

JENDAMARK JUNCTION

MAKING OUR MARK IN GLOBAL AUTOMATION

ISSUE 6 | 2019

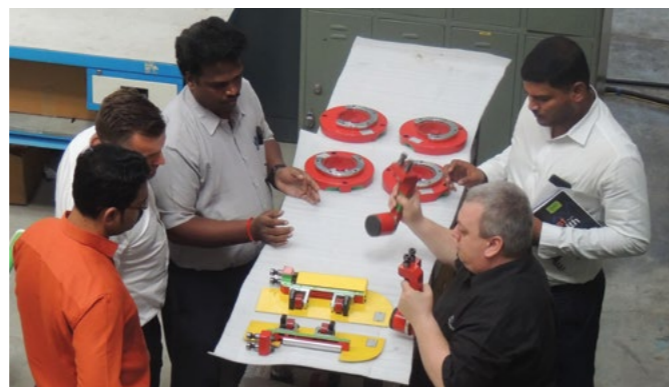
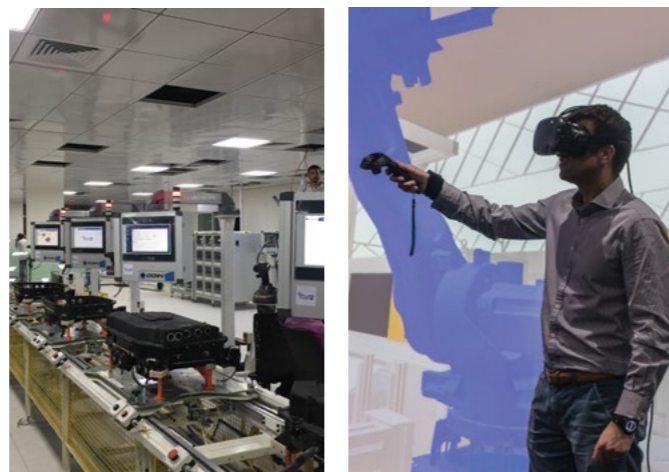


building
THE FUTURE

Inside JendamarK India

IN THIS ISSUE

- 01 Editor's note
- 02 India's fresh outlook
- 04 Driving an electrifying pace
- 08 Pioneering the change
- 11 Canning it for Sharda
- 12 Winning combination
- 14 Room for growth
- 16 On the global stage
- 18 Developing young engineers
- 20 Building the future



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WORKING TOGETHER

In sitting down to review this issue, I quickly realised that a common thread runs through every page of this magazine – and that is the idea of working together.

Over the last few years, Jendamarck has experienced rapid growth and development as an international automation technology brand. But we have not done so in isolation.

Certainly, our South African and Indian operations have grown closer through knowledge and skills transfer, and the alignment of these businesses to a common global standard is evident in the repositioning of Jendamarck India (page 2).

In India, we are helping to power the growth of the electric vehicle industry through our battery and power pack assembly facilities (page 4).

In another exciting automotive industry development, we are working with our customers to help their end customers meet the new Bharat Stage VI and Euro 6 emission standards. To achieve this, we have made our first foray into adaptive canning lines, which we have been developing according to each one's individual requirements (page 8).

For us, it is not about one-off projects but about building enduring relationships with our partners for our mutual success. One such example is our relationship with Eberspächer South Africa. Over the years, Jendamarck South Africa has provided various efficient production solutions, which recently contributed to Eberspächer's well-deserved Factory of the Year award (page 12). Congratulations!

Collaborating with customers to develop products that meet their exact need is now made easier with virtual design reviews in Jendamarck SA's new tech centre (page 14). And Jendamarck India is partnering with Autodesk to expand the use of their software for various applications (page 16).

We are also keeping an eye on the future, which is why Jendamarck is assisting a Port Elizabeth-based organisation to develop young engineering minds (page 18) and a Pune-based school in building a new classroom (page 20).

Together, we can only grow from strength to strength!

Yours in automation

Himanshu
Himanshu Jadhav,
Editor



India's fresh OUTLOOK

Making the move from machine builder to technology company has been a natural progression for the newly rebranded Jendemark India – and one that will have huge implications for its global customers.



