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Technology & Innovation:
Shaping and Securing
New Bharat

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UDYOG TIMES

OFFICIAL PUBLICATION OF LAGHU UDYOG BHARATI

Volume -8 Issue - 7 May 2025

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Opportunity for Indian MSMEs on a Platter

Editorial

Dr. Kirti Kumar Jain

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Over the past several weeks, we have been navigating through a particularly turbulent period marked by the conflict with Pakistan and internal unrest in Bangladesh.

These events had made our Micro, Small, and Medium Enterprises (MSMEs), particularly those engaged in exports, a little anxious. However, amidst this turbulence, one should have found reason to be hopeful.

In the past few days, I have had the privilege to know about exporters across several industrial sectors. What stood out in the understanding was not just their concern, but their resolve.

Rather than retreating in fear, they are actively seeking ways to adapt, innovate, and thrive. I was especially encouraged to see how many are viewing the current situation with Bangladesh not just as a challenge, but as a potential opportunity to fill the void. India has put a ban on several Bangladeshi products exported to our country in addition to halting the use of Indian territory for the transit of Bangladesh's goods to third countries, including Bhutan, Nepal, and Myanmar.

This will make Bangladeshi products less competitive and this is where our manufacturers and exporters can make their entry. I hope our MSMEs see this as an opportunity to further their business by capturing the markets of the Bangladeshi businesses.

Time and again, our small businesses have shown that with the right mindset and support, they can weather storms and emerge stronger. The present circumstances, while may be a little difficult, are proving once again that adversity often reveals our greatest strengths.

I invite your opinions.





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राष्ट्रीय स्वास्थ्य मिशन स्वास्थ्य सेवाओं का निरंतर उत्थान, आयुष्मान भारत – आयुष्मान राजस्थान

'गर्भ की पाठशाला'

गर्भकाल के दौरान सम्पूर्ण देखभाल की जानकारी
प्रदान करने की एक डिजिटल पहल....

गर्भविधि मधुमेह उपचार कार्यक्रम

प्रथम चरण में
10 जिलों में 4,125 चिकित्सा केंद्रों पर गर्भकाल में होने वाली
मधुमेह की जांच एवं उपचार सेवाएं



निदेशालय, चिकित्सा, स्वास्थ्य एवं परिवार कल्याण सेवाएं (आईईसी) राजस्थान, जयपुर

Indian MSMEs Driving Innovations using Artificial Intelligence, Machine Learning & Generative AI



Vision

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It is not an exaggeration to state that the Indian MSME sector is India's backbone. As per the Ministry of Statistics and Programme Implementation, MSME contributes to approximately 30% of India's GDP and 45% of exports. To ensure that the sector continues to grow at a much faster pace, it must be updated using the latest technologies and continue to innovate. End-consumers and MSMEs can use innovations to enhance their operational efficiency. In this context, technologies such as the Industrial Internet of Things (IIOT), artificial intelligence (AI), Machine Learning (ML), and Gen-AI provide the required building blocks to allow MSMEs to take advantage of innovation.

Usage of AI/ML/Gen AI by MSMEs in Various Sectors

These technologies provide MSMEs with opportunities for growth, operational efficiency and innovation. By adopting these, MSMEs can become more competitive, both locally and globally. As many of these technologies are relatively new, they provide the opportunity to have a level-playing field with large corporations. These technologies help MSMEs automate mundane tasks, thereby reducing the budget need. These technologies provide additional insights that can help drive growth and tap into new markets. At a high level, AI/ML can be applied from two perspectives.

1. AI/ML for Business: Leveraging AI/ML to derive efficiencies, optimize costs, and streamline processes.

2. Business of AI/ML: Using AI/ML to expand to new markets, develop new products / solution / services and serve multiple industries/sectors. Various MSME sectors use these technologies on the basis of these factors.



A. Manufacturing Sector:

The MSME Manufacturing sector accounted for approximately 35% of India's total output. The MSME manufacturing sector uses AI/ML/GEN AI in the following areas but is not limited to:

1. Operations Monitoring & Bottleneck Insights:

One SME in the textile manufacturing sector used IIOT sensors to monitor the shop floor and feed this data into an AI-enabled analytics tool. This helps the given SME reduce inefficiencies by the order-15-20% and take advantage of substantial energy savings. The payback period for these investments was less than 2 years.

2. Predictive Maintenance:

An automotive parts manufacturer uses an AI-based predictive maintenance solution that helps identify the health of machines and plants in real-time. This helps reduce the machine downtime, thus reducing the maintenance cost by approximately 12%.

3. Automated Quality Control:

IIT Kharagpur researchers have developed a portable AI-based device for the automatic inspection of goods manufactured in MSMEs. The portable device clicks pictures of products when set up on a batch of goods and sends the feed to AI-based software for quality control. With the help of a computer vision-based quality control system, an SME not only reduces its defects but also improves its operational efficiency.

4. Design Acceleration:

A custom design manufacturer uses past data and customer preferences to recommend ornament designs. Gen-AI is used to create custom-made designs for customers.

5. Design Innovation in Textiles:

MSMEs use Gen-AI to perform faster design prototyping. One such SME uses Gen-AI to create faster design prints of T-shirts.

There are many more examples, such as inventory control and customer support, that can help increase efficiency in the MSME Manufacturing sector.

B. Retail & E-Commerce Sector:

The retail sector has been included in the MSME since 2021. Retail, along with the e-commerce sector, uses AI/ML/Gen AI in the following areas, but is not limited to:

1. Personal Preference-Based Marketing:

AI-powered tailored marketing, which is based on an individual's preferences, not only helps increase the effectiveness of marketing but also reduces costs. This leads to an improvement of approximately 20% in the marketing costs.

2. Customer & Market Trends:

AI-enabled data analytics helps MSMEs unearth hidden trends in customer behaviour and market dynamics. This leads to better positioning of MSMEs from a future perspective. This also helps to predict the demand based on past trends, which helps to reduce waste and, in turn, improve efficiencies.

3. Chatbot for Customer Support:

The initial level of customer support is provided by AI-enabled chatbots, which helps reduce the load on human agents providing support. This trend is helping many MSMEs save effort and focus on other areas of market growth.

4. Marketing and Content Creation Support:

MSMEs use Gen-AI to create marketing content in various local Indian languages. One of the Surat based textile exporter is using Gen AI to create catalogue in Hindi, Gujarati and English and saving efforts and increasing the reach of its products to wider customer base.

C. Fintech Sector

Fintech companies are among the biggest users of these technologies. Some use cases are following but are not limited to:

1. Loan Worthiness Assessment:

Creating a credit worthiness assessment with the help of data from alternative sources, such as social media and utility transactions. This helps create better and more accurate financial personalized products based on individual preferences.

2. Fraud Detection:

Fintech companies, such as LendingKart, use AI-based fraud detection tools to minimize fraud.

In summary, there are many more examples in which MSMEs use AI/ML/Gen AI in various sectors to innovate and improve their operational efficiencies and growth.

Support from Ecosystem for Innovation:

This was made possible by overall ecosystem support. The Government of India is supporting MSMEs to bring innovative culture by using the given technologies. However, some of these initiatives are following but not limited to:

- **MSME Sustainable (ZED) Certification Scheme:** Support MSMEs to learn "Zero Defect & Zero Effect" practices
- **A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE):** Support to promote entrepreneurship and facilitate innovative businesses.
- **National Manufacturing Competitiveness Program (NMCP):** Support MSMEs in various schemes for technology, quality, and innovation.

"AI Champions" Initiative from NASSCOM is good step in right direction by enabling MSMEs in developing essential world-class AI capability. This program helps MSMEs to acquire AI skills, develop effective AI strategies, and create new market opportunities.

The IndiaAI Mission by the Ministry of Electronics and Information Technology (MeitY) is supporting responsible and inclusive AI development in India. It has a special focus on innovation and skill development. These focus areas are helpful for MSMEs in adopting these technologies.

In conclusion, MSMEs are working along with ecosystems to co-create and adopt innovative solutions, which would take Bharat to become the third-largest economy in this decade. All the best for the same!

□□□



07

iNNOVATING for B H A R A T

CSIR's Legacy of Scientific Excellence

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The Council of Scientific and Industrial Research (CSIR) serves as a pivotal institution in India's scientific and technological advancement and stands as one of the most distinguished examples of institutional success in the developing world. CSIR's inception during World War II marked a critical moment in India's scientific trajectory, emerging from the urgent recognition that scientific infrastructure was crucial for industrial growth and national security. The organizational genesis can be traced to the Board of Scientific and Industrial Research (BSIR), established in 1940 as a precursor institution, which eventually evolved into the more comprehensive and ambitious CSIR framework formally constituted on September 26, 1942. Dr.

administrative oversight; he embodied a transformative vision that emphasized the crucial link between fundamental research and industrial application. The founding vision explicitly recognized that true independence would require not just political freedom but also scientific and technological self-reliance, making CSIR a cornerstone of the broader independence movement's aspirations for a modern, industrialized India.



Shanti Swarup Bhatnagar

The choice of leadership proved visionary, with Dr. Shanti Swarup Bhatnagar appointed as the first Director-General, a visionary scientist. Dr. Bhatnagar's leadership philosophy transcended mere



Today's CSIR operates as a vast, interconnected network comprising 37 national laboratories, 39 outreach centers, 3 innovation complexes, and 5 specialized units strategically distributed across India's geographical expanse. This extensive infrastructure represents one of the most comprehensive research ecosystems in the developing world, functioning under the administrative umbrella of the Ministry of Science and Technology, Government of India. Each constituent laboratory maintains its unique research focus and institutional culture while contributing to

overarching national scientific objectives.

Through its Academy of Scientific and Innovative Research (AcSIR), CSIR plays a pivotal role in developing India's scientific human resources, offering structured academic programs and fellowships such as the AcSIR-NIF Doctoral Innovation Fellowship, which supports doctoral research in frontier domains. The organization's prestigious Junior Research Fellowship (JRF) and Research Associateship (RA) programs, awarded via the nationwide CSIR-UGC NET, further empower students to pursue advanced research across premier institutions.

Beyond core scientific research, CSIR has evolved to encompass comprehensive programs focused on entrepreneurship development, rural innovation, technology transfer, and skill enhancement under various projects schemes encompassing the mission mode projects to fast-track translational projects. The organization's emphasis on translational research has resulted in the successful commercialization of hundreds of technologies, fostering indigenous industry development and reducing dependence on imported technologies.

A few of the Landmark Innovations Across Eight Decades 1950s: Groundwork for Democratic and Scientific Progress



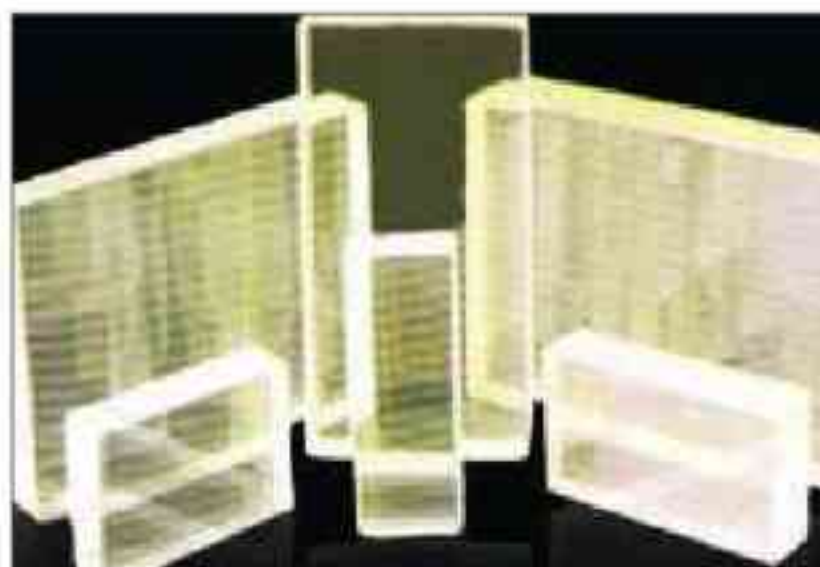
In 1952, the National Physical Laboratory (NPL), a premier CSIR constituent, developed the revolutionary indelible ink using silver nitrate-based chemistry to prevent electoral fraud. This seemingly simple innovation carried profound implications for democratic governance, ensuring the integrity of elections in a diverse, populous democracy. The technology's significance extended far beyond

national borders, with the ink subsequently exported to more than 25 countries including Sri Lanka, Indonesia, Turkey, and numerous African nations, symbolizing India's early contribution to global democratic practices.



CSIR-CFTRI developed India's first buffalo milk-based infant food formulation in late 50s which was a breakthrough as India was importing all infant food at the time. The technology was transferred in 1959 to Kaira District Milk Producers Union, leading to the launch of "Amulspray". By the 1960s, Amulspray substituted 50% of imported baby food in India.

1960s: Pursuing Self-Reliance in Technology and Aerospace Innovation



The Central Glass and Ceramic Research Institute (CGCRI) achieved a significant breakthrough by developing indigenous technology for Optical Glass production, essential for defence applications and scientific instrumentation. This achievement dramatically reduced India's reliance on costly imports. Simultaneously, the National Aerospace

Laboratories (NAL) established the Trisonic Wind Tunnel, a sophisticated facility for aerodynamic testing that enabled India's entry into aerospace research.

1970s: Agricultural Revolution and Rural Technology



As India embraced the Green Revolution, CSIR's technological interventions proved pivotal in transforming agricultural productivity and rural living conditions. The development of the Swaraj Tractor by CSIR-Central Mechanical Engineering Research Institute (CMERI) marked a historic milestone as India's first indigenous tractor. This achievement revolutionized mechanized farming across the country, enhancing agricultural productivity while reducing the rural-urban technology gap that had long hindered equitable development.



CSIR's commitment to improving rural living conditions was further exemplified by the introduction of the Nutan Smokeless Stove, which dramatically reduced indoor air pollution. A major health concern affecting millions of rural

households. This innovation required careful research into combustion efficiency, materials science, and user behaviour, resulting in a design that was both technically effective and culturally appropriate.



The India Mark-II water pump represented another transformative innovation, ensuring access to clean drinking water in over 3 million rural Indian homes.

1980s: Computing Revolution and Healthcare Breakthroughs

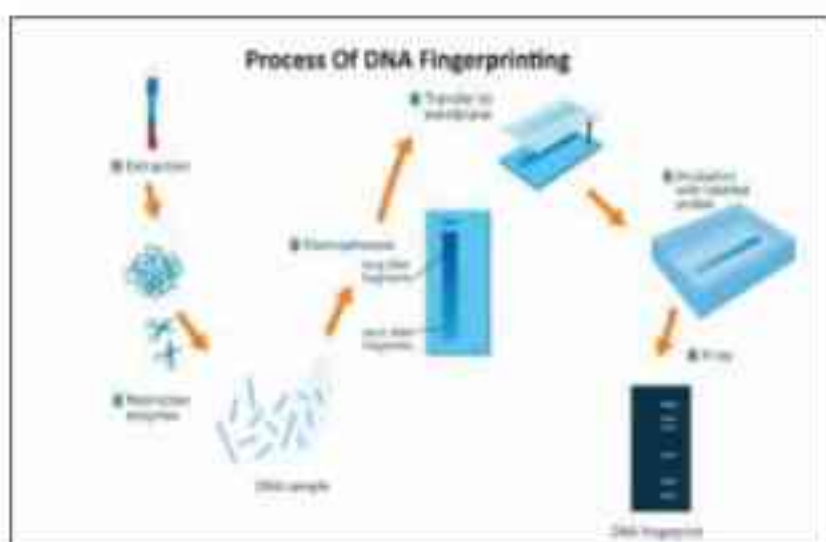


The 1980s marked CSIR's entry into the digital age, characterized by significant advances in computing and healthcare technology. CSIR-NAL's development of Flosolver, India's first parallel computer, marked the country's pioneering entry into high-performance computing.



In the healthcare sector, CSIR-Central Drug Research Institute (CDRI) introduced Saheli, a groundbreaking non-steroidal, non-hormonal oral contraceptive. This innovation was particularly significant due to its unique weekly dosage schedule and reduced side effects compared to conventional contraceptives, offering Indian women an indigenous, affordable reproductive health choice.

1990s: Biotechnology Revolution and Intellectual Property Protection



CSIR-CCMB pioneered DNA fingerprinting technology in India, revolutionizing criminal investigations, paternity disputes, and biodiversity conservation.

Perhaps even more significant was CSIR's role in challenging and ultimately overturning a U.S. patent on turmeric's wound-healing properties. This landmark case established important precedents for protecting traditional knowledge and led to the creation of the Traditional Knowledge Digital Library (TKDL), a comprehensive multilingual database documenting ancient Indian medicinal knowledge. TKDL now

protects over 290,000 formulations and is recognized by several global patent offices, representing a major victory in the global intellectual property arena.

2000s: Aerospace Excellence and Genomic Capabilities



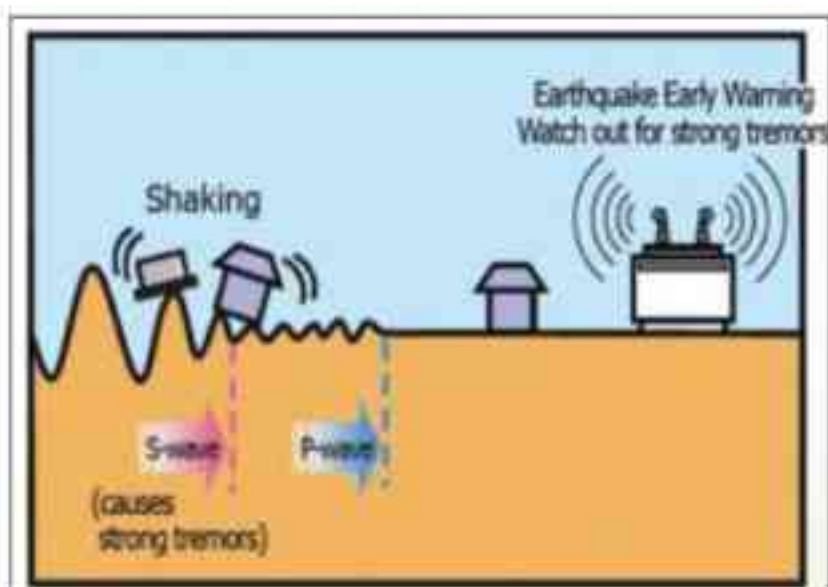
Entering the new millennium, CSIR launched its ambitious scheme New Millennium Indian Technology Leadership Initiative (NMITLI) to promote public-private partnerships in research and development, aiming to build, capture, and retain a leadership position in technology for India. CSIR- NAL's substantial contributions to the Tejas light combat aircraft and the Saras light transport aircraft highlighted India's growing indigenous aircraft design capabilities. These projects required sophisticated research in aerodynamics, materials science, avionics, and systems integration, demonstrating CSIR's evolution into a world-class aerospace research organization.



In the rapidly emerging field of genomics, CSIR-IGIB played a central role in India's participation in the

international Human Genome Project. The institute subsequently contributed to mapping the Indian Genome Variation, research that proved crucial for understanding disease susceptibility patterns in Indian populations and developing personalized medicine approaches. CSIR's genomic research also facilitated the development of bioinformatics tools that became essential for the emerging biotechnology startup ecosystem.

2010s: Advanced Materials, Energy Devices and Digital Innovation



The development of an Earthquake Warning System deployed in Delhi Metro demonstrated CSIR's capacity to create sophisticated monitoring and alert systems that enhance urban safety. This technology, developed in partnership with other government agencies, incorporated advanced sensors, data processing algorithms, and communication systems to provide real-time earthquake alerts.

CSIR-CSIO pioneered the development of 3D printed implants, dramatically reducing both the cost and customization time required for orthopaedic surgeries.



CSIR-NAL developed the Drishti Transmissometer, an indigenous and cost-effective runway visibility measuring system crucial for airport operations. The Drishti system provides real-time visibility data to pilots, essential for safe landing and take-off, especially under low-visibility conditions.

The decade also witnessed CSIR's comprehensive embrace of digital technologies, with the initiation of digital libraries, scientific databases, and citizen



science projects that democratized access to scientific knowledge.

CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar, developed the 'TERAFIL' filter which is a highly efficient low-cost device for supply of clean drinking water.

2020s: Pandemic Response and Clean Energy Leadership



The COVID-19 pandemic provided an unprecedented

test of CSIR's capacity for rapid response and innovation under pressure. Within weeks of the outbreak, CSIR-IGIB developed FELUDA, a CRISPR-based diagnostic test that offered low-cost, rapid, and effective COVID-19 detection. This achievement demonstrated CSIR's ability to quickly adapt cutting-edge research to address urgent societal needs.



CSIR's leadership in clean energy research has positioned India at the forefront of the global sustainable energy transition. The organization developed the country's first hydrogen fuel cell-powered vehicle prototype, setting the stage for future sustainable mobility solutions.

Empowering the MSMEs with CSIR Technologies

Recognizing the critical role of Micro, Small, and Medium Enterprises (MSMEs) in deriving economic growth and employment generation, CSIR has developed comprehensive programs to facilitate technology transfer to these vital sectors. In August 2024, CSIR signed a landmark Memorandum of Understanding with Laghu Udyog Bharati to transfer 100 selected technologies to its constituent units across the nation. This ambitious initiative included innovations such as low-cost pesticide detection kits, sophisticated multi-copter drones for precision agriculture, and biodegradable packaging materials that address both environmental concerns and market demands. Each technology selected for transfer undergoes rigorous evaluation for commercial viability, manufacturing feasibility, and potential societal impact, ensuring that MSME partners receive innovations with genuine market potential.

