



Entrepreneur

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Industrial Trip to Indore



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EDIT

Dear Members,

The Indian economy is on a highway to growth as the month of April witnessed record-breaking GST collections. The conservative approach towards loosening the purse strings during the covid-19 years seems to be paying handsome dividends. This news has certainly lifted our spirits and has given us a reason to celebrate. At BIA, we have had a very eventful and action-packed two months.

We restarted our in-person training programs with three power-packed sessions. One of these was exclusively for the BIA next on smart financial planning and wealth management conducted by V Srinivas, Prof. Krupanand conducted a session on advanced negotiation skills, while Sid shah tutored the members on developing highly effective habits. All of them were very well received by the participants, and we got an awesome response to them. We also have exciting sessions lined up going ahead. We had an exciting BCL cricket tournament in the first week of March, where members matched their cricketing wits with each other in a very competitive environment.

This was preceded by the 2nd EC meeting. Team Zevar took the honours in an evening punctuated by good team building and some great networking.

This was followed by the 3rd EC meet in conjunction with the pre-departure meet for our domestic industrial visit to Indore. Our trip to Indore from the 3rd to the 6th of April was a sell-out. Forty-three delegates visited the cleanest city in the country for six years running. We visited some exciting companies such as Eicher motors, the soya processing unit of Patanjali foods (erstwhile Ruchi soya), satisfaction products, Decostyle, and Gajra gears.

The trip ended with a visit to the Mahakaleswar temple and the iconic Daly college. A special word of thanks to mr. Rakesh Aggarwal and Prassana Dongre for their untiring efforts in making this trip a success. Dr. Rajput, DCP, Mumbai police cyber cell, had the audience spellbound with his wit and lucid explanation of the new age cybercrimes and their prevention and remedies at the 4th EC meeting.

As a team, we at BIA are overwhelmed with all the support and participation we have received from the members, and we are committed to providing the best possible experiences to all our members. We thank all of you for your continued encouragement and support, it only pushes us to set higher goals, we look forward to exciting and fun filled times ahead.

Warm regards,

Ashish Gandhi

President

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Manufacturing industry 4.0 - How AI/ML can be a game changer



Manufacturing 4.0 is the dawn of machines that can think, learn and make decisions on their own. The idea isn't strange to us because we've seen similar machines in movies. We have seen the T-800 in Terminator 2 and the NARS and CASE machines in Interstellar. These machines reflected human emotions, including the need for authority and even humour. These machines filled us with a mix of delight, thrill and curiosity. What new could be possible with this generation of machines?

Fast forward to 2023 and the real world. The machines of the future are here! Manufacturing 4.0, also known as Industry 4.0, refers to the fourth industrial revolution. The term emphasises the integration of advanced technologies such as artificial intelligence, the Internet of Things (IoT), and robotics into manufacturing.

Traditional manufacturing is grappling with challenges to cater to the ever-changing demands of a rapidly evolving industry. One of the biggest issues manufacturing companies often face is a shortage of skilled labour, as most manufacturing processes in India are traditional and labour-intensive. On top of that, customer demands are also rapidly changing, often leaving manufacturing companies struggling to keep up with the pace. Supply chains, too, lack efficiency. Lack of transparency is another issue manufacturing businesses have to tackle.

The only way forward for manufacturing companies is to embrace new technologies and adopt modern practices to increase efficiency and productivity. The innovations have brought to life Manufacturing 4.0 – powered by Artificial Intelligence and Machine Learning technologies.

Key pillars of Manufacturing 4.0

Manufacturing 4.0 comprises four key pillars:

Interconnectivity: the integration of physical and digital systems. In the Industrial Internet of Things (IIoT), sensors are attached to physical objects. Those sensors collect real-time data from physical equipment, machines, and devices and transmit it to digital systems for analysis and decision-making.

Automation: using advanced technologies such as robotics and IoT devices to automate tasks and processes. Automation is expected to increase productivity by up to 40% by 2035. Intelligent robotics is used by businesses to automate manual tasks. A European vehicle factory, for example, linked robots to efficiently manage process flow and collect the data required to monitor the process, improve production flow, and decrease losses.

Machine Learning: Let's understand the role of ML with an example



of how machine learning impacts Manufacturing 4.0 through quality control. Machine learning algorithms can analyze sensors' images and data to identify product defects as they move along the production line. This allows for real-time adjustments to be made to the production process, reducing waste and improving the overall quality of the final product.

Real-time data: the data generated by sensors and other sources is collected and processed in real-time to provide actionable insights to optimize the manufacturing process. For example, in the energy industry, sensor data can monitor the health of wind turbines, solar panels, and other equipment. These can be analyzed to predict when equipment is likely to fail, allowing maintenance to be scheduled before it becomes critical.

How can Manufacturing 4.0 be a game changer?

By now, you might be curious about how AI/ML can be used to ramp up efficiency, cut costs and transform the industry. Here are some ways manufacturing 4.0 can turn the tables and shake things up.

Digital Twin: AI and digital technology are making forays in manufacturing by creating digital replicas of assets and processes known as Digital Twins. With digital twin powered by Artificial Intelligence, you can create digital models of your industrial assets. Through these models, you see complex manufacturing processes from start to finish, helping you spot where problems might arise before they happen in real life.

The Digital Twin technology can generate predictions to identify suspected issues and provide recommendations on solving them while factoring in efficiency and maintainability. By better planning out maintenance tasks and further leveraging automation with digital twins, companies can reduce the costs associated with downtime and maintain higher margins and overall equipment effectiveness (OEE).

Bosch IoT Things, a cloud service, provides a digital twin/management shell for physical assets. The company offers a range of IoT solutions and services that support the creation and management of digital twins, including the Bosch IoT Things platform and the Bosch IoT Hub device connectivity layer.

Smart Factories: Fitted with an interconnected network of machines, communication mechanisms and computing power, smart factories leverage the powerful combination of these tools to achieve optimal operational efficiency. This system also utilizes cutting-edge technologies, including artificial intelligence (AI) and machine learning, enabling it to analyze data and drive automated processes while adapting and learning.

One example that particularly pops up in mind is that of the BMW plant located in Regensburg, Germany. The factory utilized various cutting-edge technologies, including robotics, 3D printing, and

smart data analytics. The automobile giant significantly streamlined its production processes and improved quality. Specifically, the company reported that the deployment time for new applications was reduced by 80%, and the number of quality issues decreased by 5%. The World Economic Forum dubbed the Regensburg plant a "factory of the future".

Supply Chain Optimization: There are various applications of AI and ML, and different ways they can be operationalized throughout the supply chain. A lot of information in the supply chain is transacted through documents such as BOL, POD, contracts etc, AI can easily digitize them. Thus, reducing human error and enhancing the customer experience. COVID-19 showed us how important it is to have visibility and connectivity across each node in the supply chain, to manage uncertainty and unpredictability. While one of the most important steps to connectivity is supply chain digitalization, AI, combined with blockchain technology, can strengthen end-to-end integrations and connect key activities in the supply chain.

