

# KERALA CALLING

August 01, 2022\_VOL\_42\_No. 10



To believe in fearless minds  
and tireless feet,  
to brave the raging seas every day  
and walk side by side  
with hearts that beat in time  
with the waves.

# HUMAN *by* NATURE





# KFON: Another Visionary Step

**T**his month, we celebrated the 75th anniversary of India's Independence. Seven decades have gone by since the British were driven away from the Indian shores, and the country has achieved immense progress in many a field. Kerala's contribution to the overall development of the country is limitless and the State has become a guiding beacon to many other states.

It is in this context that Kerala's pioneering and pathbreaking initiative Kerala Fibre Optic Network (KFON) makes good sense. Kerala will soon become the first Indian state to have its own internet services. Chief Minister Pinarayi Vijayan is the captain of the project, declaring that the south Indian state will be the first in the country to act on its conviction that access to the internet is a citizen's right.

Yes, like food, clothing and shelter, access to the internet is a citizen's right.

Setting benchmarks in social change and development is nothing new to Kerala. It has been in the spotlight for people-centric initiatives, like Kudumbashree and Literacy Mission, and has hogged the limelight for making giant strides in public and cooperative sectors.

Kerala has also become one of the most favoured startup destinations in Asia.

The 2021 States' Startup Ranking has picked Kerala as the top performer for the third consecutive time.

The state has been in the lead in delivering e-governance to its citizens through TSPs/ISPs/Cable Operators. In another pioneering move, in a bid to bridge the digital divide, the state has decided to provide free internet access to economically backward households.

Kerala Fibre Optic Network has received the Internet Service Provider (ISP) license from the Department of Telecommunications.

KFON will create a core network infrastructure to provide free Internet access to 20 lakh economically backward households. It will also connect all government offices, educational institutions and hospitals, and will partner with telecom service providers to fill the connectivity gap. KFON will have 35,000 kilometres of optical fibre network across all 14 districts in the state.

KFON is certainly a revolutionary step towards bridging the digital divide between the haves and the have-nots in Kerala. It is a visionary move, and generations to come will be indebted to the government for taking such a great step.

**Jafar Malik IAS**  
*Editor*



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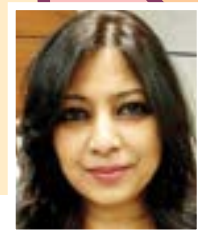
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Dr Jyoti Atwal

Associate Professor,  
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# Empowerment of Women: India @ 75

**The beginnings of education and liberation were started during the period of the freedom struggle. Indian women have been able to break the glass ceiling by entering the domain of science, technology, engineering and mathematics in the past seventy-five years**

Women in India have come a long way since India achieved independence in 1947. There have been substantial changes in the level of key indicators such as education, marriage age, workforce contribution and economic status. Although the numbers are small, Indian women have been able to break the glass ceiling by entering the domain of STEM (science, technology, engineering and mathematics) in the past seventy-five years. Due to the entry of Indian women into the fields of science and technology (traditionally perceived as the domain of men), we find that STEMisation is obvious. It is important to note that the beginnings of education and liberation were made during the period of freedom struggle.

The historical struggle for education has been remarkable – Savitri Bai Phule, Ramabai Ranade, Begum Rokeya Sakhawat Hussain made an exceptional contributions to successfully waging war against caste and religious fundamentalism by opening the doors of education to women. Women endorsed and supported popular reformist campaigns (mostly led by men in the initial stages) in Bengal, South India, Bombay and other parts of the country.

Some crucial campaigns for legal rights for women were led by Cornelia Sorabjee, Muthuluxmi Reddy, Hirabai and Mithan Tata, Saraladevi Chaudhrani. From the rights of inheritance of purdanashin women to the rights of widows for pension – all issues were debated by women themselves during the colonial period. This legacy of debate extended to independent



^ A. Lalitha, India's first female engineer.

India – where women saw refinement in their property rights under the Hindu Marriage Acts and Hindu Succession Acts. Given the diverse nature of customs in India, the courts upheld the customary rights as well. Notwithstanding issues of domestic and social violence and inequality, women have been empowered by such Acts.

Women's achievements in India have been an outcome of the social/collective battle against social backwardness, superstition and inequality since the colonial period. Interestingly, while Indian women benefitted from key institutions of the imperial government (police, legislation, education, judiciary), they were quick to realise the oppressive aspects of colonialism.

Women's associations have played an outstanding role in the empowerment and emancipation



^ J. Ammal - first Indian scientist to receive Padmashri

of women. Stree Mahamandals, All India Women's Conference and Women's Indian Association were founded in the early decades of the 20th century. Through participation in political campaigns, women received political training – whether in constitutional means or in radical methods. The anti-dowry movement in

1960s/70s was a landmark. Landmark judgements such as in Mathura case or Shah Bano case – have strengthened mobility and ensured justice for women in India.

Several women have shown outstanding performance in their professions – education, politics, sports, science, technology, media and entertainment. The growing STEMisation is visible.

Anandi Bai Joshi (1865-1887) was the first Indian woman physician and the first woman to have graduated with a two-year degree in Western Medicine in the United States. J. Ammal (1897-1984) was the first Indian scientist to have received the Padma Shri Award in 1977, who went on to occupy the reputed post of the director-general of the Botanical Survey of India. A. Lalitha (1919-1979) was the very first woman engineer in India, and was married at the young age of 15.

## Several women have shown outstanding performance in their professions – education, politics, sports, science, technology, media and entertainment. The growing STEMisation is visible.

In the present day – STEMInists are spread out in various fields, which includes entrepreneurship as well. The Missile Woman of India, Tessy Thomas is taking the eminence of Indian women scientists to new heights. She is the Director-General of Aeronautical Systems and the former Project Director for Agni-IV missile at Defence Research and Development Organisation. She is the first female scientist in India to head a missile project. Another important woman is Kiran Mazumdar-Shaw, a billionaire entrepreneur, she was listed as the 65th most powerful woman in the world by Forbes and is definitely one of the most famous women in science. She is the chairperson and managing director of Biocon Limited, a biotechnology company based in Bangalore, and the chairperson of the Indian Institute of Management, Bangalore. Sudha Murthy, one of the most well-known women in STEM, and even better known as an author, has proven her excellence in more than one field. Along with being the chairperson of the Infosys Foundation and a member of public health care initiatives of the Gates Foundation, she is an engineering teacher and an author in Kannada and English. A chemist, environmentalist, entrepreneur, and one of the leading women in science, Seetha Coleman-Kammula is the founder of Simply Sustain, a firm focusing on industrial ecology and assessment of the life cycle of products so that they are manufactured in processes that are environmentally

aware of the future impact of waste products.

It can be concluded that despite social and economic disadvantages, women in India have done remarkably well in the past 75 years. The social and political movements have had a huge role in defining agenda for liberation and development of women. ■



^ Tessy Thomas - first ever woman scientist to head a missile project in India



# KFON - The People's Internet



**Pinarayi Vijayan**  
*Chief Minister*



**In the modern era, internet connectivity is as important as transport and energy facilities for industrial growth. In this age of the fourth industrial revolution, it is essential to ensure that quality data is being transferred quickly, as we strive to transform Kerala into a knowledge economy and an innovation society. It was with this in view that Kerala announced the internet as a basic right to its citizens, becoming the first State in India to do so. Kerala Fiber Optic Network (K-FON) is our initiative to ensure that people have access to this right in their day-to-day lives.**

## K-FON

It was in the 2017 Budget, that Kerala declared that the internet will be a right of its citizens. It was also announced that free internet will be provided to 20 lakh poor families and that internet will be provided to others at a subsidized rate. Government offices were also to be provided with connectivity through an optical fibre network created in parallel to the Kerala State Electricity Board's power network.

Subsequently, the Kerala Fibre Optic Network Limited, a Joint Venture Company between KSEB and the Kerala State Information Technology Infrastructure Limited was incorporated in September 2018. Both KSEB and KSITIL have 50 % stake in the JV. K-FON has already secured Infrastructure Provider (IP-1) registration and Internet Service Provider (ISP-B) licence for initiating the service part, from the Department of Telecommunications, Government of India.