CSIR's Vision 2030 is an ambitious and comprehensive

strategy designed to enhance the quality of life for Indian citizens through cutting-edge science and technology. The roadmap prioritizes globally competitive research and sustainable solutions that address both immediate and long-term national challenges. At its core is a focus on digital transformation, with major initiatives in artificial intelligence, machine learning, Internet of Things, and blockchain, all aimed at revolutionizing research methodologies and expanding opportunities for innovation and societal benefit.



Clean energy research is another cornerstone, with CSIR investing in solar energy efficiency, energy storage, smart grid systems, and renewable energy integration. These efforts are aligned with India's renewable energy targets and global climate goals. Healthcare innovation is a parallel priority, with CSIR advancing affordable medical devices, telemedicine, personalized medicine, and preventive healthcare, demonstrating its agility during the COVID-19 pandemic and its ongoing commitment to public health.

Despite its achievements, CSIR faces challenges in translating research into market-ready products and securing funding for ambitious projects. The organization is meeting these challenges by enhancing technology transfer mechanisms, strengthening industry partnerships, and generating new revenue through intellectual property licensing. CSIR also balances fundamental and applied research to ensure both long-term innovation and immediate societal impact.

The economic impact of CSIR's work is profound,

driving job creation, industry growth, and export promotion through technology transfer and commercialization. Its pharmaceutical research has helped establish India as a global manufacturing hub, while agricultural and manufacturing innovations have improved productivity, reduced costs, and built technological self-reliance across sectors. Through Vision 2030, CSIR aims to sustain and expand these impacts, ensuring science and technology remain central to India's progress and global leadership.

Conclusions:

Over the past eight decades, CSIR has proven itself for India's scientific and societal development, creating an institutional legacy that extends far beyond individual innovations or research achievements. From the indelible ink that continues to safeguard democratic

processes to hydrogen fuel cell vehicles that promise a sustainable transportation future, CSIR has consistently demonstrated its capacity to translate scientific knowledge into transformative societal impact.

CSIR's story is the story of science in service to society, demonstrating that research excellence and social relevance are not competing objectives but complementary aspects of truly transformative scientific institutions. As India embarks on its next phase of development, CSIR's proven capacity for innovation, adaptation, and impact provides confidence that the nation's scientific capabilities will continue to grow and contribute meaningfully to address both national aspirations and global challenges.



लघु उद्योग भारती, मध्य प्रदेश
(सूक्ष्म एवं लघु उद्योगों का एकमेव राष्ट्रीय संगठन)
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स्वयंसिद्धा
संकल्प सूत्र एग्जिबिशन 2025

बहु उपाय प्रदर्शनी,
सांस्कृतिक एवं कौशल विकास कार्यक्रम,
उद्यमिता विकास कार्यक्रमालय और वि. शुल्क प्रशिक्षण

दिनांक - 24 जुलाई -27 जुलाई 2025
स्थान - अभय प्रशाल, रैस कोर्स रोड, इंदौर

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From Lab to Field: LUB's Member Translates CSIR Innovation into National Security Assets

(MSMEs are Strengthening India's Defence Infrastructure under the '100 Technologies - 100 Days' Campaign)



Success Story

Anju Bajaj

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In the heart of India's MSME landscape, a quiet transformation is taking place - where science meets entrepreneurship, and innovation meets national purpose. Under the ambitious '100 Technologies-100 Days' campaign launched by Laghu Udyog Bharati (LUB), a remarkable collaboration has taken shape. One of its active members, Shri Neeraj Sehgal, has adopted and commercialized a bullet-resistant security booth developed by CSIR-SERC, Chennai. This is not just the story of a product. It is the story of how a vision rooted in science found its wings in enterprise.

A Booth that Protects More than Just a Gate-

The bullet-resistant booth, originally designed by scientists at the Council of Scientific and Industrial Research - Structural Engineering Research Centre (CSIR-SERC), was meant to address a rising concern: protecting personnel stationed at sensitive locations. Whether it is a government facility, a defence checkpoint, or a research centre - the need for reliable protection has never been greater.

What began as a research prototype has now taken physical form through Sehgal Doors, led by Shri Sehgal in Delhi. With strategic manufacturing and real-world customization, the booth is now ready for deployment across India.

The LUB Touch: From Technology to Enterprise-

This successful translation of a CSIR technology into a market-ready product is exactly what the '100

Technologies - 100 Days' campaign aims to achieve - enabling grassroots entrepreneurs to adopt cutting-edge Indian innovations, manufacture them indigenously, and meet real-world challenges.

LUB has long advocated for stronger connections between India's R&D institutions and its micro, small, and medium enterprises. By empowering its members with access to research outputs and handholding them through the process of technology transfer, LUB is creating a new ecosystem where innovation is not just admired - it's applied.

A Model for Future Collaboration-

Shri Sehgal's success story is already inspiring others in the MSME community to explore how Indian technology can be leveraged for national growth. The booth is not just bullet-resistant - it is symbolic of



the strength that emerges when Indian science and Indian industry work together.

This initiative stands as a testament to the broader mission of Laghu Udyog Bharati: to make India Atmanirbhar not just in principle, but in action-one technology, one entrepreneur, one innovation at a time.



CSIR & LUB Empowering Women Entrepreneurs for Self-Reliance



New Wave

Dr. Arshpreet Kaur

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Research & Industry Collaborations
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techtransfer@lubindia.com

In a significant attempt to democratize science and empower women entrepreneurship, the '100 Days-100 Technologies' initiative of Laghu Udyog Bharati (LUB) in collaboration with the Council of Scientific and Industrial Research (CSIR) is transforming how grassroots enterprises access and apply food technologies.

From the labs of CSIR-CFTRI, Mysuru and CSIR-NBRI, Lucknow, to the kitchens, farmlands, and start-ups across India, this initiative is helping women entrepreneurs adopt ready-to-transfer, lab-tested innovations and convert them into market-ready products that are both nutritious and sustainable.

At the heart of this movement are women who dared to dream beyond domestic boundaries and are now building micro-industries driven by health, heritage, and science.

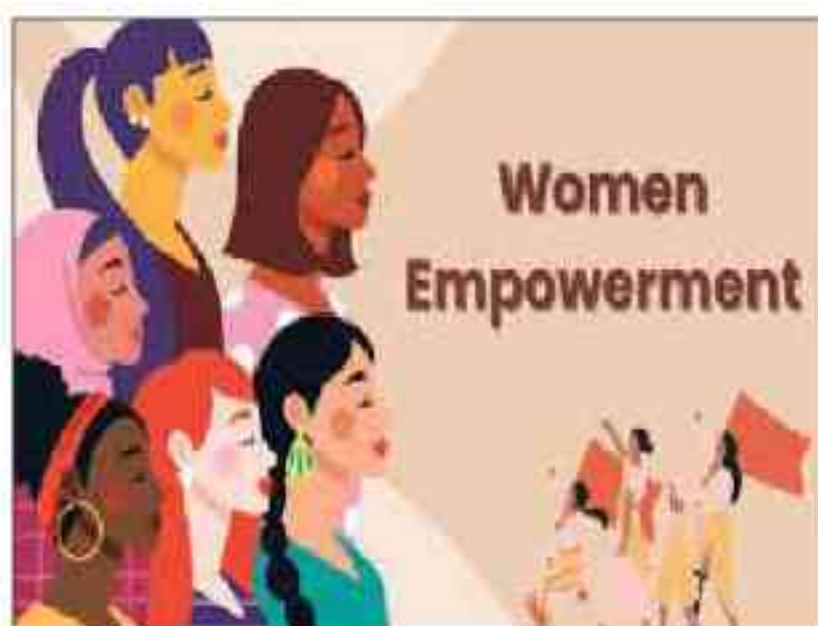
The Change-Maker: Dr. R. Lavanya's Mission to Empower Women Through Science & Enterprise



Formerly an IT professional and academician, Dr. R. Lavanya, recognizing the need for collective strength, along with Shri V.S. Elango, co-founded the GAIN Industrial Centre, a food cluster with a passionate team of women start-up entrepreneurs. The aim was

to create a platform for collective marketing and shared branding of products developed by different women-led brands.

Dr. Lavanya along with her team, visited CSIR-CFTRI and CSIR-NBRI laboratories with the support of Laghu Udyog Bharati to understand the scientific principles and technical intricacies behind the technologies. This



hands-on learning empowered them to not only adopt these innovations but also tailor them for real-world applications in their communities.

She also embraced CFTRI technologies such as fermented instant mixes, multigrain pizza bases, and explored natural fibre-based lotus apparel technology in collaboration with NBRI.

Science Meets Self-Reliance: Stories that Inspire

These narratives are not just about business - they are about resilience, community leadership, and the power of decentralization.

Smt. Anitha S. - Egg Crunchy Bites



A Tamil school teacher with a passion for wellness, Anitha created a high-protein snack using whole eggs. Infused with Indian spices, her Egg Crunchy Bites are both tasty and nutritious.

Technology: CSIR-CFTRI



Smt. Amsaveni D. -

Instant Idly-Dosa Batter

From homemaker to innovator, Amsaveni's naturally fermented, ready-to-use batter removes the hassle of grinding and soaking - just add water and cook.

Technology: CSIR-CFTRI



Smt. Yamuna A. -

Lotus Tea & Herbal Brews

Using unsold lotus petals from her pooja store, Yamuna built a wellness brand offering lotus tea, herbal blends, and coffee cubes.

Technology: CSIR-NBRI



Smt. Sharmila V. -

Instant Rasam & Sambar

Her busy tailoring career left little time for cooking, so Sharmila devised instant Rasam and Sambar mixes - authentic, fast, and flavourful.

Technology: CSIR-CFTRI



Smt. Sharmila P. -

Coconut Milk Powder

To simplify traditional cooking, she created a travel-friendly coconut milk powder, natural, easy to use, and shelf-stable.

Technology: CSIR-CFTRI



Smt. M. Sasikala -

Ragi Mudde

A convenient format of Ragi Mudde (millet ball), rich in fibre and iron, was developed by Sasikala to address modern lifestyle diseases.

Technology: CSIR-CFTRI



Smt. A.K. Thangamani -

Herbal Infusions and Lotus Tea

Focused on the goodness of greens, Thangamani turned her knowledge into herbal infusions and lotus-based products.

Technology: CSIR-NBRI

From Labs to Livelihoods: The LUB-CSIR Blueprint

This initiative is a living model of 'Lab to Local'. Through LUB's mobilization and CSIR's domain expertise, the following has been made possible:

1. **Technology Transfer:**
Easy-to-adopt innovations like instant mixes, dehydrated foods, herbal teas, and millet snacks.
2. **Capacity Building:**
Hands-on exposure and mentorship for women without prior technical backgrounds.
3. **Grassroots Manufacturing:**
Low-investment, high-value businesses rooted in local agriculture and culture.

Why this Matters:

In a time when India is investing in Atmanirbhar Bharat and Women-Led Development, this initiative hits all the right notes. It proves that:

- * Science can empower self-reliance
- * Women can drive industrialization
- * Food innovation can be ethical, scalable, and inclusive

A Call for Replication

The success of this pilot project demonstrates the need for more state-level coordinators and women-led clusters across the country. LUB encourages women from every district to step forward and bridge the gap between research and enterprise, just like Dr. Lavanya and her team did.



Unleashing the Knowledge Bank of Indian Research Institutions



Expressions

Onkar Tiwari

Member, LUB Delhi State
onkar@biomtech.in

As an SME entrepreneur, I was unaware that India's knowledge bank, an extensive network widely present across India from Kashmir to Kanyakumari and a research institution, is substantial and deep.

Across India, we have:

- 39 Research Institutes under the Council of Scientific and Industrial Research (CSIR)
- 46 Laboratories and establishments, including five Young Scientists Laboratories under the Defence Research and Development Organisation (DRDO)
- 113 Indian Council of Agricultural Research Institutions (ICAR)
- 23 Indian Institute of Technology (IIT) campuses across India

And hundreds of regional research centres and university networks, have you visited any of them to explore the potential to guide your business towards advanced solutions in any of the areas you work in?

Perhaps you have also not focused on this ecosystem and many more. Each research institute has developed around 100 to 500 technologies, keeping in mind the needs of India and the Indian people.

The government has recently made policies to transfer technologies for practical purposes, opening opportunities for small businesses. This means thousands of DRDO/CSIR/IARI/IIT technologies are available, paving the way for your business to thrive.

Technology development means more than just profit

for businesses. It means low competition, high margins, and the satisfaction of doing something unique and noble for our country. Let's take pride in our innovative spirit and the positive impact we can make.

These institutions are spread over 100 of acres at each location and house hundred plus scientists and experts, 10 to 500 crores of investment, as a SME I used to fear even entering these institutions, whenever reached through some channel to a scientist, I can notice the fear in scientist and professor that someone may level them that they have some commercial motives.

I used to run out of India to get technologies, which used to cost us havoc, and technology holders used to earn more than we used to earn from businesses created.

I was in the USA to discuss a technological solution to the pollution of chrome in pipelines and supplied water, which is one of the enormous problems in the USA. To mitigate this problem, the US government has allocated billions of Dollars, but they don't have a good solution. To my surprise, the company that supplied the solution was sourced from India's IIT.

This certainly was an eye-opening incident for me. In between, the new government asked for accountability from research labs. They asked them to open the gates and transfer these technologies to small businesses.

I am one of the beneficiaries, and I am happy to share that, to date, with the transfer of technology from a reputed government institution, we have developed Indian solutions that compete with and defeat Japanese/German/US solutions in the Indian market. We have benefited from the various schemes I am listing below. You can also take advantage of these benefits and grow your business manifold.

Our Sincere Gratitude for the Technological Interventions and Invaluable Support Extended by our Government. This support has been instrumental in our

growth and achievements, and we genuinely appreciate it.

1. We acquired the highly economical Hollow Fibre Membrane Technology from IIT Kharagpur.
2. The cost-effective HSGR technology obtained from the Bhabha Atomic Research Centre.
3. IIT Dhanbad conducted the energy optimisation and vetting of our systems at a very reasonable cost.
4. The sensor systems we received from CSIR. Special mention must be made of Shri Om Prakash Gupta ji and Arti Sehgal ji for their untiring efforts to take up the 100-day 100 technology transfer challenge in collaboration with CSIR. We have technologies at 50% of the already subsidised rates from Laghu Udyog Bharati due to bulk deals and on favoured payment terms.

We are an SME, but we have already received four technology transfers from various CSIR labs, such as the National Physical Laboratory, Delhi (NPL), the Central Scientific Instruments Organisation, Chandigarh (CSIO), the Indian Institute of Petroleum, Dehradun (IIP), and the Institute of Himalayan Bioresources Technology (IHBT).

Even though we are an SME, we boldly decided to borrow some economic technology from CSIR as part of our social responsibility and distribute it to agricultural farmers, and we are happy to do the same.

5. The office of the Principal Scientific Advisor to the Government, again at an unbelievable cost to India, facilitated the authentication of our systems through the Water Technology Centre, IARI.
6. The GEMS tenders we secured from the government e-marketplaces had zero earnest money deposits.
7. The Government guarantees the CGTSE loans. (Currently up to 5 Crores of loan and guarantees are provided collateral-free to SMEs.

We are proud to share that, with this support, we have become the fastest-growing Decentralised sewage treatment plant manufacturing and implementation organisation. We currently work with various large government, private, and corporate entities.

I want to mention a special case in which we were also

adopted as a startup by a public sector undertaking, the National Council for Cement and Building Materials (NCCBM), under the Ministry of Commerce. NCCBM has been instrumental in our growth. Joint Secretary, Ministry of Commerce, and Director General of NCCBM personally take care of the solutions we are developing, we have access to the lab at highly subsidised terms and have developed solutions where a significant challenge for India is gradually shifting towards a solution for India.

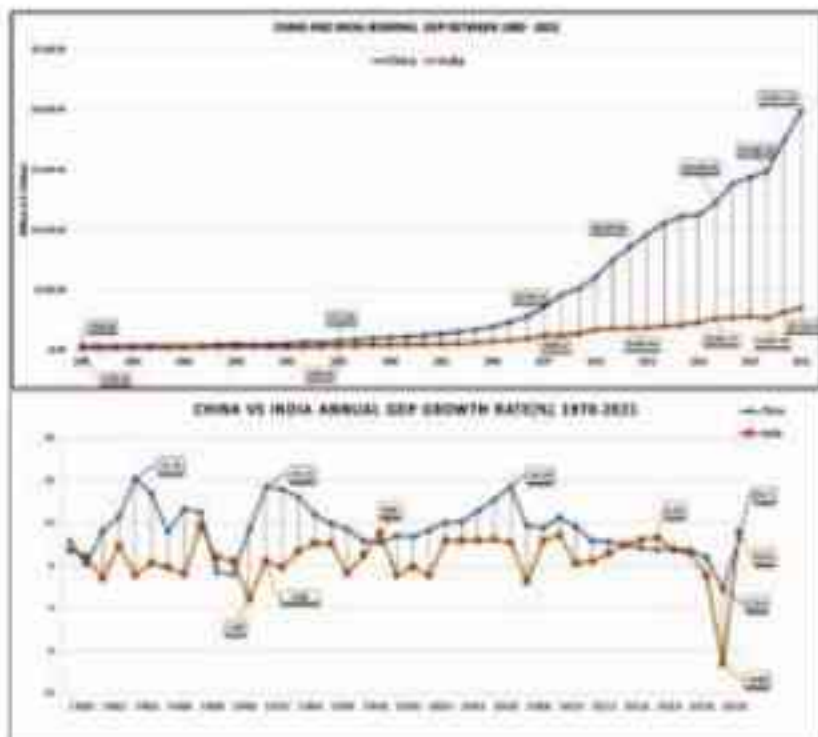


Specially mention is needed where all these benefits are available to all, regardless of Caste, creed, political following, religious following, educational background, or economic background. Nothing is unachievable for our country if our leaders make such effort.

This is the kind of business environmental support available right now. I welcome the members of Laghu Udyog Bharti to take advantage of the situation, grow fast, and contribute to our country's business.

One of the leaders of Industrialisation in the USA, **Henry Ford**, said- *If you think you can, you can; if you feel you cannot, you are right...*

In the words of Swami Vivekananda Arise, going forth



and conquering should be our philosophy. Let's grow together.

One of my observations was while visiting the

Massachusetts Institute of Technology (MIT). Intel, Bose, Dropbox, Texas Instruments, AstraZeneca, I noticed that various companies are operating inside the campus. The relationship between a research institution and industry is a winning combination. Where we find new solutions, we take an existing solution to the next level and get the opportunity to make more impact, business, profit, and forex for our country.

Lastly, I would like to share two graphs showing China's growth over the past 40 years. More importantly, over the last 1-2 years, we have exceeded China's GDP growth rate. This means we are present at the right time and place, as the saying goes: Desh Kal Paristhiti sab anukul hai. Capitalise on the opportunity. If I can, we can help our members in LUB. We would be honoured.

□□□

राष्ट्र विरोधी और आतंकी ताकतों का साथ देने वाले देशों का बहिष्कार

लघु उद्योग भारती ने बीते 32 वर्षों में न केवल राष्ट्र की समृद्धि और विकास के लिए सूक्ष्म और लघु उद्योगों के उत्थान के लिए कार्य किया, बल्कि राष्ट्र प्रथम के संकल्प की भी सतत साधना की है। उद्योगों में केवल लाभ के लिए राष्ट्र विरोधी शक्तियों और देशों के साथ व्यापार नहीं करने की नीति पर भी कार्य किया है।

हाल ही में पहलगाम की त्रासदी के बाद आतंकी देश पाकिस्तान से हुए सीमित युद्ध में तुर्की ने जिस तरह से पाकिस्तान का खुल कर सहयोग किया, उसे देखते हुए संगठन से जुड़े उद्यमियों ने तुर्की से अपने व्यापारिक रिश्ते खत्म कर लिए।

लघु उद्योग भारती की पहल पर तुर्की से भारत में आयात होने वाले रफ मार्बल को सबसे पहले बैन करने वाले उदयपुर मार्बल प्रोसेसरर्स समिति के अध्यक्ष और एलयूबी उदयपुर इकाई सचिव श्री कपिल सुराणा ने बताया कि इस आशय का पत्र प्रधानमंत्री कार्यालय को भी प्रेषित किया गया है।

भारत की मार्बल और ग्रेनाइट की सबसे बड़ी मंडी किशनगढ़ के प्रमुख उद्यमी श्री मुकेश अग्रवाल बताते हैं कि किशनगढ़ के साथ राजसमंद के उद्यमियों ने भी तुर्की मार्बल पर बैन लगा दिया। किशनगढ़ इकाई अध्यक्ष श्री उमेश गोयल का कहना है कि भारत में कुल आयात होने



वाले रफ मार्बल का करीब 70 फीसद अकेले तुर्की से खाते में है जो 15 से 18 लाख टन मार्बल तक होता है और इसकी वैल्यू करीब 3 हजार करोड़ रु तक आंकी जा रही है।



Skilling for Tech-Enablement in India's *Bioenergy Sector*

A Strategic Imperative

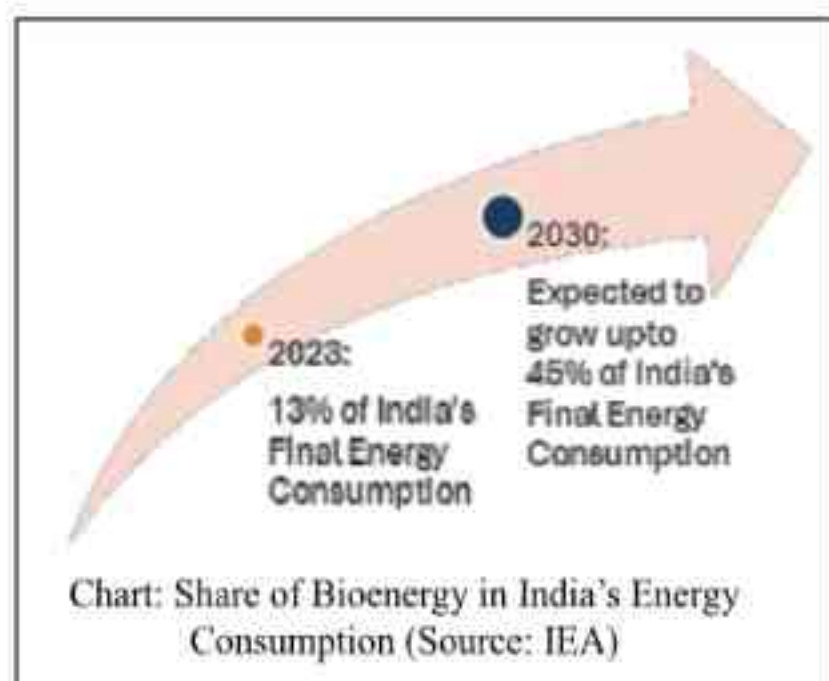


Wide Angle

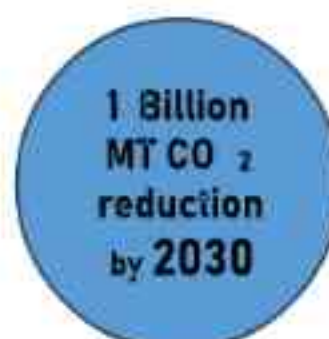
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India's bioenergy sector stands at the confluence of climate responsibility, rural employment, and energy security. It currently contributes to 13% of India's final energy consumption and the demand is expected to rise up to 45% by 2030.



