



Hyperledger in Action

India

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Introduction

Since 2016, the Hyperledger Foundation has been working to build a global community that is open, trusted and impactful at the local level. And no other country or region has embraced this model to grow their community involvement more than India.

We are Global.

Hyperledger regional chapters are organized groups of community members in different parts of the world that are working together to address contribution barriers in their regions. All chapters are open to anyone around the world and provide cross region collaboration.

We are Open.

Being open is core to what we do. We're here to lead an open, global and welcoming enterprise blockchain ecosystem. Our aim is to create a neutral, even playing field where no contribution is seen as too small or insignificant and everyone can innovate without worrying about politics or competition.

We are trusted.

Trust is the deciding factor in whether a society can function. Without trust, the system fails. Blockchain technologies are enabling a new era of trusted collaboration that is fundamentally transforming business transactions across new and existing markets. Our regional chapters are key to building local trust and communities.

We are building better together.

Hyperledger technologies are increasingly at play in redefining information sharing and transactions for many leading organizations. As the **2022 Forbes Blockchain 50** shows, Hyperledger technologies are the standard for companies, including DTCC, Fujitsu, Oracle, Tech Mahindra, Tencent, Walmart and more, that have made blockchain technology a core foundation of their business operations.

Join Us. The journey is just beginning.

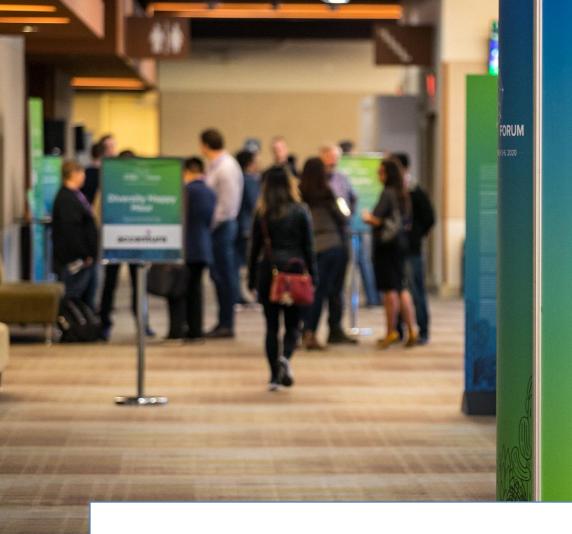
HYPERLEDGER FOUNDATION

Gur India community, led by the regional chapter, is responsible for growing the Hyperledger community in India, promoting contributions to Hyperledger projects and providing a platform for collaboration, mentoring and support. The community's growth is a combined success of our regional chapter and our members worldwide who support developer ecosystems in India.

Daniela Barbosa, Executive Director, Hyperledger Foundation







WELCOME!

Hyperledger Foundation

An Overview of the Foundation

What is Hyperledger?

This section provides a high-level overview of the Hyperledger Foundation.

Hyperledger Foundation

The Hyperledger Foundation is the open, global ecosystem for enterprise blockchain technologies. As part of the Linux Foundation, it is a neutral home for developers to collaborate, contribute, and maintain open source software.

Hyperledger was founded in 2015 to bring the transparency and efficiency of DLT technologies to the enterprise market, leveraging the well-proven open source software model. The high level aim is to enable solutions that connect industries, organizations, and even individuals more directly, recreating how information is shared and business is conducted.

The Hyperledger Foundation hosts a number of open source software projects that serve as the building blocks for enterprise blockchain deployments.

Read Full Overview:

Hyperledger Foundation Paper

These projects are conceived and built by the Hyperledger developer community as freely available, enterprise-grade software that vendors, end user organizations, service providers, start-ups, academics, and others can use to build and deploy blockchain networks and commercial solutions.



Because our projects are developed and governed as open source technologies, Hyperledger projects are all community led.

Open Source Development

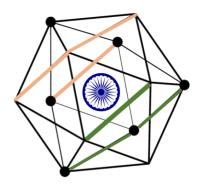
Open source software development is a transparent process, which is particularly fitting for blockchain technologies. It brings together organizations and individuals with different requirements and drives them to work together to develop common solutions that can be the foundation for mutual success—another good parallel with blockchain.