## Main Objectives

The K-FON project has three main objectives. The first is to create a core network infrastructure with non-discriminatory access to all service providers so that their connectivity gap can be bridged. This core network infrastructure will essentially serve as an information highway. The second is to provide a reliable, secure, and scalable intranet that connects all Government offices, educational institutions, hospitals, etc. in the State. And the third is to partner with Multiple System Operators (MSO), Telecom Service Providers (TSP), and Internet Service Providers (ISP) for providing free internet to economically backward households.

The objectives are to be achieved in two separate tracks. Track 1 is the setting up of a statewide core optical fibre network and providing connectivity to more than 30,000 Government offices and institutions. Track 2 is providing free internet to economically backward families and subsidised internet for others by leveraging K-FON's infrastructure.

## Benefits

K-FON will complement the existing telecom ecosystem in the State and act as the perfect catalyst to position Kerala as a knowledge economy and innovation society. As K-FON is a neutral network any

MSO/TSP/ISP/Content Provider, can ride on this network and augment their connectivity gap without being affected by the hassles of Right of Way (RoW) and Capital Expenditure (CapEx) conditionality. It will help them to reach markets that were previously unserviceable due to their infrastructure limitations. Since it is a fibre network, the speed and performance of existing services can be improved.

Additionally, it will boost the launch of 5G services in the State. It is estimated that 80% of the existing towers are not fiberised. This poses a serious challenge to the transition from 4G to 5G. In rural areas, high-speed wireless connectivity (3G/4G) is limited because more telecom towers are required to provide the same. The majority of existing towers are connected to the public through radio, so the bandwidth available to them is limited. By connecting 8,000 mobile towers in Kerala and improving mobile call quality, K-FON will address this issue effectively.

At present, only about 3,800 Government offices are connected through the Kerala



State Wide Area Network (KSWAN). Therefore, the delivery of e-Services at present is not universal. Through K-FON, over 30,000 Government offices and institutions will get reliable and secure intranet connectivity with scalable bandwidth from 10 Mbps to 1 Gbps, on demand. It will limit their reliance on internet bandwidth for providing e-Services and accessing e-Governance applications.

When at least 20 lakh people below the poverty line will receive free internet connectivity through K-FON, Kerala would have effectively bridged the digital divide and the public will have access to the internet as a basic right. They can utilise e-Governance more effectively, as households will enjoy free or affordable and better broadband connectivity. It will also provide the much-needed digital infrastructure support for local enterprises. The industry as a whole, particularly the electronics and IT sector will benefit. In turn, it will boost the State's economy.

### **Implementation and Status**

On 14 June 2018, KSITIL floated an open tender for the selection of an agency for the implementation of Track 1, and a consortium led by M/s Bharat Electronics Limited won the bid. On 9 Mar 2019, an agreement was executed by KSITIL with M/s BEL at a project value of Rs. 1,611.34 crore. 83% of the works of the project which is being

funded through KIIFB have already been completed.

K-FON will have one Network Operating Centre, which has already been set up at Infopark Kakkanad. OPGW has already been laid in 2465 kms of the 2624 kms (93.94%). ADSS has already been laid in 22314 kms of the 27590 kms (80.87%). Of the 375 PoP nodes, 326 have already been completed (86.93%).

Connectivity for Government Offices (Track 1) is expected to be completed soon. More than 90% of the Government offices in the State have already been connected to K-FON. As a pilot to providing free and subsidised internet connections (Track 2), free internet connections will be given to 100 BPL families in each of the 140 Legislative Assembly Constituencies - 14,000 families in total - across Kerala, shortly.

### **An Initiative for the Future**

The Government in Kerala has a very clear vision of how to employ the advances in science and technology for the development of mankind and societal transformation. 2,000 WiFi Hotspots were set up in public spaces across Kerala during our previous tenure and internet connections are to be provided through K-FON, in tune with this vision.

In this era of the digital revolution, we are trying to upgrade government services by employing all available digital technologies. The Kerala Government's official website

(www.kerala.gov.in) has been updated as part of this drive. This has been done to ensure that citizens can access information pertaining to all government services, benefits, projects, notifications etc. on a single platform. More than 800 such services are available online now. For the public to access all of them, universal connectivity is a must. K-FON is being implemented bearing this in mind too.

Kerala is making giant strides in the primary and higher education sectors. Our public education institutions are being made smart. Therefore, it is essential to provide quality and high-end connectivity to them. It is all the more important as we are trying to create organic links between our centres of learning and centres of production. It will help to increase the production and productivity of our agricultural and industrial sectors. In that sense, K-FON will be an investment for our upcoming generations.

The concept of Work From Home (WFH) has gained popularity subsequent to the COVID-19 pandemic. Many still prefer WFH and even seek out companies that provide that option. Therefore, once the K-FON project is completed employees will be able to utilise WFH or Work Near Home (WNH) opportunities from anywhere in Kerala. Thus, K-FON will play a major role in Kerala's industrial development. As a platform that can connect every Keralite to global knowledge and industrial networks, K-FON is of major significance. ■



## Creative Excellence award for CMDRF

**K**erala Chief Minister's Distress Relief Fund Portal wins award for Creative Excellence in Administrative Innovation for the year 2018. The CMO portal facilitates faster online processing of application of relief funds. CM's computer Cell Joint Secretary, Robert Francis and Section Officers Sajid M, Deepesh K.K received the award from Chief Minister Pinarayi Vijayan. The award includes Rs 5 lakh and citation.

The CMO portal, set up in 2016, is connected to over 10,000 offices and more than 3,500 Akshaya centres across the state. The application for granting funds from

Chief Minister's Distress Relief Fund can be submitted through online, Akshaya centres, MLAs or MPs. The submitted applications reach the village offices directly and, therefore, are processed without delay. The village officer shall vet the documents, make corrections in the application, if necessary and send it digitally to Tahasildar and District Collector. The entire process right from submitting application to disbursing the amount is done online. Once the fund is granted, it is directly transferred to the account of the beneficiary. The aim is to transfer the fund to the beneficiary account within 100 hours of receiving a valid application.





Abhayan Varghese  
*Writer and Art & Culture Critic*

# The internet is a basic right. Its future must be human-centric.

Every day we hear stories of how Governments across the world are trying to build inclusive cities that can cater to the demands of the future. Studies project that nearly 70% of the world's population will be urban or city-centric by 2050. To accommodate this we will need to build new cities (hence the steady stream of news focused on future planning and cities) and equip the current cities to effectively maintain their quality of life and civic engagement. This requires continuous investment in infrastructure, focus on alternative streams of economic models and productions (like the Creative Economy of Knowledge Economy), and a steady commitment to human rights and inclusivity.



**Overwhelmingly, studies around the world show that internet access is now vital for access to jobs, and education, for improving worker rights, and to ensure freedom of expression and access to information.**

**W**hile cities, in principle, are fundamentally accessible to everyone, over the years disparities like income inequality, poverty, and lack of economic mobility have highlighted the structural barriers that vulnerable groups face along with the instability of the status quo. Many are stuck with a creeping sense of unease, many remain in poverty for generations because of a lack of access to better jobs, education, and opportunities. This exclusion threatens the health, stability, and cohesion of cities.

For instance, In South Africa, policy choices designed to make the city of Johannesburg more competitive in the global economy have had the side effect of further segregating an already divided city. The existing racial divisions paved way for new social exclusions that divided the

city into the affluent north and the poor south.

While this cannot be considered a one-size fits all analysis, it's important to acknowledge this if we are to animate ideas that create ways for equality, inclusion, and progress.

It is in this context that the availability and access to the internet need to be thought about and framed. We must detach the idea of the internet as only a means to an end or as a technological space and move towards recognizing the internet as a requirement for the advancement of communities, people, and lives.

The United Nations declared the Internet a basic human right in 2011. While this has been contentious and drawing fierce debates (ironically, on the internet itself) with one side arguing that the internet cannot be considered a fundamental right as "it's not essential for humans to live a meaningful and dignified life" and the other side asserting that with digital technologies permeating all areas of life the internet is inalienable from the life of an individual.

Global citizens and many governments overwhelmingly agree that internet access is a fundamental human right. Even as far back as 2010, four in five individuals worldwide share this view.

