

NASSCOM®
Center of Excellence-IoT & AI
A MeitY Initiative with Govt. of Karnataka, Haryana, Gujarat & AP

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CONSOLIDATED REPORT

CoE-IoT & AI



Ministry of Electronics
& Information Technology
Government of India



સત્યમેવ જયતે
Government of Gujarat



COVID Round Up

NASSCOM CoE Supports Startup Solutions In Fight Against COVID-19: CoE's robust startup ecosystem has been enterprising and agile during this crisis, by developing a host of solutions that are helping in the fight against COVID-19. Through our community building efforts intended to accelerate visibility and product agility, as well as extending virtual startup acceleration programmes, these startups have gained a fair share of visibility in the media, with enterprises and government in the past quarter.

8 Start-ups curated across the country were presented to empowered committee of NITI Aayog by CoE for COVID related health solutions and they received appreciation from Shri Amitabh Kant, and Shri Vijay Raghavan. These startups included BlinkIn, AgVa Healthcare, MicroGo, Staqu and DronaMaps.

<https://www.firstpost.com/health/nasscom-teams-up-with-iot-ai-startups-to-provide-low-cost-solutions-to-combat-covid-19-8432141.html>

Other CoE startups developing solutions for COVID-19 include JioVio, Vincense, CamfyVision Innovations, Radical Health, Stackfusion, TorchIt and Indolytics.

Fight Against COVID-19 - Revive & Restart: EIGHT startups from CoE presented their COVID solutions to the Ministry of IT, BT & ST, Govt of Karnataka. These companies are Netobjex, Cosine Labs, Camfy Vision, Sensegiz, Ibrum, DronaMaps and Uncanny Vision. NASSCOM is crowdsourcing ideas in healthcare on how to deal with the COVID situation. This was a joint call for technology-assisted solutions or a non-technical solution. It could be a process or a method or sheer guidelines. This will culminate in the conducting roundtables with country's healthcare stakeholders for the next one year.



LHIF Updates

MoU with Siemens Healthineers: Siemens Healthineers and NASSCOM have entered a partnership for collaboratively nurturing innovation in healthcare startups. Siemens Healthineers and NASSCOM's Center of Excellence for IoT& AI will work with the Indian startup ecosystem to make healthcare more accessible and affordable. Through this partnership, the startup ecosystem in India will benefit from the global experience of the Siemens Healthineers Technology Accelerator in collaborating with businesses that are working on cutting-edge technologies in the areas of imaging, diagnostics and digital health leveraging AI, Internet of Medical Things (IoMT) and robotics.



Healthcare Challenge with BIRAC: Following the signing of the MoU with BIRAC, NASSCOM CoE's LHIF kicked off the discussions and strategy to develop the BIRAC NASSCOM Healthcare Challenge, scheduled to take place in November 2020. The challenge is intended to identify and run pilots for improving healthcare in the low-resource areas in India. The solutions would be centered around Digital Health, with a focus on IoT, AI, machine learning, M-Health, E-Health, low cost medical devices, digital wellness etc.



LHIF Updates

Healthtech Unconference : NASSCOM CoE & NASSCOM Product Connect organised a webinar 'Combating COVID-19 Through Technology - HealthTech, the UNConference Way' on May 1, 2020. Speakers included Dr Devi Shetty of Narayana Health, Ms. Rekha Menon, Vice Chair of NASSCOM & MD, Accenture, Dr. Arvind Kasaragod of Cloudnine Hospitals, and entrepreneurs like Nitesh Kumar Jangir of Coeo Labs, Abhishek Shah of Wellthy Therapeutics & Agendra Kumar of Esri Technologies in a two-hour session moderated by Raghuram Janapareddy. There were more than 1,000 registrations for this event.