Enhanced productivity: Implementing Industry 4.0 solutions can substantially improve and benefit both the manufacturer and its customers. These solutions can lead to reductions in machine downtime (30-50%), increases in throughput (10-30%), improvements in labour productivity (15-30%), and more accurate forecasting (85% more accurate).

As technology progresses, digital transformation offers an unprecedented opportunity for manufacturers to innovate how they work – affecting people, processes and productivity.

Final thoughts

Manufacturing 4.0 is the future, and it's clear that, more than ever, stakeholders must work together to transition as quickly and effectively as possible. The immense benefits of embracing these innovative technologies are far too great to ignore, with improved efficiency, customer experience, decision-making, and a safer and better empowering work environment for employees all on the list.

To make this happen, manufacturers, technology providers, government agencies and academic institutions must unite forces. Likewise, players in the private sector must invest in research and development to drive innovation, while governmental support is critical. So the time to act is NOW. Let's join hands and lead the way towards a future where industry and innovation seamlessly merge, creating a new era of manufacturing that will elevate us all.

by Puneet Vinod Kumar, Vice-President-Tech, Moglix



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GOOGLE'S AI AMBITIONS

Who: Sundar Pichai, CEO of Alphabet and Google

What: A public-facing post on Google's blog titled an important next step on our AI journey

Where: <https://blog.google/technology/ai/bard-google-ai-search-updates/>

When: The post was published on February 6, 2023

Why: Google is launching a conversational AI service, and reasserting itself as a leader in the space

Anyone who's experimented with ChatGPT can get a sense of the potential of generative AI—even in the technology's earliest stages.

The hype around AI was rising throughout 2022, and has reached a fever pitch today.

We've seen hype cycles swell around specific technologies before. Blockchain, Metaverse, NFTs, the list goes on. It remains to be seen what tangible value is created after the heat dies down, but in the meantime, some of the world's biggest companies are taking it very seriously.

Google—which internally reoriented itself around AI years ago—is at the forefront of this movement, so the recent letter published by Google CEO Sundar Pichai is consequential.

After all, billions of people use Google Search to learn about the world, and Alphabet is one of the world's most valuable, powerful tech companies. But before we "read between the lines" of the letter, it's worth revisiting the larger context that this letter addresses.

OpenAI Has Entered The Chat

Artificial intelligence has been chalking up a number of wins in recent months, but it was DALL-E Mini and ChatGPT that really allowed generative AI to burst into the public consciousness. In fact, ChatGPT became so popular in a short amount of time, that Google declared an internal "code red" to address the issue. Leaders at Google were well aware of the disruptive power of conversational AI because they were already testing their own models internally.

Microsoft recognized the potential as well, and invested \$10 billion in OpenAI, which runs ChatGPT as well as a number of other publicly-accessible AI tools. Microsoft's intention was to bring the magic of ChatGPT over to their Bing search engine—and perhaps steal market share away from Google.

This sets the stage for what we're seeing today. Essentially every big tech firm is singing AI's praises, and Microsoft and Google appear to be entering into an AI race.

The AI Race is Heating Up

If there were any questions about how seriously Google was taking Microsoft's new partnership with OpenAI, recent messaging should remove all doubt. The letter above, by Sundar Pichai speaks volumes while never straying far from official talking points. First, here is the high-level messaging in Pichai's letter:

Google has already been in the AI game for years now

Bard is going to make Google search more ChatGPT-like

Google is only late to the party because they've been careful

On this last point: a message from the CEO, which reaffirms the company's commitment to AI would normally coincide with a product launch, not one that will be released to the public "in the coming weeks". This messaging highlights a key barrier that Google is facing. Fearing the "reputational damage" that could come from rolling products out prematurely, the company has been forced to move slower than the market now expects.

Google has already endured a painful misstep after reporters discovered an incorrect answer in a promotional video touting the conversational AI service, Bard. This simple mistake cost Alphabet \$100 billion in market value—demonstrating how high the stakes are now that Big Tech's AI progress is under the microscope.

The timing of this letter is also very telling. The letter was published the day before Bing rolled out new AI-enabled features to the public.

Let the jockeying for position begin.

Nobody Wants to be Left Behind

Google and Microsoft may be the biggest players battling it out in the AI space, but there are indicators all over that AI represents a massive technological shift that will impact a number of industries. From Fiverr's "Open Letter to AI" to Baidu's recent AI chatbot announcement, it seems that every day brings fresh news that fuels AI hype.

One thing's for sure: AI will be integrated into digital tools in more noticeable ways. And for better or worse, we'll all be participating the experiment.

By Bruno Venditti



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UNDERSTANDING THE ROLE OF MACHINE VISION IN INDUSTRY

Industry 4.0 is revolutionizing manufacturing as we know it. Built upon technologies integrating robotics, AI, machine learning, big data analysis, cloud computing and sensors, this fourth industrial revolution is improving plant efficiency, increasing production stability and minimizing operation costs. Manufacturers have reported 10-12% gains in areas such as output, factory utilization and labor productivity after they invested in Industry 4.0 initiatives. Along the way, Industry 4.0 is delivering the societal benefits of enhancing sustainability and reducing pollution.

Industry 4.0 analyses data collected by smart sensors installed to predict outcomes and determine actions. In this eco-system, machine vision camera act as yet another sensor in collecting visual information about the physical world, much like the sensors that capture temperature, vibration, pressure or flow speeds. Being digital, data from machine vision systems can be easily networked and shared with other sub-systems and devices throughout the plant in a cycle of continuous improvement.

What is machine vision?

To better understand machine vision, let's look at an example of how it works. In this case, we highlight its use in the automatized detection of defective products—its most common industrial application. The process starts when a sensor detects the presence of an object on a production line, triggering a light source that brightly illuminates the area. A camera captures an image of the illuminated product at a speed measured in frames per second or "fps." In most cases, a digitizing device called a frame grabber translates the image into digital output that is then transmitted and saved on a host PC. Specialized software on the PC compares the image against a set of predetermined criteria to identify defects. If a defect is identified, the product will fail inspection, and it will be physically removed from the assembly line. Vision systems like this can check for defects in the position of the product, its color, size, or shape, or it can determine the presence or absence of the object itself in its field of view.

Machine vision components

Fulfillment of the error detection process requires orderly positioning of system components for the flow of information, starting with the sensor to the final processing of the image, as described above. In addition to the camera, illumination, host PC, frame grabber and software, a machine vision system requires a lens, Ethernet, fiber optic, or Coaxial cabling, and various interface peripherals. While Ethernet-based "smart" cameras are used extensively on the edge, Industry 4.0 typically demands higher imaging speeds and resolutions than smart cameras can supply. For this reason, the CoaXPress (CXP) point to point communication standard for transmitting high bandwidth data over a coaxial cable has become the de facto standard for demanding machine vision applications. CXP carries low-latency, low-jitter images, signals, and power (Power over CXP) to the camera at up to 50 Gbps over a single cable.

