

For immediate release

Press Release

'Raman 1.0' launched to instantly check for adulteration in edible oil on First-Ever World Food Safety Day

A startup being mentored by FSSAI has launched its Raman-1 handheld spectrometer on World Food Safety Day. Coupled with mobile & AI technologies, Oak Analytics has built a system for instant authentication of products, beginning with edible oil.

New Delhi, 07th June 2019: Oak Analytics, a Noida and US based startup, was founded with a vision to enhance public health by authentication of the food and drink that is consumed, and ensuring that harmful food items do not make it to retail shelves.

According to a report by the Global Food Safety Initiative, food fraud, which includes adulteration, counterfeiting, and mislabelling costs the global food industry close to \$40 billion a year. FSSAI's annual report for the year 2015-16 stated that 1 out of 5 samples analysed during the year were found to be adulterated.

Traditional methods for curtailing food fraud have always depended upon packaging countermeasures but counterfeiters can typically duplicate most of the commonly used packaging techniques in 6-9 months. The solution is to test the product, and not just rely on the packaging. However, the time and costs involved in laboratory testing make it unviable and unscalable.

Dr. Deepa Bhajekar, MD of D Technology and an expert in food testing said "How many people actually know what they are eating? Food impacts our health greatly, but we are often careless about it. Those who can afford it will rely on brands but the real victims are the poor. FSSAI has done a great job in the last few years, but adulteration is still a big problem in the country."

Oak Analytics believes it has the solution. Their approach has been to innovate on top of an existing and proven technology. Traditional Raman Spectrometers, used in Lab testing, are large and expensive table top instruments. While handheld spectrometers exist, they are prohibitively expensive for many applications.

By leveraging advancements in micro-optics, mobile & cloud technology, and AI & machine learning algorithms, Oak Analytics has taken Raman spectroscopy out of the lab and into the field. The Raman-1 spectrometer is a chalkboard duster sized device, and costs a fraction of laboratory spectrometers. The device can be used to scan through any transparent packaging without having to open it. Test results are instantly displayed on a mobile app.

The prototype of the technology was displayed at the World Food India event held at New Delhi in November 2017, where Oak Analytics was awarded by the Hon. President of India as the most innovative startup. The company is also being mentored by FSSAI as it brings its product to market.

Deepak Mehrotra, the CEO of Oak Analytics said *“Support from FSSAI and early customers have greatly helped our journey. We have tested 20 different types of oils and over 90 different brands. Our team has taken over 11,000 scans and found non-compliant samples across the country. All samples identified as non-compliant were sent for laboratory testing. In all cases, the laboratory tests confirmed our system results. Our system is not intended to replace laboratory testing, but is meant to be an inexpensive and quick supplement to existing quality assurance practices.”*

After a long & rigorous validation process, FSSAI has provided Oak Analytics with a provisional certificate of conformance, and allowed the device to be used for surveillance purposes to check for adulteration in edible oils and ghee. FSSAI has also issued Oak Analytics a purchase order, and some devices have already been handed over to the state food safety authorities in Delhi, Chandigarh, and Kerala. With the official launch completed, the company plans to rollout the technology to more states, and to manufacturers and retailers.

Mr. Pawan Agarwal, CEO of FSSAI said *“Ensuring food safety for consumers requires constant surveillance and testing along the entire supply chain by all stakeholders. Innovative and economically viable Rapid Testing methods are the need of the hour. To this extent, FSSAI has framed a policy for adoption of Rapid Analytical Food Testing methods, and we encourage more startups to innovate in this area”.*

With a growing economy, increasing population, and an explosion in commerce, it is only expected that problems like adulteration & counterfeiting will grow. The answer may not be to do more of the same old things, but to find innovative new solutions to existing problems. While Oak Analytics is bracing itself for the challenges of execution, some of their engineers are already working on the next application for their technology.

For media queries, contact:

Ruchika Sharma
Food Safety and Standards Authority of India
E: sharmaruchika.21@gmail.com

For further details on Raman 1.0, contact:

Aditya Krishnakumar
Head, Sales Oak Analytics
E: adityakk@oakanalytics.com
P: +919843329090