Partner Updates

Incubation & Acceleration: In the spirit of furthering the innovation ecosystem, NASSCOM CoE has launched the Virtual Acceleration & Incubation Programme. An extensive virtual pitch meet was conducted by CoE to add more incubatees. This virtual meet was attended by 29 technical and innovation experts from **Aricent, Bosch USA, Cisco, Diageo, GE Healthcare, IBM, Intel Corporation, LG Electronics, L&T Technology Services Limited LTI - Larsen & Toubro Infotech, Qualcomm, VMware and Yokogawa**. The startups in areas of Agritech, Antipiracy, Automotive, Healthtech, IIOT, Logistics and Robotics pitched to enterprise leaders. The conversations continued offline and will result in mentoring, product enhancements, PoC possibilities with these enterprises. **10 startups have enrolled in addition to 100 incubated.**

Qualcomm IP Workshop: CoE, which has long advocated IPR to foster innovation, entrepreneurship and enable technology ecosystems to thrive, organised a hands-on online workshop on IPR, by bringing together experts from Qualcomm, who will deep dive into IP rights and its relevance to further business goals.

GE Healthcare Edisonx 1st Cohort: CoE engaged startups 5C Network and Predible Health among others including Synapsica and DeepTek - members of the first cohort of GE Healthcare EdisonX - are working on proprietary technologies to tackle COVID-19. GE Healthcare's EdisonX Demo Day was held in June 2020, and registrations for the second cohort will begin soon. CoE will be playing a key role in startup engagement & curation.

LG Electronics WebOSIoT: LG Electronics and CoE conducted a webinar on #WebOS IoT - Sharpening The Edge, led by Pradeep Mathew & Guruprasad KN of LG Soft India. WebOS is LG Electronics platform deployed in over 100 million IoT devices including TVs, digital signage, robot and automotive.

TiE & SAP Labs - Future of Industries: TiE BLR and SAP Labs India webinar series: Future of Industries on "IoT - The New Normal & Technology of the Hour" was conducted with CoE speakers included Venkatesh Kumaran, IoT Forum; Pavan Kumar of SAP Labs, Geetha Manjunath of Niramai and Tej Pochiraju of IoT Ready.

Online Delegation Events

Meet & Interact with Israeli startups in Smart Logistics : The Economic Trade Mission, Consulate General of the State of Israel of South India, Israel Export Institute in association with NASSCOM CoE IOT & AI and Accenture Ventures, presented a webinar featuring topnotch Israeli startups in Smart Logistics. Speakers included Shai Moses, Consul for Trade and Economic Affairs, Israel; Avnish Sabharwal of Accenture Ventures & Sanjeev Malhotra, CEO of NASSCOM CoE, who shed light on how they are accelerating the innovation ecosystem in India.

Going Global Webinar : NASSCOM CoE-IoT is partnering with Start Up Going Global to conduct webinars on 'Global Startup Programs' with speakers from 4 countries. This was a must-attend session for startups, VCs, angel investors, startup networking platforms and associations.