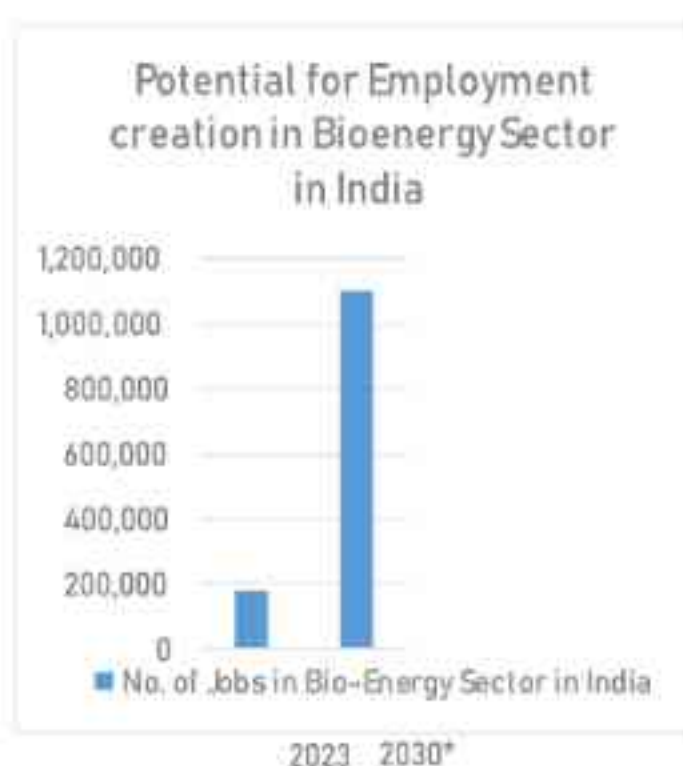
With national goals targeting 500 GW of non-fossil fuel capacity by 2030 along with reduction of 1 billion ton of Carbon Dioxide emissions, bioenergy - including CBG, biomass, and liquid biofuels - is poised for rapid growth. Yet, as the sector scales, it faces a pressing challenge: a shortage of workers trained for increasingly technology-driven roles.



India's Environmental Targets

The transition from conventional biomass systems to digitally integrated, Tech-enabled, automated bioenergy supply chains is changing job profiles across the value chain. To succeed, India must align its skilling strategy with these evolving technological and operational demands-especially for its micro, small and medium enterprises (MSMEs), which dominate the sector. This also presents the country with an opportunity to create employment opportunities for many young people.

As per CEEW, Biomass will be one of the major drivers of employment among Renewable Energy sector, with up to 1.1 million employees by 2050.



Digitalization and the New Bioenergy Landscape:

Government initiatives such as **SATAT** (Sustainable Alternative Towards Affordable Transportation), **SAMARTH** (Sustainable Agrarian Mission on use of Agro Residue in Thermal Power Plants) and the **National Bioenergy Program** are fostering the growth of thousands of decentralized plants. These plants will require to employ technologies like:

- **IoT-enabled Feedstock Logistics**
- **SCADA Systems for Process Automation**
- **AI-based Process Optimization & Inventory Management**
- **Blockchain-based Traceability of Biomass Sourcing**
- **Predictive Logistics**

The result is a new breed of job roles that demand a combination of mechanical, environmental, and digital competencies. A technician, for instance, must now interpret sensor data, work with cloud-based control systems, and understand output related analytics such as related to bio-slurry, densified biomass output etc... skills that go far beyond traditional training and cross-disciplinary understanding.

India's Skilling Gap in Bioenergy

A study by the **Skill Council for Green Jobs (SCGJ)** found that only 20-25% of the bioenergy workforce in India has undergone formal training. This is exacerbated in rural and semi-urban regions, where most bioenergy plants are located. While large energy firms may have access to training programs, SMEs often operate with tight margins and limited access to structured skilling infrastructure.

The need for **digitally adept, cross-disciplinary talent** is rising faster than the current ecosystem can supply. If unaddressed, this gap could limit operational efficiency, compromise plant safety, and ultimately hinder the sector's expansion.

A Four-Pillar Skilling Strategy for Indian Bioenergy

1. Develop Role-Specific Skill Matrices

India must move beyond generic vocational training to **bioenergy-specific skilling frameworks**. Each job role-whether in operations, procurement, or compliance-

should have a defined digital and technical skillset. For instance:



Skilling Strategy for Indian Bioenergy Sector

- **Operations Manager:** SCADA interface, energy flow simulation, AI-assisted diagnostics
 - **Feedstock Officer:** GIS mapping, moisture analytics, biomass valuation tools
 - **Maintenance Engineer:** IoT sensor integration, remote diagnostics, PLC programming
- This clarity will help to align hiring, curriculum design, and job-readiness assessments.

2. Build Public-Private Training Models

India already has a robust foundation in the form of **NSDC** (National Skill Development Council), **ITIs** (Industrial Training Institutes), and **SCGJ** (Skill Council for Green Jobs). SMEs and industry associations should partner with these institutions to co-create **modular, hands-on skilling programs**. Organizations such as **TERI**, **National Institute of Bioenergy (NIBE)** and major public sector undertakings under SATAT & SAMARTH can play a leadership role by offering plant-based apprenticeships and co-certification.

3. Embrace Digital Microlearning Platforms

Given the geographic spread of bioenergy installations, **online and mobile-first skilling models** offer scalable solutions. Platforms such as **Skill India Digital**, **Coursera for Government**, and regional edtech startups can deliver targeted micro-courses on:

- Digital instrumentation and control
- Process efficiency analytics
- Environmental compliance software

Pairing these with short-term certifications helps build capabilities without disrupting daily operations.

4. Establish Regional Skill Hubs in Biomass-Rich Areas

District-level **skill development hubs** in high biomass-potential regions (Punjab, Uttar Pradesh, Rajasthan, Maharashtra, Tamil Nadu) can serve as localized centers for training, R&D, and industry collaboration. These hubs should promote **cross-functional learning**, enabling workers to bridge mechanical, agronomic, and digital domains. Indian Bioenergy's skill needs are becoming cross disciplinary.



(Pic Source: AI Generated)

The Business Case for Skilling

Beyond compliance or CSR, investing in skilling yields measurable business outcomes. According to **IRENA and CEEW**, the money invested in green workforce development delivers multiple returns in improved efficiency, uptime, and regulatory alignment which is going to be a key differentiator among the rising competition in future.

Moreover, as investors increasingly apply **ESG filters** to capital allocation, demonstrating a structured approach to workforce readiness enhances a firm's reputation, resilience, and access to funding.

Conclusion: The Workforce Behind the Energy Transition

Bioenergy is not just an important renewable energy source-it is an economic catalyst for rural India, as it helps in augmenting farmer's income, create rural employment and restrict migration of rural youth, as well as a pillar of national decarbonization. However, its potential will remain unrealized unless matched by an equally ambitious **workforce transformation**.

For India's Bioenergy Sector, the imperative is clear: **Skilling is not a support function-it is a strategic enabler**. The path to energy independence and climate leadership runs through the minds and hands of a skilled, tech-ready workforce.



India's Electronics Production Crosses Rs. 11 Lakh Crore, Exports Top Rs. 3.25 Lakh Crore: Vaishnaw



Union Minister Shri Ashwini Vaishnaw highlighted the electronics manufacturing as one of the biggest success stories of the 'Make in India' initiative. He said that the sector now employs over 25 lakh people and is poised for

exponential growth in the coming years. "India now has the talent not only to manufacture but also to design sophisticated electronic products," the minister said, adding that this gives the country a significant edge over others lacking in design capability. The minister reiterated India's commitment to building a trusted electronics manufacturing base, anchored in the protection of intellectual property rights, design-led innovation, and diverse rare earth supply chains.



Importance of Research & Innovation for Indian Manufacturing MSMEs in the Global Scenario



Insights

Rajendra Belgaumkar

Management Consultant &
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As per the latest revision effective from April 1, 2025, the criteria for classification of Indian Industry are as follows:

In the era of globalization, changing world order, and threat of tariffs, our MSMEs (Micro, Small, and Medium Enterprises) operate in a highly dynamic and competitive environment. To not only survive but thrive on the global stage, these enterprises must embrace research and innovation as core strategic necessities for differentiation, sustainability, and growth.

Category	Investment	Turnover Limit
Micro Enterprise	Up to 2.5 crore	Up to 10 crore
Small Enterprise	Up to 25 crore	Up to 100 crore
Medium Enter-	Up to 125 crore	Up to 500 crore

Why Research and Innovation Matter?

Our MSMEs contribute nearly 30% to India's GDP and provide employment to over 110 million people. Despite their significance, MSMEs often grapple with limited capital, outdated technology, and intense global competition. Here, research and innovation become the catalysts that enable them to survive by:

- Evolving and adapting to fast-changing markets
- Enhancing productivity and efficiency
- Developing unique products and services
- Reducing costs and improving sustainability
- Accessing new markets and customer segments



Key Areas of Innovation for MSMEs:

- **Digital Transformation:** Adoption of ERP systems, e-commerce platforms, and digital payments increases operational efficiency and market reach. MSMEs can increase revenues by introducing an interactive and responsive online presence.
- **Automation:** Implementing robotics and AI-driven solutions can significantly cut costs and improve manufacturing efficiency. An MSMEs can use robotic process automation for inventory management to reduce operational expenses.
- **Sustainability:** Adoption of renewable energy and waste reduction techniques not only reduces costs but also appeals to environmentally conscious global consumers. MSMEs can reduce expenses switching to solar power.
- **Product Innovation:** Listening to customer feedback and developing new products can open new markets.
- **Financial Innovation:** Leveraging fintech platforms for easier access to credit and better financial management can help MSMEs to overcome traditional banking hurdles.

Government and Institutional Support:

The Indian government has recognized the pivotal role of innovation and research for MSMEs and has launched several initiatives, some of which are listed below:

- **MSME Champions Scheme:** Provides funding and mentorship for innovative projects.
- **Digital India:** Encourages digital adoption among small businesses.
- **Technology Upgradation and Quality Certification Support Scheme:** Offers grants for R&D and quality improvement.
- **Collaboration with Research Institutions:** MSMEs are encouraged to partner with IITs, NITs, and other institutions for technology transfer and innovation.
- **Skill Development Initiatives:** Programs like Skill India and the Entrepreneurship and Skill Development Programs (ESDP) train workers and entrepreneurs in new technologies and business management.

Real-World Examples:

1. Import Substitution through Innovation:

Indo Danish Tool Room (IDTR), Jamshedpur, developed the Japanese Ultimate Quick Changer (JUQC) Mechanism and the AL-90 Slide Gate Mechanism, both of which were previously imported. These innovations not only reduced import dependency but also positioned Indian MSMEs as capable suppliers to large domestic and international steel manufacturers.

2. Eco-Friendly Product Development:

A Chennai-based MSME created biodegradable cutlery in response to growing environmental

concerns as per an IIFL Newsletter dt. 18-04-2024. Through research into materials and market needs, this MSME not only gained a 40% share in its segment but also tapped into export markets where sustainable products are in high demand.

Challenges and the Way Forward:

Despite the clear benefits, many Indian MSMEs underinvest in research and innovation due to funding constraints, lack of awareness, and skill gaps. Addressing these challenges requires:

- Greater awareness and utilization of government schemes and incentives
- Collaboration with research institutions and industry partners
- Continuous upskilling of the workforce
- Investment in affordable digital and automation tools

Conclusion:

Research and innovation are the lifelines for Indian manufacturing MSMEs in a fiercely competitive global landscape. They drive efficiency, unlock new markets, and ensure long-term sustainability. By embracing innovation-whether through digital transformation, sustainable practices, or product development-MSMEs can not only survive but become global leaders in their niches. The collective efforts of entrepreneurs, government, and industry stakeholders will be crucial in transforming India's MSMEs into engines of global growth.



Role of AI, IoT, & Automation in Modernizing Indian MSMEs: Real Challenges & Insights



Out of Box

Sumit Goel

Secretary, Laghu Udyog Bharati,
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India's Silent Industrial Revolution:

In the vibrant corridors of India's industrial belts- from Bawana in Delhi to Rajkot in Gujarat- lakhs of small-scale entrepreneurs work tirelessly to build India's economic backbone. Yet, many still operate using decades-old machines, manual processes, and outdated inventory logs. While India boasts of being the 5th largest economy in the world today, the truth beneath the surface is that a large chunk of MSMEs (Micro, Small and Medium Enterprises) are still waiting for their *first real encounter with Industry 4.0*.

It's time we ask the hard question: **Are we growing in numbers but lagging in real transformation?**

Why MSMEs Need Technology Today, Not Tomorrow!

The global economy is evolving rapidly. With supply chains getting shorter, customers becoming more demanding, and labor costs rising, MSMEs can no longer afford inefficiencies. Here's where Artificial Intelligence (AI), Internet of Things (IoT), and Automation come in - not just as buzzwords, but as survival tools.

1. AI: Smart Thinking for Smart Business

AI isn't just for tech giants. Indian MSMEs in sectors like packaging, textiles, logistics, and food processing can use AI-based demand forecasting, predictive maintenance, and chatbots for customer support.

For example, a packaging company in Delhi, is exploring AI-powered inventory tools to reduce stock wastage and automate reorder cycles. This shift has the

potential to reduce idle capital and improve delivery timeliness - a common pain point in Indian MSMEs.

2. IoT: From Machines to Smart Factories

Most MSME factories in India still rely on verbal updates and logbooks to monitor machines. **IoT sensors** can change that - providing real-time insights on energy consumption, machine health, or production output.

Imagine a small printing unit in Bhiwandi being alerted automatically when ink levels are low, or a fabrication shop in Ludhiana tracking power surges before motors burn out. These aren't luxuries; these are *cost-saving interventions*.

3. Automation: Doing More with Less

Labor shortages, especially post-pandemic, have hit small manufacturers hard. The fear is always that automation will replace jobs, but in Indian MSMEs, it's about assisting labor, not replacing it.

Low-cost automation solutions like conveyor systems, barcode scanners, and packing machines can reduce dependency on manual processes, increase output, and maintain quality. For industries like packaging, even a semi-automatic tape dispenser or die-cutter can double productivity.

So, Why Aren't MSMEs Adopting Fast Enough?

Despite government schemes like **SAMARTH Udyog, Credit Linked Capital Subsidy for Technology Upgradation (CLCSS)** and **MSME Champions**, most MSME's face 3 major roadblocks:

- **Lack of Awareness:** Many entrepreneurs are unaware that low-cost, scalable AI or IoT solutions exist for their sector.
- **Fear of Complexity:** They fear that technology is too technical, expensive, or risky.
- **Credit & Capital Crunch:** Access to funds for upgrading machines or hiring tech consultants remains difficult due to rigid bank policies and paperwork.

A Call for Collaborative Innovation (Consortium-based Innovations)

To truly modernize Indian MSMEs:

- Technology providers must create localized, sector-specific solutions that are plug-and-play.
- Government and Industry Bodies like Laghu Udyog Bharati should organize *on-site tech camps, demo vans, and zero-cost pilot trials* for small units.
- Banks and NBFCs should simplify tech financing, even offering leasing models for automation hardware.

The Road Ahead, What we are thinking and what we actually need!

Modernization of MSMEs through **AI, IoT, and Automation** is not just about profit - it is about India's place in the global supply chain. It is about freeing entrepreneurs from daily fire-fighting and enabling them to focus on *innovation, branding, and export readiness*.

India doesn't need another Silicon Valley- it needs its industrial clusters to go smart.

The time is now. And if we miss this wave, we risk becoming just a factory base for others rather than being innovation leaders ourselves.



Countries are Queuing up to Buy BrahMos after Operation Sindoor

Operation Sindoor has put the BrahMos missile system in the spotlight. The Indian military used the cruise missile to great effect during its strikes on Pakistan - the first time it has been used in combat. India, in January 2022, signed a deal for the BrahMos cruise missiles with the Philippines. Now, 15 other countries are also eyeing the missile. India is in talks with a number of countries including Vietnam and Malaysia for a possible sale of the BrahMos missiles. The Indian military used the cruise missile to great effect during its strikes on Pakistan - the first time it has been used in combat. While India has not officially confirmed its use, Pakistan did so.

Uttar Pradesh Chief Minister Shri Yogi Adityanath also did so on while attending the inauguration of a new BrahMos missile facility in Lucknow alongside Defence Minister Shri Rajnath Singh.

Rawalpindi felt it': Defence Minister Shri Rajnath Singh lauds India forces for Operation Sindoor. The significance of BrahMos missile which destroyed terror bases in Pakistan and PoK.

What do experts say?

They say many of the countries in the region are eyeing purchasing the BrahMos missile with an eye on China's growing military assertiveness in the South China Sea. It can be launched from submarines, ships, aircraft and land. The BrahMos missile has a



range of nearly 300 kilometres. It can carry a warhead weighing between 200 and 300 kilos.

It flies at a speed of 2.8 Mach - nearly three times the speed of sound.

Indian Army's Brahmos is the cornerstone of our conventional missile arsenal. Around 83 per cent of the missile's components are now indigenous - that is sourced from India. It works a "fire and forget" principle. the missile comes with stealth technology as well as advanced guidance system. It maintains supersonic velocity throughout its flight - thereby reducing the chances of being intercepted by defence systems. It can cruise at an altitude of 15 km and then drop down as low as 10 meter when it hits the target. It is also known for its high accuracy - with a circular error probability of under 1 meter.

Decarbonizing India's hard-to-abate Sectors with CCUS



New Dimension

Jayanti Goela

National Coordinator- LUB's Net Zero Aayam & President - Delhi Women Cell
net-zero@lubindia.com

India is at a critical juncture in its efforts to decarbonize its hard-to-abate sectors, especially the steel industry. The steel sector, a cornerstone of India's economic development, plays a pivotal role in infrastructure and industrial growth. However, it is also one of the largest contributors to carbon emissions, with the country ranking among the top global steel producers.

As global climate goals become more stringent, the importance of adopting technologies like Carbon Capture, Utilization, and Storage (CCUS) has become paramount. The CCUS technology not only provides a pathway to reducing emissions in sectors reliant on coal and other carbon-intensive fuels but also aligns India with international climate agreements such as the Paris Agreement. This technology is essential to curb up to 90% of CO₂ emissions from existing steel production methods, thereby ensuring India's contribution to the global effort in tackling climate change.

As a top global steel producer, India faces pressure to decarbonize to meet its 2070 net-zero goal and Paris Agreement commitments. Carbon Capture, Utilization, and Storage (CCUS) is key, capturing up to 90% of CO₂ emissions from the coal-heavy Blast Furnace-Basic Oxygen Furnace (BF-BOF)

process, with emission intensity at 2.78 tCO₂ /t crude steel.

Global projects like Al Reyadah CCS and Steelanol show CCUS's feasibility. India's steel demand is projected to hit 576 million tons by 2050, driven by infrastructure and urbanization, potentially increasing emissions by 50% by 2030 without action.

CCUS Benefits:

Benefit	Description
Emission Reduction	Captures up to 90% of CO ₂ from steel production processes.
Sustainability	Helps the industry transition to low-carbon steelmaking.
Economic Viability	Through CO ₂ utilization, captured carbon can be converted into
Compliance	Aligns with global efforts to limit temperature rise to 1.5°C under the Paris Agreement.