It's fair to say that the world would not be as it is today without the internet. From the pre-web internet days of the 1960s to the internet of today it touches just about every aspect of how we live, work, socialize, shop, and play. It's where people will go to organise, live, work, study, play, and find love.

During the Corona virus pandemic, it became abundantly clear that the inability to access the internet not only affected people's right to



education in ways that extend far beyond the classroom experience, but it also prevents students from doing quality research, applying for financial aid, finding jobs, connect with peers, and remain updated. It showed how people were unable to receive public health warnings and directions, find jobs that allow for remote work, and get the latest weather warnings that allow them to take crucial safety decisions. It showed how people were unable to participate in local elections, economic opportunities, cultural spaces, civic discussion, or exercise their right to be part of the polity.

To ignore this divide is akin to upholding boundaries of race, class, and caste that keep our societies hostile to their own people. To solve this we must imagine the internet as not a luxury accessible to a few but a right afforded to all. We must remember that the idea of human rights is something that we fought for for centuries. The earliest ideas of fundamental rights lie in the traditions and documents of many cultures, for instance in 539 BC when Cyrus the Great freed slaves and declared that people have the right to choose their own religion. The steps that different cultures have taken over centuries remind us of the fragile nature of our “rights” because many of them when translated into policies excluded people of different castes, classes, religions, genders, economic standing, and political groups.

The rights that we have “won” over time — freedom, free speech, equality, voting rights, right to any public space, right to freely practice any religion, right

## Internet access is an essential part of modern life, necessary to ensure freedom of expression, political participation, health, and other fundamental rights. It provides an invaluable space where marginalized communities initiate social change and identities are created.

to healthcare, right to education, and more were a result of centuries of action and engagement to look past the world as “how things were” to “how things should be.”

3.5 billion people across the world still don’t have internet access. Based on current trends, it will be later than 2050 by the time they do, far short of the UN Sustainable Development Goal to achieve universal connectivity.

Overwhelmingly, studies around the world show that internet access is now vital for access to jobs, and education, for improving worker rights, and to ensure freedom of expression and access to information. In a quantitative analysis of 120 countries, it was found that internet access is vital in realising these rights. This also raises interesting existential questions. For instance, what does it mean to be a human in a world that’s at an intersection of the material, the biological, and the technological? What are the new possibilities of human rights violations in the digital space?

Like access to electricity and education, the digital world must be anchored not only in technical issues but in human rights and justice. There’s a difference between the availability of the internet and access to the internet. Many people live in areas with internet available but without the means to access it. Internet access is an essential part of modern life, necessary to ensure freedom of expression, political participation, health, and other fundamental rights. It provides an invaluable space where marginalized communities initiate social change and identities are created.

However, access to the web is just the beginning. Our online spaces must be safe and empowering. The internet’s benefits also come with risks — to our privacy, our democracy, our health, and our security. People experience discrimination and bullying due to their race, sexuality, gender, colour, ethnicity, religious and political affiliations, or other identities. As the internet reshapes our world, we must ensure that it works for everyone, not just a privileged few. ■



# The broadband scene in India & Kerala

The increased internet and mobile penetration and the simplified models of social media collaboration have led to a substantial increase in the digital acceleration globally and at the national level. The internet penetration in India is 50% (687 million users), mobile penetration is 78% (1.06 billion users) and social media penetration is 29% (400 million users). This increase has shot up the consumption of digital content. It has globally increased from 3 hours 17 minutes to 6 hours 59 minutes. The increase is also attributed to the lockdowns during the COVID-19 pandemic.

Kerala is uniquely positioned to capitalise the digitalisation wave. Kerala Fibre Optic Network (KFON) provides a reliable, secure and scalable intranet connecting 30,000 Government offices, hospitals and educational institutions and aims to provide free last mile connectivity to 20 lakhs households, creating a phenomenal digital infrastructure backbone. This drives affordable access and high quality, uninterrupted broadband connectivity and enables the seamless promotion of digital lifestyle, citizenship and commerce across the State.

KFON will help the State Government to adopt an e-delivery mode of information and services to its citizens with the penetration of internet technology and rising levels of e-literacy. KFON is an invaluable asset in the Knowledge Economy as a facilitator of job creation and skills enhancement.





for their rightful entitlements. The system where citizens need to visit government offices to get things done must change. Our Chief Minister Pinarayi Vijayan has unequivocally stated that the services of the government should ideally reach the doorsteps or fingertips of the common man.

The core responsibilities of any government include three factors – policymaking, file movement based on those policies, and delivery of services to citizens based on file movements. When government offices become e-enabled, the file movement will become faster and services will

be delivered that much faster. This faster, more efficient delivery of services will directly touch many lives and make the living conditions of the common man, better.

### **Kerala on a path of digitalization**

Kerala has made great strides in digital governance initiatives. The Kerala State Wide Area Network (KSWAN) used to be the main network infrastructure for e-governance in the state. This infrastructure utilizes bandwidth provided by the Service Providers in lieu of the Right of Way (RoW) provided to them by the Government. However, the connectivity through KSWAN was limited to about 3,800 government offices. There were no defined SLAs for such bandwidth provisioned and hence the Government had very little control in ensuring a reliable, robust and secure network. The remaining institutions, which were not covered under KSWAN, had leased internet bandwidth from private service providers to access the applications hosted in the State Data Centre (SDC). KSWAN is limited by access, capacity and scalability. Therefore, the Government felt the need to build a dedicated optical fibre backbone capable of efficient service delivery, assured Quality of Service (QoS), reliability, redundancy, security and scalable for meeting future bandwidth demands. Thus, KFON was born.

### **KFON - A novel venture**

Kerala Fibre Optical Network or KFON envisages touching lives. This is achieved in two ways.

1. Setting up a state-wide core optical fibre network and providing connectivity to 30,000+ government institutions.

2. Providing free internet to economically backward families and subsidized internet for others, by leveraging the KFON Infrastructure.

KFON is a joint venture company created by the Government of Kerala. The asset is owned by Kerala State Electricity Board Limited (KSEB). Kerala State Information Technology Infrastructure Limited (KSITIL) is also the partner for the operations and maintenance of the project. KSEB has a 49% stake, KSITIL has a 49% stake and the remaining 2% remains with the state government. The KFON project is worth Rs 1807 crores (including capital expenditure, 7-year operational expenditure and 18% GST), of which 30% of funding is done by the Government of Kerala and 70% by KIIFB. KIIFB has availed a loan from NABARD for this purpose.

### **Implementation**

KFON is implemented through a System Integrated Process. The consortium is led by the System Integrator (SI), Navaratna PSU Bharat Electronics Ltd (BEL) and consists of SRIT India Private Limited and RailTel Corporation. The main responsibility of the consortium is the implementation of the project including network rollout for 35,000Kms of the optical fibre cable network, setting up of 375 network points of presence (POPs) locations and providing connectivity to 30,000 government institutions.

Since KSEB has a vast network of towers, KFON connectivity is established by piggyback riding on the network. The transmission and distribution networks of KSEBL have been leveraged to set up the network infrastructure. The project involves laying optical fibre cable over Extra



High Tension lines connecting the substations and remote management of its safety and security.

### The KFON network has 4 components

1. Network Operating Centre – This forms the brain and heart of the operations and management of the state-wide network. The Network Operating Centre, situated at Infopark, Kalamassery is a world-class infrastructure. The centre stations all the types of equipment and centrally monitors, controls and manages all the traffic.
2. Points of presence – PoP can be termed as an access point from one place to the rest of the Internet. The points of presence are established at the substations of KSEBL.

There are 375 PoPs across the substations in the state. This includes 14 Core, district points of presence (PoPs), aggregate PoPs, pre- aggregate PoPs and spur PoPs. The entire traffic within a district will converge at the Core points of presence. The network supports MPLS-based Ring topology, thus providing redundancy of nodes and links and better link utilization. If the connectivity is lost on one side, it will be restored from the other side. Therefore, the KFON network ensures seamless connectivity. The ring will interconnect all the Core PoPs to the Network Operating Centre and State Data Centre.