That's the message from Himanshu Jadhav, who has taken the helm as chief executive officer and director of the new-look entity, previously known as Jendemark Techcellency.

By aligning more closely with Jendemark's international head office in South Africa, Jadhav says, Jendemark India will be able to bring the latest solutions and technological advancements to its Asian customers.

We are looking to move towards value creation for our customers by bringing new systems, new innovations and something new which does not exist in the current market.

"Previously, India was focused only on manufacturing. With access to this broader global offering, operating with the same vision and focus as Jendemark SA just makes much more sense.

"With this restructuring, we have re-aligned our business to focus more on automation and Industry 4.0-driven digital technology."

Jadhav makes it clear that the Pune and Port Elizabeth plants will continue to operate in a unified manner, combining their strengths to deliver turnkey assembly facilities, but that Jendemark India's particular understanding of the local manufacturing sector will allow it to make a unique contribution on the subcontinent.

"We will introduce our special blend and way of doing things, and gradually take more responsibility in shared customer projects. There is a lot to share and learn between the companies," he says.

As far as the implications for customers are concerned, Jadhav says he believes they will be the biggest beneficiaries of this positive development.

"There will be investments made in the near future in specific areas for technological advancements. Knowledge transfer will be smoother, with our research and development team working on specific solutions needed by Indian customers," he says.

Jendemark Automation's operations director Siegfried Lokotsch remains in his role as chairman of the board of Jendemark India.

"The Jendemark name has always represented the highest standards in automation technology and service to the global automotive industry. We are proud of the tremendous strides Jendemark India has made since the start of our association five years ago and we are excited to continue growing in service of the booming Indian manufacturing sector," adds Lokotsch.



DRIVING

an electrifying pace

With the Indian government offering attractive incentives to electric vehicle (EV) buyers, Jendemark India is rapidly becoming a trailblazing player in the country's quest for cleaner energy.



India's proposed EV incentive scheme is set to offer significant tax breaks for consumers on the road to achieving a targeted 30% share of all new vehicle sales by 2030.

"Our government is really pushing this issue," says Jendemark India's CEO, Himanshu Jadhav.

"To achieve this, the government is planning to reduce general sales tax on EVs from 12% to 5%. A few months ago, it was reduced to 12% from 18%.

Another proposal already implemented is that those buying electric vehicles will receive an additional income tax deduction of Rs 1,50,000 on the interest paid on loans taken to buy electric vehicles.

As a result, he says, buyers are warming to the idea of this new vehicle technology.

"According to a recent survey, 50% of car buyers in India are ready to switch to EVs if the infrastructure is available."

CLEARING THE FOG

At the heart of India's push towards EVs is the government's all-important clean energy policy aimed at reducing toxic pollution levels.

- Severe traffic congestion in India's major cities can result in average trip speeds of less than 20 kilometres per hour.
- At such speeds, vehicles emit four to eight times more than they would under less congested conditions.
- Vehicles also consume more fuel per trip and produce a higher carbon footprint due to congestion.
- According to the website *India Today*, on Diwali night this year, many areas of Delhi recorded an Air Quality Index of 999 – 16 times higher than the prescribed limit.

Jendamarck has invested in the research and development, design and manufacturing of such equipment in India. Our Industry 4.0-enabled assembly lines are helpful in increasing production and lowering the manufacturing cost of battery packs that fit in EVs."



GOING GREEN

But, incentives aside, the global population in general has a growing awareness of the need to go green.

"Awareness and sensitivity towards climate change and pollution issues is a hidden force for the surge in EV market. Every individual globally wants to reduce his or her carbon footprint," says Jadhav.

This burgeoning market has seen original equipment manufacturers (OEMs) in India venturing into and ramping up their EV production, which has had a knock-on effect for suppliers forced to embrace these new technologies.

Jendamarck India has been at the leading edge of these industry developments, designing and building the first battery pack and power electronics assembly line in the country for Mahindra Electric Mobility Ltd.

Power electronics consist of a charger, variable frequency drive and all electrical signal processors which power the vehicle, whereas a power pack is a cluster of batteries put together as a pack which powers the vehicle.

"Battery pack assembly is new technology in India and local equipment manufacturers are not available for EV manufacturers in India, so we have had to depend on European and Chinese equipment suppliers," Jadhav explains.