Hyperledger Foundation Goals









HYPERLEDGER INDIA CHAPTER

The Hyperledger India Chapter is responsible for growing the Hyperledger community in India, promoting contributions to Hyperledger projects and providing a platform for collaboration, mentoring and support. The chapter aims to showcase the broad range of Hyperledger projects and initiatives to the Indian audience.

The India Chapter was the first regional chapter established for Hyperledger and has led the way with exceptional community activities and engagement, across India and internationally.

The chapter is ably led by Arun S M, a Staff Software Engineer at Walmart, and Kamlesh Nagware, CTO at Snapper Future Tech, both of whom are Hyperledger Technical Steering Committee members. Members of the India community have taken on leadership roles with the Hyperledger Foundation at the global level, including as maintainers and contributors across Hyperledger projects and as noticeable contributors in special interest groups and working group activities.

The chapter runs a wide variety of valuable events, such as meetups, webinars, hackathons, weekly calls and more.

Events include:

- Blockchain Stories 2020
- Blockchain Tech Fest 2020
- Hackathon Feb 2020
- Blockchain Stories 2021
- HYPERHACK 2021
- Women in Blockchain
- Hyperledger India Events

Follow Hyperledger India Chapter | LinkedIn page for updates.

Please visit: https://wiki.hyperledger.org/display/HIRC/Hyperledger+India+Regional+Chapter+Home





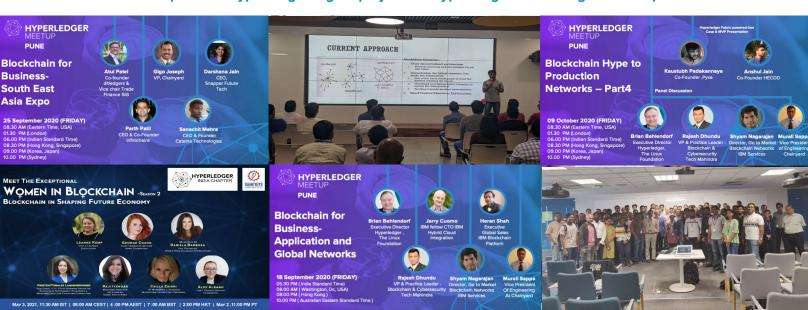
HYPERLEDGER INDIA CHAPTER

Contributions from the Hyperledger India Chapter include:

- 20+ maintainers, 100+ contributors across Hyperledger projects, Hyperledger-Labs projects and other documentations
- 7% Hyperledger Besu contributors from India
- 5+ interns from India
- 2 Hyperledger Technical Steering Committee members from India
- Chair for Telecom SIG
- Program committee member for Hyperledger Global Forum 2020, 2021, 2022

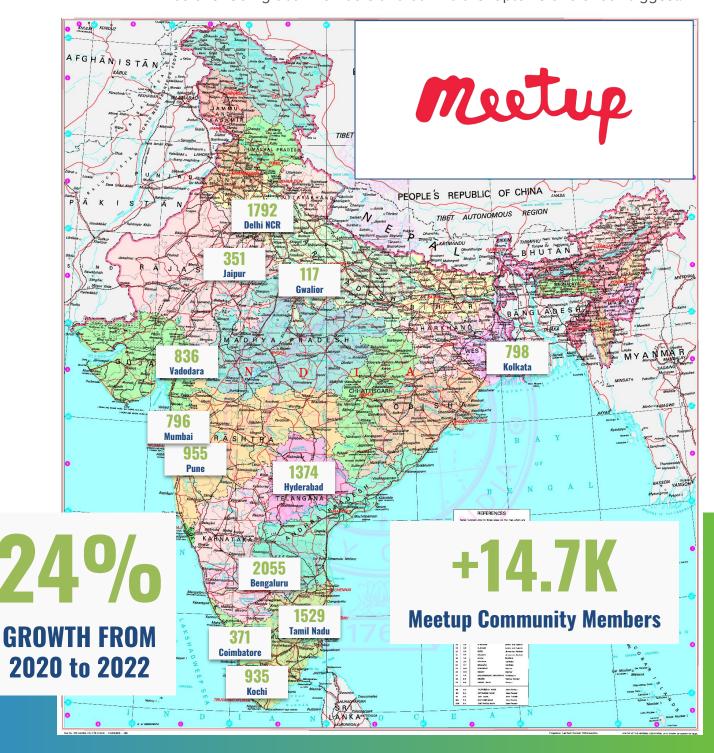
- The Hyperledger India Chapter was the first open source community in India to share input on the ambitious National Blockchain Strategy and was acknowledged by MeitY (Ministry of Electronics and Information Technology).
- Created and maintains the
 "Getting Started With
 Hyperledger" portal. This really
 helps contributors globally to
 identify the areas where they want
 to contribute, which is the first and
 most important step in open
 source development.

