



Aastha Verma, COO

Niladri Dutta, CEO

Tardid Technologies Pvt Ltd, a Bangalore-based IIoT Company, Specializes in Safeguarding Critical Assets from Unplanned Downtime While Reducing Risk and Increasing Safety

"By proactively detecting, interpreting and providing human-like logical reasoning, we help in reducing downtime exponentially."-- Aastha Verma

Artificial Intelligence has emerged as one of the prime technologies that have practical use cases which the shipping industry is adapting to streamline processes efficiently. The technology is all set to take the industry by storm.

In light of the foregoing, we're thrilled to present **Tardid Technologies Pvt Ltd**.

Tardid, an innovative Industrial-Internet-of-Things company,

announced a new era of intelligent industry triggered by an increasing level of smart and connected activity. This new era will be as much about moving from systematic casual approach to a new advanced and autonomous analysis of critical structures and machinery, as it is about intelligent products which can interact, even as it requires a thorough re-thinking and re-making of the objects, goods and products which we call things.

The company was incorporated in 2016 and is headquartered in Bangalore, India.

Interview Excerpt: Niladri Dutta, CEO & Aastha Verma, COO

Technology as Core Strength

Niladri Dutta and Aastha Verma are former colleagues; they worked together for multiple organizations. During that time, they shared a

common vision of building a company which is technologically more advanced, innovative, and best-in-class than the rest of the industry. Later, Tardid Technologies was set up, as a result. Both – Mr Dutta and Ms Verma – dream big of taking the company to greater heights: They are committed to making Tardid a showpiece of the industry, in addition to their original focus of branding it as a ‘True Indian Technology Product Company’.

Mr Dutta, famously known as ‘Neel’ among his peers, serves as the Chief Executive Officer and Ms Verma as the Chief Operating Officer of the company.

“The most important hurdle was to identify the industry: It was crucial to find the right direction, although we knew our destination,” said Ms Verma.

“Technology is our strength as Neel has extensive experience in the area of building technology products. In fact, Tardid is an acronym for the technology we work on: ‘Time and Relative Dimension in Data,’” she said.

“The heavy industries suffer immensely as their reach to technology falls short and due to their unplanned downtime. They definitely need more than just simple statistical analysis to deal with the crisis. To tackle it smoothly, the journey for providing an artificial intelligence platform, a Digital Twin has started,” she said.

“We focused on industrial sustainability. We initiated the designing of our offering by looking into the biggest transport network in the world: Shipping. This is one of those industries which has

connected the world since ages,” she added.

An Indispensable AI Platform

‘Brainbox’ is the first platform (AI) Tardid built. It was architected by Neel along with the technology team who shared their valuable inputs. The platform was designed on a completely different approach since AI has created a substantial amount of thrill in the industry.

‘Brainbox’ can change the way industry thinks of maintaining its assets today. The direct contribution can be seen in health, safety, and revenue in the near future.

“We had found in our research that most real-time AI solutions are extremely data hungry and they mostly provided advanced statistical analysis. So, when Brainbox was designed, we kept in mind that it should not be dependent on cloud storage or extensive storage requirement. Another reason for doing so was the limitation of space at our customers’ end,” said Niladri Dutta.

“Our first customer was defense. The department always pioneers in adopting newer technology and is willing to go the unconventional way to explore. We were lucky to have got the support and a naval vessel to test our capabilities – it was a matter of extreme proud,” he said.

“At the end of our project, we submitted a complete scientific report stating the structural fatigue of the vessel. Our report was reviewed by all the major defense laboratories of the country and the results were applauded by everyone,” he added.

“
We look beyond the industrial internet of things (IIoT) to a boarder understanding of the Age of Intelligence through an augmented approach, we call it cognitive computing.”
-- Niladri Dutta

As a token of gratitude, the defense offered Tardid with much bigger projects post the first one.

When Tardid introduced AI for predicting *'Fatigue and Structural'* failures, it faced backlash as many thought such a concept was impossible to materialise. Although there is a concrete reason behind as to why such a claim was being turned down: Predicting *'Fatigue and Structural'* failures were only possible using probes or manual inspection, mostly at Retrospect.

However, the spectacular aspect of Tardid proving these naysayers wrong was an eye-opener for them: The company shares information about probable failures with the cause of failure, proactively.

"People tried to bring us down but to no avail. Interestingly, the same people expressed their will to use our technology they were questioning before, which definitely boosted our confidence," he said.

The rationale behind these people seeking this technology is crystal clear: It would save them from unplanned downtime and avoidable casualties, in addition to other major monetary benefits.

"We help our customers save millions of dollars. It's simple; if we are able to provide just one percent improvement in five of the heavy industries over a period of 15 years, the market for it is over \$200 billion," The CEO said.

'The Mechanical Doctor'

Neel is an air crash survivor. This incident played a crucial role in building *'The Mechanical Doctor'* which has the ability to diagnose heavy transport systems or machinery in real-time.

'The Mechanical Doctor' ensures sustainability and business continuity against all disruptions and stagnations.

"We spent a huge amount on research and development to make aviation safe, similarly the other heavy transport systems or machinery, yet we are unaware of their current conditions. Therefore, we built 'The Mechanical Doctor' to diagnose these assets' health and status in order to be safer," the COO said.

Going From Strength to Strength

Tardid has turned three. From the outset, the company has been dedicated to solving a real problem concerning heavy industries.

"Our expansion of offerings was essentially problem statements which we received from the customers. We realized there is a huge gap in need and what is available. Taking leverage of our technology, we were able to provide better insights to both the top management and the manager on the ground. We are focused on looking into 'Structural and Machine Health' of the industrial assets along

with its various modules such as Fatigue Assessment, Stress and Corrosion, Paint Film Failure, Asset Management, Predictive Maintenance, etc.," the COO said.

Going forward, Tardid strives to raise the bar on delivering its services and be recognised as a standard in *'Structural and Machine Health'* domain.

Tardid Credits Success to its Employees

"We have had a few team members on board who left their well-paying jobs just to join us. We are indebted to them. Their services are greatly appreciated. Presently, the unconditional support and dedication our team shows, motivates us to push ourselves every day. They have made our hunger for success even bigger and determined. Last but not least – our investor who never questioned our capabilities stood with us in all weathers," the CEO said.

Committed to Staying Ahead of the Curve

To start a venture, it needs a unique idea, a flexible team, and a credible source of funding. Even if you lack one or two attributes, one may still go ahead and start the venture as the real battle is not to start but to maintain it. Once the financial stability is maintained smoothly, the team stays integrated and committed; together everyone stays motivated until success is achieved. This is a continuous battle to be won every single day.