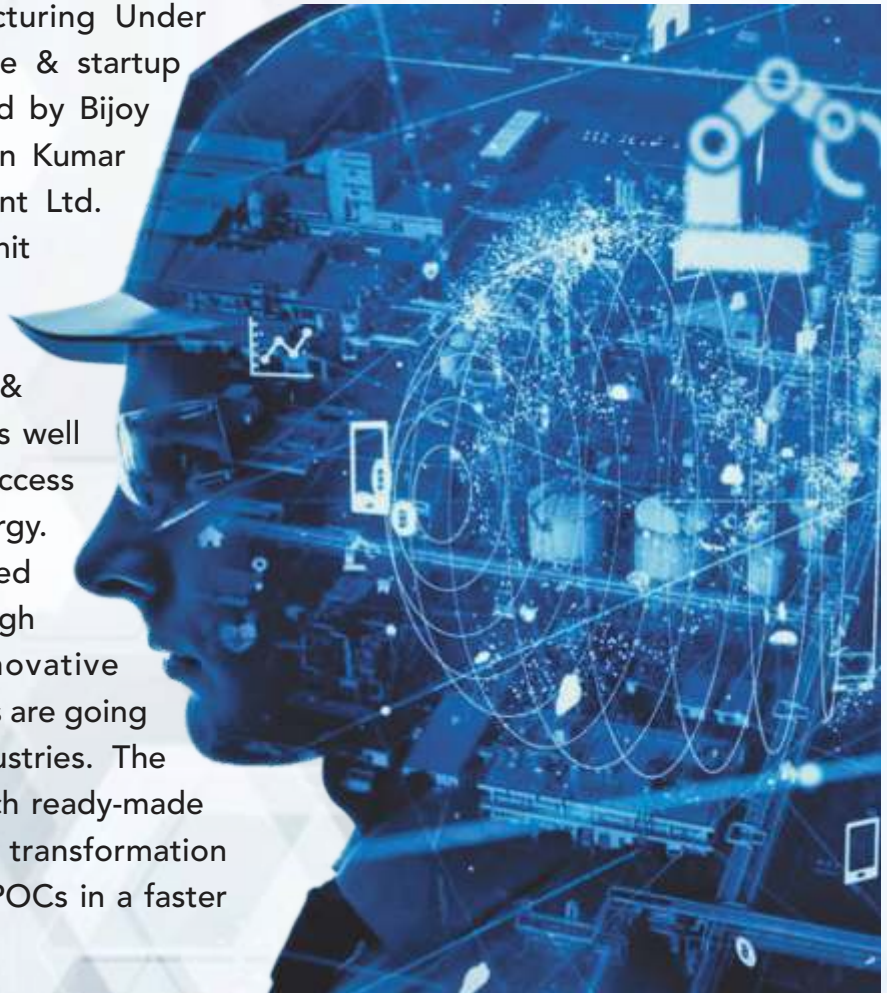
Manufacturing Under Lockdown 1: How to plan for the Future



NASSCOM CoE Gandhinagar conducted the first edition of Manufacturing Under Lockdown in April, with a focus on leveraging digital technologies to plan for a different future in manufacturing, intended to help and guide professionals on managing and navigating out of lockdown in manufacturing. The first session had more than 170 professionals across manufacturing enterprises. Speakers were NC Chakrabarti of Reliance Industries, Keyur Bhalavat of Plutomen, Suraj Rajan of Alluvium IoT Solutions Pvt. Ltd. & Ankit Dave of Indolytics who discussed digital technologies aiding manufacturing even during a lockdown.

Manufacturing Under Lockdown 2 - Enterprise Startup Collaboration

The 2nd edition of Manufacturing Under Lockdown explored enterprise & startup collaboration opportunities led by Bijoy Chatterjee of SKODA, Naveen Kumar Sharma of JK Lakshmi Cement Ltd. HaritSoni of Ecolibrium and Amit Saluja of NASSCOM who discussed collaboration between enterprises in auto & manufacturing, and startups as well as integration models and success stories modelled on this synergy. In the current scenario of limited resources and the required high speed of implementing innovative solutions, collaborative models are going to be the new trend in Industries. The enterprises need to adopt such ready-made platforms to speed-up their transformation journey and can execute the POCs in a faster and low risk manner.



Virtual CXO Roundtable 1: Challenges In Manufacturing & Digital Solutions

The first virtual CXO roundtable discussed the new normal and how it will lead to a reduction in workforce so productivity and throughput improvement is critical to meet the demand. With large enterprises depending upon MSMEs for their raw material, disruption in any segment will impact the whole manufacturing ecosystem. The emphasis was on enterprise – start-up collaboration can be of great help to do POCs and assess the ROI of digital initiatives. Semi-automation functions with human intervention can be explored with a need to develop a structured approach to build the strategy for the future.



Virtual CXO Roundtable 2: Manufacturing Under Lockdown



The second roundtable took on the issue of executing manufacturing under lockdown conditions and anticipating customer behavior. With a new digital strategy, along with customer, the vendor too has to be aligned and considered a benefactor of this plan. Human centric design and engineering, digitalization and partnership model will be the guiding principles in future. If processes are changed gradually, operations can become more efficient and these changes could be implemented with support from digital technologies

Virtual CXO Roundtable 3: Manufacturing Under Lockdown

The third roundtable considered the impact of political and military events with China on India's manufacturing supply chain and strategies. Additionally, worker Safety, remote monitoring health and environment parameters through digital means was also discussed. Skilled workforce availability will remain a challenge for long and the industry needs low-cost digital solutions for workforce management, AR/VR based remote assisted manufacturing and IoT solutions to track logistics. AI can be of big help for Integrated Business Planning to ensure inventory, supply chain, demand forecasting & manufacturing processes are in sync.