Please visit: https://wiki.hyperledger.org/display/HIRC/Hyperledger+India+Regional+Chapter+Home



HYPERLEDGER INDIA CHAPTER

Meetup is a social media platform for hosting and organizing in-person and virtual activities, gatherings, and events. The Hyperledger Foundation meetup community has over 86K global members and our India Chapter is one of our biggest.



Please visit: https://www.meetup.com/pro/hyperledger/

Mentorship Leadership

The Hyperledger Mentorship Program is a structured hands-on learning opportunity for new developers who may otherwise lack the opportunity to gain exposure to Hyperledger open source development and entry to the technical community. It also provides a more defined path for the Hyperledger Foundation to connect with the next generation of student developers to nurture and inject more talent into our development community.

+50%

of global student mentees are from India

Developers and students in India are active contributors to Hyperledger projects and play a significant role in advancing Hyperledger technologies. More than 50% of student mentees in last year's program were from India. We look forward to further engaging and growing this program and encouraging increasing student participation.

Mentors from India include leaders with in-depth expertise and experience from Hyperledger member companies, including Vinod Panicker, Wipro, Kamlesh Nagware, Snapper Future Tech, Arun S M and Rahul Batra, Walmart, Vipin Rathi, University of Delhi, Suvajit Sarkar, Accenture and many more.

"The Hyperledger Mentorship Program has been a great opportunity for me to dive into the world of open source development. It not only let me understand the fundamentals of open source development but also develop a library to support multiple client-side solidity code for EVM-based blockchains for smart contract interoperability through interfaces. The project helped me a lot in implementing the theoretical knowledge learned in university in real-world projects. I am so glad that I got a very supportive mentor. Despite our timezones, he helped a lot in every aspect of the project."



Shritesh Jamulkar National Institute of Technology Raipur

Some of our India mentees:



AyanWorks Technology Solutions Pvt. Ltd.

Harsh Multani



ABV-Indian Institute of Information Technology & Management

Harsh Sharma



SVKM's Institute of Technology, Dhule

Amit Chaudhari



Indian Institute of Technology. Roorkee

Ayush Jalan



Pune Vidhyarthi Griha's College Of Engineering And Technology-Pune



Hardik Gupta

Graphic Era Hill University

Hyperledger Projects

The Hyperledger Foundation helps build communities by gathering people sharing a common interest in developing blockchain related software. Today, there are various blockchain technologies being developed across the Hyperledger community. The Hyperledger Foundation hosts a variety of platforms that serve as the foundation for blockchain networks across a range of industries and use cases. All projects are open source, which means that you can download and use the software free of charge as all source code is licensed under the Apache 2.0 license.

The term "project" within Hyperledger refers to a collaborative endeavor to deliver a work item. Each project has it own name, developer community and goals.

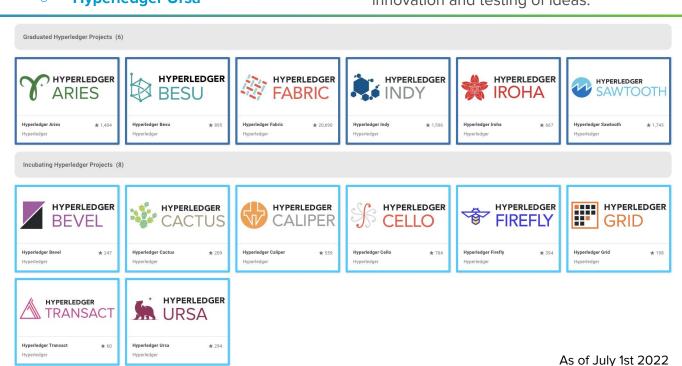
The project categories consist of:

