REPORT FOR
GURUGRAM
JULY - SEPT'20

Ministry of Electronics & Information Technology
Government of India

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STARTUP HARYANA
FIRST STEP OF SUCCESS

Looking at the Pandemic through Gender Lens -
How to create a community and drive inclusion

21 July 2020: NASSCOM Centre of Excellence – IoT & AI organised a webinar 'Looking at the Pandemic through Gender Lens – How to create a community and drive inclusion' that saw women entrepreneurs and leaders talked about the challenges in managing work-life balance, and how those have got aggravated post-COVID. The webinar saw participation of Kanchan Bhonde, Product Strategy Head, Makers Lab, Tech Mahindra; Ruchi Tushir, Director - Data, Artificial Intelligence (AI) & IoT Business Group, Microsoft; Sq Ldr Prerana Chaturvedi, CEO, Evolet; Lubna Yusuf, Author, Founder La Legal, CEO FishEyeBox, Mentor of Change AIM Niti Aayog; Dr Anupama Mallik, CEO/MD, Vizara Technologies Pvt Ltd; and Aarti Dhiman, Chief Tech Junkie & Evangelist, Gesture Research International Ltd.

The women entrepreneurs threw light on challenges faced during COVID such as questions being raised on women's effectiveness, coping with changes brought in by the COVID on the personal front and gender bias on the tech front, the technologies that are going to help India post COVID, current Chinese ban on apps and how it is going to help Indian companies, verticals to see an increase in adoption of IoT and AI in the post-COVID Indian market and role of AI-ML and privacy issues of the citizens.

From Start to Scale – Go to Market

24th July, 2020: "For any startup, there are multiple stages to the growth. These start from technology demonstration to PoC and then scaling up of the deployment. Many startups while successful till PoC, falter at the stage of scaling up of the deployment as well as scaling up of operations to handle large customer. The key reason is that they are founded by hardcore techies who don't properly understand operational aspects or customer management aspects. NASSCOM CoE Gurugram conducted the session 'Start to Scale' to address the following:

- Making the right start – focus on minimum viable effort and early customer success
- Operational Effectiveness – managing customer, team and finance
- Scaling and pivoting in the COVID era
- Securing funding – when, how and from whom

The presentation was done by Mr. Shekhar Agarwal, who has decades of experience in business development, solution development and in consultancy domain. He is running his own consulting business and works with startups to help them scale up the operation."

FROM START TO SCALE

REGISTER NOW

AGENDA

- Opening the session and setting the context
- Making the right start - focus on minimum viable effort and early customer success
- Operational Effectiveness – managing customer, team and finance
- Scaling and pivoting in the COVID era
- Securing funding – when, how and from whom
- Next steps - How we can help

SPEAKER

SUDHANSHU MITTAL
Head - CoE Gurugram & Director - Technical Solutions, NASSCOM

SHEKHAR AGRAWAL
Founder & CEO, Concort

24th July 2020
11:00 am - 1.00 pm

Investor Hours with VenturEast | Edition 1 & 2

11 August 2020 & 28th August 2020: NASSCOM Center of Excellence – IoT & AI, Gurugram &VenturEast organised "Investor Hours with VenturEast" in which startups in IoT, Robotics, ESDM & Hardware plays were invited for a series of 1-to-1 Investor Pitching Web-Sessions. A total of 33 companies focussed on IoT, Robotics & Hardware had applied for the Investor pitching series and 1 of them, MatrIoT Solutions Private Limited was invited for the 1st session of the series on 11th August 2020 and Cynlr on 28th August. Around 2 more teams will be invited for the next sessions to be held in October 2020.

Investment Team members present:

- Sanjeev Yamsani
- Abhinav Shankar
- Anirvan Bordoloi

IoT Tech for Post-COVID Connected World

21 August 2020: Exhibitions India Group and IoT India expo hosted live technical discussions on 'IoT Tech for Post-COVID Connected World. Over 280 people attended the webinar in the ongoing series with renowned panelists delivering great insight for viewers. The webinar was supported by NASSCOM-Centre of Excellence - IoT and AI and T-Hub.

Moderator Mr. Sunil David, Regional Director - IoT, India and ASEAN AT&T Global Network spearheaded the discussions, focusing on the various trends involving adoption of IoT during COVID-19, and the way forward out of the pandemic for the sector. "Trends have shown an upwards surge in adoption of consumer IoT such as smart fridges, smart TVs as people stay home for prolonged hours. The increase in purchase of smart personal devices such as grooming products is an outcome of the pandemic. Many industries that were not heavy on IoT usage today are widely implementing the technology as a direct result."