Virtual CXO Roundtable 4: NASSCOM CoE & FICCI

The roundtable organized by NASSCOM and FICCI had participants discussing production and logistics costs to be lowered with technology-led initiatives required to improve productivity and efficiency. Preventive maintenance and energy management solutions can help in reducing the cost and manufacturing companies should work with solution providers and start-ups to try out new initiatives that can help in reducing cost. Case studies need to be created to replicate the solutions across industries.



– lockdown, COE Gandhinagar decided to host the Digital Innovators Meet online. This witnessed extensive participation from startups and the topics included Patent and IP Rights For Startup Success, cognitive engagement & AI enabled enterprise skills and survival strategies during crises like COVID19. Speakers included IP lawyer Jatin Trivedi, entrepreneurs Raghu Ravinutala of Yellow Messenger & Subramanian (Subbu) Viswanathan of DISPRZ, and Digvijay Singh of Indian Angel Network.

Accelerating Enterprise Hybrid Cloud Journey with OpenShift Platform

27th April, 2020: The ability to stay cloud vendor agnostic is indispensable for any company. Most enterprises today are building products/applications based on cloud native architectures that's distributed for webscale and agility.

NASSCOM CoE & IBM organised a Webinar on **Accelerating Enterprise Hybrid Cloud Journey with OpenShift Platform.**

OpenShift is an open-source cloud native pre-integrated enterprise grade container management platform based on Kubernetes container orchestrator for development and deployment of Enterprise scale applications on cloud-native architectures. This container management platform when offered as a managed service to the companies allows them to easily manage and maintain a hardened and scalable version of the container management platform and helps the companies to:

- Save operational and monetary costs, which could be best channelled towards building the core business
- Avoid cloud vendor lock-ins, making the application workloads future ready and portable across any on-premise or public clouds
- Faster roll-out of cloud native products

Attendee Profile:

There were over 60 attendees from Enterprises like: UST Global, TCS, Nagarro, RBS, Publicis Sapient, Landisgyr, S&P Global, Dell, Altran, J K Technosoft, TATA Communications, Globallogic, Wipro;

Startups/Tech SMEs like: KBN KnockIoT Solutions, Awiros, Adio Brand Solutions, Lithion Power, Nable IT, Logicus, BoticxLabs, Avenaire, Kritikal Solutions, Marjan Machinery India, Blinkin Technologies, Inventum technology, VKS Technologies, Neewee, AshXplorer, DeepSight Ai Labs, Innokreat Technologies, Logicon, Siddhan Intelligence, Cogniticx, BKC WeatherSys, iNoble, Rightful Labs, Rhein India Technologies, invoid and Academia like Uiet, Kurukshetra University, SNS College of Engineering.



Cybersecurity in the Digital World

30th April, 2020: As per the NASSCOM KPMG report, 51% CEOs say that becoming a victim of a cyber attack is a case of 'when', not 'if'. The report also indicates that manufacturing was the most heavily targeted industry for cyber-attacks in the past year.

NASSCOM CoE & ACMA co-organized a webinar on "Cyber Security in the Digital world."

The poster for the webinar "Cyber Security in the Digital World" is titled "Webinar focused on Security in the Post COVID world". It features the NASSCOM Center of Excellence-IoT & AI logo and the ACMA logo. The agenda includes: Introduction to Security (Information Security Basics, Cyber Security Concepts), Cyber Attacks (Hackers Mindset, Recent Attacks, Cyber Attacks on Manufacturing companies), and Cyber Security While Digitalization (Work from Home threats, ACS and IoT threats). A Q&A session is also mentioned. The speaker is Vishal Shah, Founder, Talakunhi. The event is on 30th April 2020, starting at 3:00pm onwards. A "REGISTER NOW" button is present.

