micro Small & Medium Scale Enterprises (MSMEs) across India by conducting energy and GHG emission assessment studies to enhance their overall energy efficiency and in turn reduce their carbon footprints. In this regard, IIT Madras being the hub has scaled up project KISEM across India by establishing nine other KISEM centres across the following IITs - **IIT Bombay, IIT Indore, IIT Gandhinagar, IIT Ropar, IIT Guwahati, IIT Hyderabad, IIT Kanpur, IIT Jodhpur and IIT Kharagpur**.

Administration & Technical Team



Dr. Satyanarayanan Seshadri
Project In-charge & National Coordinator



Dr. Mahesh Panchagnula
Co Project In-charge



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Senior Project Manager
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Mr. Karthick M
Senior Lead Energy Auditor

PI's of PAN India KISEM Centers



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Dr. Prakash Kotecha
Professor
Dept. of CHE, IIT Guwahati



Dr. Ranajit Mondal
Assistant Professor
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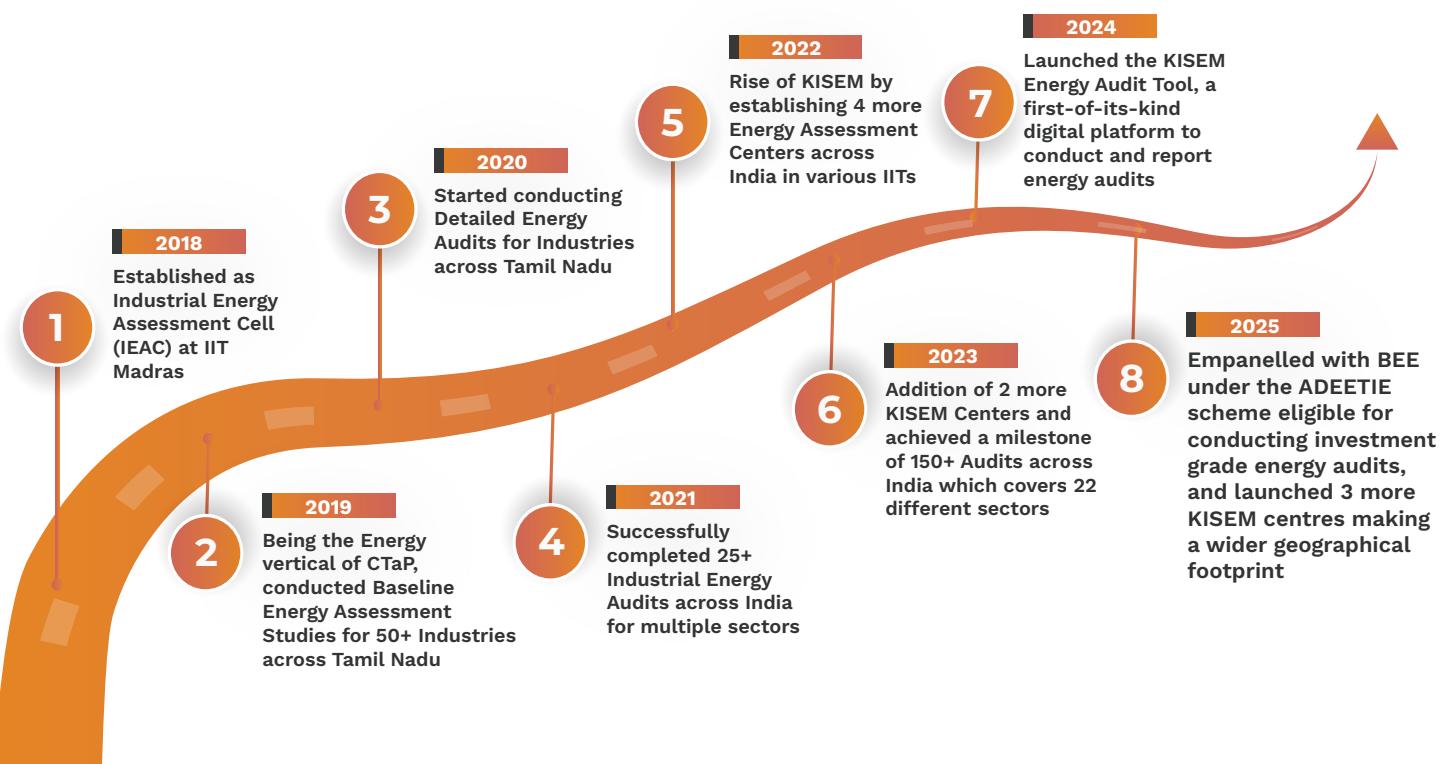
IIT Kanpur