"However, Jendamarck has invested strongly in the research and development, design and manufacturing of such equipment in India. Our Industry 4.0-enabled assembly lines are helpful in increasing production and lowering the manufacturing cost of battery packs that fit in EVs."

In fact, battery costs are expected to be cut by half while performance is expected to double over the next decade.

BUILDING BATTERIES

Jendamarck's global head office in South Africa has played an integral role in the design process for Jendamarck India's first EV power pack assembly lines, providing the benefits of its three decades of automotive expertise where needed.

"Following the design phase, we recently built and supplied two assembly lines, both manufactured in India, and are in the process of executing an expansion project for the addition of new variants on the existing lines," says Shashikant Chaudhari, who was Jendamarck India's management representative on this project.

The human component has also not been overlooked when it comes to technological development.

"Batteries being assembled carry charge. Human safety is very important when you handle charged batteries. Using Jendamarck's own digital manufacturing software, Odin, we monitor and instruct operators in following right assembly sequence to ensure their safety."

While venturing into new territory has had its challenges, Chaudhari says it has been an exciting journey so far.

Jendamarck is an expert in powertrain solutions for internal combustion vehicles, while EVs have a completely different powertrain. But EVs have brought us tremendous new learning opportunities."

GLOBAL SNAPSHOT

- China is the world leader in EVs, with sales of battery electric vehicles rising 83% year-on-year (China Association of Automotive Manufacturers, April 2019).
- In 2018, 1.6 million EVs were sold in the US, Europe and China collectively.
- The UK has announced that 60% of all cars and small vans need to be electric by 2032.
- Sweden's Volvo Cars has confirmed that every model it launches from 2019 will have an electric or hybrid motor.



Pioneering the CHANGE

With the BS-VI (Euro 6) emission standards deadline of April 2020 looming, Jendamark India has been hard at work, rolling out its first adaptive canning lines for customers.



SHARDA MOTOR INDUSTRIES

Sharda Motors was the first customer, ordering two identical canning lines for its facilities in Pune and Nashik, to cater to the varying needs of vehicle manufacturers Tata, Mahindra and Force Motors.

To accommodate each of Sharda's end customers' different requirements, 140 quick-changeover toolings were included in the design of the line.

After receiving the order in July 2018, Jendamark India set about the massively challenging task of designing, manufacturing and executing the country's first adaptive canning line.

Counterpart Jendamark South Africa has been providing canning lines for over 10 years to several companies across the globe.

As Jendamark India's key account manager Sayali Mahajan explains:

"This vast experience has allowed Jendamark India to use this expertise and to fine tune the machines to develop unique Indian solutions."

With support from South Africa throughout this year-long project, Jendamark India developed standard machines and the two lines according to the customer's specifications.

"In the end, we were proud to deliver a product that achieves the output volume, quality and cycle time requirements," says Mahajan.

"Because adaptive canning is a relatively new concept, Jendamark also supported Sharda Motors in giving the customer a detailed understanding of adaptive canning in addition to product design recommendations."

In-depth training on operating the line, preventative maintenance and quality product building was also provided in the initial phase, with future plans to integrate Jendamark's own Industry 4.0-powered Odin tool management system into the line.



FAURECIA

In another first for the company, Jendamark India was asked to deliver its first fully automated adaptive canning line for Faurecia.

The most challenging aspect of this project was that two lines were ordered – one of which was built in India and the other in South Africa.

“But the customer’s condition was that they had to be absolutely identical,” says Jendamark India’s CEO Himanshu Jadhav.

Naturally, Jendamark’s two manufacturing facilities strove to reach the high bar that was set – and achieved success.

Jadhav says key to this success was sending members of Jendamark India’s design, assembly, controls and production management teams to South Africa, which was where Line 1 was built.

“The team gained hands-on experience and were able to transfer skills and knowledge on their return to India for building Line 2. Now we have developed our own resource pool of experts, who can successfully execute future projects.”

This project took nine months to complete and both lines were installed in the Faurecia facility in Chakan, where they will build products for end customer Cummins.