Challenges:

- **Cost:** Depending on the scale and technology used, CCUS raises SME operational costs by 15–20%.
- **Infrastructure:** The absence of adequate infrastructure for CO₂ transportation and storage is a critical challenge in India. Without this infrastructure, industries face difficulties in scaling up their CCUS initiatives, even if they invest in carbon capture technologies.

- **No CO₂ pipelines or storage sites**, unlike US & China. The lack of infrastructure increases the cost and complexity of storing captured CO₂. However, this also presents a huge opportunity for investment, with the potential to develop CO₂ hubs in key industrial regions
- **Policy:** No specific CCUS policy or carbon pricing. A carbon pricing mechanism is crucial to make CO₂ emissions more expensive and incentivize industries to adopt CCUS. However, such policies have yet to be implemented.

Indigenous Technology and AI-driven Innovations: GAS LAB, is developing indigenous technologies that are both innovative and affordable. The in-house research team has developed cost-effective carbon capture systems specifically designed for Indian industries, making them accessible to even smaller players in the steel sector. With a clear focus on cost-effectiveness and adaptability, the technologies are built to capture and utilize carbon emissions in a manner that is both financially and environmentally sustainable.

In collaboration with **Carbonetics**, GAS LAB has integrated cutting-edge **AI-driven solutions** into CCUS technologies and leverages the power of **Artificial Intelligence (AI)** to enhance the efficiency and scalability of carbon capture systems. GAS LAB's deep expertise in CO₂ capture and Carbonetics' advanced **machine learning, IoT sensors, and predictive analytics**, has resulted in significantly reduced **operational costs** while maximizing system performance.

AI-driven Innovations in CCUS:

- **Predictive Maintenance:** AI enables real-time monitoring of CCUS systems, predicting potential failures or inefficiencies before they occur. This reduces downtime and optimizes maintenance schedules, ensuring that plants operate at maximum capacity with minimal disruption.

- **Real-Time Optimization:** Real-time data analysis ensures that the carbon capture process is always operating at peak efficiency, lowering both energy costs and carbon emissions.
- **Cost Reduction:** By automating many aspects of the carbon capture process, AI minimizes the need for manual intervention and streamlines operations. This reduces the overall cost of running a CCUS plant, making it more accessible to small- and medium-sized steel producers in India, who may otherwise find the technology prohibitively expensive.

The Future of India's hard- to- abate sectors and CCUS

The integration of Carbon Capture, Utilization, and



Storage (CCUS) technology holds transformative potential for India's hard- to-abate sectors like steel, enabling a cleaner, more sustainable future. As India works towards its net-zero targets by 2070, the adoption of CCUS is crucial for decarbonizing one of its most essential sectors. GAS LAB remains at the forefront of innovation, offering cutting-edge carbon capture solutions reducing the lifecycle costs of CCUS through AI-driven technologies.

The journey towards decarbonization requires collaboration between government, industry, and technology providers. By working together India's climate goals can be reached, leading the way in creating a more sustainable global steel industry.

Let's continue building a greener future, one innovation at a time.



भारत में कृषि के बेहतर भविष्य के लिए जल-दक्षता और सूक्ष्म सिंचाई तकनीकों का प्रयोग जरूरी



सामयिक

अरुण जाजोदिया

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चेयरमैन, इरीगेशन एसोसिएशन ऑफ इंडिया,
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भारत 3.28 मिलियन वर्ग किलोमीटर के अपने भौगोलिक क्षेत्रफल के साथ 1.4 अरब से अधिक लोगों का पालन-पोषण करता है— जो वैश्विक जनसंख्या का लगभग 18% है। लेकिन इसके पास केवल 4% विश्व के ताजे जल संसाधन हैं। यह असमानता भारत पर अपने जल संसाधनों को सतत रूप से प्रबंधित करने का दबाव डालती है, विशेष रूप से कृषि के लिए, जो देश के उपलब्ध ताजे जल का 80–85% अकेले उपयोग करती है।

चुनौती बड़ी और स्पष्ट है- बढ़ती जनसंख्या के लिए खाद्य उत्पादन बढ़ाना, जबकि भूजल स्तर में गिरावट, अनियमित मानसून और जलवायु परिवर्तन के प्रभावों का सामना करना। पारंपरिक बाढ़ सिंचाई विधियों से पानी की भारी हानि, मिट्टी का क्षरण और उत्पादकता में गिरावट होती है। इस परिप्रेक्ष्य में, सूक्ष्म सिंचाई तकनीकें—विशेष रूप से ड्रिप और स्प्रिंकलर सिंचाई विधि—जल उपयोग दक्षता बढ़ाने, फसल उत्पादकता बढ़ाने और भारतीय कृषि को जलवायु के प्रति अधिक लचीला बनाने के लिए अनिवार्य उपकरण बन गई हैं।

आखिर सूक्ष्म सिंचाई ही क्यों?

सूक्ष्म सिंचाई के कई लाभ हैं-

- पारंपरिक सिंचाई की तुलना में 30–60% तक जल की बचत
- जड़ क्षेत्र में नमी के अनुकूलन के कारण 20–40% तक फसल उत्पादन में वृद्धि
- फर्टिगेशन के माध्यम से उर्वरक उपयोग की दक्षता में सुधार
- खरपतवार और रोग की घटनाओं में कमी
- लीचिंग, जलभराव और कटाव की रोकथाम के माध्यम से मिट्टी के स्वास्थ्य की सुरक्षा
- कम जल पंपिंग आवश्यकताओं के कारण ऊर्जा की बचत



हालांकि, खेत स्तर पर वास्तविक समय की सिंचाई जानकारी की कमी के कारण सूक्ष्म सिंचाई के लाभ अक्सर पूरी तरह से नहीं मिल पाते।

सटीक सिंचाई में IoT और सैटेलाइट तकनीकों की भूमिका-

हालांकि सूक्ष्म सिंचाई प्रणालियां तेजी से अपनाई जा रही हैं, लेकिन अधिकांश किसानों के पास यह वैज्ञानिक सलाह नहीं होती कि कब, किस मात्रा में और कुल कितनी बार सिंचाई करनी है। इसके परिणामस्वरूप अधिक सिंचाई, जल की बर्बादी और मिट्टी के स्वास्थ्य में गिरावट होती है, जिससे जल उत्पादकता अर्थात प्रति इकाई जल पर प्राप्त उपज प्रभावित होती है।

- ✦ आधुनिक तकनीकों, जैसे इंटरनेट ऑफ थिंग्स (IoT) डिवाइस और सैटेलाइट आधारित फसल निगरानी ने इन चुनौतियों के समाधान में आशाजनक परिणाम दिखाए हैं।
- ✦ IoT मिट्टी नमी सेंसर जड़ क्षेत्र की नमी की वास्तविक समय में निगरानी करते हैं।
- ✦ रिमोट सेंसिंग और सैटेलाइट डेटा दैनिक आधार पर फसल वाष्पोत्सर्जन और जल मांग प्रदान करते हैं।

✦ AI - सक्षम सिंचाई अनुसूची उपकरण फसल अवस्था, मौसम और मिट्टी के प्रकार को ध्यान में रखते हैं।

✦ मोबाइल आधारित सलाह किसानों को सटीक सिंचाई समय और मात्रा पर मार्गदर्शन कर सकती है।

इन तकनीकों को सूक्ष्म सिंचाई प्रणालियों के साथ एकीकृत करने पर जल खपत में 25% तक की कमी और फसल उत्पादकता में वृद्धि देखी गई है। फिर भी, इन नवाचारों को किसानों—विशेष रूप से छोटे किसानों तक पहुँचाने के लिए सार्वजनिक—निजी भागीदारी, विस्तार सेवाओं और डिजिटल प्लेटफार्मों के माध्यम से संस्थागत तंत्र की तत्काल आवश्यकता है।

जल बजटिंग और क्षेत्रीय जल उपयोग-

जल बजटिंग सतत जल संसाधन के प्रबंधन का केंद्र बिंदु है। भारत की कुल वार्षिक नवीकरणीय जल उपलब्धता लगभग 1,123 बिलियन घन मीटर (BCM) है, जबकि अनुमानित मांग 2050 तक 1,500 ठब्ड़ से अधिक होने की संभावना है। वर्तमान में, कृषि इस जल का लगभग 80% उपयोग करती है, इसके बाद घरेलू (8-10%) और औद्योगिक क्षेत्र आते हैं।

इस परिदृश्य को देखते हुए, जल संसाधनों का कुशल आवंटन और उपयोग, उपयुक्त तकनीकों और नियामक ढांचे के समर्थन से आवश्यक है। जल बजटिंग को गाँव, जलग्रहण, जिला और राज्य स्तर पर अपनाना चाहिए, जिससे रणनीतिक फसल योजना, न्यायसंगत वितरण और संरक्षण संभव हो सके।

सूक्ष्म सिंचाई- जल संकट और जलवायु लचीलापन के लिए एक रणनीतिक उपकरण

भारत में कुल शुद्ध बोया गया क्षेत्र लगभग 142 मिलियन हेक्टेयर है, लेकिन केवल लगभग 68 मिलियन हेक्टेयर क्षेत्र ही सुनिश्चित सिंचाई के अंतर्गत आता है। इसका सीधा सा अर्थ ये है कि 70 मिलियन हेक्टेयर से अधिक कृषि भूमि वर्षा पर निर्भर या कम उपयोग में है, जो अनियमित वर्षा और जल की कमी के प्रति संवेदनशील है। पारंपरिक तरीकों से सिंचाई कवरेज का विस्तार टिकाऊ नहीं है, विशेष रूप से पंजाब, हरियाणा और उत्तर प्रदेश जैसे राज्यों के कुछ हिस्सों में व्याप्त भूजल संकट को देखते हुए।

यही सूक्ष्म सिंचाई "प्रति बूंद अधिक फसल" के सिद्धांत के साथ सीमित जल संसाधनों के कुशल उपयोग के लिए गेम-चेंजर बनकर उभरती है। भारत सरकार ने पीएमकेएसवाई-पर ड्रॉप मोर क्रॉप (PDMC) के तहत सूक्ष्म

सिंचाई को प्राथमिकता दी है, जिससे 17 मिलियन हेक्टेयर से अधिक क्षेत्र ड्रिप और स्प्रिंकलर प्रणालियों के अंतर्गत आ गया है।

प्रमुख राज्य और उनकी उपलब्धियाँ (मिलियन हेक्टेयर में)-

✦ कर्नाटक — 2.85	राजस्थान — 2.58
✦ महाराष्ट्र — 2.23	आंध्र प्रदेश — 2.00
✦ गुजरात — 1.96	तमिलनाडु — 1.46
✦ मध्य प्रदेश — 0.76	हरियाणा — 0.75

ये सफलता की कहानियाँ दिखाती हैं कि सूक्ष्म सिंचाई तकनीकों में रणनीतिक निवेश—कृषि समर्थन और नीति के साथ—जल संकटग्रस्त क्षेत्रों को उत्पादक और सतत कृषि केंद्रों में बदल सकता है। अन्य राज्यों को इन दीर्घकालिक आर्थिक, पारिस्थितिक और सामाजिक लाभों को प्रदर्शित कर, सिद्ध तकनीकों को अपनाने के लिए प्रोत्साहित किया जाना चाहिए। इसके अलावा, सूक्ष्म सिंचाई जलवायु परिवर्तन के प्रति एक लचीला उत्तर है, जो सूखे के दौरान फसलों की रक्षा करती है और वर्ष भर जल उपलब्धता सुनिश्चित करती है।

शहरी अपशिष्ट जल कृषि के लिए एक छिपा हुआ संसाधन-

शहरी भारत प्रतिदिन 60 बिलियन लीटर से अधिक अपशिष्ट जल उत्पन्न करता है, जिसमें से अधिकांश अनुपचारित या कम उपयोग में रहता है। यदि इसे सही तरीके से उपचारित किया जाए, तो इस ग्रे वाटर का उपयोग शहरी कृषि, लैंडस्केपिंग और पेरी-शहरी खेतों में सिंचाई के लिए किया जा सकता है, जिससे ताजे जल संसाधनों पर दबाव कम होगा।

सरकार को एंसी नीतियाँ विकसित और लागू करनी चाहिए जो:

- ✦ अपशिष्ट जल उपचार अवसंरचना को बढ़ावा दें
- ✦ कृषि और ग्रीन बेल्ट में पुनः उपयोग को प्रोत्साहित करें
- ✦ शहर स्तर के जल बजट में ग्रे वाटर को एकीकृत करें
- ✦ विकेंद्रीकृत उपचार और पुनः उपयोग मॉडल के लिए निजी क्षेत्र को शामिल करें

यह पहल सर्कुलर इकोनॉमी सिद्धांतों के अनुरूप है और शहरी-ग्रामीण सीमाओं में ताजे जल संरक्षण में महत्वपूर्ण योगदान दे सकती है।

सूक्ष्म सिंचाई योजनाओं के प्रभावी क्रियान्वयन हेतु संस्थागत ढांचा एवं रणनीतिक कदम-

सूक्ष्म सिंचाई के सतत और व्यापक विस्तार के लिए राज्य सरकारों को एक समर्पित सेल (Dedicated Cell) का गठन

करना चाहिए, जो विशेष रूप से सूक्ष्म सिंचाई की योजना, क्रियान्वयन, निगरानी और मूल्यांकन का कार्य संभाले।

- ✦ राज्य स्तर पर कृषि सचिव, आयुक्त या कृषि मंत्री द्वारा नियमित समीक्षा बैठकें सुनिश्चित की जाएँ, जिससे योजना की प्रगति में गति और जवाबदेही बनी रहे।
- ✦ जिले स्तर पर 'माइक्रो इरिगेशन सेल' की स्थापना की जानी चाहिए, जो स्थानीय किसानों की समस्याओं का समाधान, योजना में सहायता एवं तकनीकी मार्गदर्शन प्रदान करे।
- ✦ सूचीबद्ध (Empanelled) निर्माताओं की सक्रिय भागीदारी ली जानी चाहिए, जिससे वे किसान तक न केवल उत्पाद पहुंचाएं, बल्कि इंस्टॉलेशन, प्रशिक्षण और मरम्मत सेवाएँ भी प्रदान करें।
- ✦ कृषि विश्वविद्यालयों और अनुसंधान संस्थानों में 'सेंटर ऑफ एक्सीलेंस' (Centre of Excellence) की स्थापना होनी चाहिए जो सूक्ष्म सिंचाई संबंधित नई तकनीकों का शोध, प्रदर्शन और स्थानांतरण (Technology Demonstration & Transfer) सुनिश्चित करे।
- ✦ जलगहन फसलों (Water Intensive Crops) जैसे गन्ना, चावल, केला आदि को प्राथमिकता देते हुए सूक्ष्म सिंचाई को लागू किया जाए, साथ ही फसल विविधिकरण (Crop Diversification) को बढ़ावा दिया जाए, जिससे जल बचत और कृषि आय में वृद्धि एक साथ हो सके। यह संस्थागत एवं रणनीतिक ढांचा, सूक्ष्म सिंचाई के सतत विस्तार, जल संरक्षण एवं किसान हितैषी कृषि के लिए दीर्घकालिक प्रभाव उत्पन्न कर सकता है।

नीति निर्माताओं, रणनीतिकारों और शोधकर्ताओं के लिए भविष्य की दृष्टि-

जल संकट का समाधान करते हुए कृषि विकास सुनिश्चित करने के लिए भविष्य की राह में शामिल होना चाहिए:

- सतही और भूजल योजना को जोड़ने वाला एकीकृत जल संसाधन प्रबंधन (IWRM)
- सिंचाई प्रबंधन में IoT, AI और सैटेलाइट एकीकरण के लिए नीति समर्थन
- शहरी नियोजन में अनिवार्य ग्रे वाटर पुनः उपयोग नीति
- जिला स्तर पर फसल विविधीकरण और जल बजटिंग के लिए प्रोत्साहन
- डिजिटल प्लेटफार्मों के माध्यम से स्थानीयकृत वैज्ञानिक सिंचाई सलाह

- जल दक्ष तकनीकों के विस्तार के लिए सार्वजनिक-निजी भागीदारी
- कृषायुती, छोटे किसानों के अनुकूल समाधान के लिए अनुसंधान और नवाचार में निवेश



नीति निर्माताओं को सिंचाई को अलग-थलग न देखकर, इसे खाद्य सुरक्षा, आर्थिक विकास और जलवायु लचीलापन के लिए एक क्रॉस-सेक्टरल सक्षमकर्ता के रूप में देखना चाहिए।



निष्कर्ष-

भारत का सिंचाई परिदृश्य एक निर्णायक मोड़ पर है। जल-गहन प्रथाओं से स्मार्ट, कुशल और टिकाऊ सिंचाई समाधानों की ओर संक्रमण की आवश्यकता पहले कभी इतनी अधिक नहीं रही। सूक्ष्म सिंचाई को केंद्र में रखते हुए—घ्वज, सैटेलाइट विश्लेषण, ग्रे वाटर पुनः उपयोग और मिशन मोड क्रियान्वयन के साथ—भारत के पास जल-स्मार्ट कृषि पर वैश्विक नेतृत्व करने का अवसर है।

आगे का रास्ता स्पष्ट है, और समाधान उपलब्ध हैं। अब आवश्यकता है पैमाने, गति और निरंतर प्रतिबद्धता की—सरकारों, संस्थानों, शोधकर्ताओं और किसानों की—ताकि आने वाली पीढ़ियों के लिए जल दक्षता और खाद्य सुरक्षा के साथ भविष्य सुनिश्चित किया जा सके।



Bringing Bharat to the Centre of Healthcare Innovation



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In a nation as vast and diverse as India, healthcare innovation must mean more than breakthrough molecules or futuristic robots. True innovation lies in relevance, scale, and reach-especially in a country where over 65% of the population lives in semi-urban and rural areas. **For Bharat, not just India, the next wave of transformation is quietly unfolding-not in glass towers but in portable, technology-enabled *Health Kiosks*.**

These kiosks, small as they may be in form, represent a bold shift in how we think about healthcare delivery. They are designed to be operated in villages, industrial corridors, small towns, and community centres-places where traditional healthcare infrastructure is either stretched or absent. Using a blend of digital tools, AI-powered diagnostics, telemedicine, and point-of-care testing, these systems are proving that size is not a limitation when impact is the goal.

Redefining Accessibility with Technology

Most healthcare innovations have traditionally remained city-centric. Tertiary care hospitals and labs are often the only access point for diagnostics or specialist consultations. This leads to overburdened facilities in urban centres while rural populations remain underserved. Health kiosks break this mold. Using minimal space-often just 6x6 feet-these units bring essential diagnostics like liver, kidney, thyroid, infectious disease, and even hormonal profiling directly to the doorstep of the common man.



With just a few drops of blood, these kiosks can process over 100+ parameters within minutes. No refrigeration, no complex lab setups, no highly trained manpower-yet high-quality, clinically validated results. This is Atmanirbhar Bharat in action: decentralizing healthcare while upholding global standards.



Empowering the Grassroots

One of the most powerful aspects of such innovation is that it is not about replacing the human workforce but empowering it. Local operators-sometimes community health workers or trained micro-entrepreneurs-run these kiosks with minimal training. They not only facilitate diagnostics but also connect patients to licensed doctors via teleconsultation, guide them through digital medical records, and assist in

prescription fulfilment through nearby pharmacies. This fusion of tech with touch has the potential to create thousands of local jobs, while ensuring that healthcare is not just available but trusted and adopted by the local population.

MSMEs at the Heart of the Revolution

Most of these health-tech innovations are not coming from global giants but from India's own startup and MSME ecosystem. Entrepreneurs are building frugal, effective solutions designed specifically for Indian conditions-tropical climate, variable connectivity, multilingual population, and price sensitivity. These kiosks can be deployed in industrial zones to reduce productivity loss due to health-related absenteeism, in schools for preventive screening, or in remote villages to reduce maternal and child health risks. This is not just healthcare-it is nation building through enterprise.

Building Data-Driven Ecosystems

Another quiet but powerful outcome of this model is the rise of data-led public health. Anonymized, consented data from these kiosks can help identify disease trends early, enable better preparedness, and

inform public health policies with ground-level realities. For a country often challenged by data scarcity in its health sector, this is a tectonic shift.

The Road Ahead

India's healthcare challenges are not new. But our approach to solving them is undergoing a metamorphosis. Health kiosks are one example of how Indian ingenuity, powered by technology and driven by purpose, can create systemic change.

In the coming years, as we scale such decentralized models through CSR partnerships, state-led initiatives, or even self-sustaining franchises, it is not hard to imagine a future where every panchayat has a health access point, where preventive care becomes the norm, and where Bharat takes centre stage in global health innovation.

For those of us in the MSME and innovation ecosystem, the message is clear: the future of healthcare does not just lie in labs-it lies in local enterprise, bold ideas, and the will to solve real problems.