Key takeaways:

- Journey during COVID-19 and how the post pandemic world will look like with IoT, and the opportunities & challenges involved
- Impact on businesses and positioning for future growth opportunities, and the new revenue streams
- IoT adoption in healthcare during the COVID-19 crisis, and organisations deploying smart IoT solutions for workplace safety
- Cybersecurity challenges in the IoT era, and whether IoT can create pandemic-ready Smart Cities

The webinar saw participation of Anand Sherkhane, IES, Additional Development Commissioner, Ministry of MSME, Govt of India, Dr. Ganesh Natarajan, Chairman, Global Talent Track, Pune City Connect & SVP India, Dr. Preet Deep Singh, AVP, Invest India, Dr. Anita Gupta, Scientist G/Adviser & Head Dept of Science & Technology, Govt of India, Tripti Shinghal Somani, Founder, Womennovator & MD & CEO, KGS Advisor & Rama Iyer, CIO, T-Hub, Hyderabad.

Rethinking Innovation and Technology in Post COVID World

24 September 2020: NASSCOM Center of Excellence – IoT & AI organized an interactive Roundtable, "Rethinking Innovation and Technology in Post COVID World."The event was being sought out as a key innovation platform by bringing out various viewpoints of the speakers and the panel discussion revolved around how technology has been a game-changer, redefining the technology adoption during this exigency and the importance of upskilling during such times.

The webinar saw participation of Rajashree Damle, Vice President, Digital Manufacturing, Capgemini, Sandeep Makhijani, Watson Health Leader, Asia Pacific, IBM, Dr. Aloknath De, SVP/CTO, Samsung India and Saurabh Moody, Co-Founder, Alphaa AI.

During the panel some of the dominant trends that were pointed by one of the panelists were remote working and remotely manageable labs, digitization & automation which would be part of the mandates going further. At this juncture digital transformation becomes the foundational change that companies were contemplating to adopt or include in their strategy roadmap, perhaps before the pandemic.

Predictive Analytics for Industry 4.0

29 September 2020: NASSCOM Center of Excellence – IoT & AI, Gurugram organised a webinar on Predictive Analytics for Industry 4.0 during which the deployed applications of Algo8's platform were discussed by their CEO, Nandan Mishra and CTO, Himanshu Singh. This webinar witnessed some interesting use cases in Supply Chain, Process Automation, Asset Management & Compliance Enforcement where the Predictive Analytics platform has been used for improving the efficiency, binging in transparency, and predicting downtime of existing business processes. Some of the use cases that were discussed include Coal supply chain management for an Aluminium Manufacturing company, Predicting downtime for compressors in Thermal Power generation PSU, Predicting lump formation in Polypropylene line for a Petroleum Refinery and monitoring PPE compliances for Power Transmission PSU.

The session saw participation from over 50 key stakeholders from Process Manufacturing & Logistics companies as well as Utilities and there was active engagement during the Q&A post the platform virtual demo by Algo8.

Voice of Manufacturing Edition 5

29 September 2020: Though the changing market dynamics have steered the focus towards resiliency and business continuity, discovery & reinventions are the key factors. Recognizing the need to address the current imperatives, NASSCOM CoE-IoT & AI - IndDIC organized Voice of Manufacturing Edition 5 – from Thought Leadership to Execution - a curtain raiser for the launching of Industry Aligned Digital Offerings. Mr. Kishore Jayaraman, President, Rolls-Royce India & South Asia delivered a sharp keynote address on connecting the systems together and 'Being DIGITAL' and why a well-charted governance model is of utmost importance for adoption of the advanced technologies. He emphasized on the significance of convergence of digital and physical systems and the importance of upskilling and maintaining a fine balance between digitalization, upskilling, employment and productivity.

Mr. Jayaraman, along with Mr. Vivek Saha, NASSCOM CoE IoT & AI, launched the ''NASSCOM CoE Industry Offerings" designed based on the various industry challenges for enabling Industry 4.0 led Digital Transformation and empowering return on investment (ROI). It is critical to move from Thought Leadership Process to Execution Scaling Innovation at speed to enable the transformation journey.

Mr. Navid Talib, Manufacturing Operations Head, Honda Cars, India highlighted the essentiality on quality specially in Tier 3 cities - entire value chain based on the connectedness of the Tier 2 & Tier 3 cities in line to the Original Equipment Manufacturers (OEM) and the end-users needs an evaluation. Further, Mr. Krishna Bhojkar, Chief General Manager, Production Planning, SKODA AUTO Volkswagen, India resonated with Mr. Talib on appraising the value chain interconnectedness. According to Dr. Rene VAN BERKEL, calibration of this maturity in the value chain can only be gauged through companies adopting digital technologies/platforms.