3. Optical fibre cable - This forms the backbone of the network. As per the initial desktop survey, the total required cable network was set at 52,000 kilometres. But after optimisation in the field survey, it has been re-fixed to around 29,000 kilometres. Even the best telecom infrastructure company would not have more than 10,000 kilometres of cable laid down in the state. The sheer vastness of the network is the primary advantage of KFON. Two types of fibre optical cable are being laid as part of the project:

**Optical Ground Ware (OPGW)** - spanning around 3,000 kilometres. These cables are used for covering long distances such as over KSEB's transmission towers. OPGW cables can be carried underground. So they are used whenever overhead lines can't be drawn.

**Anti Di-Electric Self-Supporting cable (ADSS)** – being laid for around 28,000 kilometres. These cables are drawn through electric poles. This mainly runs on transmission and distribution lines.

4. End Offices – This is the place where the entire operations terminate. There are about 30,000 end offices across Kerala.

KFON has secured 1 GBPS from Power Grid Corporation and 10 GBPS from BSNL. We can go up to 100 GBPS and it is scalable also. KFON has secured Infrastructure Provider Category 1 (IP-1) Licence

and also Internet Service Provider (ISP-B) Licence.

### A Distant Dream, Now a Reality

KFON network establishes internet connectivity in almost 30,000 government offices including schools, government hospitals, and institutions. This number can be stretched up to include any left-out Government institution.



Kerala has become the first state in the country to have its internet infrastructure. And this distinction becomes all the more meaningful as it is directly reaching out to the most underprivileged sections of society. In the beginning stage, free internet connectivity will be given to 14,000 families who are Below Poverty Line (BPL). One hundred beneficiaries are being selected from each of the 140 constituencies through local bodies. KFON internet service will provide 1.5 GB of free daily data at 15 Mbps speed to these families.

The state is divided into four regions consisting of 3 – 4 districts each. The operator for each region is selected through an open tender. KFON provides the required bandwidth to these operators at subsidized rates. In lieu of this, free Internet is provided to economically backward households. The company has fixed a low price of Rs 124/- as the monthly rent.



The state government bears the expense to give free internet connection to 20 lakh BPL families. For APL families, we are considering charging a monthly rent of around Rs 224/-.

The government will bring internet connectivity to even the remotest places which are overlooked by the private service providers. KFON prefers to exist in a complementary business environment. We want the private players to co-exist, as it is only then we can serve each and every citizen of the state. When the internet is easily accessible to any remote hamlet in our state that will be the day, the vision of

## The Advantage of KFON

Today applications have moved from data-based to more bandwidth-intensive applications like e-Governance, e-Health, CCTNS, e-Visas, etc. to name a few. Emerging technologies like Artificial Intelligence, Machine Learning, Block Chain, Augmented Reality, Virtual Reality, Digital forces of social media, mobility, analytics, cloud and the emergence of the 5G internet are shaping the new virtual world today. Undoubtedly, broadband is the lifeline of the digital world. Kerala Fibre Optic Network will support the inclusion of almost all digital assets onto a common platform. KFON is expected to bring riveting changes in the digital setting of the state. It can only have a positive influence on the following -

- Video conferencing, video surveillance, smart traffic management, telemedicine, smart classrooms/e-education, e-Courts, smart meters and asset tracking
- Related responsible technologies like Artificial Intelligence, Cloud Storage, Internet of Things, Machine-to-Machine
- Rise in mobility including multiple device ownerships
- Growth in the number of internet users.
- Provide cleansed data for faster, informed decision-making and better governance.

KFON essentially acts as an information super-highway through the creation of a robust core and middle-mile infrastructure. The network can be leveraged by any provider at any level of the business segment to augment the connectivity gaps at their core network. Thus, the KFON network will function as a strong foundation for all Government to Government, Government to Citizen, and Business to Consumer interactions. KFON will herald a massive revolution in the digital milieu of Kerala and will bring immeasurable benefits in the lives of the common man.

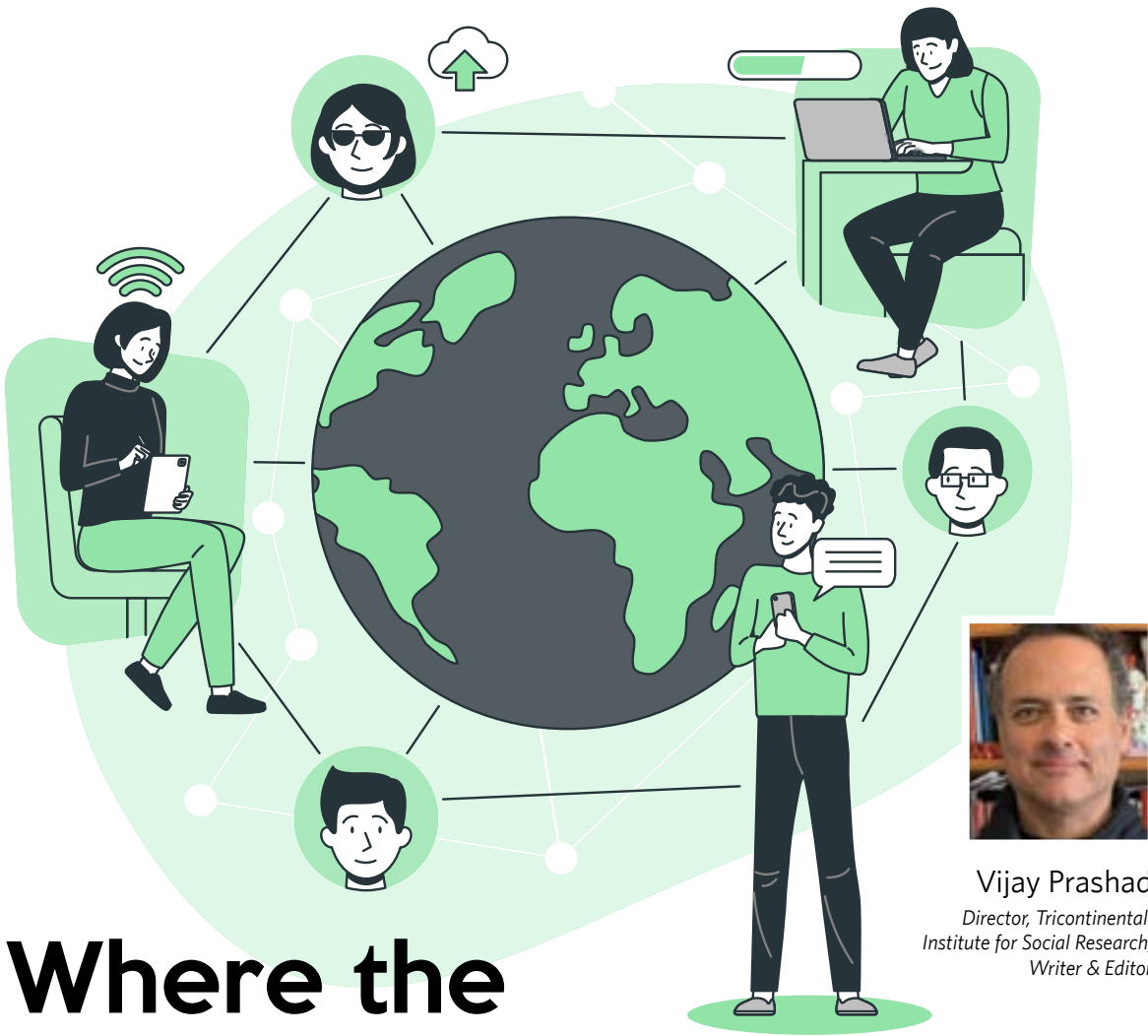
the State Government would be accomplished.

### Monetisation - A Priority

Every year KFON will need an investment of Rs 100 crores for expansion. Therefore, the monetisation of services is a top priority for the company. We are also striving to maintain a high standard of service according to SLA standards.

