



Department of Electronics & Communication Engineering

GOVERNMENT POLYTECHNIC FOR GIRLS, SURAT

Oct -2020: Vol.-7

EC TRENDS

E-Newsletter



Vision:

Be an excellent department for girls to empower them in the field of Electronics and Communication engineering to excel in industry and serve society.

Mission:

- To prepare professionally competent students and staff through academic excellence.
- To create a conducive environment in the department for exchange of ideas and knowledge.
- To provide opportunities in the department for skill development and innovation.
- To provide resources and infrastructure for best learning experience in the department.

Message from Head of Department



Dr. S. N. Sampat
Head of the Department Electronics and communication
Engineering. ,
(I/C principal ,GPG .surat)

Dear students,

In reaction to the COVID-19 Global Pandemic, GPG, SURAT was closed to normal activity from March 2020, and successfully moved to a Distance Learning model. This monumental task was accomplished due to the dedication and the great skill of our Staff, Students, and Parents. I know that our students have been working hard at home to try their best in this “new normal”.

I would like to thank the entire magnificent GPG, SURAT staff, students and parent’s community for your compassion, patience, understanding and support throughout what has been a very different Term.

A great deal of time, effort and thought has gone into the process of student placement for the 2019-2020 year. Many students of electronics and communication department get placement during such COVID-19 situation. That filled us with hope and reaffirmed our faith in this next generation of young people ready to take on the world. Heartiest congratulations to the students for being selected in Campus Placements and wishes you all the best for your future endeavour.

Nothing is more important than the health and safety of our students, staff and families. We continue to follow all COVID-related safety procedures. To all of our students and families, take care, continue to follow the COVID-19 advice and make smart choices to keep you and your loved ones as safe as possible. Every loss of life is a tragedy. It’s also motivation to double down and do everything we can to stop transmission and save lives. Continue to follow the COVID-19 advice for yourself, your loved ones and for the loved ones of people you have never met. It will save lives.

I am looking forward to another year in service to our students, parents, and community. I insist that all the students should regularly attend online classes, laboratories, quiz, test and webinars. They should remain in contact with the class teachers and faculties for submission of assignments and other homework and to solve any queries and for counselling.

Kind Regards,

Principal of GPG, Surat

INDUSTRY 4.0 IN ELECTRONICS MANUFACTURING



Mr. A. D. Dobariya

Lecturer, Department of Electronics and communication Engineering

email: alpesh.dobariya@gmail.com

Industry 4.0 is extremely relevant and increasingly important in manufacturing for a multitude of reasons. The reasons why it is important are the benefits. It helps manufacturers with current challenges by becoming more flexible and reacting to changes in the market easier. It can increase the speed of innovation and is very consumer centered, leading to faster design processes. Workers can become coordinators at the center of production, possibly improving the work-life balance of employees. Industry 4.0 is sustainable long-term, assisting in finding solutions for any challenge that arises.

What's truly interesting is that the manufacturing sector as a whole is far behind many other industries in terms of their adoption of new technology. Digital transformation is by no means a simple transition for an organization, but it is a necessity as the leaders in the industry adopt new practices that lead to increased efficiency and greater profits.

What is industry 4.0?

Definition and development

The term industry 4.0 refers to a further developmental stage in the organization and management of the entire value chain process involved in manufacturing industry. Another term for this process is the 'fourth industrial revolution'. The concept of industry 4.0 is widely used across Europe, particularly in Germany's manufacturing sector. In the United States and the English-speaking world more generally, some commentators also use the terms the 'internet of things', the 'internet of everything' or the 'industrial internet'.