Machine vision in Industry 4.0

In the age of Industry 4.0, machine vision is expanding beyond its traditional value-adding function of error detection. Today it is being applied to diverse areas such as monitoring processes for predictive maintenance, and robotic guidance that makes it possible for robots to safely work with and respond to human interactions.

When combined with artificial intelligence (AI), machine vision's uses are virtually unlimited in solving manufacturing problems. For instance, AI can empower a machine vision system with self-adjustment capabilities so it learns from every cycle it performs in a feedback loop, growing smarter and smarter at each turn. Machine learning can make vision systems highly proficient at making sense of large image datasets far beyond the abilities of a human. The idea of adding a self-learning algorithm to machine vision is also intriguing because vision systems traditionally work with a fixed set of rules, making them inflexible when confronted with the need for fast changes. This is important as modern production lines are designed as flexibly as possible for quick adaption to small batches of custom products, a cornerstone of Industry 4.0.

Another technology assisting machine vision's adoption in Industry 4.0 is embedded computing. Essentially, it performs analysis at the source of the data or "on the edge," rather than transmitting data over an already crowded network to servers at a secondary location, therefore reducing bandwidth requirements. At BitFlow, for instance, we have combined our Claxon CXP 2.0 frame grabber with the NVIDIA® Jetson AGX Xavier Developer Kit, achieving a very small form factor image processing system ideal for edge computing.

Besides manufacturing, one exciting area for Industry 4.0 is the guidance systems that permit robots and co-bots greater autonomy and pathfinding abilities. Besides helping robots work faster and more safely alongside human workers, machine vision empowers robotic order pickers to significantly improve response time and limit fulfillment defects. Cameras can also be used to collect SKU data that enhance visibility across the enterprise, such as spotting recurring patterns that can predict possible shortages, the root causes of equipment failures, or other warehousing anomalies. Warehouse systems become smarter, faster, and more efficient in providing precisely what customers need by using machine vision.

Machine vision plays a dynamic role in Industry 4.0 strategy, allowing networks, robots, and plant-level managers to visualize the manufacturing process through the extraction, processing, and analysis of real-time digitalized images. Vision is one of the most valuable senses in humans, and increasingly, in machines. A machine vision system can be implemented at almost every stage of Industry 4.0 and serve as hubs to generate rich data that gives managers visibility into operations.

by Donal Waide



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FIRST BIA NEXT GEN MEETING

1ST MARCH, 2023



The BIA NEXT organized their first meeting on 1st March, 2023 to discuss the focus of the BIA Next and chart out the various areas viz. upskilling ,network ,education, membership, business opportunities, problem sharing, wealth and financial management, personal professional development, collaboration opportunity, etc. More than 20 members attended the meeting.



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BIA ROMAN CRICKET LEAGUE & 2nd Executive Committee Meeting– 4TH MARCH, 2023

The much awaited BIA ROMAN CRICKET LEAGUE was held on 4th April, 2023 at Chitrakoot Grounds Andheri (W), Mumbai. It was the time when the BIA members showcased their sporting prowess at the Tournament sponsored by Roman Group and Mr. Bhupen Chheda and Co-Sponsored by Aditi Health Management Pvt. Ltd. (RAPID CENTRE).

Along with the teams Roman Tigers, Black Panthers, Pioneer Paces, 4 Shield Commandos, and DC Lions, 5 new teams were formed viz. Zewar Diamonds, S Cube Turf Warriors, M'Lunias Master Blaster, Snowball Sultans, Raj Coolers, to ensure more and more members could participate in fun-filled family event.

After qualifying league matches, two teams qualified for the finals viz. Zewar Diamonds and Raj Coolers and there was a stiff fight for the coveted Trophy. Finally, Zewar Diamonds lifted the Champion Trophy.

The Awards were also given to :Mr. Susheel Racherla-Man of the Series' Ms. Sarika Kale – Best woman of the series, Mr. Praneet Rao-Best Bats Man, Ms. Rashmi Sawant – Best Woman Batting, Mr. Kumar Doshi -Best Bowler, Ms. Sarika Kale -Best Batting Woman, and Mr. Maharshi Ganatra -Best Bowler.

The Tournament was a great learning experience, emphasizing the importance of preparation, planning, perseverance, endurance, team spirit and camaraderie regardless of the result.

We thank the owners viz. Mr. Narendra Ruia (Black Panthers), Mr. Rajnish Arora (DC Lions), Mr. Chirag Shah (Pioneer Pacers), Mr. Mit Chheda (4 Shield Commandos), Mr. Bhupen Chheda (Roman Tigers), Mr. Ajay Jain (Zewar), Mr. Nirmal Manglunia (M'Lunias Master Blaster), Mr. V. Srinivas (Snowball Sultan), Mr. Ajit Singh Ahluwalia & Mr. Sanjay Shah (S-Cube Warriors) and Mr. Sanjay Rajjada (Raj Coolers) for owning up the teams and for their keen interest.

Our 'BIG THANK YOU' to other sponsors viz. Mr. Hitesh Shah (Suru Chemicals & Pharmaceuticals Pvt. Ltd.), Mr. Prashant Patel (FrigeCool Services), Mr. Abhijit Parikh (Quality Marble), Mr. Manan Doshi (Giri Plast-DOPAMINE), Mr. Milan Dharamshil (DM Diamonds), Mr. Praneet Rao (Procure),

Mr. Pushpendra Bansal (Lords Hotels & Resorts), Mr. Sandeep Giri (Giria Enterprises), Mr. Sushil Racherla (Modisto Bespoke Suits), Mr. Amit Malik (Kwaliti Foods), FDC Ltd., Ms. Ruchi & Mr. Siddharth Saraf (Kettro Gourmet Gifts Pvt. Ltd.), Mr. Mohan Naik (Global Aqua Healthcare) & Mr. Ajay Nair (Sujith Pharma Equipment) for sponsoring various items.

The tournament was witnessed by more than 90 members along with their spouses who cheered and encouraged the players throughout the tournament.

The entire event was a grand success.

The Cricket League was preceded by 2nd Executive Committee Meeting.



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TRAINING PROGRAMME ADVANCED NEGOTIATION SKILLS

After a gap of three years, the Association had organized a Training programme on "Advanced Negotiation Skills" on 11th March, 2023 from 4 to 6 p.m.

The Training Programme dwelt with Negotiation, conflict resolution and amicable solution which are important for anyone in business. The Programme was aimed to equip participants with necessary skills to negotiate effectively in their personal and professional lives.

The programme was conducted by an expert Prof. Nathuji Krupanand and has years of experience in training individuals to become better negotiators. The participants had the opportunity to learn how to develop negotiation skills. By attending the programme, the participants have likely gained valuable insights into effective negotiation techniques, conflict resolution strategies and how to find amicable solutions in complex negotiations. These skills will serve them well in their professional lives and help them to build stronger relationships with clients, partners and other stakeholders.