The forte of the project is its strong network – length-wise and infrastructure-wise. KFON has 48 core cables. After our usage, roughly 20 cables will be free as dark fibres. This will be leased out to private internet service providers at a reasonable cost. Different avenues are available to increase the profitability of KFON:

1. Leasing Dark Fibre
2. Internet Lease Line.
3. Network Operating centres can be used as Managed Service Centres.
4. The 375 Points of Presence can also be used as managed service centres.
5. Household internet connections, institutional connections ■



Vijay Prashad

Director, Tricontinental:  
Institute for Social Research,  
Writer & Editor

# Where the Web is Commons

**The right to the internet is not, therefore, an abstract right, but needs to be realized in material terms. That is what makes the Government of Kerala's K-FON project so significant. It provides free internet connection to 20 lakh families who live below the poverty line and who would - without K-FON - be disconnected from this global Internet commons.**

So much of our activity, these days takes place on the internet. That there are so many examples makes it clear how ubiquitous is the internet in our daily lives, from acts of leisure to acts of commerce. During the pandemic, the internet became even more important as lockdowns forced billions of people to remain largely sedentary. Schooling took place via the internet, information was passed from the relevant authorities to the rest of us through the internet, and many people relied upon the internet to get their medicines and food delivered to their homes. Increasingly, the internet has become a part of our everyday life, our mobile phones in hand telling us just about everything about anything. No wonder that the phrase 'internet of things' has been so captivating, as we watch more and more of our technologies become reliant upon the internet. An index known as the things/people ratio calculates how many things are connected to the internet compared to how many people: in 2003, the things/people ratio was 0.08, which means that more people were connected to the internet than things, but by 2010 the ratio was 1.84, which means far more things are now connected to the internet than people (even some cows are connected to the internet via implant sensors embedded in their ears). The internet, in other words, is no longer merely a luxury but a necessity for large parts of human life. Yet, half of the world's population is not connected to the internet.



**One part of the theory of the commons is to ensure that everyone has the right to enter it, and therefore that everyone has internet access and devices to enable access. The right to the internet is not, therefore, an abstract right, but needs to be realized in material terms.**

**That is what makes the Government of Kerala's K-FON project so significant.**

That's 3.6 billion people. So, in a world where the internet is an essential part of human life, half of humanity has no internet connectivity. This is known as the 'digital divide'. This divide runs along various established hierarchies, such as across the North-South divides of countries and along lines of gender, race, caste, and other social hierarchies. For example, in 2019, only 15% of women in less developed countries used the internet, whereas 86% of women in the developed world did so. Recent studies on social hierarchies in India and the internet show that only 14.1% of Scheduled Tribes have access to the internet compared to 41.1% of people from other communities; stunningly, the computer literacy rate shows that only 11.2% of Scheduled Tribes and 13.5% of Scheduled Castes know how to use a computer, while the rate for other communities is 31.2% (also very low). There is little evidence that these divides will close in time since they are rooted in the lack of access to devices (including smart phones) and the lack of access to good quality and affordable internet access in their homes as well as an education in computer literacy. The digital divide is real, and it means that at least half of the world's population lives without being able to walk freely on the internet

commons.

The idea of the 'commons' is an old one, rooted in ancient traditions across the world. The land was generally seen as held either by a monarch or by tribes, with certain parts of the landscape acknowledged as the land of everyone (whether for foraging, grazing, or hunting). This common land could not be enclosed and held by any person for their private uses. It would be well worth thinking of the internet as a commons, as a global commons that must be preserved as a space of democratic activity and not enclosed by corporations. Most of the emphasis on the idea of the internet as a global commons has been to do with privacy and with the right to control platforms in a democratic way. What is not centrally considered is the right of access in the first place.

One part of the theory of the commons is to ensure that everyone has the right to enter it, and therefore that everyone has internet access and devices to enable access. The right to the internet is not, therefore, an abstract right, but needs to be realized in material terms. That is what makes the Government of Kerala's K-FON project so significant. It provides free internet connection to 20 lakh families who live below the poverty line and who would – without K-FON – be

disconnected from this global Internet commons.

There are many reasons for the people of Kerala to be linked to the internet, but the most important reason is to advance the project of literacy so central to the political history of the state. K-FON should be seen alongside the policies to enhance Kerala's public education system, which includes the inauguration of 95 new government schools; this has been part of the policy to reverse the drain of public school students to private schools. During the pandemic, the United Nations estimates that 90% of students around the world – 1.57 billion children – were unable to attend in-person schooling; many of them had to take their schooling online. With half of the world's population without the internet, at least 463 million children – or one-third of all students – could not access remote learning. Most of these children had no devices for the internet and they had no access to the internet. Kerala's children were protected from the worst of this through the use of the television network for online education. But, with K-FON, and with more access made to affordable devices, children in Kerala will not have to suffer the lack of access to the internet. They will enjoy an internet commons that children elsewhere demand. ■



Dr. Vijoo Krishnan  
*Writer*

# K-FON & New Possibilities in Kerala Agriculture

**The great leap forward of the state in the form of the K-FON would create an atmosphere wherein e-Governance services are touching every realm of the lives. A state like Kerala having the advantage of e-literacy could benefit immensely from access to free internet. This is all the more valid for agriculture and allied sectors like fishing.**

Even as there is much hype about 'Digital India', what accompanies it is the 'Digital Divide' reinforced by the economic and social inequalities prevalent in our country. The COVID Pandemic, lockdown, and digital classes have exposed this divide like never before. In such circumstances to not merely talk of 'Internet for everyone' and eliminate the digital gap but also actually make it happen is no mean achievement. Kerala, by starting its own internet service called Kerala Fiber Optic Network Ltd





## Kerala's impeccable literacy levels, e-literacy, and free access to high-speed internet in such a context could give a distinct advantage to farmers in the State.

(K-FON) has become the first and only State to have such a venture.

As I write on Kerala's achievement it is worth noting that the Congress of the United States of America is still toying with The Broadband for Rural America Act with the objective of making 'broadband available for all Americans and bridging the digital divide for communities nationwide. In Indiana, there is a plan for an aerostat blimp (a balloon or airship mounted system) to provide broadband to solve the farm broadband problem. The United Soybean Board based in the USA in 2019 released a report that indicated that almost two-thirds of the

surveyed farmers did not have adequate internet connectivity. It is in this context that one can actually understand the actual importance of the Kerala Government's decision. When the USA is just toying with the idea of rural broadband, Kerala has already ensured state-wide infrastructure and is providing the service for free.

A comparison is also due with the situation in India. A study of internet behaviour of corn farmers spread across 14 States by the Kleffman Group in 2016 and 2017 found that more Indian farmers have access to the internet in 2017 when compared to 2016 but the number only rose from 13 percent to 17 percent.

Clearly, the use of the internet is still low and there is also no steep increase in their frequency of usage. Kerala's impeccable literacy levels, e-literacy, and free access to high-speed internet in such a context could give a distinct advantage to farmers in the State.

A state like Kerala having the advantage of high literacy levels as well as e-literacy could benefit immensely from access to free internet. This is all the more valid for the agriculture-dependent households, agriculture, and allied sectors like fishing. A State where more than 80 percent of the cropped area consists of commercial crops like spices, coconut, rubber, coffee tea, etc., whose prices are dependent on the world market internet access could help farmers to follow the commodity markets, monitor climatic conditions, reach out to potential customers and access markets within India and across the world. Even as the



Government has come up with innovative programmes like the Subhiksha Keralam and the Nava Keralam free internet could prove to be a pathway for farmers. Fast-paced developments will ensure that farmers will come to depend on the internet or the information super-highway just as they used to depend on word-of-mouth, the newspaper, the radio, or television in earlier days for information; they will come to depend on the internet just as they depend on highways, railways, waterways or airways. The market is ripe with increasing digital literacy, internet penetration, bandwidth availability, and popularity of delivery services

## IT enabled Farmers' Collectives could be the talk of the town and an addition to the much acclaimed Kerala Alternative.

Agriculture in Kerala is characterised by smallholders who focus on production with the support and subsidies given by the State and Local Self-Governing Institutions. Subhiksha Keralam and Nava Keralam envisage the development of a Kerala Brand by leveraging on the advantages



of the State, the famed spices, coffee, tea, coconut, medicinal and plantation crops, GI Tag, Carbon-Neutral, etc. Kerala would soon become the State with the highest penetration of the internet. The rapid development of internet facilities and access for farmers with a series of Internet Plus technologies and Internet Enabled Services could help them realise remunerative prices and assured markets. K-FON could create a huge advantage in the integration, transformation, and upgrading of the rural economy especially in the wake of the Government's push for collective action in the form of Cooperatives, Farmer Producer Organisations, Kudumbasree, and the like for agro-processing and agriculture based industries.

