

Name of the Technology/Product

Laboratory Name	CSIR-Central Scientific Instruments Organisation, CSIO (Chennai Centre)
Brief Profile of Technology/Product	<p><u>Low Cost Oxygen Monitor (LCOM)</u></p> <p>Oxygen monitoring in stack emission is required to ensure efficient combustion of fuel, to minimize heat loss and to minimize emissions leading to a cleaner environment. Low Cost Oxygen Monitor (LCOM) using LSM-11 Bousch Lambda sensor and microcontroller for Oxygen monitoring in oil fired boilers. The system is useful for measuring the oxygen percentage in stack gas monitoring (upto 350 deg C) which in turn gives combustion efficiency of oil fired boilers.</p> <ol style="list-style-type: none"> 1. Used in Oil fired boilers to monitor the combustion efficiency & CO emission 2. Can be used to monitor the Stack Gas (temperature below 350°C). 3. Cost effective solution. 4. Can be used for other applications and other electro chemical sensors
Returns/Benefits	<p>This technology is of particularly relevant and affordable for medium and large scale industries and Commercial establishments such as IT parks where the no. of monitoring nodes can be more than 256 and can be used to reduce the energy consumption and evaluation of energy efficient equipments.</p>
Validation Level	Field tested/ Transferred the technology
IPR Status [also indicating the status of the patent (if any) in 2015]	--
End product price (if not available, estimated price)	<p>Cost of Development / Rs.8 lakhs</p> <p>Approx Global Price Varying from Rs.4-8 lakhs</p> <p>Tentative Market Price Rs. 0.5lakhs</p>

	Approx. Market Potential (in Nos.) 200/years
Technology/Product Collaborator	Developed as an in house project
Relevance of Technology in present times	Energy efficiency is one of the key component of meeting the challenges of energy sector to meet the demand supply gap. This product will help to improve the efficiency of combustion of oil fired boilers and reducing the environmental pollution.
Similar technology/product developed	Many systems available for high temperature applications and the cost of the system is very high.
Picture of the technology/product (if any, with good resolution)	