There were about 40 participants participated in the programme and found the programme very informative and educative.



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INDUSTRIAL VISIT TO INDORE

3RD APRIL TO 6TH APRIL, 2023

The association organized Industrial visit to Indore from 3rd April to 6th April, 2023

The delegation departed from Mumbai to Indore on the morning of 3rd April, 2023. On reaching Indore on 3rd April, 2023, they went straight to Patanjali Foods and had an first hand knowledge of manufacturing process foods and interacted with the officials of the Company.

On 4th April, 2023, the delegation visited Eicher Motors Limited, manufacturers of Motorcycles and commercial vehicles. The motor cycles 'Royal Enfield, global leader in the middleweight motorcycles. Apart from the manufacture of motorcycles, Eicher has a joint venture with Sweden AB Volvo – Volvo Eicher Commercial Vehicles Limited (VECV), having a complete range of trucks and buses, which are manufactured at an integrated plant at Pithampur, Indore.

The Eicher officials took the delegates around the factory and answered the queries from the delegates. The delegation members had an opportunity of witnessing the process of manufacture of Motorcycles, trucks and busses. The delegation had a discussion with the officials on the prospect of becoming OEM suppliers.

The delegation then visited to Satisfaction Products Pvt. Ltd.(DECOSTYLE), suppliers of affluent and luxurious modular further in the form of exceptionally created wardrobes, sofa sets, etc. The delegation visited their factories and had interaction with the officials of the company to understand various facets involved in manufacturing of the luxurious furniture.

The next stop for the delegation was visit to Enviro Recyclean who are into recycling of all types of plastic waste and reprocess them into new products. The delegation had the first hand knowledge of recycling process by state of the art resource recovery facility.

In the evening, the delegation explored the gastronomical delights of indore at Sarafa Market and chapan dukan.

On 5th of April, 2023, the delegation visited G.G. Automotive Gears Ltd (Gajra Gears), a leading manufacturer of traction gears and pinions and has been market leader in locomotive gears for the last four decades. It's a self sufficient organization capable of developing and manufacturing locomotive and industrial application gears and pinions, gearboxes and forged automotive components. The delegates saw themselves the manufacturing practices adopted by the company and the entire manufacturing process of gears, gearboxes, pinions, etc.

The delegation then proceeded to Mahakaleshwar, Ujjain, one of the twelve Jyotirlingas said to be the most sacred abodes of Lord Shiva and had a darshan.

Then the delegation members were treated at President Nights (Dinner Party) and had a relieving feeling after hectic business schedules.

On 6th April, 2023, the delegation had time to explore Indore and on the way visited The Daly College of Business Management, one of the oldest co-educational boarding schools in the world, as part of BIA Academia Initiative and later departed for Mumbai.





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BOMBAY INDUSTRIES ASSOCIATION



This year's Theme

ISSUANCE OF CERTIFICATE OF ORIGIN

Bombay Industries Association was established in the year 1948. BIA holds a unique position in the industrial world. It is a forum of Industrialists, Businessmen, Exporters, Importers and Professionals having more than 1000 members, representing Small, Medium and Large scale industries. BIA represents a cross section of industries. BIA is registered under Section 25 of the Companies Act and an accredited ISO 9001-2008 organization.

The Bombay Industries Association is authorised by the Ministry of Commerce, Government of India to issue Certificate of Origin in respect of goods exported from India. Certificate of origin is a document which indicates that the goods are of origin of particular country, as mentioned therein. This certificate is sent by the exporter to the importer. The Bombay Industries Association will also attest Export Documents like Invoices, Packing List, Declaration etc. as required by the applicant for facilitating their trade activities.

The association has made necessary arrangement for issuing the Certificate of Origin and attestation of export related documents. Exporter can avail the Certificate of Origin on the same day of submission of relevant documents. If it is necessary, the association can also send this Certificate of Origin by courier. This facility is available to all exporters (Member of BIA or Non-Members).

Registration Procedure:

An Exporter needs to provide initially, an Indemnity Bond on a Non-Judicial Stamp Paper of Rs. 200/-, along with KYC (the specimen of the Indemnity Bond and KYC are available on our website and also in our office). Based on this indemnity Bond and KYC, the association will register the exporter and will provide BIA COO Code. This will be the reference number for future transaction regarding COO. The member has to quote BIA COO Code on each application for certification and in future correspondence. Every exporter should submit this indemnity bond initially to Association along with KYC.

Why Indemnity Bond?

The Indemnity Bond is required for the security purpose. BIA gives this Certificate of Origin to its members or non-members on the execution of an Indemnity Bond in favour of the Association.

The responsibility for any complications arising out of issue of Certificate of Origin by the Association is on the exporters requesting for the Certificate. The signing authority of Association is signing the certificate of origin on basis of the indemnity bond.

After registration of the company:

Exporters will have to collect blank forms of COO from the association and submit the same with covering letter + 5 copies of the Invoice + 5 copies of Packing List + Shipping proof i.e. Bill of Lading / Airway Bill / Lorry Receipt etc. + a full set of Certificate of Origin + 5 copies of any other documents / declarations + the charges for COO.

Charges:

Description (Upto 4 Copies + 1 Copy For BIA Record)	BIA Members	Non-Members
Certificate of Origin (5 Copies)	Rs. 84.75 + 15.25 = Rs. 100/-	Rs. 100 + 18 = Rs. 118/-
Exporter's Invoices (upto 5 Copies)	Rs. 84.75 + 15.25 = Rs. 100/-	Rs. 100 + 18 = Rs. 118/-
Packing List (upto 5 Copies)	Rs. 84.75 + 15.25 = Rs. 100/-	Rs. 100 + 18 = Rs. 118/-
Any other Declaration (upto 5 Copies)	Rs. 93.23 + 16.77 = Rs. 110/-	Rs. 131.36 + 23.64 = Rs. 155/-
Same No. & Same Date (upto 5 Copies)	Rs. 93.23 + 16.77 = Rs. 110/-	Rs. 131.36 + 23.64 = Rs. 155/-
Amendments / Corrections	Rs. 59.33 + 10.67 = Rs. 70/-	Rs. 67.80 + 12.20 = Rs. 80/-
Supply of 10 Sets of blank Certificate of Origin	Rs. 85.60 + 15.40 = Rs. 101/-	Rs. 85.60 + 15.40 = Rs. 101/-
Registration Fees for New Registration with COO	NIL	Rs. 635 + 18%GST = Rs. 750/-
Above charges are including 18% GST		

Exporter can pay charges amount by Cash/Cheque/DD/RTGS, in favour of "Bombay Industries Association" along with the application on their company letterhead. Non- Members registering for Certificate of Origin services will be charged one time, enrolment fee of Rs. 750/- (Rs. Seven Fifty Only), payable at our counter.