- Distributed Ledgers
 - Hyperledger Besu
 - Hyperledger Fabric
 - Hyperledger Indy
 - Hyperledger Sawtooth
- Tools
 - Hyperledger Bevel
 - Hyperledger Cactus
 - Hyperledger Caliper
 - Hyperledger Cello
 - Hyperledger Firefly
- Libraries
 - Hyperledger Aries
 - Hyperledger Transact
 - Hyperledger Ursa

The Project Lifecycle for all projects consists of six possible states and our project landscape image below displays our Graduated and Incubating Projects:

- Graduated Projects seeking to graduate from Incubation must meet the criteria defined in the Incubation Exit Criteria
- Incubating- Approved project proposals enter into Incubation

Hyperledger Labs provides a space (i.e., GitHub repos) where work can easily be started without the creation of an official project. It is a space where we see vibrant innovation and testing of ideas.



Community Work with Hyperledger

As you can see throughout this ebook, the Hyperledger community is actively advocating, developing and deploying blockchain technology.

The Hyperledger team, working with our Foundation members, have been following closely the activities and projects that are using Hyperledger technology.

We know there are many public and not-yet-public examples exploring and using Hyperledger Besu, Hyperledger Fabric, and Hyperledger Iroha, as well as other DLTs. We hope this overview provides you with a good summary of those efforts.

- Hyperledger Case Studies
- Hyperledger Blockchain Showcase
- Follow us on social media
 - Twitter @Hyperledger
 - LinkedIn

How else can you get involved in the work happening at Hyperledger Foundation?

- Join as a Hyperledger Foundation member. Our member companies are industry-leading organizations, big and small, working on these exciting projects. Stand out and be seen as a leader in the enterprise blockchain space. Learn more about membership.
- Download and learn more about our Projects:
 - https://www.hyperledger.org/use
- Participate in our open communities, like our Financial Markets SIG
 Telecom SIG, Public Sector SIG and more!
- Deep dive into Hyperledger projects with training and certifications.
- Attend other Hyperledger events and webinars.

Photo by Shridhar Gupta on Unsplash



Certified Service Providers and Training Partners

The Hyperledger Certified Service Provider (HCSP) program is a pre-qualified tier of vetted service providers who have deep experience helping enterprises successfully adopt Hyperledger technologies.

HCSP partners offer Hyperledger support, consulting, professional services and training for organizations embarking on their Hyperledger journey.

The HCSP program ensures that enterprises get the support they're looking for to roll out new applications more quickly and efficiently, while feeling secure that there's a trusted and vetted partner that's available to support their production and operational needs.

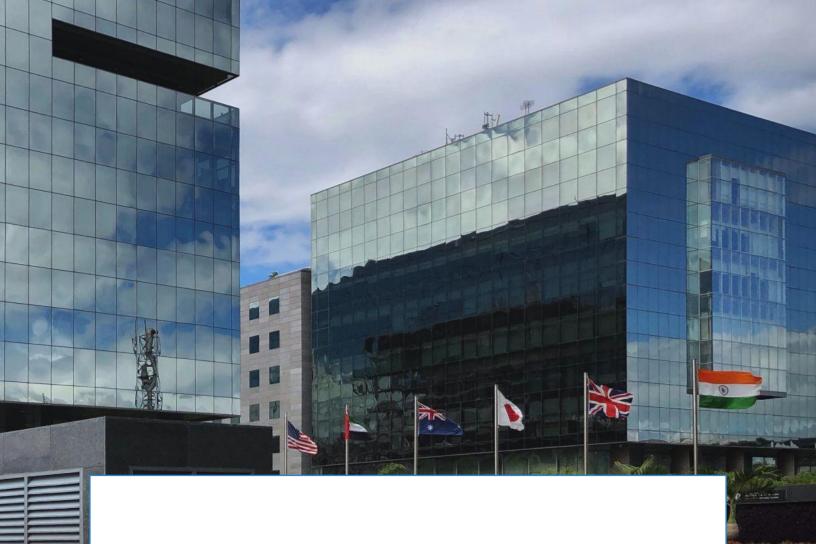
Hyperledger Foundation members in India who are HCSP partners include Wipro, Mindtree, Tech Mahindra and Snapper Future Tech. Hyperledger Training Partners offer instructor-led classes and custom workshops featuring Hyperledger frameworks and tools to help meet the growing need for professionals with blockchain skills.