More than meeting Faurecia’s request, this project also proved that Jendamark can deliver to a consistent global standard – wherever the line is manufactured,” says Jadhav.

“It was a steep learning curve working with our South African colleagues, with great cultural and knowledge exchanges between our teams.”

ESET JOINT VENTURE

Also currently on the books is an adaptive canning line that has been designed for ESET Exhaust Technology – a new joint venture (JV) between Sharda Motors and Eberspächer in Germany.

The ESET line is set to build parts for Indian vehicle manufacturer Ashok Leyland and will be installed at a manufacturing facility in Delhi. The project began in May 2019, with delivery planned for March 2020.

According to Jadhav, one of the major goals of the project is cost minimisation, while still adhering to and going beyond Indian manufacturing standards.

To achieve this, Mahajan, Jadhav and Jendamark South Africa’s head of catalytic converters, Greig Peter, attended a workshop in Germany, where various cost optimisation proposals were scrutinised.

“In the end, we opted for measures like replacing some of the bought-outs and designing elements to meet the required standards,” he says.

So it has been both a challenging and creative job for our team.”



Canning it for **SHARDA**

As the only company in India currently capable of building canning lines, Jendamark India is proud to serve major automotive customers like Sharda Motors in building their first such facilities.

Since receiving its first order from Sharda Motors in July 2018, Jendamark India has delivered two gap bulk density (GBD)-controlled canning lines for the customer.

The customer’s brief was for a cost-effective, manual canning line suitable for the Indian market.

With over 15 years’ global experience in the canning line business, Jendamark was the logical choice for Sharda Motors, which provides automotive components, mainly exhaust and suspension systems, to original equipment manufacturers (OEMs) such as Hyundai, Mahindra, Tata, Force Motors and Ashok Leyland.

“The Jendamark team have clear and deep knowledge about the canning lines, as they have dispatched a lot of them in the past,” says Sharda Motors’ deputy general manager Yuvaraj Mani.

Jendamark was able to make a complete manual canning line suitable for an Indian market at quite an attractive price, which is what Sharda Motors was looking for. The service has been excellent so far.”

Mani says the Indian automotive sector is under tremendous pressure due to the looming April 2020 deadline for upgrading to the tougher Bharat Stage 6 emission norms.

“It’s going to change the whole situation in the market. As far as assembly facilities go, it is a lot of work with all new things for all of us,” he says, adding that the more sophisticated assembly technologies required will ultimately raise new vehicle prices.

Jendamark India’s key account manager Sayali Mahajan says this project was exciting as Jendamark had never made this particular type of manual canning line before, and set about designing and developing machines specifically for Sharda’s requirements.

“A canning line is a completely new concept in India and Jendamark is the only company in the country which has experience and knowledge in this field,” explains Mahajan.

“Our relationship has been great with Sharda Motors. We have always worked as partners with mutual understanding and have exchanged a lot of knowledge around the project.”

On the strength of Jendamark India’s service on the manual passenger vehicle canning lines, the company has also been nominated to work on a new commercial vehicle automated line for the Eberspächer-Sharda (ESET) joint venture.



GLOBALLY COMPETITIVE

“The automotive sector is highly competitive – this proves that we are able to produce a quality product while maintaining our costs, and motivating and improving our workforce.

“It proves that South African firms are capable of competing against first-world companies, which is significant considering the ever-increasing demands and challenges facing not only our sector, but the country as a whole,” he says.

Over the years, Jendamark has helped Eberspächer SA with a number of solutions designed to improve efficiencies in the factory, including hard-stuffing equipment, adaptive canning lines and full assembly lines. This has been backed up by machine improvements and upgrades as well as service and maintenance support.

The relationship started back in 2011 with an upgrade to a press for the Volkswagen PQ35 project and has grown significantly since then, as tougher global emission regulations have radically altered the requirements for catalytic converter assembly facilities.

Outlining the changes, Jordaan says early products involved manual assembly stations with manual wrapping of the mat and ceramic monolith within half-shell stampings.

“Changes to the holding mat technologies, multiple variant requirements, tighter tolerances for our product as well as vehicle engine space, and a much greater emphasis on traceability and GBD, have necessitated far more sophisticated processes and equipment.

“Enter Jendamark,” he smiles.