लंदन में आयोजित स्टोन एग्जीबिशन में लघु उद्योग भारती ने की भागीदारी

लंदन में तीन दिवसीय अंतरराष्ट्रीय प्रदर्शनी "द स्टोन शो एंड हार्ड सरफेस" में लघु उद्योग भारती और सीडोस प्रतिनिधिमंडल ने भागीदारी की। एक्सेल एग्जीबिशन सेंटर में 7 मई से आयोजित इस प्रदर्शनी में चीन, आयरलैंड, पोलैंड, इटली, तुर्की सहित विभिन्न देशों की अग्रणी स्टोन कंपनियों की सहभागिता रही। कुल मिलाकर लगभग 350 एग्जीबिटर्स ने इस वैश्विक मंच पर अपने उत्पाद और नवाचार प्रस्तुत किए। प्रदर्शनी में लघु उद्योग भारती (LUB) और सेंटर फॉर डेवलपमेंट ऑफ स्टोन्स (CDOS) के प्रतिनिधिमंडल ने कई प्रमुख अंतरराष्ट्रीय स्टोन कंपनियों के प्रतिनिधियों से भेंट की। प्रतिनिधिमंडल में लघु उद्योग भारती के राष्ट्रीय सचिव श्री नरेश पारीक एवं राजस्थान प्रदेश कोषाध्यक्ष श्री अरुण कुमार जाजोदिया के साथ वरिष्ठ उप महाप्रबंधक, सीडीओएस श्री विवेक जैन शामिल रहे।

इस प्रदर्शनी में 5 से 8 फरवरी, 2026 को जयपुर में आयोजित हो रहे इंडिया स्टोनमार्ट-2026 के प्रचार-प्रसार,

तकनीकी सहयोग, द्विपक्षीय व्यापार और संभावित भागीदारी पर विस्तृत चर्चा की गई। भारतीय प्रतिनिधिमंडल द्वारा प्रदर्शनी स्थल पर डिजिटल प्रेजेंटेशन, ब्रोशर और सहभागिता आमंत्रण सामग्री वितरित की गई, जिसे विभिन्न देशों से आए प्रतिनिधियों ने सराहा। यह प्रदर्शनी भारत के प्राकृतिक पत्थर उद्योग को वैश्विक स्तर पर स्थापित करने और स्टोनमार्ट-2026 को एक वैश्विक ब्रांड के रूप में प्रस्तुत करने की दिशा में महत्वपूर्ण साबित हुई।



Intellectual Property Rights for MSME Sector

- An Analysis



Market Mantra

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Charles Darwin's principle, *survival of the fittest*, applies equally outside of biology. The survival of MSMEs is vital due to their ability to generate life-sustaining wages at the grassroots level, where survival is closely linked to life and death for the proprietors of the MSMEs. The survival of MSMEs is crucial for the country due to their 30% contribution to GDP. After agriculture, MSMEs are the largest employer in Bharat, providing jobs to 25 crore employees through 5.93 crore registered MSMEs. On average, an MSME unit employs 4.2 people.

The MSME sector contributed 45.73% of exports from our country in 2023-24. This contribution is crucial because exporters earn foreign currency for the country in addition to their profits. In this context, it is imperative to understand the importance of MSMEs in the economic growth of Bharat and in making a difference for almost 18% of the nation's population. Therefore, pushing the MSME sector from survival to flourishing is essential.

SN	Year	MSMEs Exports in Lakh Crore
1	2020-21	3.95
2	2021-22	5.119
3	2022-23	6.66
4	2023-24	10.09
5	2024-25	12.39

Indian exports reached a historic high of US\$ 778.21 billion in 2023-24; services exports contributed US\$341.11 billion, accounting for 43.83% of total exports. Highlighting the export potential of the services sector, investment in plants, equipment, and machinery is minimal compared to that of a traditional goods manufacturing industry. The total value of handicraft exports was US\$ 3.96 billion in 2023-24. Handicraft exports represent merely 1.16% of services exports and 0.51% of total exports in 2023-24.

From the perspective of exports, the difference between the handicraft and service industries lies in their respective focuses on traditional and contemporary knowledge. The adage that *artwork is priceless* holds; however, profit margins in handicrafts are decreasing over time. The factors contributing to value addition in handicrafts do not meet current demands. The flourishing of the handicrafts industry is vital for ensuring artisans' sustainability, as they have transmitted traditional knowledge from generation to generation. The component of traditional knowledge in handicrafts must also endure as a cultural heritage and a means to support artisans' economic sustainability.

Sustainability signifies merely surviving alongside average profit margins. It occurs without any alternatives to economic productivity. It resembles potato farming, where, despite a bumper crop, the margins primarily align with production costs. Economic tools, such as product differentiation- for example, the distinction between Uncle Chips and Lays- can generate higher revenue with a greater profit margin.

Both Uncle Chips and Lays are known for their potato



chips. Despite offering similar products, each has developed a loyal customer base. Product differentiation begins with branding. The brands Uncle Chips and Lays serve as product identifiers. However, customer loyalty cannot be established solely by a unique identifier that guarantees a single source of origin; it requires product innovation to make it distinct under the product identifier label.

This innovation may occur at either the flavor level or the quality level. The different product with a unique identifier carves out its market. The unique product identifier is known as a trademark. A trademark is part of a distinct monopoly tool that establishes a product monopoly in an open market. Patents, trademarks, copyrights, industrial designs, integrated circuit layout designs, trade secrets, and farmers' rights in plants and breeding create an intellectual property (IP) toolkit.

To secure a fair share of the economy, MSME industries need to invest in and adopt new tools and technologies to improve product quality, productivity, and global competitiveness. It is a myth that our domestic market does not require global competitiveness; while some domestic industries may not strive to enter international markets, this does not mean the domestic market is closed to foreign firms. Therefore, being globally competitive is essential for transitioning from survival to prosperity.

Perfection is utopia. An obsession with striving for perfection is a recalcitrance to be the best.



Needless to say, the best product in the market is a price setter, not a price taker. The Apple mobile phone is a contemporary example of a price setter and achieving a winning profit margin. In the first quarter of fiscal year 2025 (ended December 28, 2024), Apple's **gross margin increased to 46.9%**, setting a new record. The

brand value of Apple Inc. is undeniably substantial, consistently ranking it as one of the most valuable and influential brands in the world. It is currently estimated to be **USD 574.5 billion to over USD 1 trillion**, depending on the valuation methodology. Mind it, it is the value of the Apple brand, not the value of Apple Inc.!

Established on April 1, 1976, Apple Inc. achieved the distinction of being the first U.S. company to reach a **\$1 trillion** market capitalisation in 2018 due to the following components:

- **Strong Brand Loyalty:**

Apple has a large, loyal customer base for its unique, differentiated, quality products.

- **Premium Products and Design:**

Apple Inc. is renowned for its innovative and aesthetically pleasing products. Innovation needs the implementation of an IP monopoly to keep the free-rider competitors at bay.

- **Ecosystem of Products and Services:**

The seamless integration of Apple's hardware, software, and services enhances the user experience and strengthens brand preference. It established the complete eco-system for Apple Inc. products and services, leaving little room for competitors to make their space.

- **Effective Marketing and Brand Messaging:**

Apple has consistently positioned itself as a premium and innovative brand. As of the fiscal year ending September 28, 2024, Apple Inc. invested **\$31.37 billion** in Research and Development (R&D).

- **Perceived Value:**

Consumers often perceive Apple products as high quality and a status symbol, allowing the company to command premium pricing.

Economic theories assert that a monopoly is bad for markets. IP monopolies are necessary evils that drive markets crazy. An IP monopoly establishes a complete life cycle to feed investment in R&D and fetch a lion's profit margin of a market setter.



Empowering India's Growth Engines: Top 10 Free AI Tools for MSME Efficiency and Opportunity



New Age Tech

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India's Micro, Small, and Medium Enterprises (MSMEs) form the bedrock of the nation's economic landscape. These enterprises constitute over 90% of India's industrial units, contributing nearly 30% to the country's Gross Domestic Product (GDP), employing a substantial workforce of 110 million individuals, and accounting for 48% of India's exports. Their vitality is inextricably linked to the nation's broader economic prosperity.

Despite their pivotal role, Indian MSMEs currently lag significantly behind their global counterparts in the adoption of Artificial Intelligence (AI). While AI integration in manufacturing globally stands at 35-40%, India's organized manufacturing sector sees less than 25% adoption, with MSMEs trailing even further. This disparity is frequently attributed to a prevailing perception that AI technologies are inherently costly and complex to implement. This perception is not merely a financial hurdle but a substantial psychological barrier. The perceived high entry barrier, in terms of both technical expertise and implementation effort, often leads MSMEs to hesitate in exploring AI. Consequently, they miss out on crucial benefits, widening the existing adoption gap. This report, by focusing on free and readily accessible tools, aims to dismantle this psychological barrier, making AI adoption appear less daunting and more attainable.

It is imperative for Indian MSMEs to reframe their understanding of AI: it is not a disruptive challenge but a transformative opportunity. Modern AI solutions, particularly those that are affordable, cloud-based, and

designed for "plug-and-play" deployment, can yield significant productivity gains, ranging from 15% to 30%. These solutions facilitate advanced capabilities such as predictive maintenance, meticulous quality monitoring, and optimized energy utilization, even for businesses engaged in small-batch production environments. Furthermore, AI can free employees from mundane, repetitive tasks, enabling them to redirect their focus towards more strategic, creative, and higher-value contributions. This re-purposing of human capital underscores the necessity of continuous upskilling and fostering adaptability within the workforce. The concern about job security, while understandable, can be mitigated by emphasizing AI's role as an enabler, allowing employees to engage in more challenging and fulfilling work. This highlights a critical need for MSMEs to proactively invest in basic digital and AI literacy training for their employees. Such an investment, even when utilizing free tools, is vital to maximize benefits, alleviate fears of job displacement, and cultivate a culture of continuous learning and adaptability.

Unlocking Business Value with Free AI

AI is no longer an exclusive domain reserved for large corporations; MSMEs must embrace AI-driven solutions to maintain and enhance their competitiveness in an evolving global market. The true power lies in integrating AI into the core functions of a business, transforming operations and customer interactions.

AI plays a crucial role in fostering customer-centric growth. Through AI-driven personalization and sophisticated data analytics, MSMEs can gain profound insights into customer preferences, enabling them to tailor product offerings, boost engagement, and significantly drive conversions. Adopting mobile-first strategies and ensuring frictionless customer interactions are also key components of this

transformation. In digital marketing, AI democratizes access to advanced tools that were once exclusive to large enterprises, thereby substantially enhancing MSMEs' ability to reach and engage their target audiences effectively. For operational efficiency, AI facilitates a shift from basic automation to intelligent, interconnected systems that streamline processes and drastically reduce costs. This includes AI-driven predictive maintenance, which anticipates and prevents costly equipment breakdowns, and real-time data insights that empower faster, more precise decision-making in production planning and resource utilization. Finally, by embracing AI and digital tools, MSMEs can cultivate a superior understanding of their markets and customer segments. This data-driven approach creates strong competitive advantages, allowing early adopters to thrive by making informed strategic decisions.

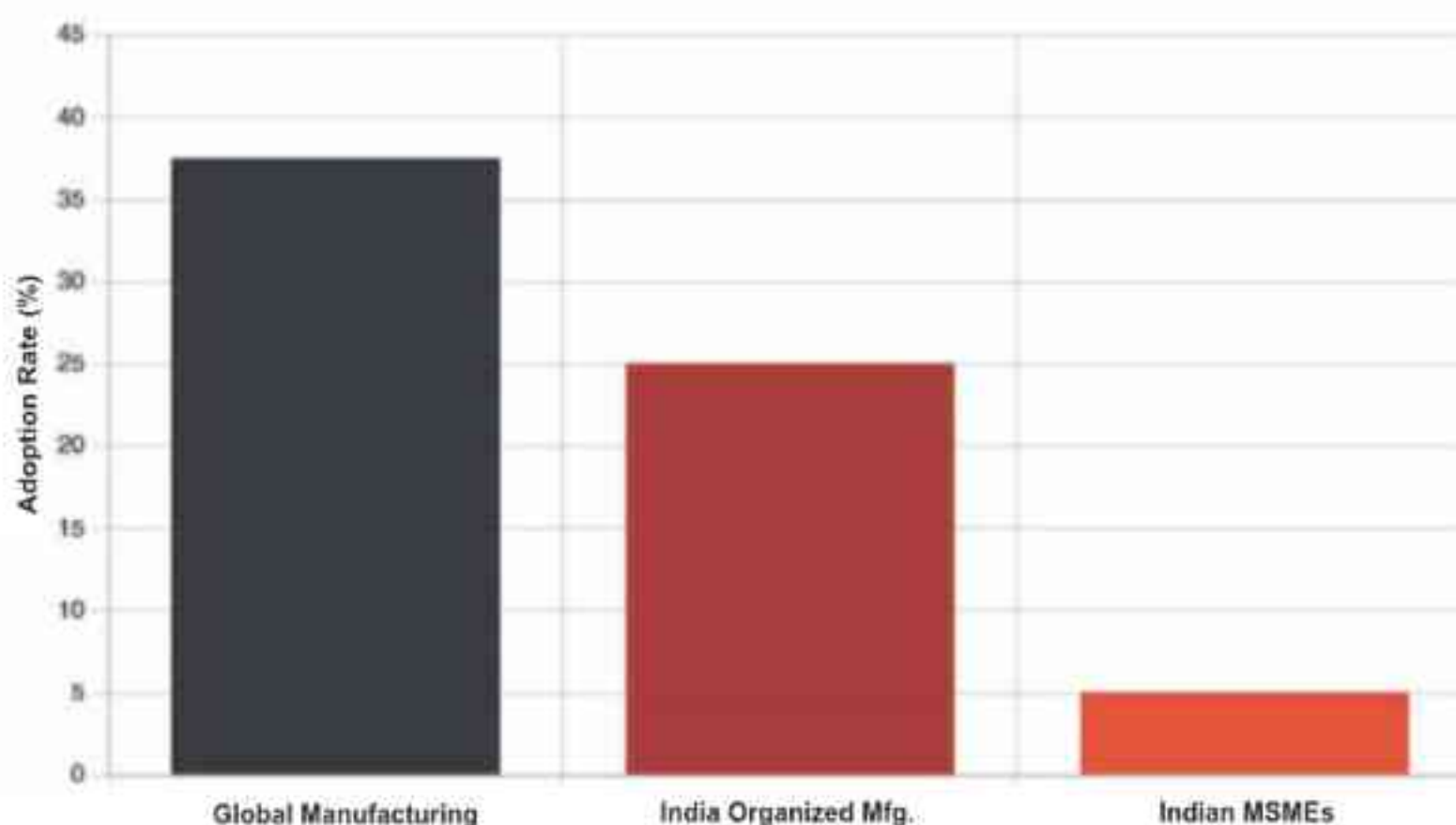
A central theme of this report is the remarkable accessibility of AI. The tools highlighted herein are either entirely free or offer robust free tiers, rendering them viable solutions even for MSMEs operating under stringent budget constraints. The "free" aspect of these

tools transcends mere cost savings; it functions as a strategic equalizer. It enables MSMEs to overcome the historical disadvantage of lacking the capital for sophisticated technology, allowing them to compete more effectively with larger entities by adopting similar advanced capabilities without prohibitive upfront investment. This directly addresses resource limitations and fosters a more inclusive digital economy. Crucially, many of these solutions are cloud-based and designed for "plug-and-play" implementation, significantly reducing the need for extensive technical expertise or substantial upfront infrastructure investments.

The role of AI for MSMEs extends beyond simply automating repetitive tasks, though that remains a significant benefit. It is about fundamentally reshaping how businesses interact with customers, make informed decisions, and identify entirely new revenue streams. This shifts the focus from merely "doing things faster" to "doing things smarter" and "discovering new opportunities." This is particularly impactful for MSMEs, which often operate with limited dedicated market intelligence resources.

The AI Adoption Gap

Despite their vital role, Indian MSMEs lag in AI adoption due to perceived costs and complexity. This visualization highlights the current disparity and the urgent opportunity for growth.



The following AI tools are selected for their free access or robust free tiers, offering significant benefits across various business functions for Indian MSMEs:

1. AI Writing & Content Generation: ChatGPT (OpenAI)



ChatGPT

AI Writing & Content Generation

ChatGPT provides access to its advanced GPT-4o model, albeit with rate limits, enabling users to search the web, analyze data, upload images and files, and even create images. It excels at drafting diverse content types, including emails, blog posts, product descriptions, and ad copy, and supports brainstorming, summarization, and text rewriting. Its enhanced memory feature improves continuity across conversations, reducing repetitive inputs and allowing for more coherent, ongoing projects.

For instance, a small handicraft exporter in Jaipur can leverage ChatGPT to rapidly draft compelling product descriptions for their online store, generate engaging social media captions for new collections, and brainstorm unique blog post ideas about traditional Indian craftsmanship, saving countless hours of manual writing and content ideation. A fabrication workshop in Delhi successfully implemented a ChatGPT-based quotation assistant, significantly cutting lead times and improving customer response by automating sales quotes. This tool's versatility, including the ability to generate images and analyze data, positions it as a "Swiss Army knife" for budget-conscious businesses.

2. Graphic Design & Visual Content: Canva

Canva

Graphic Design & Visual Content

Canva offers an extensive library of thousands of free templates, over 100 design types, and more than a million free photos and graphics. Its AI-powered tools assist in generating design templates, suggesting optimal layouts, colors, and fonts, and include an AI image generator, allowing up to 100 AI-generated images per day. The Magic Writer feature provides AI-powered copywriting assistance with a limit of 25 queries per day. A highly popular feature, especially in India, is the AI-powered background removal tool, which is invaluable for e-commerce businesses needing clean product images. A local bakery in Bengaluru can utilize Canva's free AI features to effortlessly create visually appealing daily specials menus, promotional flyers for seasonal offers, and captivating Instagram stories, eliminating the need for a professional graphic designer and maintaining a polished brand image on a tight budget. Canva democratizes professional-quality design, enabling MSMEs to produce high-impact marketing collateral quickly and affordably.

3. Writing Assistant & Communication: Grammarly



grammarly

Writing Assistant & Communication

Grammarly provides essential grammar, spelling, and punctuation checks, ensuring accuracy and professionalism in written communications. It includes tone detection and suggestions for adjusting the tone to suit the context. Grammarly seamlessly integrates as a web browser extension and works across various applications. The free version also offers limited access to generative AI features, providing 100 prompts per month. For a small consulting firm, Grammarly ensures that all client emails, proposals, and official reports are professional, error-free, and convey the intended tone, significantly enhancing the firm's credibility and saving valuable time that would otherwise be spent on meticulous proofreading. Effective and error-free communication is paramount for all businesses, especially MSMEs striving to build

trust and a strong reputation. Grammarly's free tier provides a fundamental layer of quality control for written communications, directly impacting brand perception and client relationships.

4. Customer Service & Chatbots: Tidio



Tidio offers a comprehensive live chat solution integrated with AI chatbots (Lyro AI Agent). The free plan supports up to 50 conversations per month and allows flows to serve up to 100 unique visitors monthly. It boasts easy installation, a visual builder interface, Natural Language Processing (NLP) technology, and various integrations. Access is available via mobile and desktop apps. An e-commerce startup selling artisanal crafts can deploy Tidio's free chatbot on their website to provide instant, 24/7 answers to frequently asked questions about shipping, returns, or product materials. This significantly reduces the workload on human staff, improves customer response times, and ensures lead capture even outside traditional business hours. Tidio's free plan directly addresses a critical pain point for MSMEs: the challenge of providing consistent and efficient customer support with limited resources, effectively functioning as a "low-cost customer support team that works 24/7".

5. AI Phone Receptionist: Nucleus AI



Nucleus AI provides an instant, local business phone number upon sign-up. An AI Receptionist answers all incoming calls professionally, 24/7. It can transfer calls to the correct team member, handle frequently asked questions (FAQs), and efficiently take and deliver messages. Crucially, it requires no app download or credit card for instant setup, lowering the barrier to entry. Consider a busy plumber or electrician in Delhi. They can use Nucleus AI to ensure no potential

customer inquiries are missed while they are occupied on a job. The AI can provide basic information, schedule appointments, or take messages, directly preventing lost business opportunities and enhancing professionalism. This tool directly tackles a significant operational challenge for service-based MSMEs: managing inbound calls and ensuring lead capture without constant human intervention, guaranteeing that every inquiry is handled, which is paramount for sectors where missed calls equate to lost revenue.

6. Business Research & Information Retrieval: Perplexity AI



Perplexity AI offers a powerful "Deep Research" tool that performs extensive, cited research. It leverages advanced AI algorithms to sift through vast amounts of data, delivering detailed, comprehensive responses that would typically require hours of manual research. Free accounts can submit up to 5 queries per day. A small marketing agency can use Perplexity AI to swiftly research current market trends for a new client's industry, summarize competitor strategies, or gather robust data for a business proposal. This saves significant time on manual searching and ensures that strategic decisions are backed by reliable, up-to-date information. A real estate agent, for instance, can quickly obtain market insights and summarize local housing trends before a client meeting. For MSMEs operating with limited research budgets and time, Perplexity AI offers an accessible yet powerful means to gain critical market intelligence and make informed decisions. The inclusion of citations adds a layer of credibility, vital for business planning and strategy development.

7. Task Management & Automation: Trello + Zapier

Trello provides an intuitive Kanban board system for organizing tasks, projects, and workflows. Zapier acts as an automation platform that connects various applications to automate workflows. Its free plan allows for 100 tasks per month and supports unlimited two-step Zaps (automated workflows connecting two

Trello+zapier Task Management & Automation

apps). It also includes "AI power-ups". A digital marketing agency can use Trello to visually manage client campaigns. With Zapier, they can automate tasks such as automatically posting social media updates when a Trello card moves to "Approved," or sending email notifications to team members for new tasks. This integration streamlines workflows, significantly reduces manual administrative effort, and improves overall project efficiency and accountability. While Trello is a dedicated project management tool, its synergy with Zapier's free automation capabilities creates a potent AI-driven efficiency solution, demonstrating that AI can powerfully enhance existing, familiar tools through automation.

