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IMPACT FEATURE

Elmeasure India


**Showing the way
ahead with
'Smart Energy'**

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- SAM CHERIAN
Chairman, Elmeasure

Elmeasure India: Showing the way ahead with 'Smart Energy'

Textile Magazine caught up with **Sam Cherian, Chairman, Elmeasure**, who after successfully obtaining a degree in Business Management from the US and completing a short stint of managing a recycling company, helped establish Elmeasure in 2004. He spoke at length about Elmeasure's inception, products and solutions for the textile industry, USPs and future plans, among others



As one of the leading manufacturers of digital panel meters in the country, Elmeasure India (P) Limited has carved a niche of its own over the years. The company offers a wide range of digital metering products to cater to the needs of a variety of industries. For the past six years it has been successfully offering customised IOT-enabled systems for the textile industry, which helps in the monitoring of energy, processes (hank measurements, production, ukg, air and resources) and enabling the availability of data on a user-friendly dashboard.

Needless to say, the popularity of the solution has been on the rise. It has been finding an increasing number of takers in recent times. With the narrative across industries being establishment of 'smart'

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ENERGY EFFICIENCY

factories and the rising emphasis on sustainability, it is a system that is sure to remain high on the popularity charts of the textile fraternity. Elmeasure India was established in 2004 in Bengaluru. Elaborating on the inception, Chairman Sam Cherian reveals: "A few of us from diverse backgrounds came together to start this company. Our purpose stemmed from the belief that we wanted to help people both from within and outside the organisation."

"I had just returned from the US after my studies when I met Babu T K and his team who had over 50 years of combined experience building products and solutions around the energy management space. In my case, I got engaged with non-profit work of a trust established by my father. This was quite a contrarian move. It's not the way things are supposed to happen for it is always the other way around, i.e. you start a company and then try and do something to give back to society," he adds. Cherian points out that there were only a few digital panel energy meters during the time they entered the business.

"Yes, that was the situation. We analysed and listed down the pain points because of the lack of adequate number of these devices. We wanted to offer the customer a product that was optimised for the particular industry and that would take care of all the pain points," he says. The company today offers a wide range of products which includes, building energy management system (BEMS), EMS, demand controller, multifunction meters, electronic energy meters, dual energy meters, digital panel meters, automatic changeovers with current limiters (ACCLs), power factor controllers (PFCs), earth leakage relays (ELRs), earth fault relays (EFRs), gateways, branch monitoring units, smart input-output systems, transducers and converters.

"It was in 2007 that we entered the solution business. What we did was to take all the energy meters in a manufacturing unit and then network them as in the case of computers. Usually what happens is that there is a process that runs and at the end of the day you get a bill for the energy used. However, you don't know as to where this energy is being utilised less or more – whether it is the lighting, machinery or the entire line. So, we made a system that keeps track of the energy consumption of different sources and shares them on a dashboard," Cherian explains. "We were able to show the factory owners machine-wise energy consumption. This helped them keep track of the energy consumed and work in improving their efficiency," he adds. Cherian feels that energy should be viewed as a raw material.

"If you take the case of a textile mill, energy is one of the



biggest raw materials. The savings that can be made by reducing energy consumption are huge. In many cases, behavioural changes can lead to savings of 5-10%. Once you know where the energy is going, you can then take the necessary steps to improve efficiency. Such a system gives you more control over running the manufacturing unit. Similarly we do a lot of digital panel meters for the building segment. Our prepaid panel meters are used in residential townships. The builders take HT connections. There is a network of prepaid meters. Each time the balance goes below a certain point, the homeowner receives an alert. Providing customised solutions is our domain of expertise," he says.

Tryst with Textile Industry

The company's association with the Indian Texpreneurs Federation (ITF) was instrumental in it getting into customised solutions for the textile industry. "About six years ago we got an enquiry from ITF that wanted us to provide about 60,000 digital panel meters for their 300+ members. We had a meeting and decided to provide them with customised meters. Customisation, as mentioned earlier, is one of our key strengths. They wanted to improve the efficiency of all these mills. Someone else was actually earmarked for doing the software. It so happened that they could not deliver on time. This is when ITF asked us whether we could step in and also create the software, which we did," Cherian recollects.

"We have a small but highly competent software team that took up the challenge. What we were doing till now was energy management. However, here it involved taking care of the energy process and production. They wanted us to come out with an integrated solution. Essentially, they wanted a platform to enable them to see the power consumption, power quality, ukg, breaks, quality of yarn,



counts, etc. Remember, just with energy management a mill can make huge savings. With this kind of a comprehensive energy and process management system, imagine the kind of savings that can be made," he states.

Comprehensive Solution

"That is where the journey started for a specialised system for the textile industry. Our team took a lot of inputs from industry experts. Then we started with department and machine level monitoring. We also needed to make use of a cloud system or a local server for storing data and showing the owners that this is how their machines were operating. For example, a mill owner can now find out in an instant the efficiency, utilisation and idling time for a machine or the changeover time. Earlier, mill owners had to deploy a lot of manpower to keep track of all these things. For example, 4-5 workers would always be going around each machine and have separate departments to find out the hank, breaks and process parameters, whereas the system can instantly provide them with the answer. Just a single person is now enough," Cherian elaborates.