Our training partners in India include Snapper Future Tech: Indian Blockchain Institute and Kerala Blockchain Academy.







Hyperledger Foundation Members

Regional Focus. Global Services.

Photo by Swapnil Potdar on Unsplash





Wipro Limited is a leading global information technology, consulting and business process services company that is a thought-to-finish partner for clients in their blockchain journey. Wipro brings respected and well-recognized advisory services to clients on blockchain technologies, construct blockchain networks and tailor solutions leveraging their COE (center of excellence) combined with their powerful blockchain partner ecosystem.

Global Forum 2021: Oceans Plastics Recycling Solution using Hybrid Blockchain - Hitarshi Buch. Covid Vaccine **Beneficiary Identification using Verifiable Credentials -**

Punit Kumar & Hitarshi Buch

Member Webinar: Number Portability Chain, Next Gen

Number Portability Blockchain solution

Hyperledger Blog: Simplifying Number Portability with

Blockchain, By Subrat Saurabh **General Member Since: 2017**



Please visit: www.wipro.com

"We are excited about joining Hyperledger and look forward to working closely with the Hyperledger community to catalyze blockchain adoption for global enterprise. Our customers are increasingly looking at Hyperledger to build enterprise-grade blockchain solutions for specific industry use-cases. Additionally, Wipro's open source services, expertise and solutions add value to our Hyperledger-based blockchain offerings. We look forward to investing in crowdsourced innovation and open collaboration as part of our efforts in the Hyperledger community."

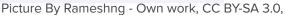
Krishnakumar N. Menon, Vice President & Global Head -

Platforms & Blockchain Theme leader, Wipro Limited









YPERLEDGER



Mindtree [NSE: MINDTREE] is a global technology consulting and services company that enables enterprises across industries to drive superior competitive advantage, customer experiences and business outcomes by harnessing digital and cloud technologies. Mindtree has been developing capabilities around Hyperledger for the last four years, and started contributing to the Hyperledger community in 2017.

Global Forum 2021: Demo: How to Archive Ledger using Ledger-checkpointing - Santanu Mukherjee & Teja Surisetty

Case Study: How Mindtree revolutionized loyalty platforms and merchant onboarding with Hyperledger Fabric

Member Webinar: An Hour With Mindtree: Making Blockchain & Disruptive Tech The Silver Bullet To Revitalize Aviation

General Member Since: 2019



"Hyperledger under the Linux Foundation umbrella lays out a solid foundation with a plethora of enterprise blockchain open-sourced offerings. Mindtree, being a general partner of Hyperledger, was able to help several customers spanning various industries realize their vision and value by creating a prototype, or architecting an end-to-end platform, over the last several years. This partnership is highly instrumental in building Mindtree's strong domain expertise around blockchain technology and also customer delivery to accommodate security, resiliency, inclusion, and sustainable efficiencies. Mindtree has built various industry-specific in-house accelerators using Hyperledger frameworks that enable a jump-start."

Radhakrishnan Rajagopalan, SVP, Global Delivery Head Technologies, Customer Success & Data Common, Mindtree Ltd





Tech Mahindra

Tech Mahindra is one of the leading Blockchain Service

Providers in the world with demonstrated product development capabilities using Hyperledger projects. With 250+ global engagements and 100+ core Blockchain team members trained on Hyperledger, they have extensive experience in developing and deploying several transformative implementations for governments, large and mid-sized enterprises across diverse industry verticals.

Case Study: How Tech Mahindra Deployed Hyperledger Fabric for the Digital Transformation of Abu Dhabi's Land Registry Member Webinars:

- Demystifying NFTs: Introduction, Applicability and Use
 Cases
- Unsolicited Commercial Communication (UCC) Tech
 Mahindra

General Member Since: 2019



"Tech Mahindra has demonstrated strong product development capabilities using Hyperledger projects by developing 25+ Blockchain platforms and also implemented one of the world's largest Blockchain networks covering 450 million+ subscribers in India to fight spam calls and text. By joining Hyperledger, Tech Mahindra would like to play a strong role in architecting the future of Hyperledger technologies by architecting cutting-edge solutions to solve tough business problems for enterprises globally."