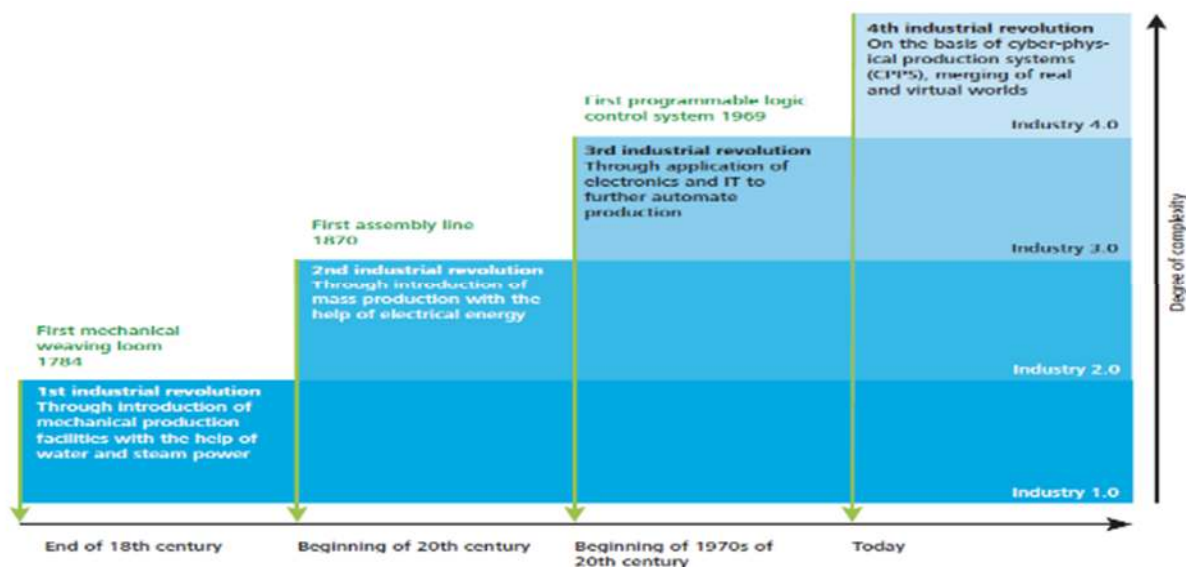


Chart-1: Definition of Industry 4.0

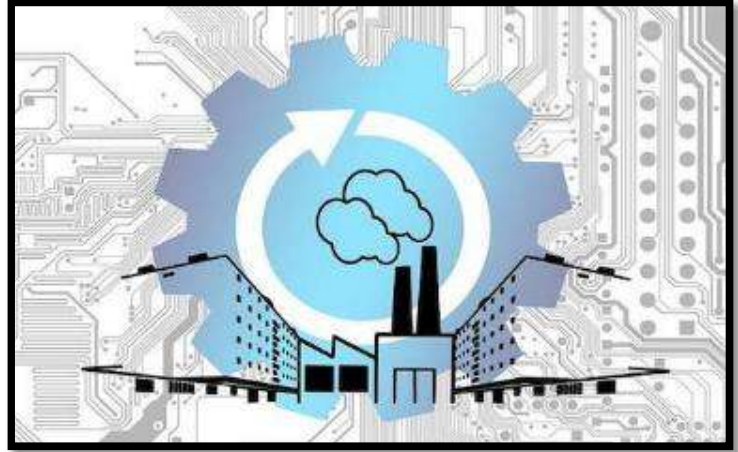
What all these terms and concepts have in common is the recognition that traditional manufacturing and production methods are in the throes of a digital transformation. For some time now, industrial processes

have increasingly embraced modern information technology (IT), but the most recent trends go beyond simply the automation of production that has, since the early 1970s, been driven by developments in electronics and IT (see Chart 1).

Electronics Manufacturing Evolves to Imagine Industry 4.0

The electronics manufacturing world is evolving. Recent years have seen significant changes thanks to the adoption of innovative technologies, which are encouraging manufacturers to re-imagine how products are designed and produced in the smart factories of tomorrow.

Since the 18th century, we have moved through various revolutions – shifting from farming to industrial production to the IT revolution, which enabled automated production through the advent of electronics and technology. Now, as digitization takes hold, we face the dawn of a Fourth Industrial Revolution. But how will this impact electronics manufacturing?



The Fourth Industrial Revolution

During the 18th and 19th centuries, rural societies across Europe and North America became more industrial and urbanized in what was known as the First Industrial Revolution. This was then followed by the Second Industrial Revolution between 1870 and 1914 – a period of growth for pre-existing industries and expansion for new ones such as steel, oil and electricity. Starting in the 1980s, the Third Industrial Revolution has seen advancements including the personal computer and the internet, as well as information and communications technology. The Fourth Industrial Revolution (Industry 4.0) builds on this, transforming technology to become further embedded within societies and even the human body. This new era is marked by emerging breakthroughs in a number of fields including robotics, AI, nanotech, renewable energy, quantum computing, 5G networks and IoT, decentralized consensus, 3D printing, and autonomous vehicles.

Not just a label

When computers were introduced in Industry 3.0, they were disruptive thanks to the addition of entirely new technology. But Industry 4.0 has been identified as an evolution rather than a revolution – it's not just another label or another technology. The underlying basis for Industry 4.0 lies in advances in communication and connectivity rather than technology. These technologies have great potential to connect billions of people through the web, drastically improve the efficiency of businesses and to help regenerate the natural environment through better asset management.