8. Data Analysis & Business Intelligence: Google Analytics (and related Google Cloud free tiers)

Google Analytics offers free, unlimited reporting on up to 500 distinct events for mobile applications. It



Data Analysis & Business Intelligence

provides valuable user insights, robust segmentation capabilities, and real-time analytics to understand user behaviour. It seamlessly integrates with Google Ads for campaign optimization. Google Cloud also offers free usage tiers for various AI products, including Translation, Speech-to-Text, and Natural Language APIs, up to specified monthly limits. Google AI Studio allows for free integration of Gemini models into applications. BigQuery ML enables sentiment analysis and predictive modeling using SQL. Looker provides AI-powered business intelligence capabilities. New Google Cloud customers also receive \$300 in free credits upon signup. An online saree boutique can leverage Google Analytics to gain deep insights into customer behavior on their website, then use free credits on BigQuery ML to analyze customer reviews for sentiment, pinpointing popular designs or common

pain points to refine offerings and improve satisfaction. Google's ecosystem provides a powerful suite of AI-powered tools, many with generous free tiers, enabling MSMEs to move beyond basic data reporting to sophisticated customer understanding and operational optimization without needing dedicated data science teams.

9. AI-Powered Content Creation & Social Media Management: Buffer's AI Assistant

Buffer offers a free AI social media post creator that



Social Media Management

generates new posts, repurposes old content, and provides ideas for social media updates. This tool can be used for up to 5 posts per day without sign-up, or unlimited posts with a free Buffer account. It supports personalized posts, helps maintain brand consistency, offers content translation, assists with audience engagement, and generates A/B testing variations. The free Buffer account also includes social media scheduling for up to 3 channels, with 10 scheduled posts per channel. A small cafe can effectively use Buffer's AI Assistant to generate engaging social media posts about their daily specials, upcoming events, or customer testimonials across platforms like Facebook, Instagram, and X (formerly Twitter). The AI helps them quickly create multiple content variations and schedule them efficiently, ensuring a consistent and vibrant online presence without a dedicated social media manager. In today's digital landscape, a strong social media presence is indispensable for MSMEs, and Buffer's free AI assistant directly addresses the challenge of consistent content creation and efficient social media management.

10. AI for Enhanced Productivity & Meeting Management: Otter.ai

Otter.ai records and transcribes business conversations, including live meetings, interviews, and client calls. It automatically generates summaries and highlights key moments from these conversations. The AI is capable of recognizing different speakers and adapting to industry-specific terminology. It offers real-time

transcription in over 30 languages. A small legal firm can significantly enhance its efficiency by using Otter.ai to transcribe client consultations or internal team meetings. This ensures highly accurate records, facilitates easy retrieval of key discussion points, and provides automated summaries for quick follow-ups, thereby saving substantial time that would otherwise be



Otter.ai

Productivity & Meeting Management

spent on manual note-taking and summarizing. For MSMEs, time is a supremely critical and often scarce resource. Otter.ai's free transcription and summarization capabilities directly boost productivity by automating administrative tasks associated with meetings and calls, leading to improved internal communication, more efficient decision-making, and a reduction in administrative overhead.

Embracing the AI Journey: Practical Advice for MSMEs

For Indian MSMEs, the journey into AI adoption should be strategic and incremental. It is advisable to start small and scale smart. Businesses should begin by selecting one or two free tools that directly address their most pressing pain points or offer immediate, tangible benefits, such as streamlining content creation or enhancing customer support. The "plug-and-play" nature of many of these free tools positions them as an ideal, low-risk entry point into AI technology, requiring minimal upfront investment or extensive technical prowess.

Crucially, MSMEs must prioritize upskilling and adaptability within their workforce. The concern about

job loss, a significant psychological barrier to AI adoption, can be mitigated by consistently emphasizing AI's role as an enabler. AI is designed to free employees from repetitive tasks, empowering them to focus on more strategic, creative, and higher-value contributions. This necessitates proactive change management and fostering a culture of continuous learning. For resource-constrained MSMEs, leveraging internal champions and facilitating peer-to-peer knowledge sharing can be highly effective strategies to drive essential upskilling. The success of AI adoption is deeply intertwined with the readiness and mindset of the human workforce.

While the allure of "free" is powerful, the issue of data privacy and security remains paramount for any business. MSMEs must be highly mindful of the type of data they input into these tools. It is strongly recommended to thoroughly review the security features and terms of service for any free tool before significant adoption, ensuring sensitive business or customer data is protected. Cybersecurity solutions are critical for safeguarding data, networks, and systems. For MSMEs, who typically lack dedicated IT security teams, this necessitates a heightened awareness and due diligence. It means prioritizing tools from reputable providers, understanding their data handling and retention policies, and potentially implementing internal guidelines for data input. This is a crucial reminder that "free" does not equate to "risk-free" when it comes to sensitive business information.

Beyond these tools, MSMEs are encouraged to explore broader government initiatives and institutional support for AI adoption, which can provide additional resources and guidance as they mature in their digital transformation journey. □□□

DCGI to Relax Newly Introduced Export Regulations

The pharmaceutical industry is urging the Drug Controller General of India (DCGI) to relax newly introduced export regulations, which are reportedly hampering up to \$3 billion in immediate exports. Sources tell that the new guidelines are creating significant roadblocks for both existing and future contracts, as pharmaceutical companies argue that they complicate international trade.

The DCGI, however, stands by the regulations, saying that they are designed to simplify processes and align Indian export norms with the latest global standards. The regulatory body also stresses that the new guidelines aim to ensure domestic safety and uphold responsible export practices, pointing out that many importing nations, such as Yemen, Ghana, and Rwanda, lack the infrastructure to issue national regulatory approvals prior to imports.



Disruptor of the Sky: Drones & Future in India



Future Tech

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We think of drones; the first thing that comes to our mind is - symbol of modern age innovation. But let me share a fascinating twist - the origins of this “disruptor of the sky” can be traced all the way back to 1849.

The first documented use of unmanned aerial systems dates back to Austria, where unmanned balloons carrying explosives were deployed in warfare - a primitive yet revolutionary concept for its time. By the end of First World War, radio-controlled airplanes had already marked a significant leap in UAV (Unmanned Aerial Vehicle) evolution.

Fast forward to the 21st century, and drones have transitioned from exclusive military assets to multi-industry marvels, transforming how we live, work, and respond to global challenges. Once viewed solely as instruments of warfare, drones today are helping industries across the spectrum operate with greater speed, safety, and cost-efficiency.

Now, as we look ahead, the sky is no longer the limit. With innovators constantly reimagining drone capabilities, we are entering an era where UAVs are central to building a smarter, more sustainable world. Here is a look at how drones are reshaping key sectors in India:



Agri Tech Drone

Drones are transforming Indian agriculture through precision farming. From aerial crop monitoring and automated spraying to soil analysis and irrigation management, these UAVs are helping farmers boost yield while conserving resources. Supported by government schemes like Namo Drone Didi and the efforts of ICAR, drone adoption in rural areas is growing steadily, promoting sustainability and smart farming practices at scale.



Defense Drone -

Drones have become indispensable in modern warfare - offering real-time surveillance, tactical engagement, and autonomous operations. The Indian Army is actively deploying UAVs like the SkyStriker for enemy air defence suppression and Nagastra-1 for high-altitude warfare. Aligned with the Atmanirbhar Bharat mission, Indian startups are developing groundbreaking systems like the mother-baby drone system - a fixed-wing UAV launched from helicopters, enhancing aerial versatility. With the Ministry of Defence and DRDO backing indigenous R&D, India is quickly becoming a drone superpower in defence technology.



Aerial Mobility Drone -

As urban congestion becomes a growing challenge, drones are ushering in a future of aerial passenger mobility. The rise of eVTOLs (electric vertical take-off and landing aircraft) is set to transform how people move across cities. The DGCA has laid out forward-looking regulations, while Sarla Aviation has inked a MoU with Bangalore International Airport to integrate eVTOLs into mainstream transport. With such initiatives, India is on track to adopt flying taxis and other smart aerial solutions in the coming years.



Drone Forensics -

Drones are proving essential in forensic science and crime investigation, especially in complex or hazardous environments. High-resolution aerial imagery, thermal mapping, and 3D crime scene reconstruction enable faster and safer investigations. The tech-companies are designing a solution based on 'Drone Forensics-Extraction, Preservation & Analysis of Drone Data'. This innovation focuses on capturing critical flight data from drones used in illicit activities, bolstering India's forensic capabilities and reinforcing its commitment to tech-driven law enforcement.



Drone Logistics & Healthcare -

Whether it is delivering vaccines in remote villages or aiding in e-commerce last-mile delivery, drones are redefining logistics and healthcare access. Initiatives like Medicine from the Sky, launched in Telangana and expanded to Arunachal Pradesh, have successfully carried out over 300 medical drone deliveries. During the COVID-19 pandemic, Garuda Aerospace, a Chennai-based drone startup, served over 10 Indian states, delivering essentials to disaster-affected and inaccessible zones. These innovations have created new benchmarks in contactless, fast, and reliable delivery solutions.



The Future is the Sky-

The drone industry in India is experiencing rapid growth, driven by government initiatives like Drone Shakti, Production-Linked Incentive (PLI) schemes, and liberalized drone rules. With applications expanding across sectors and AI, IoT, & ML converging with drone technology, this growth presents immense

opportunities for Micro, Small, and Medium Enterprises (MSMEs), which form the backbone of India's economy. MSMEs in drone manufacturing, component supply, software development, and drone-as-a-service (DaaS) models are benefiting from easier regulatory frameworks, access to government funding, and skill development programs. Initiatives like iDEX and support from ministries such as MoMSME are encouraging startups and MSMEs to innovate and contribute to making India a global drone hub. Such endeavors are crucial in democratizing drone technology and fostering sustainable, inclusive growth.

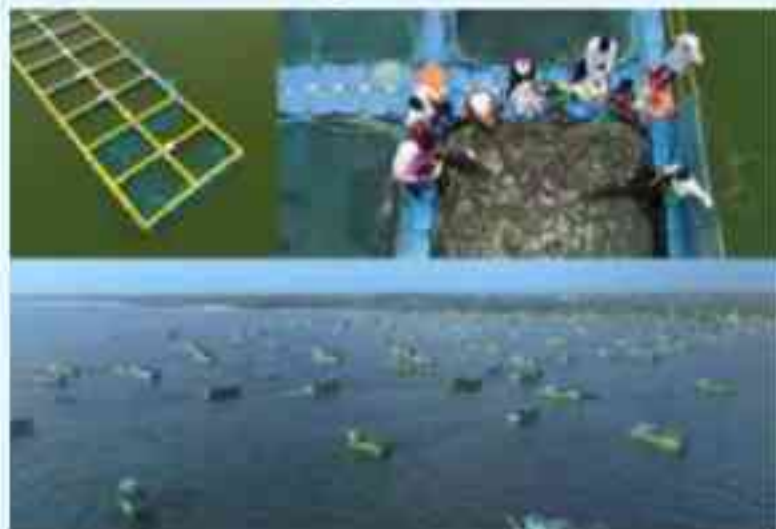
As UAVs evolve to meet new challenges, they will continue to redefine what is possible - from smart farming to urban mobility, from disaster relief to national defense. Indeed, with the sky as our playground and innovation as our compass, the future is already airborne.



MoFAHD requested the Ministry of MSMEs to Promote the Scheme FIDF

The Ministry of Fisheries, Animal Husbandry and Dairying (MoFAHD), Department of Fisheries has requested the Ministry of MSMEs to promote the scheme namely "Fisheries and Aquaculture Infrastructure Development Fund (FIDF)" among the MSMEs.

MSME DFO Ludhiana has asked all MSME associations and LUB to create awareness of the above said scheme. The content, vetted by the Ministry of Fisheries, Animal Husbandry and Dairying, Department of Fisheries regarding promotion of Fisheries and Aquaculture Infrastructure Development Fund (FIDF).



Income Tax Dept Clarifies Tax Exemption Rules for DPIIT-Recognized Startups

In a significant clarification aimed at fostering ease of doing business, the Income Tax Department reiterated that DPIIT-recognized startups are



eligible for multiple tax exemptions, and investments made in such companies are not subject to scrutiny, provided certain conditions are fulfilled. "Recognized startups that fulfil the conditions laid down in DPIIT notification dated February 19, 2019, and file Form-2 are eligible for various tax exemptions and deductions," the department posted. "Investments made in such companies are eligible for benefits and are not subject to scrutiny."

Prospects & Challenges of Developing EV Industry in India

(1 of 4 CARS Sold in 2025 will be EVs. And if EVs Stay on Track, they could make up over 40 percent of Global Car Sales by 2030.) - A Report



New Energy

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History of Mobility:

The incorporation of E-Mobility as part of Urban Transport network is over 120 years old in India. Electric Locomotives used to operate on the Western Ghats.

The E-Mobility for Intra City transport network involved use of Electric Trolley Buses and Tram Cars in Bombay, Calcutta, Madras and Delhi. These were gradually replaced after Independence by Diesel Buses while Tram Cars are still operating in Calcutta. But of late the necessity of E-Mobility for Urban Road Transport Network, has been felt worldwide.

During early stages, the EVs were imported from Britain. The main benefits of Electric Vehicles are Braking Energy Recuperation and substantial reduction of (a) Pollution (Air and Water), (b) Oil Imports

and (c) Maintenance. The sources of clean Electrical Energy include Air, Hydro, and Solar & Nuclear. The requirement of Energy from polluting Fossil fuel got reduced. The EV Transport Network had become a need of the hour much before Independence. Considering the importance of Electric Traction (Mobility Engineering), it was made a Specialized Subject in Engineering Colleges.

The EV Technology was developed some times during 1980 by BHEL. It also produced large numbers of Battery Buses by converting Mini Diesel Buses by Replacing IC Engines with 15 kW DC Motors. Subsequently, a team led by Prof. (Emeritus) R. Arokiasamy of IIT Delhi, developed Technology with 60 kW DC Motors and Controllers and Speed limited upto 60 kmph. However, during Intra City operation, the Speed is limited to about 40 kmph requiring lower power Motor and Battery Bank Capacity.

The Diesel Bus Chassis of TATA and EICHER were converted to Battery Buses with DC Motors and Controllers etc. Since Passenger weight is much less, so the Lead Acid Battery Bank (LAB) could be used. It reduces cost and improves the economy.

There is a very large demand potential of Battery-Electric Vehicles of all types. There are Millions of Pre-Owned IC Engine Vehicles involving large Import content and Foreign Exchange. India is a Developing Economy, so a cost effective short gestation solution is desired. An economic solution is to convert them to Battery-Electric Vehicles (BEV). The basic Technology is well known. But certain modifications are desired due to availability of improved components from time to time. Technical Institutes are involved to modify the Technology with Indigenous Components. However, Various Policies and initiatives by Technical Institutes can only expedite the establishment of EV Complex.

There are several types of Vehicles plying on Intra City, Inter City & Hilly Roads. These are registered by the State Transport Departments as per Rule. But due to the latest Laws, the IC Engine Vehicles have to be scrapped or converted to EV within 15 years with Petrol or 10 years with Diesel. The Policy is applicable even if these vehicles are in good working order. The main reason is the Pollution by the IC Engine and heavy outgo of foreign exchange due to Import of Oil. The Drive of the Vehicles can be converted to EVs by replacing the IC Engine with an 'Electric Motor'. The system does not involve any mechanical change in the Chassis or Body of the Vehicle.

The conversion is a simple process involving the replacement of IC Engines by a 'Brushless Electric Motor' for Drive. Besides, certain Auxiliaries are also installed as per Standard Specifications. The fuel tank and its auxiliaries are replaced by a Battery Bank. It may also be feasible to install the Battery Bank on the Rooftop. The Motor should conform to Indian Standard Specifications or any other approved Standards. Besides, the Torque output should match that of IC Engine and RPM as per permissible Speed.

Efficient & Sustainable City Bus Transport (Electric Vehicles)

City transport system needs a specialized approach to suit conditions of roads of cities in India. The city roads are narrow, congested and invariably encroached on both edges of the roads. The hill roads are also narrow. The operation of wide body buss poses several problems. Moreover, the speed can rarely exceed 40/50

kph. Besides, fuel consumption also increases more than 50% of the designed mileage. The busses for Indian roads (City & Hilly roads) should be designed with width not exceeding 2.2 meters. However, wide body buses with 2.5/2.6-meter wide can be operated in the central dedicated lanes of Delhi Ring Road. The electric buses which are indigenously designed, developed, and built can substantially improve the economy of the whole system and increase the overall life. Except the chassis of trams, all types and sizes are indigenously available.

The following are several possible cost-effective short gestation options- suggested for assembly of new busses based upon electric propulsion system:



Double Deck on LCV/MCV/HCV-



Trailer Coach on Different Chassis Sizes-



Single Deck on LCV/MCV/HCV-



Tram on Narrow Gauge

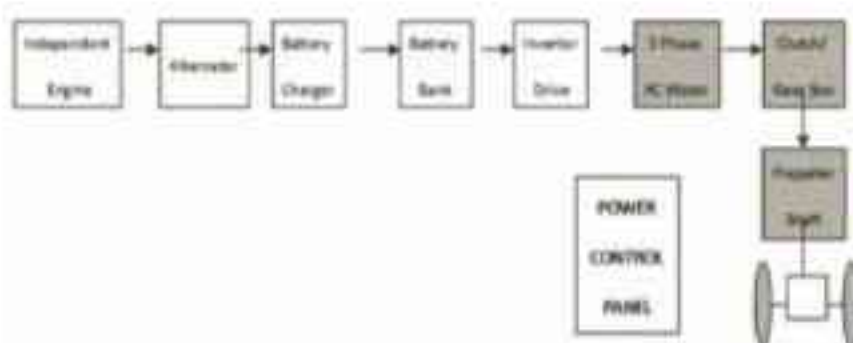
It may be mentioned that most of the equipment for electric propulsion system and expertise for EVs and buses etc., are available in India. Considerable work had been undertaken at IIT, Delhi. The basic technology was successfully designed, developed and put in operation within the campus. The chassis were supplied by Eicher & Tata. There are about 150,000 buses operating in India. It is economically feasible to convert standard Diesel buses to Battery/Electric system (AC or Non-AC).

The tram technology is very old and was in operation in Delhi and Bombay. It is still in operation in Calcutta. However, modern tram systems have been developed and can be fabricated indigenously with some support from overseas. They are suitable for intra city operation – on surface or elevated track. This technology is much superior and economic as compared to Mono-rail system.

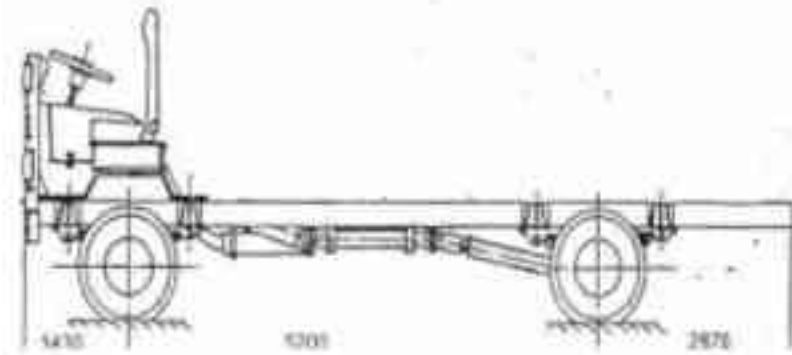
Battery/Electric Chassis

Electric Propulsion system is the heart of any electric vehicle. It is based upon an electric drive consisting mainly of a motor and its controller. The source of power is hybrid of a battery bank + a low power genset using diesel, Bio-diesel or LPG/CNG.

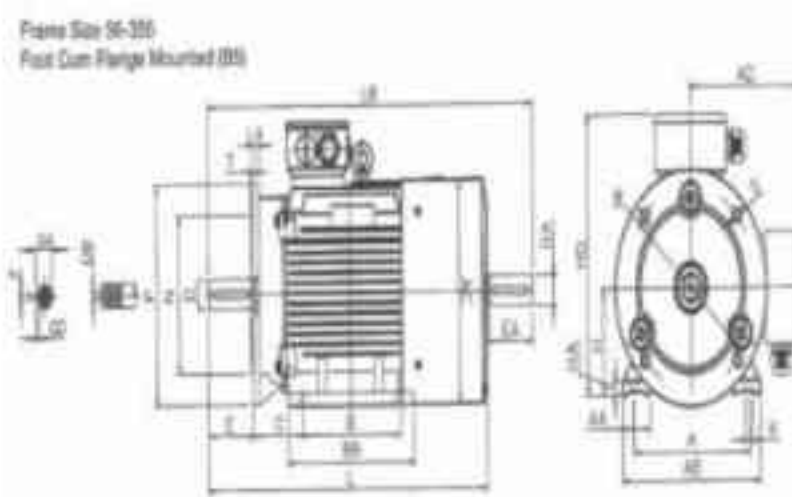
A typical block diagram is as follows:-



The following are the typical specifications of a Shaktiman diesel bus chassis of 12 Ton GVW.