MAJOR PROJECTS

Jendamark has gone on to build and assemble various complex pieces of equipment for some of Eberspächer SA’s major projects, as well as assisting with the upgrading of several machines since those earlier days.

“In addition, there is close co-operation on project management and technical aspects including process integration,” says Jordaan, adding that the Jendamark team’s technical expertise and support on call has made the company a trusted local supplier.

The most recently completed project was an adaptive canning line for the Ford DV-Neo programme, which is a diesel particulate filter intended for multiple vehicle assembly plants in Europe.

Developed and built by Jendamark, the line assembles the ceramic filter, support mat and stainless steel tube such that each part is unique in terms of identification, holding force and Gap Bulk Density (GBD).

And, says Jordaan, Jendamark is busy with the final assembly line for the Volkswagen MAR-Evo programme that has the start of production in 2020.

“The line has multiple stations to enable assembly of hang-on parts, leak testing, laser marking and measurement for a diesel particulate filter for a Volkswagen platform.”

Whatever the requirements, Jendamark has stepped up and responded to each project with consistent service and a desire to keep Eberspächer SA serving its customers to the best of its award-winning ability.

WINNING

combination

Jendamark is proud to be associated with long-standing customer Eberspächer South Africa, which recently became SA’s first recipient of the Factory of the Year award.

As a supplier to the major original equipment manufacturers (OEMs) globally, Eberspächer has become synonymous with the manufacture and assembly of catalytic converters, diesel and petrol particulate filters, mufflers, pipes and cold-end exhaust systems.

This reputation for quality was cemented this year, when the company received the inaugural South African award, which forms part of the highly prized international Factory of the Year initiative.

According to Eberspächer SA managing director Kieron Jordaan, the company was ranked in the second quintile

of the global competition, having demonstrated above-average performance across the customer satisfaction, economics and quality categories.

“We also showed strong performance within the top quintile of the global competition across several benchmarks, including maintenance costs, employee productivity improvements, energy cost ratio, delivery improvements, reductions in external failure costs, and total cost of quality.”

Jordaan says the win is significant, especially in the demanding, fast-paced world created by the fourth industrial revolution.





Room for GROWTH

Jendamark South Africa's new tech centre is an exciting space for collaborating with customers and forging new paths on the digital transformation journey.

"As the ecosystem of digital products and services grows, we can now showcase the different offerings, as well as our partners' technologies, while finding new ways of solving some of the toughest challenges on the production line," says Jendamark's manager for digital strategy and transformation, Juane Schutte.

"We have defined Industry 4.0 not as a bunch of technologies, but as a new way of collaborating in an ecosystem that works together seamlessly to provide value to our stakeholders and customers," says Schutte. Some of the technologies that customers can look forward to experiencing first-hand include the:

- Odin data platform – WorkStation (operator guidance system), LineWatch (real-time production dashboard) and mobile apps (end-of-line quality inspection).

- Integrated hardware – Odin smart watch, wireless bolting tools, augmented reality glasses, infrared sensors for hand and tool tracking, scanners and cameras.
- Virtual reality
 - production line simulation to ensure design optimisation;
 - operator training using digital worker guidance;
 - development and simulation by gaming developers.
- 3D printing – printing parts for testing, new part development and prototyping.

Schutte says the tech centre also includes a giant screen for demonstrating the various capabilities to visiting groups and customers.

"It is exciting to be able to show the many practical applications for digital technologies throughout an organisation. We can help customers to improve efficiencies for operators, HR personnel, production managers, process engineers, data scientists and more."

So far, Jendamark has hosted visitors from all strata, including students, CEOs and government officials.

"Everyone who enters the room gains a practical understanding of how Industry 4.0 is impacting manufacturing and the future of work," explains Schutte.

"The feedback has been phenomenal. We think this is because real collaboration has been missing between businesses and stakeholders. We find that, after visiting our tech centre, our potential customers want to bring their own children to learn and open their eyes to the ways in which the future of work will be impacted.

"We look forward to not only showcasing our tech, but also enabling eager learners to get involved and build new solutions together. Technology should not be a stumbling block but rather a great enabler for future growth."