This rise in digitization opens up new ways to respond effectively to customer needs and enables machines, computers and even data itself to have an active role in the manufacturing and production processes – reducing the need for human involvement and making the smart factory a reality.

Optimization & automation in electronics manufacturing

The current trend of automation is still evolving, and we might not have a complete picture of what that means for electronics manufacturing until we look back 30 years from now. But in the coming years, the industry is likely to see widespread adoption of automated equipment and smart technologies on the factory floor. These optimized technologies will help to automate recurring tasks, transform communications, and allow operations to be executed with minimal manual intervention. Resulting in enhanced productivity,

better allocation of resources and faster process cycles with greater quality control. For example, 3D automated optical inspection (AOI) machines could replace 2D systems and augmented reality could be used by production managers to monitor and report on a range of factory floor metrics. While smart materials and intelligent labelling could improve speed and agility by enabling manufacturers to track deliveries in real time and automatically notify operations of delays.

Embracing new ways of working

Industry 4.0 and digitization are set to cause even more disruption in the decades ahead, making it crucial for the current workforce to continuously adapt skill sets and embrace the changing landscape. The concept of “Industry 4.0” is becoming increasingly important. Industry 4.0 is a term used to describe the concept of the “Smart Factory,” – i.e., one in which the process of manufacturing is automated and “cyber physical” systems are able to communicate with one another and work together to achieve a common goal. This fourth industrial revolution is made possible via the “Internet of Things” – a network of physical objects (the “things”) embedded with electronics, software, sensors, and network connectivity that enable all of these objects to communicate with one another.

Industry 4.0 is a key concept in the world of electronics manufacturing. There are four main characteristics of Industry 4.0:

Vertical networking of smart production systems

Horizontal integration via a new generation of global value chain networks

Through-engineering across the entire value chain

The impact of exponential technologies

Industry 4.0 for an EMS (Electronic Manufacturing Services) Company?

Industry 4.0 represents the convergence of physical objects and the virtual and digital world. Creating smart objects tailored to each person’s needs is the goal of Industry 4.0. Today we are surrounded by smart home manufacturing services and smart city manufacturers, without us even realizing it. Smart products and connected devices have recently entered the market. These new, complex products are manufactured by specific contract manufacturers and PCBA companies that have adapted their operations to new methods of working. They have integrated factories capable of mass production of complex and cost-efficient products through investments made into their infrastructures, transforming them into smart factories.

Automation

The basis of operations for smart factories. The automation of electronic manufacturing services and PCB Assembly company processes is critical to maintain competitiveness and improve productions processes, reducing room for mistakes and therefore manage production accurately for anything relating to manufacturing and assembly of electronics products such as consumer electronics, connected devices, green technology products, etc. In addition, the integration of a smart supply chain allows much more complex tasks to be carried out than if they were managed by humans. Thanks to robotics, smart supply chain services, and EMS supply chain management have been completely transformed. This significantly impacts production costs and time.

Artificial intelligence

AI printed circuit board designs and engineering processes bring further flexibility and create a new generation of products, such as connected objects, smart home devices, smart building, IoT devices. Printed Circuit Boards (PCB) for connected devices have been reinvented in order to add the artificial intelligence aspects. Furthermore, EMS companies and smart factories that have their own AI system for supply chain, combining machine learning and big data, are innovating for smart devices.

Cloud computing

The cloud allows you to store all retrieved data, and also to transmit specific instructions, and standardize electronics manufacturing processes and smart supply chain management. Having a cloud strategy in line with your product lifecycle management is a critical aspect of the relationship with an Electronic Manufacturing Services (EMS) company. The relevant tools would help to store the right documentation, allowing production and engineering to make sure the latest revision levels are being used and therefore ensuring that the manufacturing process is robust.

3D-Printing

Because it significantly reduces the manufacturing time for printed circuit board prototypes, 3D-Printing is one of the key aspects of Industry 4.0. This opens more doors for customizing ultra-products: connected devices, Internet-of-Things products, smart home products, etc. PCB Prototyping is now easy to produce.

Internet of Things platforms

Thanks to IoT platforms, data is collected from devices communicating with each other, and users are able to communicate with those devices through the Internet. The Internet of Things connects every machine for instantaneous transmission of information across all departments within the company. This technique offers the opportunity to use or create new business models. When an electronics manufacturing company is able to use these IoT platforms for internal processes, it allows acting and taking decisions rapidly and strictly based on data. It also strengthens the relationship with customers who have access to these data, in full transparency.