Timing for issuance of Certificate of Origin will be: Monday to Friday -: 10:00 AM to 5:00 PM

Secretary, Contact for further information: Mr. K. Sundareswaran, Tel. No.:- 022- 25129580

Email: - bia.ind.assn@gmail.com, office@biaindia.org, Web: - www.biaindia.org



3RD EXECUTIVE COMMITTEE MEETING & PRE-DEPARTURE MEET

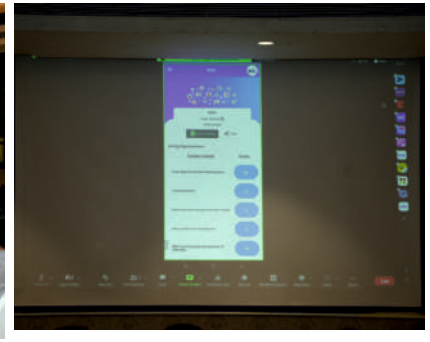
The 3rd Executive Committee Meeting was held on 25th March, 2023 to transact statutory points as regards future programmes and declaration of events accounts.

Simultaneously, the Pre-Departure Meeting was held after the Executive Committee to brief the members the details of Industrial Visit to Indore. Mr. Hitesh Shetty, Vice-President, briefed the members about the programme at Indore for the visit and arrangements made by the Association during the visit.

Later, a presentation was made by Mr. Nikhil Kamath, VP sales, DSP Mutual Fund, on Economic Outlook – Challenges and the Way forward. Shri Kamath dwelt with How to avail tax subsidy from government of India, How corporates treasury take tax benefits on fixed income products, How taxation works for FD vs Debt Fund as collateral, Indian economy Outlook and the challenges in way forward.

The EC members, Premium Plan Members and special Invitees attended the meeting and found the presentation quite knowledgeable and interesting.





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Smart Financial Planning and Wealth Management (BIA Next Gen)

BIA NEXT Empowers Members with Financial Planning and Wealth Management Training.

On April 6th, 2023, BIA NEXT organized a highly informative and educational training programme on "Smart Financial Planning & Wealth Management" for its members. The programme was conducted by Mr. V. Srinivas, Founder of Snowball Financial Services P. Ltd. and Jt. Hon. Secretary of Bombay Industries Association, who brought his expertise and experience to the forefront.

The training programme focused on providing members with insights on how to create wealth in the most effective manner possible, along with tax-saving strategies for investments and income. Mr. Srinivas also shared valuable information on where and how affluent individuals invest their wealth. He emphasized that members' primary focus should be on their own businesses, which serve as the primary source of income and wealth. Investment should be viewed as a secondary avenue for financial growth.

The training programme was a resounding success, with 20 members in attendance. Attendees found the programme enlightening and useful, as they learned practical strategies for effective financial planning and wealth management. With the knowledge gained from the programme, members are now better equipped to grow their wealth and secure their financial future.



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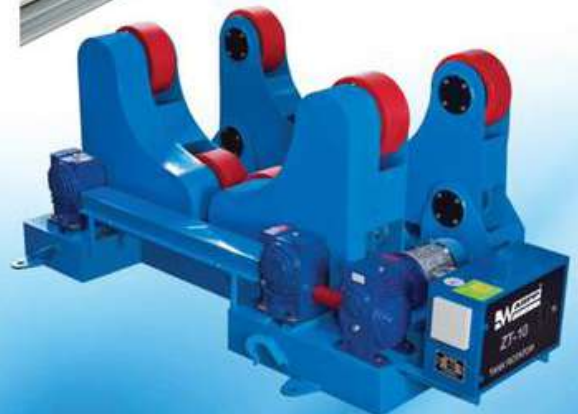
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MEET & GREET, 4TH EXECUTIVE COMMITTEE MEETING & PRESENTATION ON “CYBER CRIME”

The Association organized its 1st Meet & Greet for the year 2023 on 25th April, 2023 along with 4th EC meeting and presentation by Dr. Balsing Rajput, DCP (Cyber Crime)

The 1st Meet & Greet was held for new members who have enrolled and members who have renewed their subscription to network with Office-Bearers, EC & Premium Plan Members & Special Invitees. There were 55 new and renewal members participated in the Meet and in the networking that followed.

The Meet & Greet was followed by 4th EC meeting to transact statutory matters and announcement of future programmes and events in the coming months.

In the Presentation that followed after the meeting, Dr. Balsing Rajput, CP(Cyber Crime) briefed the members about various Cyber Crimes and frauds committed by certain groups and the remedies available for the affected individuals. For the benefit of members, the entire presentation is reproduced in this issue.

There were more than 100 members attend the meeting and the members found the programme quite interesting and enlightening.





Training Program on High Performance Habits

The Association organised the second training program on 'High Performance Habits on 15th April 2023, from 4 PM to 6 PM,.

The training program delivered following two key points, which were the best way to start a new habit and a system to develop great habits.

The Training Programme was conducted by Mr. Siddharth Shah, the CEO and Founder of Think & Grow Rich Academy. The event aimed to help participants learn the best ways to develop high-performance habits that could help them achieve success in their personal and professional lives.

Few Takeaway from the Programmes was follows:

1. Why it's Difficult to Form Winning Habits:

Participants learnt that the main reason forming winning habits could be challenging was due to one's brains' natural tendency to resist change. Our brains were wired to stick to familiar patterns, and any change could trigger a sense of discomfort and resistance. This understanding helped individuals to recognize that forming new habits required a conscious effort to overcome this resistance.

2. The 1st Step to Form a Winning Habit:

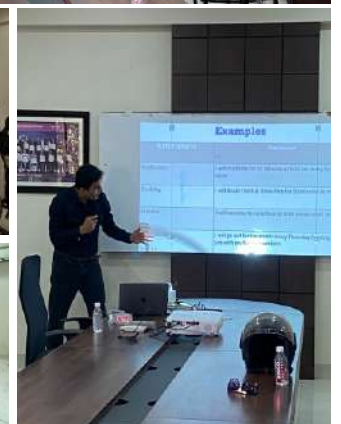
Mr. Siddharth Shah shared with participants the first step to forming a winning habit, which was to identify a "trigger" that would kickstart the desired habit. A trigger was something that would prompt the desired behavior, such as drinking a glass of water before breakfast or putting on running shoes before going for a jog. By identifying a trigger, participants learnt that they could create a cue for their desired behavior and make it easier to form a new habit.

3. Applied a Powerful Hack on How to Reduce Phone Screen Time by at Least 50 Minutes per Day:

Mr. Shah also provided participants with a powerful hack to reduce phone screen time by at least 50 minutes per day. The hack involved setting the phone to grayscale mode, which makes the screen less stimulating and reduced the urge to check the phone frequently. This simple yet effective technique helps individuals take control of their phone usage, reduces screen time, and enhances productivity.