KEEPING IT REAL

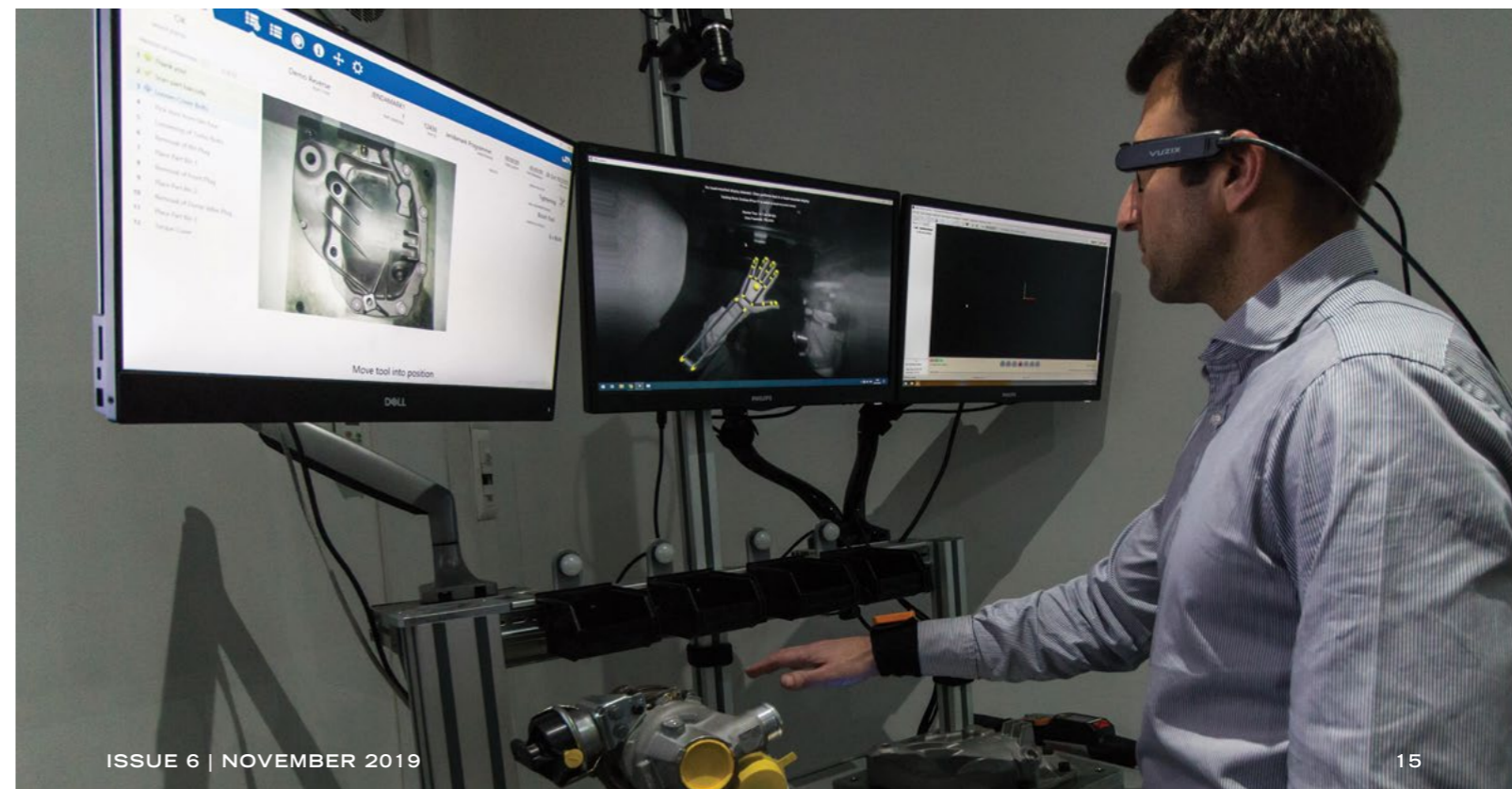
Here's what some of our visitors had to say:

"Visiting a South African company that is truly international but patriotic to the last bone, I am so inspired that we can conquer the world. I have been to many countries that demonstrate high aptitude for technology but today I feel that we are equal or even better than them. We need to believe in ourselves more. This is what I learned from the MD of Jendamark Automation."