Big data analysis & algorithms

Where everything starts. By precisely analyzing users' behaviors, computer systems are able to draw up precise diagrams to answer and anticipate the needs of each individual. Thus, PCB boards for smart devices are produced with high-end engineering and manufacturing solutions, using big data.

Securing infrastructures

With cyber security becoming essential for all smart supply chain companies, data protection is becoming an integral part of this new industrial revolution. On the other hand, protecting data and product is an essential value for the client's success. Thus, an intellectual property protection strategy must be part of the electronics manufacturing process.

Industry 4.0 and IoT - A Boost in Electronics Manufacturing and Environmental Sustainability

Electronics manufacturers always look for ways to improve quality, increase output, and optimize product cost. And for that, they have to take a number of decisions about the material, the costs involved, the time involved, and much more. Manufacturers know that all these decisions that they take can have increased massive impacts on the environment. And, with environmental sustainability being a major concern today, manufacturers are turning their attention to how they can use smart technologies to become more agile and responsive in terms of their environmental compliance, policies, and practices. IoT and Industry 4.0 brings a wide range of new smart technologies that can be



used to add a deeper level of insight into a factory's process control. And, one new technology that is promising a multiple benefits for rapid real-time decision-making is the integration of smart sensors.

What are smart sensors?

Smart sensors generate data by connecting multiple different kinds of devices within a factory, and creating a way for those devices to communicate and provide seamless connectivity across the entire unit. Data-backed insights are collected via sensor technology, having the potential to be used in a multitude of applications, right from monitoring equipment and system performance, to predicting equipment failure and supporting maintenance of protocols, speeding the flow of information or aiding environmental management.

How can sensor technology support environmental decisions?

There are three fundamental decision-making areas where sensor technology captured information can benefit manufacturers to enhance their environmental sustainability.

Short-term environmental decisions – Manufacturers can capture and analyze information of energy consumption, production output, temperature, humidity, and more, which can be acted upon straight away to improve the manufacturing process.

Mid-term environmental decisions – Manufacturers can assess factors like how much inventory a manufacturer holds, how long they have held it, and what it can cost them to keep it.

Long-term environmental decisions – Manufacturers can fine-tune their business model and explore the potential of new supply chain opportunities.

How important is Industry 4.0 for the Electronics Industry?

Industry 4.0 not only means a change in production and expansion of technologies, it also means there is an increasing need to create new business models. Industry 4.0 is a much-discussed and very differently interpreted term, with outcomes that can be classified roughly into three fields: new technologies, new product offers, and new business models. All three fields together are covering the whole value chain of the production and its products—starting at the sensor node, via the cloud, up to downstream services (Figure (a)).

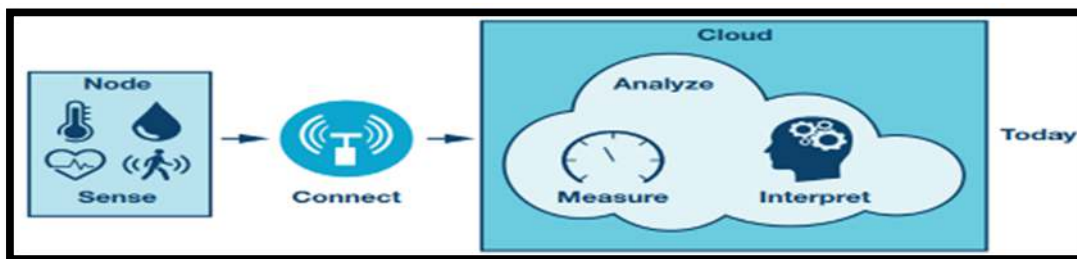


Figure (a). Today's signal chain.

Usually there is a node with a sensor or actuator in some form, which simultaneously establishes the link to the real, physical world. The signals to and from these devices are often very low and come from noisy, harsh environments. They have to be processed, converted, and forwarded to the next link in the signal chain. Because of the issues with this signal chain, a change in the chain had to be made. Initially, where the pure data was transferred to the cloud, more and more data processing was taking place already at the node, as shown in Figure (b).