In conclusion, the BIA training program on high-performance habits was an informative and engaging event for anyone looking to develop habits that could lead to success. Participants The Training Programme was conducted in an interactive mode.

About 25 members participated in the Training Programme and they found the programme useful and informative.



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Where are clean energy technologies manufactured?

WHERE ARE CLEAN ENERGY TECHNOLOGIES MANUFACTURED?

Visualizing Where Clean Energy Technologies Are Manufactured

This was originally posted on Elements. Sign up to the free mailing list to get beautiful visualizations on natural resource megatrends in your email every week.

When looking at where clean energy technologies and their components are made, one thing is very clear: China dominates the industry.

The country, along with the rest of the Asia Pacific region, accounts for approximately 75% of global manufacturing capacity across seven clean energy technologies.

Based on the IEA's 2023 Energy Technology Perspectives report, the visualization above breaks down global manufacturing capacity by region for mass-manufactured clean energy technologies, including onshore and offshore wind, solar photovoltaic (PV) systems, electric vehicles (Evs), fuel cell trucks, heat pumps, and electrolyzers.

The State of Global Manufacturing Capacity

Manufacturing capacity refers to the maximum amount of goods or products a facility can produce within a specific period. It is determined by several factors, including:

The size of the manufacturing facility

The number of machines or production lines available

The skill level of the workforce

The availability of raw materials

According to the IEA, the global manufacturing capacity for clean energy technologies may periodically exceed short-term production needs. Currently, this is true especially for EV batteries, fuel cell trucks, and electrolyzers. For example, while only 900 fuel cell trucks were sold globally in 2021, the aggregate self-reported capacity by manufacturers was 14,000 trucks.

With that said, there still needs to be a significant increase in manufacturing capacity in the coming decades if demand aligns with the IEA's 2050 net-zero emissions scenario. Such developments require investments in new equipment and technology, developing the clean energy workforce, access to raw and refined materials, and optimizing production processes to improve efficiency.

What Gives China the Advantage?

Of the above clean energy technologies and their components, China averages 65% of global manufacturing capacity. For certain components, like solar PV wafers, this percentage is as high as 96%.

Here's a breakdown of China's manufacturing capacity per clean energy technology.

Technology	China's share of global manufacturing capacity, 2021
Wind (Offshore)	70%
Wind (Onshore)	59%
Solar PV Systems	85%
Electric Vehicles	71%
Fuel Cell Trucks	47%
Heat Pumps	39%
Electrolyzers	41%

So, what gives China this advantage in the clean energy technology sector? According to the IEA report, the answer lies in a combination of factors:

Low manufacturing costs

A dominance in clean energy metal processing, namely cobalt, lithium, and rare earth metals

Sustained policy support and investment

The mixture of these factors has allowed China to capture a significant share of the global market for clean technologies while driving down the cost of clean energy worldwide.

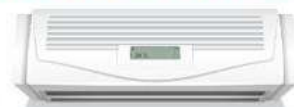
As the market for low-emission solutions expands, China's dominance in the sector will likely continue in the coming years and have notable implications for the global energy and emission landscape.



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3 STEPS TO BETTER FUME MANAGEMENT

There are many ways to manage weld fume. In this article, we talk about three of them that will help keep your processes moving forward uninterrupted and in applicable compliance.

The first way to manage weld fume is to complete a risk assessment of your facility and keep it current. Next, if you haven't already, you should install proper dust collection equipment to capture fumes at the source. Third, consider using a tool or service to monitor your equipment performance in real time.

When used in combination, these steps can help improve your plant's air quality, create a cleaner work environment, and help increase productivity. Before delving into these steps, let's examine the unique aspects of weld fume.

Unique Aspects of Weld Fume

Whether you run a large or small fabrication and welding operation, you're producing weld fume that consists of various types of dust and gas byproducts. Weld fume produces ultrafine particles that can linger and degrade the air quality. The particles are generally very small, often 50 to 75 times smaller than the

width of a human hair, making them extremely easy to inhale.

Some authorities consider these particles "metal dust" because they are generated by working with metals, while other experts consider them non-metallic, since they are a mixture of oxidized materials. As a mixture of oxidized materials, the fume particles tend to burn more slowly and have lower combustion temperatures than purely metallic dusts. Either way, the particulates are considered combustible when they enter the air and could be combustible if combined with air and an ignition source.

Every fabrication and welding operation has a different risk level determined by:

Type of welding process and amount of dust generated.

Base, filler, and welding rod metals used.

Space layout and number of workstations.

Welder work practices.

Air movement and ventilation.



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3 steps to better fume management

Exposure Risks and Levels

Although there is no single guideline regarding a safe amount of weld fume exposure, the Canadian Centre for Occupational Health and Safety enforces specific occupational exposure limits.

Many Canadian welding operations also strive to stay below threshold limit values for weld fume exposure spelled out by the American Conference of Governmental Industrial Hygienists, which is internationally recognized for setting industry best practices. It is the respective Canadian territories and provinces, though, that determine the exact limits, so be sure to seek out local regulatory information and use approved materials in your jurisdiction to ensure you're meeting the necessary thresholds.

To proactively manage weld fume generated in your plant and help reduce exposure to workers, take the following three steps.

Step One: Conduct a Dust Hazard Analysis in Your Facility

A well-executed dust hazard analysis (DHA) should uncover any risks related to combustible dust events associated with weld fume in your shop. Many regulations now require DHAs for processes and facilities that generate combustible dust, which includes weld fumes.

The National Fire Protection Association (NFPA) 652 standard is focused on the safe handling of combustible dust. The NFPA previously set a deadline of September 7, 2020, for plant managers to complete a DHA and to have a combustible dust mitigation plan in place. The NFPA 652 also requires a DHA to be reviewed and updated every five years. Many local governments have made this standard mandatory.

The professionals involved in a DHA may include facility operators, engineers, owners, equipment manufacturers, and industrial hygienists. The elements of a DHA enable a plant management team to:

Get informed. | Determine risks. | Identify actions. | Execute actions. | Follow up.

Completing a DHA will clarify risks you need to document and address, helping you stay compliant with national and provincial regulations.

Step Two: Install a Dust Collector

Because of the nature of and potential impact of weld fume, simply turning on a fan, opening a window, or even welding outside will not remove all the fumes from a welder's breathing zone or workstation. Investing in an industrial dust collection system that captures fumes and associated particles at the source will help reduce the amount of fumes and particles that are dispersed into your facility's air.

Verify the locations where weld fume is being generated and whether those locations create fume continuously or intermittently. Next, identify where you can place a collector in your shop. The layout of your facility and the space available will help determine the type of collector to install.

Consider using high-efficiency filters with cleaning systems that extend filter life and help minimize the chance of unexpected maintenance or a downtime event. Cartridge-based systems or a filter packs may both be viable options, depending on your facility's unique operation. They both use compressed air to clean the filters and offer enhanced filtration capabilities.