Accolades – It is important to understand while the Indian industry is still in speculation, a well-charted digital framework can mitigate disputes in line to the new normal.

Voice of Manufacturing
5th Edition

LAUNCHED INDUSTRY DIGITAL OFFERINGS
From Thought Leadership to Execution

Mr. Krishna Bhojkar
CGM – Production Planning, SKODA AUTO Volkswagen India

Skoda Volkswagen supported the initiative by NASSCOM CoE as there is increased requirement of frugal innovations provided by the Indian start-ups that they are looking forward to working on Use Cases.

Dr. Rene Van Berkel
UNIDO

NASSCOM CoE can help provide new innovations, technologies & applications with the desirable competencies & start ups that can be mapped to solving existing manufacturing problems and as new opportunities.

Mr. Navid Talib
Manufacturing Operations Head, Honda Cars India

Happy to associate with NASSCOM and help build Digitalisation era of the Indian Industry – participate through NASSCOM and assist us in any of the Digitalization projects ongoing nationally & globally.

Follow us on:

Algo8: AI-based Predictive modelling & Automation for Logistics & Process Manufacturing

Algo8, designs, develops and deploys custom AI-based solutions, as per the Client's requirements. Algo8's SPACE platform focusses on Supply Chain Management, Process Automation, Asset Management, Safety Compliance and Energy Management. The team has deployed its solutions with Hindustan Uniliver, Hindalco, Airtel, HMEL, Indian Oil, ACC Cement, Pepsi, Mitsubishi Electric, Mecon, ABInBev& Indus Towers. Some of the Use Cases of the SPACE platform are as follows.

SUPPLY CHAIN MANAGEMENT
Client: Hindalco

Problem: Hindalco had limited visibility on the coal supply chain for the captive thermal power plant at the aluminium smelting plant and were facing issues in the end-to-end quality monitoring and utilisation of the raw material.

Solution: The solution consisted of Inward Raw Material Supply Chain Management.The Quality of the Coal is determined at the coal mine based on parameters like Gross Calorific Value, Moisture content, Carbon percentage etc and the same is monitored during the entire supply chain from the coal mine to the thermal plant. Further, the coal quality parameters were mapped to the truck level parameters like carriage weight, vehicle number, vendor details etc. at the plant. All the parameters are pushed to a centralised database for coal supply chain visualisation over a centralised dashboard and are fed to the predictive algorithm.

Impact: The solution enabled real-time tracking of the deviations in coal quality on a vendor-wise basis. It also became possible to predict the seasonal variations in the quality & quantity of the coal for raw material procurement planning. It also allowed blending different categories of coal to optimise the quality & the cost of the coal input to the plant to increase the power generated and reduce the associated cost. The digitalisation of the process also helped prevent the theft of coal and manage a large database of vendors.
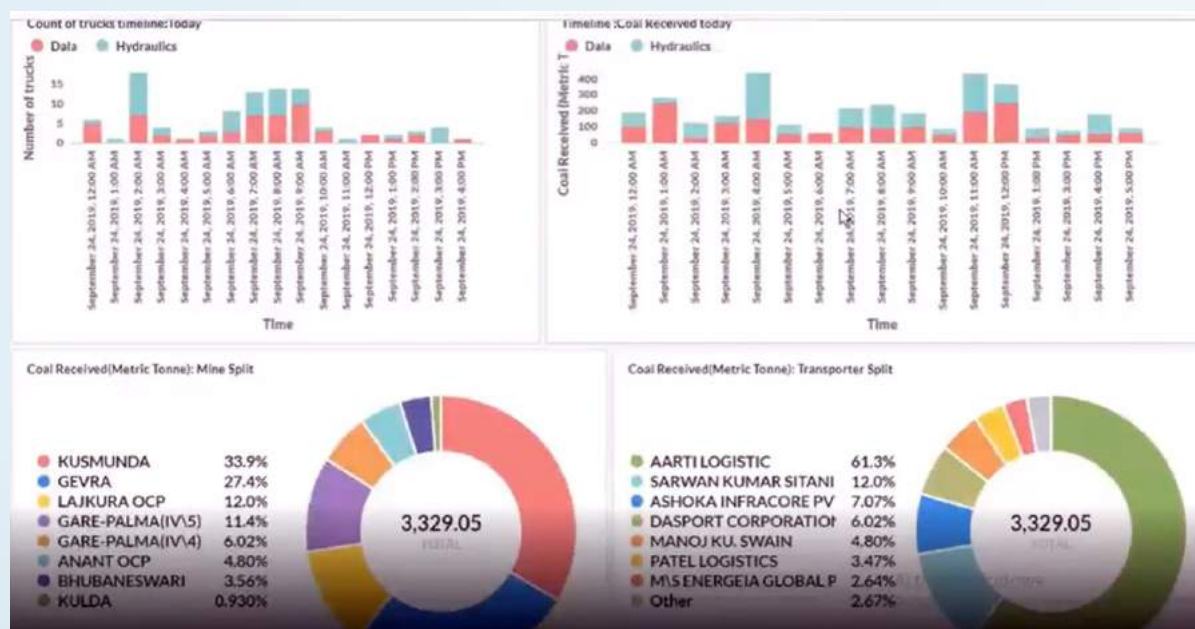
Clean Slate Technologies: Real Time Asset Management