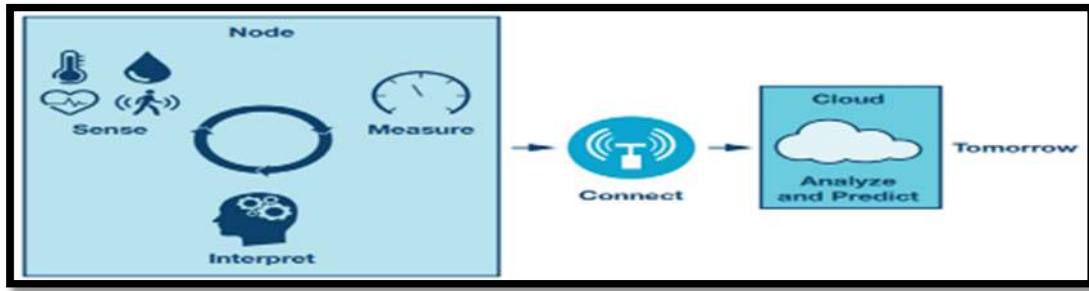


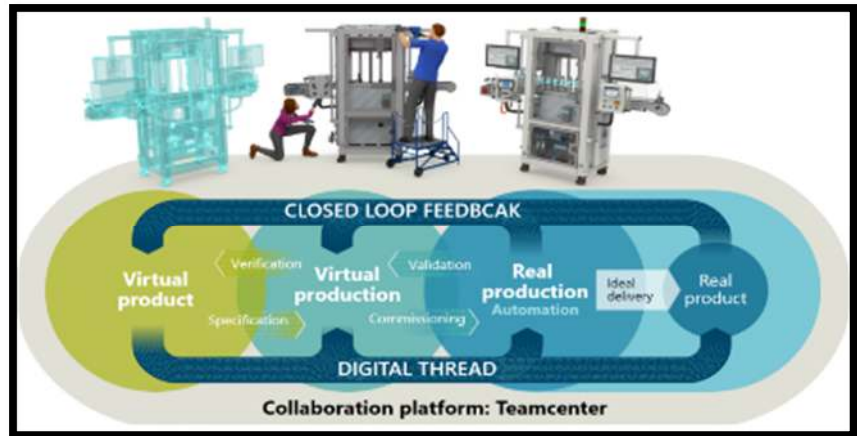
Figure (b). Tomorrow's signal chain.

This data processing generates more insight and knowledge at the node—turning data into information. This intelligent smart sensing technology lowers the overall power consumption, reduces bandwidth waste, and enables the move from reactive IIoT(Industrial IOT) to predictive and real-time IIoT.

Accelerating Industry 4.0 for Electronics Manufacturers

In Industry 4.0, representations of real-world products and processes are a digital thread of information that moves through design to manufacturing and out into the field. In a smart factory operation, people and machines are able to use this digital thread to provide feedback in a continuous flow of information. Languages that can communicate from people to machines as well as between machines and processes facilitate the data flow; they are the building blocks for this digital thread.

Underlying this digital thread, providing the data for closed-loop manufacturing, are connected digital twins, virtual representations of the factory design and operation, product design, verification, testing, and simulation, the manufacturing processes, and factory production systems and machines. These digital twins connect what were silos of valuable information from



all aspects of production, bringing the ability to collaborate between software and hardware, mechanical and electrical in a continuous thread that can be used to accelerate optimization of the product and its manufacture.

Electronics industry e-commerce: Trends leading the way to industry 4.0

Industry 4.0 are the 4 electronics industry trends that are bringing us closer to making Industry 4.0 a reality.

Organizations in the electronics manufacturing industry should work toward embracing innovation in order to achieve an Industry 4.0 world, rather than waiting for Industry 4.0 to simply happen. Industry 4.0 will not be fully established (until after a trial-and-error and development period) for quite some time, but: here are four electronics industry trends that suggest we may be accelerating our move towards Industry 4.0.

1. E-Commerce is Optimizing the Supply Chain
2. Automation: A Challenge and an Opportunity
3. The Internet of Things Has Arrived
4. Artificial Intelligence is High-Priority

1. E-commerce is enabling (much-needed) supply chain optimization.

For electronics manufacturers (OEM), the supply chain is being transformed. Like the rest of the industry, it's moving toward digital (with a goal of leveraging online channels and tools to drive efficiency, offer visibility into business processes, and maximize sales).

With e-commerce, the electronics industry's supply chain today already benefits from:

- Clearer SKU visibility and management
- Improved returns logistics
- Better inventory visibility, management, and optimization
- More efficiency and cost control

With these wins already taking place, it's only a matter of time before the OEMs take the next step toward leveraging online channels to achieve even more of their goals.