Farmers now could have access to real-time information on prices and markets, agricultural data, access to extension services, weather surveillance, and so on. Tracking of weather, combining data-sets for improved decision-making, allowing sharing of knowledge and expertise of progressive farmers in best practices, technology incorporation for enhancing productivity, connecting to markets, and also making people aware of the specialities of their crops, thereby increasing the saleability. Increasingly online sales are becoming popular but in many places the cost of internet access or extremely slow internet service is putting farmers at a disadvantage. Internet-enabled supply chain with e-commerce to reach consumers; leveraging technology to improve efficiency in farming could make agriculture viable. The move could be a game-changer; technology could become the enabler for unleashing new possibilities and creating farmer entrepreneurs. IT enabled Farmers' Collectives could be the talk of the town and an addition to the much acclaimed Kerala Alternative. The possibilities are many; the real challenge is to harness them. ■

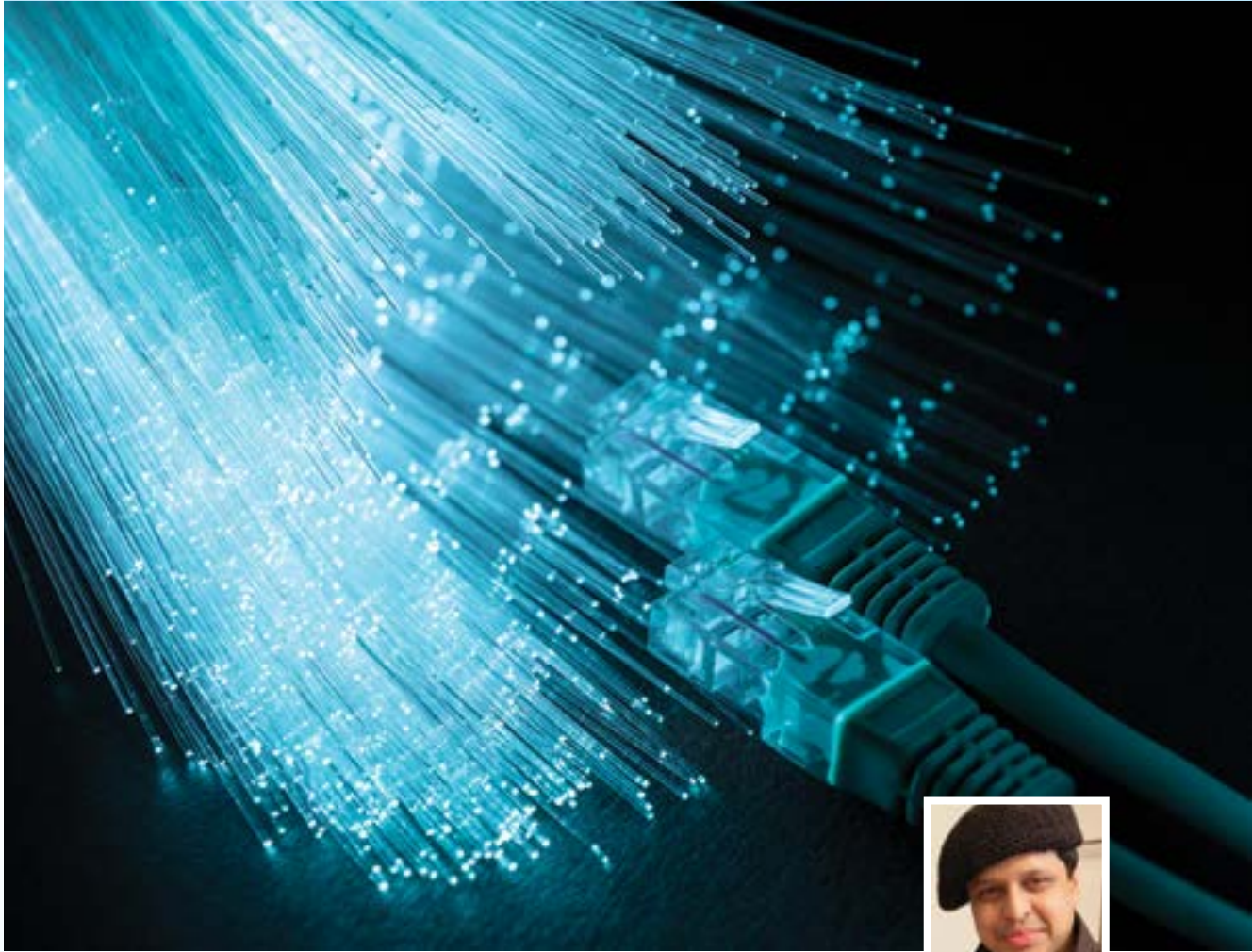


## Prestigious honour for Nanchiyamma

**T**he malayalam movie once again showcased its true spirit and vigor by bagging many prestigious honours at 68th National Awards. Out of this, the story of the best singer Nanchiyamma is inspiring and celebrated. Nanchiyamma at her age of 62 became the best vocalist in the country and placed her name along with the golden names of Lata Mangeshkar, Asha Bhosle , K.S Chitra , Shreya Ghoshal etc. She won the award for the song Kalakkatha in the movie Ayyapanum Koshiyum directed by K. R. Sachidanandan known as Sachy. Her natural way of singing a tribal song in a mellifluous way got easily blended in tune with the movie, making her versatile. With this single song, she won the hearts of many music lovers. Even though she is happy with this prestigious honour, the departure of her dearest 'director

sir' Sachy makes her downhearted. The song Kalakatha is written in Irula tribal language by Nanchiyamma herself. But then this song in unfamiliar lyrics with compelling beat and music became top-notch and captured the hearts of many. Her voice was celebrated in every household, party gathering, and even in dance numbers. She also played a small role in the movie Ayyapanum Koshiyum as the mother of Ayyapan, the character played by Biju Menon who in turn won the best supporting actor award in the 68th National Film Award. She was an active member and singer of Azad Kala Samiti and mostly sings folk songs that were fond of by the younger generations. She bagged a special award at the Kerala state film award 2020 for the same movie. She was appreciated by many eminent personalities and cinephiles. Nanchiyamma from the rural village of Attapadi in Palakkad is an inspiration for many.





Ullekh NP  
Executive Editor  
Open Magazine

# Hope attains a new meaning in Kerala

**Thanks to an abundant skilled workforce, the state will reap huge gains from its ambitious plan to offer high-speed, cost-effective internet telephony**

In one of my pre-COVID era visits to the countryside in one of the states in the country, I found a 50-plus-year-old maize farmer using a smartphone that he said was a gift from a cousin. It was obviously a much-used, second- or third-hand phone. He said initially the only use of phone data for him was to see photos sent in by friends and family from the cities. Then he was made part of WhatsApp groups in the neighbourhood and beyond.

Some analysts attribute this trend to steps taken by the federal government to enhance Internet penetration to the country's hinterland. Some others credit certain big corporations that offer the inexpensive data and Internet services that have led to these positive changes. What we have seen therefore is a natural progression at digitalisation.

Let's consider this for a moment.

What sets states in the south, especially Kerala, is that in the state often called 'God's Own Country' internet accessibility goes hand-in-hand with high social parameters that are on a par with Nordic countries. In Kerala,



deeper penetration of mobile telephony is not a paradox. As a metaphor for redistribution-oriented economic policies that have promoted social as well as economic growth, the Kerala model, or what Professor Amartya Sen has described as 'the Kerala experience', continues to surprise the rest of the country even as the state's grassroots-level government-backed movements and highly successful policies – from Kudumbashree to its local governance experiments and schemes to ensure greater women's participation in power – are either replicated elsewhere or become part of doctoral theses across universities. It is more than a theory or stereotype.

It is in this context that one must examine and learn from the new ambitious move for erecting a digital fibre network to provide high-speed internet services to more than 30,000 offices and to far more homes across the state.