Rajesh Dhuddu

SVP & Global Business Head Blockchain & Metaverse Tech Mahindra



CERTIFIED

SERVICE PROVIDER





Snapper Future Tech is a global services and technology products company, leading digital transformation for enterprises using blockchain. It offers services in Blockchain application development, training and consulting and an innovative suite of specialised products for various industries. Snapper is both a Hyperledger Certified Service Provider and a Hyperledger Training Partner.

Hyperledger Blog: Developer Showcase Series: Kamlesh Nagware

How innovative supply chain solutions can increase blockchain adoption By Naresh Jain

Hyperledger Mentorship Spotlights 2021: Blockchain
Integration for Climate Emissions Data with Fabric and
Cactus and Implement Client Side Security for Climate SIG
Fabric Application

General Member Since: 2021



"India has a huge potential to drive digital transformation globally, leveraging blockchain technology. We at Snapper Future Tech work closely with the Government agencies and enterprises to build innovative solutions for Indian and Global customers using Hyperledger technologies. We are very excited as we work towards the vision of making India a \$ 1 Trillion digital economy by 2025, where blockchain led digital transformation would play a significant role.

Kamlesh Nagware

CTO, Snapper Future Tech.
Hyperledger Foundation TSC
member 2021-2022
Co-lead, Hyperledger India Chapter
Hyperledger Mentor 2021-2022











2 zeeve

Zeeve is an enterprise-grade Blockchain deployment, monitoring and management platform. Zeeve supports multiple Blockchain protocols over cloud of choice. Zeeve is a Blockchain as a Service platform that provides no-code automation capabilities for Blockchain deployments. Zeeve also features advanced analytics and pro-active monitoring of both cloud resources and Blockchain resources with alerts and notifications.

Member Webinar: (July 2022) Enterprise DevOps

Automation for launching and managing your Blockchain

Networks

Hyperledger Global Forum 2022 Gold Sponsors.

Taking on Challenges of Enterprise Blockchain

Infrastructures - Dr. Ravi Chamria & Ghan Vashishtha, Zeeve

General Member Since: 2022



"We are very excited to join

Hyperledger Foundation and look
forward to partnering up with its
members to accelerate blockchain's
adoption globally, Be it Hyperledger
Fabric, Hyperledger Sawtooth or, to
support Ethereum, Hyperledger Besu,
Zeeve provides a no-code BaaS
platform to manage enterprise-grade
deployments of nodes and networks,
smart analytics, real-time monitoring
and various managed services that
enable enterprises and blockchain
start-ups to innovate faster and
achieve ROI."

Dr Ravi Chamria, Co-founder, CEO, Zeeve Inc,









Infosys is a global leader in next-generation digital services and consulting. A member of the Hyperledger Foundation since 2022, Infosys is driving enterprise wide adoption of blockchain-powered business networks across industries by building meaningful commercial/incentive models for all stakeholders in the ecosystem.

Video Hyperledger Meetup: How Riverside County,
California Reimagined the Public Records Validation
Process using Hyperledger Fabric

General Member Since: 2022

Hyperledger Foundation and work together with community members to unlock the true potential of blockchain technology. We see blockchain as a vital cog in building a truly digital future for our clients from the very core of their enterprise and at scale. We are excited to share our experiences here and learn from the community members to drive adoption of blockchain across various facets of business."

"Infosys is delighted to join the

Gopikrishnan KonnanathSenior Vice President, Global Head –
Engineering Services and Blockchain,
Infosys.











Associate Members

Kerala Blockchain Academy (KBA), is an initiative of the Government of Kerala under the Kerala University of Digital Sciences, Innovation and Technology, offering blockchain training, research, and consultancy in multiple domains. Power-packed with young technology enthusiasts and research scientists, KBA's mission is to embrace game-changing technology and bring qualitative changes to the world.

The Saintgits Group of Institutions was an early contributor to the translation of Hyperledger documentation. The primary focus of the institution is to expose young minds to the world of technology and business, instilling in them confidence and fortitude to face new challenges that enable them to excel in their chosen fields.