2. Automation is (still) a challenge — and an opportunity.

Electronics manufacturers are not currently taking full advantage of Industry 4.0-facing innovative solutions and technologies, but could improve their EBIT (earnings before interest and taxes) by 9% by doing so.

A large part of this move toward innovation should be driven by automation (as it is in many other industries). But surprisingly, the electronics industry has a long way to go when it comes to taking major strides toward automation.

A move away from processes so heavily influenced and driven by manual tasks can ultimately move the industry toward some of its biggest goals: cost reduction, higher margins, and increased efficiency and flexibility. Nonetheless, this is still not the case. As long as it remains top of mind for industry executives, automation can begin to infiltrate existing processes and organically meld its way into current ways of working. The industry just needs to get moving.

3. The internet of things (IoT) is driving massive demand for semiconductors.

The semiconductor industry—including products like resistors and transistors—has expanded across the globe in the last few decades, due largely to skyrocketing demand. Semiconductor manufacturers create the computer chips that power today's growing multitude of electronic devices—from coffee makers to self-driving cars, and everything in between. This means that, as the number of electronic devices consumers use grows, so does the need for more—and more tailored—computer chips and semiconductors. This growth is also fueled by the new technical requirements that come with the evolution of The Internet of Things (IoT). For example, the standard chip specifications for a smartphone are vastly differently from those required to power speech or facial recognition functionality. Despite it often being thought of as tomorrow's reality, the IoT is already making the breadth of technical requirements that need to be met in the electronics industry wider.

Ultimately, what the jump in demand for (and production of) more semiconductors tells us is that digitization is a priority, and a gap that the electronics industry is actively looking to address—even as the scope of what's required continues to change alongside technological developments.

The IoT is here, now, and its impact shows no sign of deceleration.

4. The impact of artificial intelligence (AI) on electronics industry e-commerce is high-priority.

AI is no longer just a good idea for a later date in time. AI will have a significant impact on their competitive advantage within coming years.

As more advanced, interconnected technologies emerge, and as machine learning becomes commonplace in the electronics sector, stepping into Industry 4.0 will quickly become a more achievable short-term goal. AI is just one of many ways the industry will expedite this digital shift.

In the electronics industry, e-commerce is projected to continue to grow —at a rate of 4% year-over-year, to be exact. Organizations within the sector should take care to enable and support this growth by embracing innovation and automation — and to avoid deterring it with inefficient or outdated processes and technologies.

Winning the race for efficiency

Leading electronics manufacturers have not taken full advantage of Industry 4.0 solutions yet. By identifying and implementing the technologies best suited for their business, they can potentially improve their EBIT. Electronics manufacturers have a long way to go to fully implementing Industry 4.0 solutions.

Those companies that correctly prioritize and implement key technologies from the Industry 4.0. There is no one-size-fits-all solution, given the diversity of the industry and differing levels of maturity related to Industry 4.0 technologies. In deciding how to move forward, electronics manufacturers must consider their own product mix and volumes, and equipment and software providers need to understand the business models of the companies they serve.



Electronics manufacturers have a long way to go to fully implementing Industry 4.0 solutions.

Manufacturers: Choose the right technology blocks and partners

Electronics manufacturers include companies that make millions of cell phones a year and those that produce only a few pieces of specialized electronic equipment each year. Since they vary so widely, we clustered these companies - including original equipment manufacturers (OEMs), electronics manufacturing service providers (EMS providers) and original design manufacturers (ODMs) - into three categories of operating models. They are: low-volume, high mix (**LVHM**); high-volume, low-mix (**HVLM**); and medium-volume, medium-mix (**MVMM**).

An **LVHM** operating model is mainly used by electronics assembly manufacturers in aerospace and defense, industrial electronics, or the medical industry. The three key blocks here are: *Workshop-based production systems*, in which assembly lines (especially in the back end) are replaced with process-oriented workshops; *Production scheduling optimization systems*, where systems, mostly based on artificial intelligence, optimize production schedules by identifying the best combination of trade-off's; and bringing it all together, LVHM companies need process master control systems to handle the increased complexity of workshop-based production and ensure that the new, more complex production schedules are met.

For **HVLM**, a model used by significantly or highly automated companies producing consumer electronics, computers and communication devices, three key blocks are: *Further equipment automation* such as upgrades and adding new automation functions, or new technologies *Predictive maintenance* to increase the availability of machines by using sensor data to anticipate breakdowns and *machine and line performance optimization systems*, which also uses sensor data to improve the performance of the machines and the quality produced, such as first pass yield.