Our Outcomes



as of March 2025*

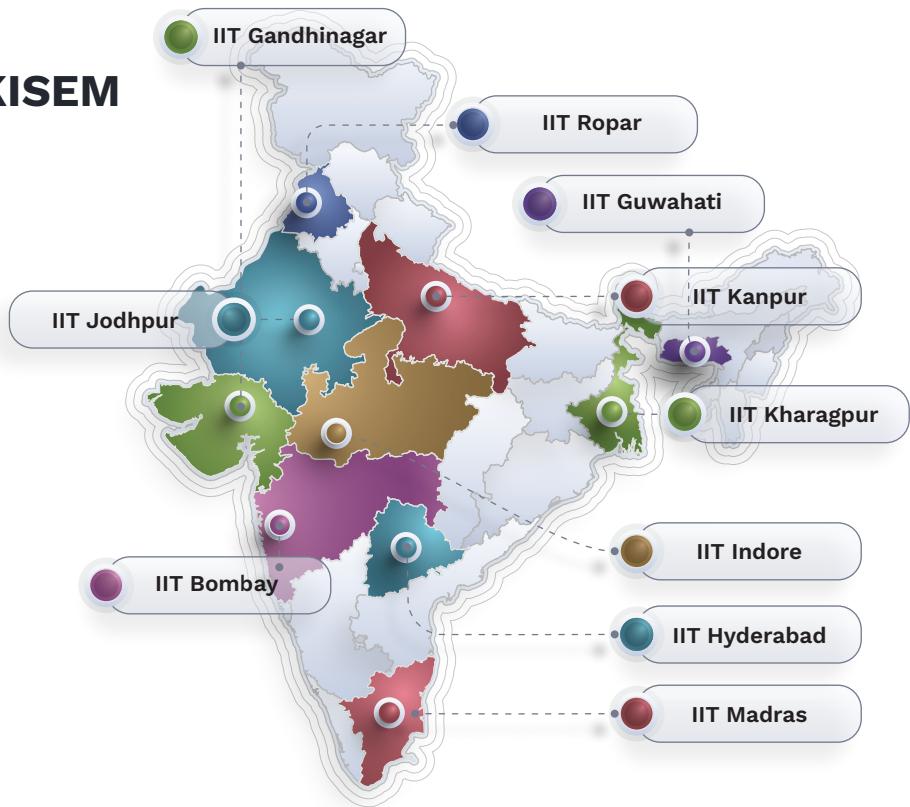
Our Journey



KISEM Centres

We have established **10 KISEM Centers** across India

- 📍 IIT Ropar
- 📍 IIT Gandhinagar
- 📍 IIT Indore
- 📍 IIT Bombay
- 📍 IIT Hyderabad
- 📍 IIT Madras
- 📍 IIT Guwahati
- 📍 IIT Kanpur
- 📍 IIT Kharagpur
- 📍 IIT Jodhpur



KISEM Protocol



3-Phase Net-Zero Approach



Baseline Assessment



**Solution Identification,
Piloting and Scaling**



Continuous Measurement & Sustenance

Instruments used in Audit Assessments

- Power quality analyzer – Krykard/Haioki/Fluke
- Power Clamp Meter – Fluke/Krykard
- Lux Meter – Fluke
- Tachometer – Fluke
- Power Logger – Fluke/Haioki
- Acoustic Imager – Fluke
- Air Flow Meter – VF
- Ultrasonic Water flow meter – Flexim
- Vane anemometer – Testo
- Temperature Data Logger – Testo
- Psychrometer – Testo
- Pitot tube manometer
- Flue gas analyzer – Kane/Testo
- Thermal Imager – Testo
- Ultrasonic Steam Trap Tester – Krone Marshall



Energy Audit Tool

KISEM has developed a first of its kind digital platform made exclusively for performing various forms of Energy Assessment Studies such as:

- Baseline Energy Survey/Audit
- Energy Efficient Technology Intervention Assessment
- Baseline GHG Emission Study
- Detailed Energy Audit
- Techno-Economic Assessment of Energy Conservation Measures
- Targeted Energy Audit
- Performance Study of Utilities
- Measurement & Verification Audit
- Walk - Through Energy Audit

Can be used for all kind of Process Industries, Commercial Spaces and all other Bulk Energy Consumers.

Each utility has pre-defined set of standard data collection fields and modules such as Design Data, Field/Measurement Data, Performance Analysis, Observation & Recommendation and Savings Module for Energy & Cost savings estimation

“A single energy audit platform to multiple audit firms for assessing multiple sectors”

 Efficiency and Accuracy

 Customer Empowerment

 Data Security

 Comprehensive Reporting

 Standardised Intervention

 Time-Saving

Partners & Collaborators



Beneficiaries & Clients



Sundaram-Clayton Limited

Why KISEM ?

K

Knowledge-driven

SEEM Award Winner for Best Audit Firm & Auditor (2023-24), specializing in 30+ manufacturing and processing sectors which include energy intensive sectors like Cement, Iron & Steel, Chemicals, textile, Paper, Aluminium etc.

I

Industry-wide Presence:

PAN India service with 10 centers, staffed by accredited and certified Energy Auditors, Energy Managers, and Assessment Engineers from electrical, mechanical, and chemical backgrounds.

S

Solutions Validated:

Solutions **validated by IIT professors and subject experts**, with opportunities for customized R&D projects.

E

Energy Efficiency Standards:

Audit protocols aligned with ISO 14001, 50002, and global standards, by engaging top energy-efficient technologies and service providers.

M

Measurable Results:

Strong post-audit services through measurement, verification, and assistance in obtaining government subsidies and monetary benefits for implementing energy conservation measures.

When to Reach us?



Really worried about your energy bills?



If your annual energy bills are INR 1 Cr and above.



When your specific energy consumption is far high from your peers or industry standards.



To make your process energy efficient and sustainable.



Requirement to meet any energy management norms such as PAT DCs, HIGG Index, etc.



Join the Mission!

🌐 www.kisem.org

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