Hon. Tate Makgoe
MEC for Education
Free State Provincial Government

"On behalf of the Department of Industrial and Organisational Psychology and our students, we would like to thank you for allowing our students to visit your factory. Industry 4.0 is part of one of the Honours modules and students are expected to reflect on their role in this revolution as future HR managers. The visit [...] provided a practical view where students learned a great deal and had a chance to engage with professionals in an open platform. More than that, the time taken by Yanesh and his team to present to students and share the joy of virtual reality was so much more than one could expect from exceptionally busy professionals. It shows the commitment of Jendamark and their team to the future of work, education and Industry 4.0 initiatives."

Dr Chantel Harris
Senior Lecturer
Nelson Mandela University



On the **GLOBAL** stage

Jendamar India took centre stage in September when CEO Himanshu Jadhav was invited to share its practical implementation of Industry 4.0 at the prestigious Autodesk University conference in Bengaluru.



Software giant Autodesk provides tech solutions for a variety of industries worldwide and also hosts regular industry conferences across the globe.

Autodesk University (AU), as these conferences are called, is aimed at giving those who design and create the world around us a chance to connect with the best in business, share technical knowledge, gain a deeper understanding of cross-industry opportunities, stay on top of the latest trends and experience advanced technology first-hand.

This year's AU India attracted more than 2000 professionals from the architecture and construction, design and manufacturing, and media and entertainment industries.

"Several global companies were represented, with the audience ranging from middle to top management," says Jadhav, adding that he felt privileged to be able to share Jendamar's groundbreaking work with these industry stalwarts.

Speaking on the topic of the practical implementation of Industry 4.0 for the automotive industry in India, he says Jendamar's informative presentation received a phenomenal response.

"I had been a guest speaker in 2017, when I outlined how Jendamar India planned to carry out business while still maintaining the global standards in a competitive Indian market.

"To stand there two years later and present that we have 'walked the talk' was a satisfying feeling."

After his presentation, there was a lively and enthusiastic question-and-answer session, with several dignitaries quickly moving on to have one-on-one discussions.

"They were very happy that they had finally seen something actually being implemented in Industry 4.0 in India," Jadhav says.

The conference also served to highlight the commonalities between Autodesk and Jendamar India, with some exciting new possibilities on the horizon.

Autodesk is impressed with what we have been able to achieve by adding value to customers using their tools and enhancing them using our processes," explains Jadhav.

"They have agreed to partner us in further adopting and expanding the use of their other tools and software.

"This will definitely increase the efficiency of Jendamar India and we will leverage the benefits of using tech to grow further."

For him, the most satisfying outcome of the conference was realising that Jendamar is already doing the right thing in terms of the way the strategy for Industry 4.0 is being executed.

There is a lot of talk about what Industry 4.0 is and what is needed to execute it, so we spoke about what we have done, explaining what tangible benefits our customers have actually got and what we are planning next.

"It is also interesting to know that we can use some tools and systems or processes not just from the automation industry, but also from media and the architecture industry. We are exploring these now."

INDUSTRY 4.0 IN PRACTICE

What we did

Jendamar India established a virtual reality (VR) facility in 2018, consisting of a dedicated VR workstation, headset and Autodesk Product Design and Manufacturing Collection (PDMC). Using VR for the internal design review is now mandatory before releasing drawings to the manufacturing section. VR is now also an integral part of customers' design approval process.

How we use it

- All designs are done using Autodesk Inventor software.
- Designs are imported to Autodesk 3Ds Max for rendering.
- Rendered designs are sent to Autodesk 3Ds Max Interactive to communicate with VR hardware.
- VR is then used for:
 - Ergonomics testing
 - Machine accessibility testing
 - Design approvals
 - Virtual operator training
 - Virtual station tours

Developing YOUNG engineers

Jendamark supports the Incubating Great Engineering Minds (iGEMS) programme, which is fostering a new generation of engineers ready to meet the demands of a tech-driven world.

Run under the auspices of the Unity in Africa Foundation, iGEMS is an education-to-employment initiative that aims to develop employable, passionate and skilled engineers, and also place work-ready graduates into the marketplace.