"So we took all the inputs from spinning, simplex, carding, combing, drawing autoconers, compressor, plant and all other resources and included the data into the system. The dashboard displayed all this data. There were a couple of mills that pioneered the concept. They gave us a lot of useful feedback based on which we could further improve the system. There are about 150 mills which are now using the system and it is no brainer to state that they are very happy with the results," he points out. Highlighting another benefit offered by the system, Cherian states, "Traditionally, IT is not the strong point of a majority of mills. This being the case, it makes sense for them to outsource this part. With us they need not have apprehension of their data be-

ing misused since we provide them with a secure cloud where only they have access to their information."

"With the IOT-enabled platform which integrates a bunch of sensors, round-the-clock data is now available to provide information on different process parameters such as air pressure, flow, temperature, RH, energy, count, pulse, etc. This data is available to them even when they are travelling, thanks to the system," he adds. Continuing further, he says that they are able to provide excellent support because every component of the system, including hardware and software, is from the company and they do everything on a turnkey basis end-to-end.

Quick Return on Investment

According to Cherian, the return on investment of the system is quick. "It is about six months. There was a recent article published by ITF. This was about Sowmya Mill with a spindle capacity of 30,000 where they are able to save about 10,000 units of energy. Using this approach they were able to save around Rs 2.5 crore in a year. In fact, some mills have been awarded the ISO 50001 certification by GreenCo thanks to the system," he says. Further, Cherian feels that one of the key areas of focus when such a system is installed is to ensure that things are driven by the top management.

"A culture for more efficiency needs to be nurtured. The middle management must be influenced for its proper implementation. All employees must visualise how the system leads to tremendous savings," he says. "A lot of people tend to forget that energy is also a raw material. Remember, the price of energy never comes down. We therefore need to see how we can do the same work while consuming lesser units. Definitely newer machines are more efficient than the older ones and the data helps prove and ration investment in machinery upgrades," Cherian points out.

"However, without such a system the mill owner will not be able to know how efficient the new machine actually is as compared to the earlier one. The data that is collected by the system is therefore crucial," he elaborates. "Typically, with the system in place, energy saving of around 18-20% is possible annually in a manufacturing unit. Moreover, it helps to set new benchmarks for savings. For example, you can now find out the amount of energy that is being spent for producing one kilogram of yarn with ease," he explains.

The Setup

The company has a state-of-the-art manufacturing unit located in the Devanahalli Industrial Park, Bengaluru. Sharing details, Cherian states, "We started with two units



in Yelahanka, Bengaluru in 2004. Gradually as we grew, it became difficult for us and so we moved into a 70,000 sq. feet state-of-the-art facility in Devanahalli. We cater to large OEMs. Our team strength is around 400, of which around 100 are engaged in design, which is one of our strong points. We make around 50,000 digital panel meters every month. We also have ample space and the necessary infrastructure to scale up the numbers." The company also has a manufacturing unit located in Coimbatore, Tamil Nadu with sales offices in Bengaluru, Chennai, Mumbai, Delhi, Hyderabad, USA and the UAE.

Surmounting the Pandemic Challenge

Just as in the case of others, the pandemic came as a bolt from the blue for Elmeasure India as well. "It took us completely by surprise. However, it also showed that we are a resilient company. For about six weeks, the going was really tough. We had a virtually zero order book. The shipments for certain key components that we import from other countries were held up. Planes were not flying. It was a challenging situation. However, we were proactive. We sat down and discussed various ways of emerging stronger from the situation to take the lead once again. And we ensured that none of our customers suffered because of us," Cherian reveals.

"We had inventories stocked for about three months. None of their deliveries were delayed. We also ensured that all the staff was paid on time. I firmly believe that all this comes from our mission, which is to simply build extraordinary people. We remained agile. We even added new products during the pandemic. We have already crossed our last year's production figures in about eight months alone. Despite the loss of around 18 months due to the pandemic we are looking at a growth of 20-25% this year," he adds.

New Plants in the Pipeline

When asked about the reasons which give the company a competitive edge, Cherian points out that the driving force can be attributed to four key values, namely, enthusiasm to innovate, enriching lives, excellence everywhere and being ethical without regret. "We did not want to enter into any gray areas. Anything that happens in the company is transparent. Everyone knows what is happening in the organisation. We don't run a top-down structure but a very flat one where everyone's opinion and suggestions are easily heard," he states.

"Innovation and our work culture are our areas of strength when we build a product; we don't build it for just today's requirement. The platform is built so that it can take care of the customer's customisation and pain points," he adds. Cherian is happy about the recent announcement made during the Union Budget 2020 wherein it has been proposed to shift from conventional meters to smart prepaid meters in three years' time. The company has a clear-cut growth map charted out for the immediate future.

"We want to definitely increase our presence outside India. We are already there in about 50 countries. We want to further extend our footprint in some regions. Similarly, we are planning for another manufacturing unit in India, perhaps in West or North India. We are also in talks with a European company and would like to establish a manufacturing unit in Europe," he informs. Cherian also is excited about the reforms in India within the MSME space and states, "Our aim is to take forward the 'Make in India, Made for the World' objective for a self-reliant India. We see good visibility and scope for growth of about 30-40% in the financial year."