Session Brief

The session saw over 150 participants from manufacturing, government departments and academia communities. The session was focused on the cyber security challenges when working from home – both from the perspective of corporates and the employees. There was very active participation from those present, with Q&A lasting over 45 minutes.

Enhancing Productivity using the tools of G-Suite

7th May, 2020: The COVID situation has forced the enterprises to enable Work from Home (WFH) in their organisations, which has created a need for the adoption of collaborative tools. These tools need to be user friendly, secure & interoperable.

NASSCOM CoE & ACMA co-organized a webinar on "Enhancing Productivity using the tools of G-Suite."

Session Brief

The session had around 120 attendees from Auto Component Manufacturing SMEs. The session was focused on a deep dive into G-suite and other tools that help in increasing productivity, trust and collaboration in the work force. The session was followed by Live Demo of the tools and elaborate Q&A session.

The poster for the webinar "Working Remotely: G Suite as an Option" features the NASSCOM Center of Excellence-IoT & AI logo and the ACMA logo. It lists three speakers: Divya Poswal (Google Cloud India), Sanchit Dikshit (Infiflex Technologies Pvt Ltd), and Amit Dugana (Infiflex Technologies Pvt Ltd). The event is on 7th May 2020, starting at 10:30am onwards. A "REGISTER NOW" button is present.

Voice of Manufacturing Second Edition

22nd May, 2020: NASSCOM CoE IndDIC, Second Edition “Voice of Manufacturing” discusses protocols for manufacturing, dodging supply chain bottlenecks and emerging technologies enabling revival.

Industrial leaders shared dilemmas on COVID-19 pain-points: reviving business & operations and business continuity. IndDIC highlighted key challenges from industry adoption on ‘Convergence of solutions for New Normal’; ‘Addressing disruption of Global Value Chain’ and ‘Scaling solutions in New Normal’

The revival challenges pertained to developing in-house manufacturing as below:

- Selection of market basis demand, economic crisis
- Reduced workforce & production capacity, safeguarding social distancing and employee safety
- Planning sales and supply chain uncertainties
- Inventory management and resuming efficient production with Zero-defect/Quality monitoring
- Building BS-VI compliance capabilities
- Ability and readiness of companies to adopt Industry 4.0 technologies

New Normal Road-map - ‘New Normal’ includes workplace health compliance, decoupling & reconnecting supply chain, domestic manufacturing for reduced dependency on imports and building strategic resilience. Ensuring efficient work from home by adopting remote diagnostic collaborative tools based on IIOT & AI.

Towards Industry 4.0 – Adoption of digital solutions for rebooting, since disruption of ecosystem fosters innovation. Key enablers include MSMEs role in domestic manufacturing & exports, agile supply chain & process visibility. Increased demand of telecom and e-commerce due to pandemic has piloted Automation, Connectivity Intelligence, Robotic Process Automation (RPA) and Internet of Things (IoT).

COVID Impact Across Manufacturing Value Chain – COVID-19 disrupted global supply chains impacting logistics, workforce availability and capacity utilization. Unpredictable delays and variations in lead time, demand & supply capacity mismatch and

inadequate fulfillment capacity to meet demand are indicated. Convergence of technologies like IoT, AI/ML, 3D Printing, Zero-defect & effect, multi-skilled lean workforce model, real time fleet-tracking, are pivotal.

Dilemma and solutions for revival – The 4M’s of manufacturing – Material, Machine, Manpower and Methods help infer digital solutions to address pitfalls. Digital Twins, AR/VR, shift from legacy to integrated digitized infrastructure addresses problems of quality, scalability, contactless workforce management. Use cases discussed – Paragon footwear implementing IoT to improve supply chain efficiency; Tracking solution for India’s largest railways network provider; JK Tyre integrating IoT and analytics to understand complex manufacturing process.