Finally, you'll want to consider any necessary mitigation solutions needed to address the risks presented by collecting weld fume in your own plant.

Step 3: Remote Monitoring

The third step in mitigating risk associated with weld fume is implementing a remote monitoring service to stay on top of dust collection equipment performance and real-time maintenance issues. Production capacity, staffing issues, and job demands can make it a challenge for any operation to manually monitor its equipment with regularity.

The Industrial Internet of Things has made its way to weld fume management. Today, using several strategically placed sensors on your dust collection system can help establish operational parameters for your equipment and remotely track the performance of your collectors via monitoring software and internet connectivity.

Remote access to near-current data for your dust collection system is available for most makes and models today. Sensor technology is especially valuable because it helps determine the collector system's performance, such as its differential pressure, so you can decide when a filter needs replacement or if there's another equipment-related issue to address by simply viewing the dashboard on your computer or mobile device.

Donaldson's Easy-Trunk Collector

One type of fume collector for heavy-duty applications or frequent plant operations is Donaldson's Easy-Trunk Collector. It is portable and has a built-in pulse filter cleaning system.

Weld fume is an unavoidable byproduct at any fabrication and welding operation, and it warrants close attention by you, your workers, and regulators. Following these three steps will help you keep your plant in good standing with compliance requirements, maintain a cleaner work environment, and improve operational efficiency.

Karen Wear is a product market manager at Donaldson, 1400 West 94th Street, Bloomington, MN, 55431, 952-887-3131, karen.wear@donaldson.com, donaldson.com.

By Karen Wear

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How new semiconductor fabrication chip will power India towards growth

India has also signed an MoU with the USA on establishing a semiconductor supply chain and innovation partnership. Electronics and Information Technology (IT) Minister Ashwini Vaishnaw announced on Tuesday that the first semiconductor fabrication (fab) chip is slated for announcement in a few weeks, and India is poised for a thriving and expanding chip industry and manufacturing ecosystem in the following three to four years.

According to a report released by Deloitte, the Indian semiconductor business would generate \$55 billion in revenue by 2026. A senior state government official had told the media on February 20, 2023, that the Vedanta-Foxconn JV had decided on the Dholera Special Investment Area near Gujarat as the site for their semiconductor and display production facility.

What exactly is a semiconductor chip, what goes into its making and how does India assemble each component vital for its production?

All contemporary electronic devices and technologies use semiconductors or chipsets in a variety of applications, from electronic goods and IT hardware to defence technology, industrial electronics, medical electronics, and automation, among others.

A semiconductor chip is an electric circuit containing several components such as transistors and wires constructed on a semiconductor wafer. An "integrated circuit (IC)" is an electronic device made up of many of these parts. During the production process, a computer patterns the component arrangement on a photomask (reticle) before projecting it onto a semiconductor wafer.

Here's a breakdown of the key materials required in the production of a semiconductor chip:

Silicon - Silicon is the most important component required for manufacturing a semiconductor chip. India, the second-largest importer of silicon metal worldwide, purchases the majority of its silicon metal from China, the United States, and the United Kingdom according to data updated through 2022 by Volza India. The top 3 countries importing silicon metal are the United States (32,379 shipments), India (19,761 shipments), and Vietnam (7,129 shipments). The data further states that 738 Indian importers took in

19.8K shipments of silicon metal from 901 Suppliers.

In 2022, an estimated 59,000 metric tonnes of silicon were produced in India and 8.8 million metric tonnes of silicon were expected to be produced globally. As a result, significant amounts of silicon are imported to meet the semiconductor production demand.

Germanium - India obtains the majority of its germanium supplies from countries like the United States, the United Kingdom, and Germany. India is low on germanium output and relies heavily on import. China produced the most germanium in the world in 2021, with a refinery output of this metal estimated at 95 metric tonnes.

Germanium was crucial in the creation of the first transistor, which led to the discovery of its value as a semiconductor. Because silicon has a wider bandgap and stable silicon oxides are available, interest in employing silicon rather than germanium increased in the late 1950s.

Gallium Arsenide - Gallium is a metal mostly utilised in production of electronic devices. India has a large supply of bauxite ores, which include traces of gallium but are not the primary source of the metal. According to the Indian Minerals Yearbook 2020, despite the fact that India has an abundance of bauxite ores, no production has been documented lately due to the difficulty of commercially generating gallium.

To make semiconductors for the electronic industry, gallium-based materials like gallium arsenide (GaAs) and gallium nitride (GaN) are employed. According to Volza's India import data, India is a major importer of metal and receives the majority of its gallium from France.

India lags behind more competitive bases like China and Vietnam in the creation of semiconductor wafer fabrication (FAB) units because of a fragile environment and a lack of resources. So the government aims to focus on fostering the semiconductor industry so that India can become a lead supplier of semiconductors in the next five to six years. Even though India doesn't produce semiconductors, India is one of the top nations for semiconductor design talent, accounting for up to 20% of all semiconductor design engineers worldwide.

The Indian government has made domestic semiconductor production a top priority in response to the severe implications of chip scarcity, including the disruption of the supply of gadgets and autos, particularly after the Covid-19 pandemic.

By Nuha Bubere



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13	INNOWORX CONSULTING LLC	MR. MADHU YALLA	
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15	A K ENTERPRISES	MR. NITIN KHANDELWAL	Travel Agent and LED Light Suppliers



Bombay Chartered Accountants' Journal

Curiosity to Creativity



October 2022

How Well Rounded are Rules about Rounding off Numbers in Financials Statements?

Raman Jokhakar, Chartered Accountant

Financial Statements (FS) indicate a company's financial performance and position. In case of **Public Interest Entities** (PIE), FS serves numerous people/bodies like shareholders, analysts, regulators, etc.

The **idea behind any reporting**, is to enable the reader to gather information in a way she can comprehend with ease. **Comprehension by reader is the ultimate test** that a preparer should measure up his reporting, so that it is of value. IASB has also stated that **understandability** is an important feature that preparers of financial statements must strive for.

This short article walks you through the rule regarding rounding off of figures in the financial statements under the Companies Act, 2013 as required by Schedule III the absurdities, excesses and anomalies.

PRESENT LAW

Schedule III lays out the manner of presentation of financial statements and other information to ensure they give a true and fair view. In relation to rounding off of numbers, Schedule III mandates:

*(i) Depending upon the Total Income of the company, the figures appearing in the Financial Statements **shall** be rounded off as given below:-*

Total Income	Rounding Off
<i>(a) less than one hundred crore rupees</i>	<i>To the nearest hundreds, thousands, lakhs or millions, or decimals thereof.</i>
<i>(b) one hundred crore rupees or more</i>	<i>To the nearest lakhs, millions or crores, or decimals thereof.</i>

(ii) Once a unit of measurement is used, it should be used uniformly in the Financial Statements.