AC MOTOR



Engine	
Model	HINO W06D
No of cylinders	6 cylinders in line
Type	Water cooled, 4 stroke, Diesel,
Bore/Stroke	104 x 113mm
Displacement	5759 cc
Max Output	105BHP @ 2400 rpm
Max Torque	34.5 mkg
Air Cleaner	Two stage, Cyclonic & Oil bath

Capacity/ Weightments	
GVW	12000 kg
FAW	4500 kg
RAW	7500 kg
No of seats	52/58 nos
Max. Speed	78 km/Hr.
KPL	7.2 km/lit (in Std test
Gradability	26.8%

Gear Box	
Model	Constant Mesh Type 5 forward & one reverse
Gear Ratio	1 st - 7.65 2 nd - 4.47 3 rd - 2.72 4 th - 1.66 5 th - 1.00 Reverse - 6.86

Electric Vehicles:

Conversion of Pre-Owned Vehicles

It is a general Word encompassing various Types of Vehicle. Depending upon Techno-economic merits, each group has to be addressed independently such as:

1. Commercial Vehicles (Speed):

- (i) Intra City (20-40 Kmph)
- (ii) Inter City (30-50 Kmph).
- (iii) Hilly Terrain (15-30 Kmph)
 - (a) Pedal Cycle Rickshaws: 3 Wheelers
 - (b) Battery E-RICKSHAWS: 3 Wheelers
 - (c) LCVs (Light Commercial Vehicles) - 3 & 4 Wheelers
 - (d) Buses (2 or 3 Axles) with Manual Or Automatic Transmission
 - (e) HCVs (Heavy Duty Cargo Trucks) 2 Axles Or 3 Axles with/without Trailer
 - (F) Tractors - Agricultural

Note: we do not have to depend upon Imports for Commercial Vehicles Including Buses. We have Material and Basic Technology which only has to be Modified & Tried. Lead Acid Battery Bank can be used for Passenger Buses as a Cost Effective Solution.

2. Private Vehicles:

Intra City, Inter City & Hills

- (a) B-Cycle- 2 Wheelers
- (b) Cars with Manual or Automatic Gear Transmission- 2 Axle 4 Wheel Drive (Speed 40 to 75 kmph)

Note: The cost of Cars can substantially be reduced without any subsidy, if the Drivetrain is Designed for-

- (a) Speed as Permissible & Feasible -preferably upto 60 Kmph

- (b) Motor Operating Voltages to suit Indian Standards - 230 Volt Single Phase and 400 Volts 3-Phase

D. Miscellaneous:

1. EV Drivetrains: It is the Heart of any EV - should be developed as per Specifications of the Desired EVs:
Full Battery Electric System- The design should suit the (a) Motor RPM for the desired Speed (b) Motor Torque similar to that of the Engine to be replaced
2. Battery Charging Systems: (A) Swapping, (B) Plug-In, (C) Wayside Fast or Super-Fast Charging or (d) Mini Trolley with Genset for Cars.
3. Sources of Power: (a) Overhead Traction Wire, (b) Full Battery Power System, (c) Hybrid Power System (Battery Bank + Low Power Genset), (d) Hybrid Propulsion System (e) Swapping
4. Battery Power: There are 2 types of Battery Power Banks
 - (a) Lead Acid Batteries: These are cost effective, ease of maintenance and recyclable. However, due to heavier weight, these may be used for the Passenger Public Transport Vehicles.
 - (b) Lithium-ion Battery Banks: These are very expensive, totally imported, and difficult to maintain and Re-cycle. Their life is more, only if properly charged, than those of the Lead Acid Batteries. Due to their high cost, it is recommended to avoid Fast or Super-Fast Charge. For maximum life, the Charging cycle system should be maintained as recommended by the Manufacturer.

After having a long association of working with public and private sector for about 70 years in India and abroad, I simply wish to quote two lines; if we are serious to work on Evs for solving the big problem of public transport without dependency on traditional sources of fuel energy.

Every problem has a solution. The only problem which does not have a solution, is the lack of courage and desire to implement the solution.





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Lessons from **Operation Sindoor**: Technology and Tactics for Indian MSMEs



New Learnings

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Operation Sindoor was a precision military mission executed by Indian forces in 2025 to neutralize high-value terrorist threats in Jammu & Kashmir. It wasn't just about firepower - it showcased the perfect orchestration of intelligence, speed, strategy, and tech. While it made headlines for its tactical brilliance, it also holds surprising and powerful lessons for Indian MSMEs - especially in today's volatile business climate.

Here's how MSMEs can draw parallels and elevate their game:



Intelligence Before Action - Market Research Before Expansion

Operation Sindoor succeeded because of solid intelligence. Likewise, MSMEs shouldn't jump into new products or markets blind. Conduct deep customer research, analyze competition, use Google Trends, CRM data, and social listening before launching anything.

Lesson: Strategy begins before execution. Know your battlefield - or your market - better than anyone.



Precision Strikes- Focused Execution

The operation didn't waste resources. It neutralized targets surgically. This is a wake-up call for MSMEs often spread thin across too many products, channels, or geographies. Instead, adopt focused, high-ROI strategies: one niche product, one city, one audience segment.

Lesson: Pick your battle. Win it before you move to the next.



Technology as Force Multiplier

Real-time drones, thermal imaging, AI-based surveillance enabled fast decisions. MSMEs often avoid tech due to cost. But tools like CRM, inventory automation, WhatsApp Business API, and AI chatbots are affordable and give massive leverage.

Lesson: Tech isn't a luxury - it's your secret weapon.



Quick Adaptability on Ground

Soldiers on ground pivoted instantly to unfolding scenarios. MSMEs must build that agility: Whether it's shifting from B2B to D2C, or changing suppliers mid-crisis. Create decision-making freedom at ground level -not everything needs to go up the chain.

Lesson: Build teams that can think and act - fast.



Collaboration & Command Chain

Operation Sindoor was a symphony - army, air force, intel agencies, and local units worked seamlessly. In MSMEs, departments often work in silos. Integrate marketing with sales, supply with finance, and tech with customer support.

Lesson: Remove silos. Build mission-ready coordination.



Zero-Noise Communication

Ops were executed silently, without leaks - clarity was king. In business, unclear instructions kill execution. Set clear OKRs, use tools like Slack or Trello, and document SOPs.

Lesson: In times of pressure, clarity wins.



Final Word: Be Ready Before the Storm

You don't prepare for a crisis in a crisis. Operation Sindoor was successful because training, tools, and coordination were already in place. MSMEs must invest in systems, skill-building, and resilience before market disruptions hit.



Indian MSMEs are the backbone of the economy - and with the right blend of strategy, tech, and tactical agility, they can do more than survive - they can dominate.



Let's think like commanders, not just business owners.



How can BHARAT Reach the Top in Technology?



Contemplation

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GS, Autoparts Manufacturers Association
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11th May, celebrated as National Technology Day, commemorates the historic operation 'Shakti', when India successfully tested its nuclear capabilities at Pokhran under the visionary leadership of Prime Minister Shri Atal Bihari Vajpayee. This day is a tribute to the engineers, scientists, and scholars whose dedication has propelled India towards self-reliance through indigenous technology development.

As the world calibrates trade equations amid growing economic protectionism, it is crucial for every nation—especially India—to elevate its technological capabilities. In today's global marketplace, technology is not just a catalyst for Zero Defect, Zero Effect manufacturing, but also a means to address the persistent shortage of skilled manpower. With advanced tools and automation, even semi-skilled workers can be trained to deliver precision and high-quality output, enabling inclusive industrial growth.

India's MSME sector—the backbone of our economy—urgently requires next-generation machinery and equipment to enhance both capacity and quality. Past initiatives like the Credit Linked Capital Subsidy Scheme (CLCSS) helped MSMEs in early-stage technological adoption, but with a cap of ₹1 crore, it served only as a starting point. As machines evolve, modern technology comes at a price, and the key question remains: Are schemes like CGTMSE being effectively utilized for high-value tech acquisitions?

Despite the recent enhancement of the CGTMSE credit limit to ₹10 crore, MSMEs continue to struggle with complex paperwork and resistance from some private and public sector banks. A truly transformative move would be to link CGTMSE loans with a concessional interest rate equivalent to the Reverse Repo Rate, easing the cost of technology acquisition and attracting MSMEs to modernize swiftly.

India's automotive sector stands as the largest contributor to manufacturing GDP, employment generation, and exports. Our two-wheelers dominate markets across Africa and Latin America, and Indian-made cars and trucks have carved a niche even in parts of Europe. This demonstrates the massive potential for auto components, provided the ecosystem is globally competitive.

In comparison, China's exports to the USA alone match India's total global exports, nearing half a trillion USD. To catch up with such scale, India must focus on cost-effective, high-tech manufacturing. We benefit from affordable labor, but hurdles like complex labor laws, high establishment costs, and expensive imported technology hold us back. Taxation and import duties on unavailable high-end technology are counterproductive—especially when the same is permitted for mega-projects like bullet trains. If EVs are our future, we must invest in the technologies behind batteries, motors, suspensions, and drivetrains. Italian manufacturers, for instance, succeed globally despite higher labor costs due to superior product quality. So where does India lag? The gap lies not in talent, but in the ecosystem and enabling policy.

India is the land of engineering stalwarts like M. Visvesvaraya, Dr. A.P.J. Abdul Kalam, Satish Dhawan, Dr. K. Radhakrishnan, Dr. G. Satheesh Reddy, and Vinod Dham—the father of the Pentium chip. With a youthful workforce and a vibrant MSME base, India possesses both the might and the right to leap ahead.

While the government has commendably updated MSME classifications and extended support mechanisms, the next wave of transformation requires policies that truly empower MSMEs, promote technology adoption, and encourage ease of doing business. Relaxed compliance, targeted financial support, and collaborative innovation will help Indian industry meet global standards.

This World Technology Day, let us reaffirm our commitment to a self-reliant, tech-enabled India. Only then can we outperform global competition and make 'Make in India' not just a slogan, but a global benchmark of excellence.

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‘एमएसएमई वन कनेक्ट ऐप’ और आईएफसी देंगे उत्तर प्रदेश के औद्योगिक विकास को नई उड़ान

उत्तर प्रदेश लघु उद्योग निगम ने सूक्ष्म, लघु एवं मध्यम उद्यमों (एमएसएमई) को नई दिशा और गति देने के लिए आगरा में विशेष कार्यशाला आयोजित की। इस कार्यशाला में उत्तर प्रदेश लघु उद्योग निगम के अध्यक्ष श्री राकेश गर्ग ने बताया कि उत्तर प्रदेश सरकार सूबे में ‘एमएसएमई वन कनेक्ट’ ऐप और इंडस्ट्रियल फेसिलिटेशन सेंटर (आईएफसी) की शुरुआत करने जा रही है। यह डिजिटल प्लेटफॉर्म और फेसिलिटेशन सेंटर राज्य के उद्यमियों को उद्योग स्थापना से लेकर विपणन, तकनीकी परामर्श, और निर्यात जैसे सभी क्षेत्रों में मार्गदर्शन और सहायता प्रदान करेंगे।



प्रमुख बिंदु:

- ऐप को ग्रामीण और दूरदराज के उद्यमियों के लिए अधिक सरल और सुलभ बनाया जाएगा।
- आईएफसी हर जिले में तकनीकी, वित्तीय और विपणन सहयोग प्रदान करेगा।
- हर मंडल में चार्टर्ड अकाउंटेंट और हर जिले में मैनेजर की नियुक्ति से मिलेगी सहायता।

उद्यमियों की जरूरतों पर केंद्रित होगा ऐप

एमएसएमई वन कनेक्ट ऐप को और अधिक नवाचार युक्त बनाया जायेगा। इसमें गुणवत्ता नियंत्रण, तकनीकी मार्गदर्शन, प्रशिक्षण, लाइसेंसिंग एवं एक्सपोर्ट गाइडेंस जैसी सुविधाएं शामिल की जाएंगी। इस ऐप का उद्देश्य छोटे उद्यमियों की डिजिटल पहुंच को बढ़ाना और उन्हें आत्मनिर्भर बनाना है।



आईएफसी से मिलेगा एक छत के नीचे समाधान

आईएफसी (इंडस्ट्रियल फेसिलिटेशन सेंटर) राज्य के विभिन्न जिलों में स्थापित किए जा रहे हैं। ये केंद्र न केवल नए उद्योगों की स्थापना को आसान बनाएंगे, बल्कि मौजूदा उद्योगों के विस्तार में भी मार्गदर्शन देंगे। इन केंद्रों में तकनीकी विशेषज्ञता, फाइनेंशियल कंसल्टिंग, मार्केटिंग सपोर्ट, और विभिन्न सरकारी योजनाओं की जानकारी एक ही स्थान पर उपलब्ध होगी।

स्थानीय सहयोग और संरचना

सुपरिटेण्डेंट इंजीनियर श्री प्रभात बाजपेई ने बताया कि हर जिले में मैनेजर और प्रत्येक मंडल में चार्टर्ड अकाउंटेंट नियुक्त किए गए हैं, जो उद्यमियों को वित्तीय, तकनीकी और औद्योगिक मार्गदर्शन प्रदान करेंगे। साथ ही ‘एमएसएमई संवाद’ नामक यूट्यूब चैनल के माध्यम से सफल लाभार्थियों की प्रेरक कहानियों और योजनाओं की जानकारी जन-जन तक पहुंचाई जाएगी।

औद्योगिक क्रांति की ओर एक कदम

आगरा कोल्ड स्टोरेज एसोसिएशन के अध्यक्ष एवं लघु उद्योग भारती के ब्रज संभाग अध्यक्ष श्री भुवेश अग्रवाल ने इसे उत्तर प्रदेश में औद्योगिक क्रांति की दिशा में बड़ा कदम बताया। उन्होंने कहा कि यह पहल नए उद्योगों को प्रोत्साहन देने के साथ-साथ पुराने उद्योगों को नई तकनीक और दिशा देने में मददगार साबित होगी।

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News Update

Tirupur Expects 25% Jump in Exports in FY26 from China, Bangladesh Diversification

Tirupur knitwear industry, which exported goods worth Rs. 40,000 crore in 2024-25 financial year (FY25), expects around 25% growth in the next fiscal as buyers diversify purchases from Bangladesh and China amid political turmoil and ongoing US tariff war. Domestic



companies are witnessing more orders from the US and UK, two key export destinations for Tirupur, as they expect favorable terms from India's bilateral trade pacts with these two countries. The Tirupur cluster recorded 20% growth in the previous year (FY25) with Rs. 40,000 crore and roughly shipped 45% materials to Europe and 30% to the US. India's readymade garment (RMG) sector registered 10% growth in exports during the fiscal year 2024 -25 with total goods worth \$16 billion (approximately Rs. 1,36,000 crore). Out of this 49% were knit sector exports, significant increase from the previous year.

Practical Session on Food Processing @ J&K

LUB's J&K State Unit conducted one day practical training to budding students on the subject Wheat based Food Processing in association with Jammu & Kashmir Entrepreneurship Development Institute. 30 students along with mentor from JKEDI participated.



LUB's Chandigarh Unit conducts EC

LUB's Chandigarh Unit conducted its Executive Meeting on 23rd May. President Shri Avi Bhasin informed that the Unit has been registered with DIC under the RAMP Program. The Temporary spot was marked in the Industrial Area Ph-2 for parking solution. Two members Shri Manish Gupta & Shri Akshay Chugh were authorised to take-up BIS issue with Administration. A Members Meet was also planned soon.

Block Printing Workshop conducted @ Bengaluru

LUB's Karnataka Women Entrepreneurs Wing (Kusuri Mani) conducted a Block Printing Workshop on 10th May in Bengaluru. The participants had a hands-on



session on the traditional art of printing patterns on Fabric/Paper using hand-carved Wooden/Linoleum blocks. Smt. NWC Member Smt. Uma Sharma appreciated the efforts. Smt. Vidya hosted the Workshop where over 25 members participated.

Women Cell conducted Art & Craft Workshop @ Belagavi

LUB's Belagavi Women Cell of Karnataka State conducted a 5 Day Art & Craft program from 11th May. Shri Anand Yallattikar, Junior Training Officer, Department of Industrial Training and Employment and Dr. Venkatesh A. Shindihatti, KAS, Deputy Labor



Commissioner, Kalaburagi inaugurated the Workshop. Smt. Megha N Shirodkar, Fevieryl Expert Teacher hosted the session for 45 participants.

गाजियाबाद में उद्यमियों के लिए जीएसटी संवाद आयोजित

गाजियाबाद में सीजीएसटी कार्यालय में उद्यमियों के साथ जीएसटी विषयक संवाद आयोजित किया गया। इस कार्यक्रम में सीजीएसटी गाजियाबाद असिस्टेंट कमिशनर श्री राजू टंडन ने जीएसटी से होने वाले लाभों से अवगत कराया। इस अवसर पर लघु उद्योग भारती मोदीनगर के अध्यक्ष श्री सतेन्द्र गौतम व महासचिव श्री विवेक गुप्ता सहित क्षेत्र के अन्य उद्यमीगण भी उपस्थित रहे।

मुजफ्फरपुर इकाई बैठक में किया टैक्स चिंतन

एल्यूमीनियम उत्तर प्रदेश की मुजफ्फरपुर इकाई की बैठक 23 मई को आयोजित की गई जिसमें फार्मा सेक्टर के प्रदेश प्रमुख श्री संजीव राय का स्वागत किया गया एवं बिआडा द्वारा लिए जाने वाले सर्विस टैक्स और मेंटेनेंस टैक्स के संबंध में चर्चा हुई। बैठक में इकाई अध्यक्ष श्री नरेंद्र चौधरी और महासचिव श्री प्रकाश कर्ण सहित अन्य पदाधिकारी उपस्थित हुए।

काशी में उत्कृष्ट उत्पाद बनाने वाले उद्यमियों का किया सम्मान

उत्तर प्रदेश के वाराणसी में खाद्य एवं प्रसंस्करण विभाग द्वारा मंडल औद्योगिक उन्नयन गोष्ठी (वाराणसी, आजमगढ़, विन्ध्याचल) का आयोजन 14 मई को किया गया जिसमें राज्य मंत्री स्वतंत्र प्रभार उद्यान कृषि विपणन श्री दिनेश प्रताप सिंह ने कृषि उत्पादों के निर्माताओं को सम्मानित किया। दुर्गा फूड इंडस्ट्री के श्री बृजेश गुप्ता और बीडी फूड से श्री राजेश अग्रवाल को उत्कृष्ट उत्पाद निर्माण करने के लिए सम्मानित किया।

अलीगढ़ औद्योगिक समस्याओं के बारे में मुख्यमंत्री से की चर्चा

लघु उद्योग भारती उत्तर प्रदेश के संयुक्त महामंत्री श्री गौरव मित्तल और अलीगढ़ विधायक श्रीमती मुक्ता राज ने मुख्यमंत्री श्री आदित्यनाथ से उद्योग-हित भेंट की और औद्योगिक इकाइयों के पारिवारिक समायोजन के लिए 5 हजार रुपए के स्टाम्प पेपर की व्यवस्था को लागू करने का आग्रह किया। इस अवसर पर उन्होंने अलीगढ़ नवीन सरकारी औद्योगिक क्षेत्र ख्यामई प्लॉट नीलामी योजना में औद्योगिक प्लॉटों के आवंटन को निर्धन और नव उद्यमियों को हतोत्साहित करने वाला बताया।

राजस्थान में सौर ऊर्जा के लिए कैप्टिव पावर प्लांट की सीमा की दोगुनी



राजस्थान प्रदेश में लघु उद्योग भारती के निरंतर प्रयासों से राज्य सरकार ने सौर ऊर्जा नीति में महत्वपूर्ण संशोधन करते हुए ऊर्जा उत्पादन के लिये कैप्टिव पावर उत्पादन की सीमा 100 से बढ़ाकर 200 प्रतिशत कर दी। राज्य सरकार के राजस्थान विद्युत नियामक आयोग की ओर से इस आशय का आधिकारिक नोटिफिकेशन जारी किया गया। मुख्यमंत्री श्री भजनलाल शर्मा ने अमृतकाल-विकसित राजस्थान 2047 का ध्येय एवं प्रदेश के बहुमुखी विकास के लिए संगठन के अनुरोध पर ये घोषणा बजट के दौरान विधानसभा में ही कर दी थी। इसकी अनुशंसा उद्योग मंत्री श्री राज्यवर्धन सिंह राठौड़ ने भी की थी। गौरतलब है कि राजस्थान में औद्योगिक बिजली दरें अन्य राज्यों की तुलना में अधिक रही हैं जिससे उत्पादन लागत बहुत अधिक आती है।

अलवर में निःशुल्क स्वास्थ्य परीक्षण शिविर आयोजित



एल्यूमीनियम अलवर की मुख्य और महिला इकाई ने मेदांता हॉस्पिटल, गुरुग्राम के सहयोग से आलमचंद भगवती देवी मेमोरियल हॉस्पिटल, अलवर में निःशुल्क स्वास्थ्य परीक्षण शिविर का आयोजन 20 मई को किया। शिविर में कार्डियोलॉजी, ऑर्थोपेडिक, ईसीजी, ब्लड शुगर, ब्लड प्रेशर और बीएमडी जैसी सुविधाएं प्रदान की गईं।

अलवर में श्रम एवं रोजगार मंत्रालय का संवाद कार्यक्रम आयोजित

श्रम एवं रोजगार मंत्रालय तथा लघु उद्योग भारती अलवर के संयुक्त तत्वावधान में विभाग संपर्क एवं संवाद कार्यक्रम की श्रृंखला में 27 मई को पहला शिविर आयोजित किया गया।