For Kerala, a programme such as this one, on the other hand, is also an opportunity to attract huge investments that the state desperately needs so as to confront various challenges in the fast-changing world where climate change, political upheavals, related migrations and tectonic shifts in economic power call for creation of more jobs and job opportunities back home. The state also requires meticulous planning to stay ahead of the race in attracting corporations looking for new avenues as well as in setting a favourable climate for start-ups. Many programmes are already in place, and yet challenges galore. Like those countries in south-east Asia and

**There isn't any time to waste.**

**The Kerala model, or what Professor Amartya Sen has described as 'the Kerala experience', continues to surprise the rest of the country even as the state's grassroots-level government-backed movements and highly successful policies – from Kudumbashree to its local governance experiments and schemes to ensure greater women's participation in power – are either replicated elsewhere or become part of doctoral theses across universities. It is more than a theory or stereotype.**

far-east that are cornering seemingly endless benefits of the relocation of the centre of gravity of global economic power, Kerala, which is along a lucrative maritime trade route, has immense potential to rise to the occasion to reap the fruits of new opportunities. There isn't any time to waste.

It is often a disadvantage that we do not take ourselves seriously. That is not meant as a perfunctory statement but as a genuine call for self-introspection. Even when the state scores high marks in ease of doing business or on other counts, news reports of such changes and progress go largely unnoticed and unreported. Our unrelenting obsession with negative news has not always had a positive effect. We remain ignorant of good news and stories of transformation and economic growth. For instance, recently, when Singapore-based MariApps, software arm of shipping company Bernhard Schulte group, recruited Malayalis in large numbers after building its own office in Kochi, it went largely underreported. What else can be the motive of this international company to make a base in Kochi if it were not interested in local engineering and administrative talent? It has its offices in Mumbai and yet they chose Kochi for a new venture. It is a point worth thinking about. Without an iota of doubt, one can say that world-class professionals are impressed with Kerala's local talent.

The digital infrastructure that the state is putting in place steadily will help boost this much-needed confidence. Kerala has the advantage of a well-skilled, highly educated workforce. After some decades of dithering, we can now assume that we are in the right direction with plans afoot for training people across classes and educational qualifications. Hope suddenly has a new meaning in Kerala. ■



N. Bhadrans Nair  
Executive Editor  
*Indian Science Journal*

# Kerala's Road to Digitisation, a model for emulation

**Kerala has had a transformative journey since it ventured into digitalization. The futuristic investment made by Kerala in ICT would enable the economic growth of the state by broadening the reach of technologies.**

**T**he Internet has revolutionised the world of communication. No other technology in human history has become so indispensable in just 33 years of its existence. Any disruption of internet services, even for a short duration, would ground every imaginable human activity now.

Thanks to British computer scientist Sir Tim Berners-Lee, today the world is as close as our neighbourhood and information is at our fingertips. In 1989, Berners-Lee laid the ground for what is known today as World Wide Web. His initial project was to share information among scientists at CERN, the large particle physics laboratory near Geneva. Over the years, technology evolved and developed into an inseparable tool in our lives, connecting people across continents instantly.

It took another six years for the internet to reach Indian shores. It was first launched on 15 August 1995 and later, the federal government



opened it up for private operators to provide the service across the country.

Over the years, Information & Communication Technology (ICT) sector has turned out to be the largest job provider. Today, almost every human activity is carried out in one way or the other, through the internet.

The service sector, which heavily depends on ICT, is the prime mover of the economy of Kerala state – contributing to 63.66 percent of the Gross State Domestic Product (GSDP). This sector mainly includes hospitality, tourism, Ayurveda and medical services, pilgrimage, IT-based exports, transport sector, financial services, and education. At the national level, the IT industry accounts for almost one-tenth of India's GDP.

The advantages of digital services became the most conspicuous during two years of disruption of life due to the global pandemic. When forced to remain indoors,

we looked for nonphysical means of interaction – from communication to managing daily household chores to economic transactions.

## Kerala Model of Digitisation

Kerala's digital journey started in the early 1990s when the state government set up an exclusive zone to attract ICT-based companies and professionals. The Technopark in Thiruvananthapuram is one of the most sought-after destinations for electronics, software, and IT-based ventures. It is the first software park set up in the country and now one of the largest with 3.2 million square feet of built-up area employing more than 65,000 IT professionals from 470 companies. It now contributes a lion's share of IT exports from the state.

The special zone now caters to domestic firms, joint ventures, and subsidiaries of foreign companies engaged in a wide variety of activities from software development to advanced technologies.

Kerala has had a transformative journey since it ventured into digitalization. With the penetration of internet technology and rising levels of e-literacy, it became imperative for the Government to adopt the e-delivery mode of information and services to its citizens. As the state aspires to achieve complete digital literacy as its achievement of complete literacy in the early 1990s, more public services have been brought under the digital umbrella. A host of government services are now available from the comfort of homes, bringing transparency in their delivery. Kerala has ranked the highest in the overall compliance score among states and Union Territories in national e-governance service delivery.

The revolution in digitisation in the state began in the education sector almost two years ago, when it launched a plan to provide hi-tech classrooms in all government and aided schools. The digital education system helped schools and teachers to continue teaching uninterrupted even during the pandemic through online means. "It is an intervention aimed at our children, and to secure the future of our state," said Chief Minister Pinarayi Vijayan in October 2020, while announcing the total digitisation of school education.

The state is also a frontrunner in setting up a university to nurture students in cutting-edge technologies. The Digital University of Kerala promotes and implements modern technological interventions in disruptive technologies. It seeks capacity building in Artificial Intelligence and Natural Language Processing, Internet of Things, Electronic Systems and Automation, Imaging Technologies, Data Analytics, and Big Data, Cyber Security, Blockchain, Ecological Informatics, and Geospatial Analytics at international benchmarks.

Realising the role of ICT and reliable internet service, Kerala took the lead to set up a reliable communication network and build core digital infrastructure to deliver e-Governance services. The outcome was an internet transmission and distribution network called Kerala Fibre Optic Network (KFON) to meet the growing bandwidth demands, be it video conferencing, video surveillance, smart traffic management, telemedicine, or smart classrooms/e-education, e-Courts, smart meters, and asset tracking.

Chief Minister Pinarayi Vijayan has promised that it would make the internet accessible to everyone in the state and bridge the digital divide in society.

The futuristic investment made by Kerala in ICT would enable the economic growth of the state by broadening the reach of technologies such as high-speed Internet, mobile broadband, and computing. While these technologies themselves would spur growth, they would help productivity, which means additional benefits.

Internet is an information expressway – Kerala is all set and raring to push the accelerator. ■





T.S Chandran  
Deputy Director (Rtd)  
Industries & Commerce Dept.

# KFON to boost Entrepreneurship

**Kerala is all set to launch its dream project KFON. KFON will certainly usher in progressive changes to a variety of sectors in Kerala. Entrepreneurship is regarded as one such key area. While the IT sector will reap the maximum benefits, construction, service, trade and several other sectors will also witness considerable growth.**

**E**ntrepreneurship is all about adapting to changing times. Understanding the business ecosystem and bringing timely amendments to meet the rising demands is a prerequisite for a promising entrepreneur. The ability to innovate places a businessperson a cut above the rest. In today's world, it is imperative to derive maximum benefits from the internet and its endless opportunities. And this is indeed inevitable as far as businesspersons are concerned.

## Speed Up to 1 GBPS

The fact that KFON will ensure internet connection at a bandwidth of 10 MBPS to 1 GBPS is highly commendable. KFON operated jointly by the Kerala State Electricity Board and Kerala State IT Infrastructure Ltd, connects all 14 districts through an optical cable network. Apart from house connections, KFON gives internet connections to 30,000 government offices as well. The project will ensure internet connection free of cost to BPL families and at economical rates for APL families. Thus the project has great significance in the social security sector too. High-quality internet service shall be made available at IT parks, airports, sea ports etc. KFON will be instrumental in promoting private enterprise in different sectors.

## Start-Up Initiatives

Kerala has a notable start-up ecosystem. We were the first state to formulate a start-up policy. Our state is home to more than 3,000

successful start-ups. High-speed internet is an indispensable aspect of a thriving start-up environment. This is because 90% of our start-ups are IT-based.