Emphasis supplied for the word **shall**, as it replaced the word **may** on 24th March, 2021.

The aforesaid provisions and changes of 24th March, 2021 imply:

- a. Rounding off is a part of disclosure requirements of the Act and compliance with accounting standards (as section and Schedule speak of them as the leading criteria).
- b. Rounding off is mandatory (so it appears from the language of the clause and the amendment).
- c. If you do not round off, you are in violation of the Companies Act, 2013.
- d. Fine of Rs. 25,000 to Rs. 5,00,000 and even imprisonment of up to 1 year is prescribed under Section 129(7) of the Companies Act, 2013.

It is important to find out about global best practices which ministers and MPs speak of with confidence, for convenience and selective expediency. FASB and IASB **do not mandate rounding off**. The idea is to refrain from RULES and rather set PRINCIPLES, and hence Ind AS / IAS 1.51.e and 1.53 talk of disclosure of level of rounding off (thousands, lakhs, millions or crores) when an entity rounds off to make it understandable.

However, MCA has made it mandatory. Additionally, it came out with this change, without disclosure of any reason behind the change! How about a discussion? How about giving some background? Are there any issues that this mandate will address? In a lighter vein such **notifications** including parts of CARO or Schedule III without discussion appear to be **naughtyfications** because there is more **mischief than meaning**.

PURPOSE AND COMPREHENDING NUMBERS

Lets keep the above legal requirement on the side for a moment and look at other facets of rounding off. **Rounding off is a trade-off of precision** for comprehension. **The numbers are also used to compare** them with similar numbers of other entities. So numbers allow us not only to read FS of a company but also help us compare with numbers of other companies.

Rounding off also helps unwieldy numbers to be readable and fit for grasping easily. However, in most cases, rounding off should be used for publishing financial information and may not be necessary in actual FS. FS adoption ideally should be with full numbers, but what is circulated / published can be different from it. The rounding off prescribed in Schedule III many a times defeats the very purpose of rounding off. Here is how:

The way people understand numbers is quite peculiar. This becomes difficult when the numbers are rounded off a certain way. Look at the following table:

Sr. No.	Number	What is it	How we comprehend it
1	10,00,00,000	This is the actual Number	It is understood just the way it is. Just as we understand a WORD Coconut - we understand this number to be 10 Crores.
2	1000,000	When rounded in hundred	Each of the numbers given against Sr. No. 2 to 5 are meant to be understood as 10 Cr but only because the legend says so that they are rounded to 100s or 1000s etc.
3	100,000	When rounded in lacs	



4	10	When rounded in crores
5	100	When rounded in millions

What rounding off says is that items listed in Sr. No. 1 to 5 mean the same thing. When you read the number ALONG with the rounding off LEGEND in your brain you have to UNROUND it to understand. Why? Because the number gives scale, and the scale is known by quantum. So, one has to un-round it to understand how large or small the values are. Because when the brain reads 100 as given in Sr. 5 it cannot recognize it as 10,00,00,000 given in Sr 1. It will have to use a TRANSLATION of rounding off legend to arrive at the real value.

PROBLEM 1: ABSURD RESULTS

Lets see if the FS of a company are in thousands 4 digits. Now, some numbers in the FS are in hundreds. This will put all numbers in single or double digits or even decimals. Obviously, this doesnt make it easier to comprehend. Say an Intangible is already fully depreciated and having WDV that is 5% of its value can disappear from PPE Schedule entirely due to rounding off.

PROBLEM 2: INCONSISTENT LAWS

While rounding off is mandatory for presentation of FS, **under the same Companies Act, 2013, and when it comes to submission of FS annually to the MCA under Form AOC 4, you have to provide un-rounded figures.** There is no choice to give numbers in 00 or 000. Only full numbers are permitted. The question is: for Form AOC4 should one add 0s that were removed to round off to comply with the Schedule III or will AOC4 need exact figures full numbers which are not audited or are in an Excel?

How will the compliance professional certify the AOC4 when actual signed FS are rounded or can he adopt un-rounding basis stated above?

Which are the final numbers the one with rounded amounts or one with actual numbers that are not signed or approved for all other legal purposes whether under the Act or other laws?

Consider the departments/boards under the same Ministry of Finance will they accept rounded figures? Say, Income Tax returns need full figures. GST returns need full figures.

PROBLEM 3: TWO FS

Some clients want two FS. One for meeting rounding off requirement, and the other for tax and other purposes. Their CS is asking; which numbers should he take to fill the form?

PROBLEM 4: ROUNDING OFF AND CASTING

For smaller enterprises, rounding off makes, preparing FS even more difficult. There is already a problem with matching totals in Notes to main pages of FS and ensuring casting is correct.

PROBLEM 5: MAKING NUMBERS LOOK SMALLER

More than the technical and accounting considerations, an unintended consequence of this mandate for small companies is **YOU ARE MAKING ME SUDDENLY LOOK SMALLER.** Full numbers when I carry in my balance sheet is a feel-good factor and a contributing factor to confidence and external respect. As a slightly extra rounded person, I would like to look less rounded (pun intended), but would definitely not want my financials to look leaner. Soft factors do matter.

WHAT MCA SHOULD CONSIDER?

1. **Prescribe comma placement** this is the single most important factor for improving the readability of numbers. Not placing a comma is a catastrophe for number reading and shows careless disregard for the reader.
 2. **Prescribe a minimum font size** its impossible to read small fonts, especially in printed material. But even for e-copies, there should be a minimum font size.
 3. **Allow only lacs and crores, not millions and crores** Million is another way to put comma. India needs to decide where it stands, lacs/ crores or thousands/ millions. But this is not the most important point although the Companies Act, 2013 sections generally specify numbers in crores and lacs.
 4. **Rounding off threshold can be raised** When a number becomes unwieldy say HPCL Income of Rs. 250,000 Crores 25,00,00,00,00,000 (eleven zeros) then rounding off makes sense.
 5. **Rounding off for publication and not adoption** For most companies allow actual numbers and for publication purposes, rounding off can be done by management. FS need not be rounded off in most cases. FS are used for FULL numbers by most stakeholders and full numbers have more meaning for purposes that are of regulatory consequence.
 6. **Materiality should be the basis of rounding off** A Rs. 1,000 Crores assets company, with a turnover of Rs. 5,000 Crores, could have a materiality of say 5 per cent of assets or 1 per cent of sales about Rs. 50 Crores. This company can round off in crores. Less than 3 digit crores, perhaps require no rounding.
 7. **For private limited companies** which are not public interest entities, they should be out of the tangles of rounding off. The preparers and readers are SAME and obviously, the government has NOTHING to read into those financials. Even if they wanted to, they can read from exact numbers.
 8. **Form AOC-4** should permit expressly rounded amounts or allow 000xxs to be added instead of actual numbers.
- Finally, ease of doing business should guide such decisions. Shall we say, rounding off may be unwound a bit to make it well rounded.



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