Models that are **MVMM** are often used by automotive electronics producers. The three key blocks here are a combination of the priority technology blocks for LVHM and HVLM players. The blocks are: Further equipment automation, Workshop-based production systems, and machine and line performance optimization systems

Suppliers: Better understand the companies you serve.

These companies usually provide solutions, often proprietary, for the Industry 4.0 technology blocks discussed. The categories are:

1) Machine suppliers

Machine suppliers need to focus on process master control systems, production scheduling optimization systems, predictive maintenance, and machine and line performance optimization systems.

2) Automation providers

Automation providers should focus on hardware-related technology blocks, such as workshop-based production systems and automated material handling. Companies should proactively develop and market solutions for the technology blocks prioritized by their manufacturer customers.

3) MES providers

Manufacturing execution systems (MES) providers, covers many of the software-related Industry 4.0 technology blocks. To provide seamless integration with assembly equipment need to gain access to specialized hardware knowledge to simulate specific machine behaviour.

4) Specific software players

Specific software players focus on Industry 4.0 technology blocks that are not part of traditional MES systems or which are located at the enterprise level. These companies need to find their market niche and build a competitive edge around it, or risk losing out to both large companies and small start-ups focused on highly specialized areas.

Conclusion

The electronics manufacturing world is evolving. The traditional manufacturing and production methods are in the throes of a digital transformation. This new era is marked by emerging breakthroughs in a number of fields including robotics, AI, nanotech, renewable energy, quantum computing, 5G networks and IoT, decentralised consensus, 3D printing, and autonomous vehicles. Industry 4.0 is a term used to describe the concept of the “Smart Factory”, Smart products and connected devices have recently entered the market. These new, complex products are manufactured by specific companies that have adapted their operations to new methods of working. They have integrated factories capable of mass production of complex and cost-efficient products through investments made into their infrastructures, transforming them into smart factories. Industry 4.0 not only means a change in production and expansion of technologies, it also means there is an increasing need to create new business models. In a smart factory operation, people and machines are able to use this digital thread to provide feedback in a continuous flow of information. Organizations in the electronics manufacturing industry should work toward embracing innovation in order to achieve an Industry 4.0 world, rather than waiting for Industry 4.0 to simply happen. Electronics manufacturers have a long way to go to fully implementing Industry 4.0 solutions. Those companies that correctly prioritize and implement key technologies from the Industry 4.0.

References:

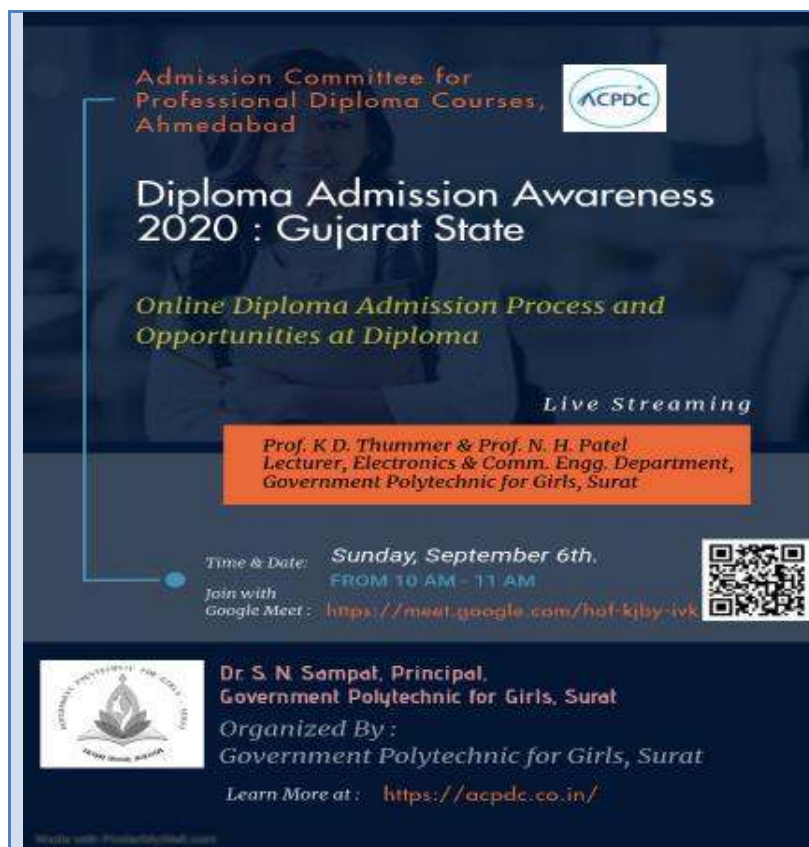
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EVENTS OF THE MONTH

Principal and Staff of G.P.G. Surat congratulate following students for getting selected in Campus Placements.