The Manufacturing & Logistics sectors suffer from critical inefficiencies in the three major asset classes including Material Handling Equipment (MHE), Inventory Assets & Workforce. It is also observed that 70% of workplace accidents can be easily prevented. Reduced productivity of the workforce due to remote operations in Post COVID times is also a major concern. Clean Slate Technologies, led by Siddharth Desai, Mayank Sharma, Aman Bapna & Anubhaw Kumar, has developed a Real Time Location Tracking Solution, to monitor the assets for Factories & Warehouses.

Solution Capabilities for various assets classes include:

MHE Fleet Management Module: This module enables Live location tracking with 30 cm 3-dimensional accuracy, geofencing, safe driving behaviour monitoring, Navigation instructions to the operator, MHE Idle-time/run-time, Vertical fork motion time, Route adherence & Halt adherence and MHE health monitoring for Predictive Maintenance.

Inventory Location Management via MHE Tracking: This module allows Automatic tracking of inventory pick & drop locations, Live Inventory Inaccuracy & Anomaly Alerts to operators & supervisor if inventory is misplaced during put-away or picking operations, Custom reporting like live stock count, monthly reconciliation, Material In/Out & lifecycle management.

Workforce Management Module: This module's capabilities include Digital roster integrated with HRMS, worker activity reports for the supervisor to reduce idle time & boost productivity, worker safety risk alerts (man-down, perimeter breach, operator status on MHE collision), Social distancing alerts and contact tracing.

SUCCESS STORIES		
Client	**Use Case**	**Impact**
Nokia	**MHE fleet tracking, utilization monitoring and management in a warehouse.** **Problem**: 1) Live location tracking of the forklift on a web layout within ±30cm accuracy, 2) Indoor navigation system to guide forklift operators, 3) business analytics dashboard to monitor the custom KPIs, 4) Increase throughput and operational efficiency.	20% Improvement in Operator Productivity, 15% Improvement in Turn Around Time & 10% Improvement in MHE Utilization
Bosch	**Inventory management for Milkrun Digital Transformation System.** **Problem**: 1) Track the live location of Raw Material inventory deliveries during internal milkrun, 2) Capture KPIs such as Schedule Adherence, Route Adherence, Halt Adherence & Load Adherence, 3) Provide live deviation alerts with root-cause and Pareto analysis for continuous process improvement.	50% Improvement in Schedule Adherence, 40% Reduction in errors in data due to automation & 20% Decrease in Route deviations and halt misses by forklifts

Peer Robotics: Autonomous Collaborative Robot

Whether it's the automobile, semiconductor, or pharmaceutical industry, on-time delivery of goods from one station to another is key to productivity. Peer Robotics, led by Rishabh Agarwal, Tanya Raghuvanshi & Alok Kumar, has developed Collaborative Autonomous robots for warehouse automation and material handling in manufacturing facilities, logistics companies which can seamlessly navigate through complex environments without any change in the existing infrastructure.

Called the RM100, it is integrated with the patented force feedback based mechanism that allows it to detect external human force and activates the drive in the direction of guiding force. Using sensor fusion from multiple onboard sensors, RM100 can localize itself in any complex surrounding, reducing any human effort to provide initial position data to the robot. It has a payload capacity of 100kg. A bot simply doing pick & place has limited functionality but RM100 has the capability that allows mounting of multiple attachments like manipulators, gripper arms, welding torches etc on its chassis to make it multifunctional.

SUCCESS STORIES

Client	Use Case	Impact
Delhi based Logistics chain	streamline internal logistics, working next to humans with no infrastructure change	• Reduction in order processing times while reducing picker's walking time. • Reduction in workplace accidents as the solution is safer & more reliable as compared to forklifts
Siemens	Remote Visual Inspection based Tele-operation and movement of CMR robot in the manufacturing plant & substation	• Faster & efficient way to perform visual inspections in the large & hazardous area
India's largest passenger vehicle Automaker	Perform autonomous inventory checking and provide real-time and accurate inventory data	• It is over 3X faster than humans • It allows the workforce to focus on more cognitive tasks

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