Image Copyright: Project Aber



Member since: 2018 kba.ai





Member since: 2020 saintgits.org





Walmart > Global Tech India

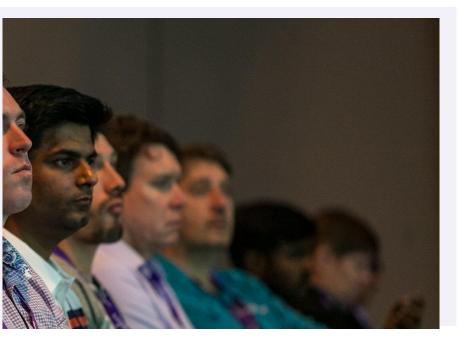
Walmart Global Tech India believes that a line of code can change the way millions of people shop. The talented teams of software engineers, data scientists, technical architects, and product managers are focused on using next-gen technology to transform the Fortune #1 company. As a people-led, tech-empowered organization, WGTI innovates and delivers solutions that empowers its associates to serve the customers globally, better. The company is headquartered in Bengaluru and have offices in Gurugram and Chennai.

Additional information about Walmart Global Tech India can be found by visiting

https://one.walmart.com/content/globaltechindia/en_in.html

Blog: Blockchain in the food supply chain - What does the future look like?

General Member Since: 2020



"Hyperledger Foundation has set forth one of the strongest open-source governance frameworks to foster enterprise blockchain and multi-party systems research. The quality of talent pool in India is enabling the Hyperledger India Chapter in channelizing the technology ecosystem to propel the Hyperledger's global objective. In my role as a technical steering committee member, I am invested in implementing my learnings and experience so far to enhance operational efficiency, identify and create adoption opportunities, and define new growth strategies for Hyperledger Foundation."

Arun S M

Staff Software Engineer, Blockchain Platforms, Walmart Global Tech India Hyperledger TSC member (2020-2022) Co-lead, Hyperledger India Chapter







Hyperledger Global Forum

Hyperledger Global Forum is the annual enterprise blockchain event for business and technology leaders.

In June 2021 at Hyperledger Global Forum (HGF), there were key presentations and panel discussions from India members and community on the front lines of blockchain deployments and the development of critical underlying platforms and technologies.

Join us in Ireland, Sept 12-13, 2022



Keynote Panel: The Global Reach of the Forbes Blockchain 50: Updates from China Construction Bank, Telefónica and Tech Mahindra HGF 2021 sessions showcasing India use cases and members include:

- Blockchain: Paving the Way for New Digital
 World Arun S M & Deepesh Verma,
 Walmart
- Blockchain Interoperability: Challenges,
 Ongoing Efforts, and Potential Solutions Vinayaka Pandit, IBM Research India
- Oceans Plastics Recycling Solution using Hybrid Blockchain - Hitarshi Buch, Wipro Technologies
- How Blockchain will Reengineer the Media
 Value Chain in the Covid and Post-Covid
 World? Rajesh Dhuddu, Tech Mahindra
- Panel: Blockchain in Energy Sector Priti Kumari & Saptarshi Choudhury, Paramount Software Solutions; Ravi Chandrasekaran, Wipro Technologies; Jos Roling, IBM & Veronica Garcia, Bitlumens
- Covid Vaccine Beneficiary Identification using Verifiable Credentials - Punit Kumar & Hitarshi Buch, Wipro Technologies



About the Authors



Daniela Barbosa

Executive Director, Hyperledger Foundation

Daniela Barbosa serves as General Manager Blockchain, Healthcare and Identity at the Linux Foundation with overall strategic and operational responsibility for staff, programs, expansion and execution of Hyperledger Foundation's mission.

dbarbosa@linuxfoundation.org



@danielabarbosa



danielabarbosa



Julian Gordon

Vice President, Asia Pacific, Hyperledger Foundation

Julian is an accomplished business and technology leader and advocate for accelerating innovation through the use of open source, building technology ecosystems, and the transformational potential of blockchain technology across Asia Pacific.

jgordon@apac.linux.com



@juliangordonhk8



JulianGordon



Thank You

Join us in our journey to build enterprise blockchain ecosystems through global, open source collaboration.

JOIN US



www.hyperledger.org