Name Of company	Month	Students name	Department
L&T	SEP-2020	BHAVNA SATPUTE	ELECTRONICS AND COMMUNICATION DEPARTMENT
		KAMAT GAURI	
		HARSHADA PAWAR	
MOTHERSON SUMI SYSTEMS LTD	SEP-2020	DIANA WINSON PULLOSERY	
		AHIRE KUSUM DILIPBHAI	
		JADHAV ROHINI RAJENDRA	
		MANDLO LAXMI	
		PRASAD RADHA KUMARI SUNIL	
		RAI KANCHAN SHRILAL	
		SINGH SONAM SHRI RAJESH	
ADITYA BIRLA	SEP-2020	JHA AMBIKA P.	
		GUPTA RENU DEVENDRA	
		TANVI PATIL	

A webinar sep- 2020



Admission Committee for Professional Diploma Courses, Ahmedabad

ACPDC

Diploma Admission Awareness 2020 : Gujarat State

Online Diploma Admission Process and Opportunities at Diploma

Live Streaming

Prof. K.D. Thummer & Prof. N. H. Patel
Lecturer, Electronics & Comm. Engg. Department,
Government Polytechnic for Girls, Surat

Time & Date: **Sunday, September 6th.**
FROM 10 AM - 11 AM

Join with Google Meet : <https://meet.google.com/hof-kjby-ivk>

Dr. S. N. Sampat, Principal,
Government Polytechnic for Girls, Surat

Organized By :
Government Polytechnic for Girls, Surat

Learn More at : <https://acpdc.co.in/>

Website: www.pgdg.ac.in

A webinar on the topic “Admission Awareness 2020: Gujarat state “ has been arranged for all students on 6th sep, 2020. In this webinar, all the important timeline of admission process and opportunities at diploma was discussed in order to aware all the students regarding that.

Nikunj Patel is presenting

Diploma Admission awareness...

People (8)

Chat

study only (You)

Asha Patel

Chetana Mungra

Kashyap Vora

Nikunj Patel

Nikunj Patel (Presentation)

Sanjay Sampat

Yamini Patel

Asha Patel

Chetana Mun...

Yamini Patel

Kashyap Vora

Nikunj Patel

Audarsah Rathod has left the meeting

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Nikunj Patel is presenting

Sanjay Sampat and 3 more

10:34

10:34 AM 9/4/2021

ACFDC
The Admission Committee
for Diploma Course

પ્રથમ વર્ષમાં સર્ટિફિકેટ હોલ્ડર માટે પ્રવેશની લાયકાત

2. ધો-10 + NCVT અથવા GCVT અથવા IGTR દ્વારા માન્ય બે વર્ષનો સર્ટિફિકેટ અભ્યાસક્રમ અને માધ્યમિક શાળાત પરીક્ષા (ધોરણ -10 ની પરીક્ષા) ગણિત, વિજ્ઞાન અને અંગ્રેજી વિષય સાથે ઉત્તીર્ણ.

અથવા

2. ધો-10 + TEB દ્વારા માન્ય બે વર્ષનો સર્ટિફિકેટ અભ્યાસક્રમ અને માધ્યમિક શાળાત પરીક્ષા (ધોરણ -10 ની પરીક્ષા) ગણિત, વિજ્ઞાન અને અંગ્રેજી વિષય સાથે ઉત્તીર્ણ.

Keyur Asodariya

Sushil Mishra

Dhyan Desai

Asha Patel

Chetana Mungra

Ankita Maharaaj

Joshu Mishra

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10:34 AM 9/4/2021

STUDENT CORNER



PANDEY ANSHU SANJAY

Enrollment No. : 1861503 11022 (Fifth Semester)

**Department of Electronics and communication
Engineering**

“WATER”

I am water

Do u think how much I am broader...?

Yes!!! I am that much broader which comes from a lot of struggle. .

From rain, from mountains, from rivers, from seas. .

I am fodder of my loving trees

I am water

Do you think what happens when I became shorter?

U all will die without me

And face many problem without me

U all will make quarrel to buy me

I am water

Don't waste me

I am essential for you all

I am potential for you all

I am water save

Save me your life... !!!!!

- By pandey anshu