The webinar helped understand methods to customize solutions to match defined problems of organizations. Dynamic decisions to rapidly changing circumstances and specific challenges of the industry are essential.

Investor Hours with Venture Highway

30th June, 2020: The Covid-19 pandemic has emphasised the Healthcare sector and investments in the HealthTech space is the need of the hour. NASSCOM CoE - IoT & AI & Venture Highway had organised a series called **Investor Hours with Venture Highway**.

The investor pitching session focussed on early stage investments in HealthTech, Healthcare IT & MedTech focussed startups. Investors that were present during the session are:

- Sridhar Karanth
- Aakanksha Sharma

Predible and 5C Network were short listed for first pitching session. The next session of the series is on 20th July 2020.



Torchit deploys Sanitisation Chambers to prevent the spread

A primary reason that the Coronavirus is spreading so rapidly is its ability to transmit from one person to another through surface & body contact which has caused the second and third infection to spread so vigorously. It becomes extremely critical for a decision maker for any premises to understand that their facilities need to be sanitized and also the person entering the premises should also be sanitized at the entry & exit instances in order to reduce the amount of infection which can be carried by an employee, a patient or any other person walking into the premises.



Co-founders: Mohit Chelani & Hunny Bhagchandani

Success: Torchit has developed a “Sanitization Chamber” which is deployed by hospitals, departmental stores, apartment buildings or any other facility in order to sanitize the entrants of the premises and contain the spread of corona in their premises. It ensures each and every person walking through the tunnel is completely sanitized thereby reducing the risk and spread of infection for that person and all other people in that premises. 1 liter of spraying mist can disinfect around 6 - 7 persons; So, per person disinfection cost is less than Re 0.20 (< 20 paise). The disinfectant used is 0.05% wt sodium hypochlorite solution (500ppm) recommended by CSIR-National Chemical Laboratory (CSIR-NCL), Pune and Institute of Chemical Technology (ICT), Mumbai.

Testimonial

We have been associated with NASSCOM for over an year now and we have benefited greatly with regards to the government projects that we are seeking to engage with, especially the Government of Haryana, and be a part of the events to connect with the stakeholders in the industry & the government.

- Mohit Chelani

Quick Facts:

The sanitization chamber is deployed at the Government of Gujarat, BSE, Indian Railways, Amdavad Civil Hospital, Amul, Coal India etc.

UVGI based sanitization device to prevent surface transmission

According to WHO, COVID-19 is a droplet infection. These droplets can land on objects and surfaces around the person and the people can become infected by touching these objects or surfaces, then touching their eyes, nose or mouth. In view of the current coronavirus pandemic, the team has developed an object sanitization device called ViroSafe.



Co-founders: Abhinav Saksena & Gaurav Kansal

Success: ViroSafe, which is a UVGI (Ultraviolet Germicidal Irradiation) based device, that uses UV-C at 254nm to sterilise grocery items, food items, or any object in order to stop the transmission through surfaces. UV-C destroys a microorganism's nucleus or DNA causing cell death or making replication (cell division) impossible and also degrades simple organic material at the molecular level. Since UV-C is harmful to all organic matter including human beings, even brief exposure can result in skin irritation and/or eye irritation that could lead to serious consequences after prolonged exposure. Therefore, meticulously designed safety interlocks are used to provide the utmost in safety precautions.



28L Gamma



50L ViroSafe

Testimonial

NASSCOM CoE-IoT has supported us in building the technology we have built - ViroSafe and Viro8 have been developed amid the Covid-19 pandemic. Lab support at the CoE-IoT helped us to calibrate our devices for exact dosages. Our team is in constant touch with NASSCOM CoE-IoT Gurugram and is particularly focusing on pitching to various organizations like Airport Authority of India, AIIMS, Government Offices, etc.

- Abhinav Saksena

Quick Facts:

Their solutions are deployed with the Ministry of Home Affairs, JK Group, TCIL

STRATEGIC PARTNERS



CO-CREATE/INNOVATION PARTNERS



INFRASTRUCTURE PARTNERS



FOR FURTHER INFORMATION CONTACT :

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