शिविर में कर्मचारी राज्य बीमा निगम (ईएसआईसी) के शाखा प्रबंधक श्री राजेश मीणा एवं कर्मचारी भविष्य निधि संगठन (ईपीएफओ) के प्रवर्तन अधिकारी श्री प्रशांत शर्मा ने लाभार्थियों का मार्गदर्शन किया। शिविर में उपस्थित उद्यमियों एवं कर्मचारियों की कई समस्याओं का मौके पर ही निस्तारण किया गया।

जोधपुर में महिला आत्मरक्षा के लिए दिया प्रशिक्षण

लघु उद्योग भारती जोधपुर महानगर महिला इकाई ने कालिका पेट्रोलिंग यूनिट वेस्ट के जरिये महिलाओं को आत्मरक्षा का प्रशिक्षण प्रदान किया। इकाई अध्यक्ष श्रीमती मोना हरवानी ने महिला उद्यमिता विकास से संबंधित जानकारी भी दी। आभार कोषाध्यक्ष श्रीमती शिल्पा अग्रवाल ने दिया।

जोधपुर प्रांतीय बैठक में प्रदूषण नियमों पर की चर्चा

जोधपुर प्रांत कार्यकारिणी बैठक 3 मई को आहूत की गई जिसमें प्रांत अध्यक्ष श्री महावीर चोपड़ा ने बताया कि मुम्बई में आयोजित अखिल भारतीय कार्यसमिति बैठक में राजस्थान प्रदेश संगठनात्मक (इकाई विस्तार, सदस्यता, कार्यात्मक) रूप से प्रथम स्थान पर रहा। बैठक में राजस्थान राज्य प्रदूषण नियंत्रण मण्डल जोधपुर की क्षेत्रीय अधिकारी श्रीमती कामिनी सोनगरा ने प्रदूषण से संबंधित विभिन्न विषयों, नियमों व मापदण्डों के विषय में जानकारी दी। इस अवसर पर प्रदेश उपाध्यक्ष श्री अनिल अग्रवाल सहित पदाधिकारी गण उपस्थित रहे।

जिला कलेक्टर ने भीलवाड़ा कौशल विकास केंद्र का किया अवलोकन

एलयूबी भीलवाड़ा एवं स्नेह समर्पण फाउंडेशन के संयुक्त तत्वावधान में संचालित कौशल विकास केंद्र परिसर का जिला कलेक्टर श्री जसमीत संधू ने अवलोकन किया। उन्होंने मेहंदी, सिलाई, ब्यूटी पार्लर एवं आर्ट एवं क्राफ्ट विषय में प्रशिक्षण प्राप्त कर रही बालिकाओं को सरकार की कौशल विकास योजनाओं की जानकारी भी दी। महिला इकाई अध्यक्ष श्रीमती पल्लवी लड्डा ने बताया कि केंद्र में 125 बालिकाएं प्रशिक्षण प्राप्त कर रही हैं और यहाँ से प्रशिक्षित बालिकाएं 6 से 10 हजार रु तक मासिक कमा रही हैं। इस अवसर पर भीलवाड़ा इकाई अध्यक्ष श्री शंभूप्रसाद काबरा सहित अन्य पदाधिकारी भी मौजूद रहे।

जगतपुरा इकाई में एमएसएमई योजनाओं की जानकारी दी

एलयूबी जयपुर अंचल की जगतपुरा महिला इकाई द्वारा 12 मई को आयोजित विशेष सत्र में एमएसएमई विभाग से असिस्टेंट डायरेक्टर श्रीमती अनिला चौरडिया एवं श्री संजय मीणा ने मुद्रा योजना, पीएमजीईडी, स्टैंड अप फंड स्कीम, पीएमएस स्कीम और जेम पोर्टल के बारे में जानकारी दी। एमएनआईटी के एसोसिएट प्रोफेसर डॉ. राजीव अग्रवाल ने इनोवेटिव डिजाइन एवं क्रिएटिव आइडिया पर चर्चा की। प्रदेश उपाध्यक्ष श्री महेंद्र खुराना और श्रीमती अंजू सिंह, प्रांत सचिव सुश्री सुनीता शर्मा एवं इकाई अध्यक्ष श्रीमती वैशाली वशिष्ठ सहित महिला उद्यमी उपस्थित रहीं।

दक्षिण बंगाल ने 32वें स्थापना दिवस पर किया वृक्षारोपण

एलयूबी दक्षिण बंगाल ने 32वां स्थापना दिवस 10 मई को



आयोजित किया गया। अध्यक्ष श्री देवीप्रसाद मुखोपाध्याय ने बताया कि सेवा कार्य के तहत हेल्थ कैंप में 70 कार्मिकों का चेक अप किया एवं वृक्षारोपण भी किया। पूर्व अखिल भारतीय

पदाधिकारी श्री सरोज साहू ने संगठन के इतिहास एवं कार्य पद्धति के बारे में जानकारी दी। उद्योगपति श्री सूर्यप्रकाश तोषनीवाल ने अपनी सफलता की कहानी बताई। कोषाध्यक्ष श्री अमित चिरावला ने लीप पोर्टल के बारे में जानकारी साझा की। इस अवसर पर पूर्व पदाधिकारी श्री समीर पाल, महामंत्री श्री विजय अग्रवाल एवं श्री बटेश्वर झा और श्री सतीश तापड़िया सहित उद्यमी गण उपस्थित रहे।

छत्तीसगढ़ में ग्रामीण महिलाओं को मिला रोजगार प्रशिक्षण

स्वावलंबी भारत अभियान के प्रांत राजनांदगांव जिले के ग्राम मगरलोटा स्थित सामुदायिक भवन में महिलाओं को रोजगारपरक प्रशिक्षण प्रदान किया गया। प्रशिक्षण कार्यक्रम में श्री संतोष जैन अपनी टोली के साथ विशेष रूप से उपस्थित रहे। छत्तीसगढ़ सह समन्वयक श्री संजय चोबे ने बताया कि ग्रामीण महिलाओं को आत्मनिर्भर बनाने के लिए निरंतर प्रयास किए जा रहे हैं।

छत्तीसगढ़ में प्रवास के दौरान सोलर और बैंकिंग विषय पर चर्चा

एलयूबी छत्तीसगढ़ में प्रदेश अध्यक्ष श्री ओमप्रकाश सिंघानिया, राष्ट्रीय कार्यकारिणी सदस्य श्री पुरुषोत्तम पटेल, उपाध्यक्ष श्री किशोर पटेल, कोषाध्यक्ष श्री दीपक उपाध्याय एवं श्री मोहन भाई पटेल ने 14 मई को बिलासपुर प्रवास में संघ के उप प्रांत प्रचारक श्री नारायण नामदेव के साथ संगठन विस्तार पर चर्चा की। बैठक में स्टेट बैंक ऑफ इंडिया के AGM श्री जीपी पांडे ने बैंकिंग तथा सोलर नेट मीटिंग संबंधित समस्या पर श्री मनीष केडिया ने जानकारी दी।

झारखण्ड प्रांतीय सम्मेलन में स्थानीय औद्योगिक मुद्दों पर हुई चर्चा

लघु उद्योग भारती झारखण्ड प्रांतीय सम्मेलन आदित्यपुर (जमशेदपुर) ऑटो क्लस्टर सभागार में 19 मई को



आयोजित किया गया। पूर्व राष्ट्रीय अध्यक्ष श्री ओमप्रकाश मित्तल ने कहा कि उद्योगों का पलायन रोकने के लिए उद्यमियों को उचित दर पर सरकार जमीन उपलब्ध करवाए। उन्होंने बताया कि संगठन ने समान लैंड पॉलिसी बनाने की मांग उठाई थी, जिससे उद्योग-धंधे आसानी से स्थापित हो

सके। राष्ट्रीय कार्यकारिणी सदस्य सह झारखंड प्रभारी श्री इंदर अग्रवाल ने छोटे एवं मध्यम दर्जे के उद्यमियों की समस्याओं को सरकार तक सुगमता और प्राथमिकता से पहुंचाने पर बल दिया। कार्यक्रम में स्थानीय औद्योगिक समस्याओं पर मंथन किया गया। इस अवसर पर सराईकेला जिलाध्यक्ष श्री ज्ञानचंद्र जायसवाल, प्रांतीय महामंत्री श्री विजय मेवाड़ सहित करीब ढाई सौ उद्यमियों ने भागीदारी की। संचालन श्री प्रवीण गुटगुटिया ने और श्री दशरथ उपाध्याय ने आभार व्यक्त किया।

एग्री फूड प्रोसेसिंग एक्सपो में रतलाम इकाई ने की सहभागिता

मध्यप्रदेश के सीतामऊ (मंदसौर) में आयोजित एग्रीकल्चर फूड प्रोसेसिंग एक्सपो में लघु उद्योग भारती नमकीन



क्लस्टर, रतलाम इकाई के सचिव श्री रिकू कृष्णानी सहित कई सदस्यों ने नवीनतम तकनीकों, खाद्य उत्पादों एवं उद्योग की संभावनाओं के संबंध में जानकारी प्राप्त की।

मध्यप्रदेश की आधारताल इकाई में सघन

सदस्यता अभियान पर चिंतन

एलयूबी मध्यप्रदेश की आधारताल इकाई की बैठक में



औद्योगिक इकाइयों में सघन सदस्यता अभियान पर चर्चा की। साथ ही वृद्धाश्रम में सहायता सामग्री उपलब्ध कराए जाने हेतु आर्थिक सहयोग करने का निर्णय किया गया। इस अवसर पर इकाई अध्यक्ष श्री गौरव अग्रवाल, सचिव श्री रवि गंगवानी सहित अन्य उपस्थित उद्यमी सदस्य गण ने उद्योग हित से राष्ट्रहित का संकल्प लिया।

रीवा, छतरपुर और कटनी में एमएसएमई विभाग की कार्यशाला आयोजित

एलयूबी मध्यप्रदेश की रीवा, छतरपुर और कटनी इकाई में RAMP योजना के अंतर्गत उद्योगों की कार्यपद्धति में सुधार



हेतु कार्यशाला का आयोजन किया गया। LEAN मैनेजमेंट, ZED सर्टिफिकेशन एवं बौद्धिक संपदा अधिकार (IPR) जैसे विषयों पर विशेषज्ञों द्वारा जानकारी प्रदान की गई। कार्यशाला में जीरो डिफेक्ट-जीरो इफेक्ट सर्टिफिकेशन की प्रक्रिया एवं इससे संबंधित सरकारी अनुदानों के बारे में बताया गया तो वहीं E-TRADE प्लेटफॉर्म के माध्यम से पूंजी संकट से निपटने एवं स्टॉक लिस्टिंग जैसे व्यावसायिक अवसरों की जानकारी दी गई।

आगर इकाई के प्रयासों से फूड प्रोसेसिंग यूनिट होगी स्थापित

मध्यप्रदेश के मालवा अंचल की आगर इकाई के विशेष प्रयासों से मल्टीनेशनल कंपनी Mc Cain Foods की फूड प्रोसेसिंग यूनिट स्थापित करने के उद्देश्य से कंपनी सीईओ सहित 8 सदस्यों की टीम ने ED एमपीआईडीसी और लघु उद्योग भारती के सदस्यों की उपस्थिति में 20 मई को चिन्हित स्थल का निरीक्षण किया और जिला कलेक्टर से भेंट की। 40 हेक्टेयर भूमि पर इस प्रस्तावित यूनिट में लगभग 1000 करोड़ रुपए का निवेश किया जायेगा।

महाकौशल अंचल में महिला उद्यमिता पर विशेष चर्चा

एलयूबी मध्यप्रदेश के महाकौशल अंचल में 18 मई को सागर



नगर में विशेष बैठक में महिला उद्यमिता और युवा उद्यमियों को संगठन से जोड़ने पर विशेष चर्चा की गई। इस अवसर पर अखिल भारतीय उपाध्यक्ष एवं प्रदेश प्रभारी श्री ताराचंद

गोयल, प्रदेश अध्यक्ष श्री राजेश मिश्रा, महामंत्री श्री अरुण सोनी, तथा कोषाध्यक्ष श्री अरविंद मनोहर काले सहित 24 जिलों के सौ से अधिक उद्यमियों ने सहभागिता की।

सरदारपुर और रायण औद्योगिक क्षेत्र में 135

नव इकाइयां होंगी विकसित

मध्यप्रदेश के धार जिले में सरदारपुर एवं पीथमपुर (रायण) क्षेत्र में उपलब्ध भूमि पर नए औद्योगिक क्षेत्र स्थापित करने



के लिए भूमि हस्तांतरण, सिंचाई, पेयजल, सड़क, विद्युत आदि से संबंधित विभागों को आवश्यक कार्यवाही करने के लिए जिला कलेक्टर श्री प्रियंक मिश्रा ने 22 मई को आयोजित विशेष बैठक में निर्देश जारी किये। लघु उद्योग भारती पीथमपुर से अध्यक्ष श्री राजेश जैन एवं कार्यकारिणी सदस्य श्री मनोज शर्मा ने भी बैठक में उपस्थित रहे।

जिला व्यापार एवं उद्योग केंद्र के जीएम श्री सुनील त्रिपाठी ने बताया कि सरदारपुर में 8 हेक्टेयर तथा रायण क्षेत्र में 14 हेक्टेयर भूमि औद्योगिक उपयोग हेतु हस्तांतरित की जा चुकी है। इन क्षेत्रों में कुल 135 औद्योगिक इकाइयों की स्थापना का मार्ग प्रशस्त होगा।

बिरला नगर में युवा शक्ति को उद्योगों से

जोड़ने का किया आह्वान

एलयूबी मध्यप्रदेश की बिरला नगर इकाई की बैठक 15 मई



को आयोजित की गई जिसमें निवर्तमान राष्ट्रीय अध्यक्ष श्री जितेंद्र गुप्त ने नई पीढ़ी को उद्योगों से जोड़ने के लिए आह्वान किया। उन्होंने औद्योगिक क्षेत्र में स्वच्छता, पर्यावरण एवं जल संरक्षण के साथ उद्योगों में संलग्न श्रमिकों के नियमित स्वास्थ्य परीक्षण एवं उनके बच्चों की पढ़ाई-लिखाई में आर्थिक सहयोग देने की भी उद्यमियों से अपील की। इस अवसर पर प्रदेश कार्यकारिणी सदस्य श्री आदेश बंसल, मध्य भारत अंचल महामंत्री श्री पुरुषोत्तम कौशिक और श्री अवधेश सिंह राठीर सहित अन्य उद्यमीगण उपस्थित रहे।

जयपुर में स्वयंसिद्धा राखी और तीज मेले का पोस्टर जारी

महिला उद्यमिता को प्रोत्साहन देने के उद्देश्य से स्वयंसिद्धा राखी और तीज मेला-2025 का आयोजन 11 और 12 जुलाई



को जयपुर में किया जा रहा है। मेले के पोस्टर का विमोचन संगठन के पूर्व राष्ट्रीय कोषाध्यक्ष श्री योगेश गौतम, राजस्थान के प्रदेश संयुक्त महासचिव श्री महेंद्र मिश्रा, उपाध्यक्ष श्री नटवर अजमेरा, कोषाध्यक्ष श्री अरुण जाजोदिया और अंचल सचिव सुश्री सुनीता शर्मा ने किया। इस अवसर पर महिला उद्यमीगण भी उपस्थित रही।

एल्यूमी बीकानेर इकाई का किया सम्मान

बीकानेर स्थापना समारोह समिति की ओर से जिला उद्योग केन्द्र की संयुक्त निदेशक श्रीमती मंजू नैन गोदारा और सीमा सुरक्षा बल के पूर्व डीआईजी श्री पुष्पेंद्र सिंह ने लघु उद्योग भारती को उद्यमियों के प्रभावी संगठन के रूप में सम्मानित



किया। इस अवसर पर इकाई अध्यक्ष श्री हर्ष कंसल, श्री बालकिशन परिहार, श्री सुभाष मित्तल, श्री राकेश जाजू, श्री विनोद धानुका, श्री विनोद गोयल और श्री प्रकाश आचार्य सहित सदस्य गण उपस्थित रहे।

यमुनानगर में औद्योगिक मुद्दों पर हुआ मंथन

लघु उद्योग भारती हरियाणा की यमुनानगर इकाई में 19 मई को राष्ट्रीय स्वयंसेवक संघ के जिला संघचालक श्री सेवा राम की उपस्थिति में क्षेत्रीय औद्योगिक मुद्दों पर मंथन किया। बैठक में बिजली दरों में फिक्स्ड चार्ज, न्यूनतम वेतन की दरों पर पुनर्विचार, राष्ट्रहित में बांग्लादेश, अजरबैजान और तुर्की के साथ व्यापार के बहिष्कार का प्रस्ताव, अक्टूबर माह में राष्ट्रीय स्वयंसेवक संघ की स्थापना के 100 वर्ष पूर्ण होने के उपलक्ष्य में विविध कार्यक्रमों की रचना जैसे महत्वपूर्ण विषयों पर चर्चा हुई। बैठक में इकाई अध्यक्ष श्री संजीव गुप्ता, उपाध्यक्ष श्री रमन गुप्ता, श्री सुधीर चंद्रा, श्री अक्षय चंद्रा, श्री वीरेंद्र मेहंदीरत्ता समेत अनेक गणमान्य सदस्य उपस्थित रहे। संचालन श्री विमोर् पट्टा एवं श्री आशीष लूथरा ने किया।

चीन से आयात कम कर आत्मनिर्भर भारत को

बल देने हेतु लघु उद्योग भारती का आह्वान

लघु उद्योग भारती के अखिल भारतीय अध्यक्ष श्री घनश्याम ओझा व महामंत्री श्री ओमप्रकाश गुप्ता ने पत्र लिखकर उद्यमियों को राष्ट्र को आत्मनिर्भरता की दिशा में अग्रसर करने के लिए ठोस कदम उठाने का आग्रह किया। उन्होंने विशेष रूप से चीन से होने वाले आयात को कम करने अथवा पूर्णतः बन्द करने की अपील की है।

पत्र में स्पष्ट कहा गया है कि राष्ट्रीय सुरक्षा एवं आर्थिक स्वावलंबन को मजबूत करने के लिए उद्यमियों को विदेशी आयात, विशेषकर चीन के उत्पादों पर अपनी निर्भरता को सीमित करना होगा। उद्यमियों से आग्रह किया गया कि वे स्थानीय विनिर्माण, उत्पादन और नवाचार को प्रोत्साहित करें, जिससे देश के भीतर अधिक से अधिक रोजगार के अवसर सृजित हो सकें।

पत्र में आह्वान किया गया कि यही समय है जब भारत को आत्मनिर्भरता की ओर अग्रसर करते हुए, स्थानीय उद्यमियों और उत्पादों को प्राथमिकता दी जाये, इससे न केवल अर्थव्यवस्था को बल मिलेगा, बल्कि देश की सुरक्षा को भी मजबूती प्राप्त होगी।



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Master plan

आमजन GIS Based Master Plan पर ऑनलाइन ही अपनी सम्पत्ति की जानकारी ले रहे हैं। साथ ही मास्टर विकास योजना-2025 के तहत प्रस्तावित भू-उपयोग एवं सड़कों सहित अन्य महत्वपूर्ण सूचनाएं प्राप्त कर रहे हैं।

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आमजन जेडीए में सायं 3 से 5 बजे तक विजिट के लिए ई-पास सुविधा <https://epass.jaipurjda.org> वेबसाइट से ऑनलाइन पास जनरेट कर रहे हैं।

E-Mobile App

जेडीए की समस्त ऑनलाइन सेवाएं आमजन के लिए ऐप पर उपलब्ध हैं। ऐप पर पार्क से जुड़ी समस्याओं के लिए आमजन हेतु JDA समाधान फीचर है। जिसे ऑनलाइन ट्रेक किया जा सकता है।

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UDYOG TIMES



LUB's National Org. Secretary Shri Prakash Chandra ji discussed important issues of MSME Sector with Union Finance Minister Smt. Nirmala Sitharaman. National General Secretary Shri Om Prakash Gupta, National Secretary Shri Naresh Pareek and Treasurer CA Shri Mahesh Gupta were also present at New Delhi on 23rd May, 2025.



LUB's Delegation led by National President Shri Ghanshyam Ojha & National General Secretary Shri Om Prakash Gupta met Union Minister for Consumer Affairs Shri Prahlad Joshi about BIS Standards on Utensils, Grey Iron Casting and upcoming QCOs at New Delhi on 07th May, 2025.



RSS Prachar Pramukh Shri Sunil Ambekar and Divisional Commissioner Shri Rajendra Singh Sheldawat addressed the Media Felicitation Ceremony organized by Vishwa Samvad Kendra and supported by Laghu Udyog Bharati on Devarshi Narad Jayanti at Kota on 19th May, 2025.



LUB's National Org. Secretary Shri Prakash Chandra ji, Former National President Shri Baldev Bhai Prajapati and Shri Vaju Bhai Vagharia attended an Inaugural Ceremony of Gota Unit at Ahmedabad on 21st May, 2025.



LUB's National Joint Gen. Secretary and Chairman, Uttar Pradesh Small Industries Corporation Limited Shri Rakesh Garg had a courtesy meeting with Dy. Chief Minister Shri Brijesh Pathak and Shri Principal Secretary, Food and Drugs Shri Ranjan Kumar at Lucknow on 24th May, 2025.

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