With artificial intelligence and robotics already prevalent in industry, the foundation believes the fourth industrial revolution (4IR) will require a niche set of graduates who are familiar with the demands of the world of work.

According to Jendamark's apprentice co-ordinator Allan Bellairs, the company has been involved with iGEMS since 2016 and sees great value in the multi-layered approach to youth development and creating a talent pipeline.

"For us it's about both skills development and socio-economic development. It helps to fulfil our commitment to community engagement, while also assisting in the development of work-ready professional engineering graduates."

The programme introduces the youth in Jendamark's hometown of Nelson Mandela Bay to the technological revolution through annual coding and programming workshops. Weekly maths, science and leadership development sessions round out the supportive, holistic approach to education.

Aside from financial support for iGEMS, Jendamark also acts as a host company, facilitating site visits for participants, and absorbing one or two learners annually for a year of experiential learning and mentorship. This acts as a working "gap year" for learners who have successfully completed Grade 12 before embarking on their tertiary studies.

"The student becomes a full-time employee at Jendamark for one year, experiencing the world of work, especially in relation to an engineering career such as electronics or robotics," says Bellairs.

He says the year of work assists in making the transition to university easier as it links practical and theoretical knowledge, and creates a working relationship between student and industry.

"It really allows students the opportunity to change their interest in engineering into an absolute passion!"

Siyaxolisa Kwikwi



Thembeke Camagu



IN THEIR OWN WORDS

Thembeke Camagu:

"This year I was enrolled into a structured year of work at Jendamark Automation. Being the youngest, least qualified and most inexperienced person in the workshop has been both extremely challenging and exciting."

"I have had the opportunity to work alongside accomplished engineers and artisans on big projects. I have learnt to be efficient with my time, to work under pressure and to strive for excellence."

"I have learnt to build and wire electrical panels; I'm able to comprehend electrical drawings; and I have learnt how to use power tools such as drills and grinders. Most importantly, I have acquired so many soft skills such as working in a team and people skills – things I was never exposed to while at school."

"The Jendamark family has welcomed me with open arms and I have met tons of wonderful people who have guided me as I navigate the world of work and transition into adulthood. I have always aspired to become an engineer, and my experience over the past few months has only served to solidify my determination to become an engineer."

Siyaxolisa Kwikwi:

"My time at Jendamark Automation has been one of the many pleasurable experiences in my life. This year has brought about many challenges and obstacles that I had to overcome; the biggest was having to transition from a high school environment to a working space where the ages vary quite widely."

"Initially, I intended studying electrical engineering. Having the benefit of being exposed to the realities of electrical engineering, I have made an informed decision that it does not align with my core passion. I can forever be grateful for this realisation early in my life. Through advice, my own research and the assistance of iGEMS, I am now confident in my pursuit of becoming a marine engineer."

"I am extremely grateful for this learning opportunity that Jendamark has granted me. If it wasn't for the people at work with generosity and patience, I highly doubt I would have made these concrete decisions in respect of my new-found career path – thank you!"

Building the FUTURE

EDUCATION FOCUS



Determined to create a more conducive environment for learning, Jendamark India recently partnered with the new Zilla Parishade (District Council) School in Velu to fund the building of a classroom.

This newly built, government-run school serves 300 pupils, whose families hail from a mainly rural, agricultural community.

Jendamark India's Pranjali Valavade says before its establishment, there were no district schools in the area.

"Education is essential for development and we really wanted to give something back to the community in which we are operating our business," says Valavade, adding that one of these children could be the next tech leader.

It is very important to have clean and spacious infrastructure for learning. We are so proud that we were able to give some small help in building a bright future for these children."



EXPERIENCE OUR TECH SOLUTIONS

Jendamark's world-class production facilities work with our fully integrated tech solutions to create the complete digital manufacturing ecosystem.

ODIN

Unlock maximum efficiencies with paperless production

WORKSTATION
Animated operator guidance
Torque and tool tracking
Operational efficiency

LINEWATCH
Trend analysis
Takt time analysis
Real-time line data

MANAGER
Key production insights
Web-based reporting
Predictive maintenance



VIRTUAL REALITY

Design Review | Operator Training | Cycle Time Simulation



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