KFON is expected to give internet connection at a speed higher than what is available at even advanced start-up incubation centers. So, this project may well help technocrats to bring their creative ideas to fruition. Start-up ideas, that can be made commercially viable, form the foundation of any good entrepreneurial venture. KFON can prove to be highly valuable in this process. Kerala Start-up Mission is one of India's most noteworthy institutions in this sector. KFON can give a wider reach for the activities of KSUM amongst youngsters. With the expanding network of high-speed internet connections, young people graduating from ITIs, Polytechnic Institutes, Engineering Colleges, and Management Institutions can devise viable start-up plans and step into the world of entrepreneurship with much more ease.

## **KFON will be instrumental in promoting private enterprise in different sectors.**

### **Small Scale Industry and Digital Marketing**

KFON network will prove to be a milestone in the development of MSME businesses. As KFON ensures the most advanced technology, its domino effect shall be witnessed in the business sector, through the direct reduction in the cost of production, distribution and

## **KFON is expected to give internet connection at a speed higher than what is available at even advanced start-up incubation centers**

marketing sectors. Marketing has a huge role to play in the success of any business venture. If the market is set, then success is ensured.

Digital marketing is one marketing technique that demands a minimum cost, risk and effort. Digital marketing is the technique of using digital media platforms for the promotion of finished products. Telemarketing, social media marketing, search engine optimisation, search engine marketing, e-mail direct marketing, content automation, display marketing, and e-commerce are some of the examples of digital marketing. A good quality internet connection is essential for the smooth synchronization of these tools. This is where KFON can prove highly beneficial for businesses. KFON will ensure the internet connection required for the hassle-free operation of mobile applications. KFON can revolutionise the MSME sector by creating a platform to use digital marketing on an extensive scale. This will attract more investors and businessmen to these sectors.

## **KFON will increase prospects for small-scale IT-enabled initiatives which can be set up on minimum investment.**

### **IT-enabled services**

Statistics show that 56% of people in Kerala use the internet. We are the first state to declare the Internet as a right. Ensuring that the most advanced technology is available to all at a discounted price is a revolutionary decision. Most modern technological fields like Artificial Intelligence, Block Chain, Internet of Things, Start-up, Smart City projects etc will all stand to benefit from KFON.

Kerala set up Akshaya centres back in 2002. These centres played a great role in introducing digital technology to the common man in remote villages. More and more help desks are needed to make government e-services available to everyone. KFON will throw open doors of opportunities for several small-scale IT and IT-enabled services.

KFON will increase prospects for small-scale IT-enabled initiatives which can be set up on minimum investment. More importantly, high-speed internet will help to make such initiatives profitable. It can help to upload applications faster and grant permissions and certificates faster. Thus, with the help of KFON, small-scale service centres can operate profitably in every nook and corner of the state and create more self-employment opportunities.

Improving the technology of business operation increases the quality of the finished product and reduces the cost of production. It helps to improve marketing strategy as well. Thus, KFON will undoubtedly help to improve the development of entrepreneurship in the state. ■





**Joy Sebastian**  
Co-Founder and Chief Executive Officer  
at Techgensia Software Technologies

# KFON- driving the Future Kerala

**Having a powerful internet backbone is the right step in the right direction to make Kerala a knowledge economy for which we already have all other necessary infrastructure and resources.**

**T**oday the world is connected through fast & affordable internet. Life, culture, relationships, and everything that's connected to an individual's existence is benefiting from this in many ways. The bitter fact is that half the population of India still does not enjoy the true benefits of the technology developments yet as the internet penetration in India is just above 50%.

The scenario is promising in Kerala as the state's internet penetration is second best in the country, trailing only behind Delhi. 87% of our population has an active internet connection and most of them are connecting to the internet through mobile data networks. The majority





of the uncovered population is from the underprivileged and backward sections of society.

The quality of the mobile data networks is still a question, mobile coverage issues without dependable stable signal strength which invariably result in bandwidth and latency issues. During the pandemic period when everyone moved online and started using real-time communication tools for their daily work and education, this bandwidth issue was noticeable.

A modern society without investments in internet infrastructure will ultimately fail as, in today's world, building internet infrastructure is as important as building roads, bridges, airports, and rails. It is even appropriate to call the internet infrastructure the most important of all infrastructures as even governments cannot properly function without it.

## Impact on the future

Some of the key areas of the future where a wired internet infrastructure like KFON can make a direct impact are the following.

1. Being ready for the Internet of Things (IoT)- There are many ways in which IoT will change the way we live and for that to happen, a stable, dependable internet with negligible latency ( less than 1 ms) is a prerequisite. IoT (Internet of Things) is now slowly taking over the world which makes devices smarter through automation. IoT has a huge life-transforming role in several sectors such as transportation, health care, industries, agriculture, energy, and infotainment, to mention a few. It works by deploying electronic sensors on different devices used in these sectors, hence allowing the measurement of important real-time data. These data are transmitted to remote servers over the internet where it can be analyzed, and intelligent actions can be taken based on them. IoT is the technology behind driverless cars, automated machines, smart houses, etc.

As the use cases of IoT are tremendous, and possibilities are infinite, internet requirements are very high and the reliability of the network should be around 100%. As most of the applications built around IoT are mission critical, it should be zero tolerant towards packet transmission loss. The latency should be less than 1 ms in the case of applications like Autonomous driving, Robotic surgery with remote monitoring.

Even though devices inside the IoT local network can be connected using different wireless technologies, the connection from the IoT network premises to the remote servers is still preferred to be an optical fiber one. KFON will make Kerala ready to embrace the possibilities offered by IoT.

2. Making remote healthcare reliable - With health workers and medical professionals available round the clock, a patient plugged into a network with internet communication & collaboration ability will enable top-notch care from experts around the world.

A major component of remote healthcare is the availability of high-quality real-time video communication. The mobile networks in India are still lagging well behind the proposed bandwidth capabilities. If the video quality is poor when remote health consulting is happening, the doctors or professionals in the far end will lose the minute details from the patient if the doctor wants to collect details by observing the patient's visible symptoms. If every household has a reliable network at home we can ensure the remote health care to reach them, and thereby we can bring up the life quality index, which has always been there with the Kerala Model.

3. Effective palliative care and geriatric care- The possibilities offered by monitoring the real-time vitals of a palliative or geriatric care patient is very important as a medical intervention at the right time often can be very decisive. As the aging population of India is increasing day by day, palliative care and geriatric care will be challenge if managed the traditional way. But with high speed internet, healthcare professionals can act from remote locations and caution can be taken whenever necessary.
4. Making Metaverse, AR, VR & XR possible - Adding more layers of information to our day-to-day realities will change the way we work, live & entertain ourselves. Companies across the world are investing their time, energy, and money into the Metaverse, which will decide



how we are going to live & work in the digital space. As all these are heavily dependent on seamless connectivity with proper bandwidth, KFON can support this revolution and take Kerala forward.

5. Seamless home entertainment - With OTT platforms making huge waves in the way movies are consumed, it seems customer-focused Video On Demand and entertainment will dominate the current home entertainment scenario for a while. Like any platform or service that requires videos to be pushed across the network, the need for high-speed internet is very important here too.
6. Enabling hyper-local business - When businesses can satisfy a need immediately and satisfactorily, customers get glued to their services. Being hyper-local helps the neighborhood and community as services become prompt and often affordable. A reliable and affordable network is necessary to enable small and medium businesses to reach out to the customers and serve them with promptness.

Kerala is taking a giant step toward the future now. But for this step to be practical and yield positive results, the internet speed offered by KFON has to be “good enough” so that it can support not only the current internet-driven services but also the

next-generation “data-hungry” applications & services that are mostly run over the internet. Hence KFON should visualize not only taking the internet to the nook and corner of the state but also providing the necessary bandwidth required by the emerging new technologies. Having a powerful internet backbone is the right step in the right direction to make Kerala a knowledge economy for which we already have all other necessary infrastructure and resources. KFON is the next best thing our economy is waiting for and the time has come to make the next big technology leap. ■



# Kerala: The perfect locale for Work tourism

Jason Fried and David Heinemeier Hansson could not have put it more aptly when they wrote in their book *Remote: Office Not Required* that what we had long thought of as the staples of work – M&M (Meetings and Managers) – may actually be the greatest causes of work not getting done at the office. Yes, workplaces are shrinking. Companies want to compress their real estate footprint. A collaborative workplace has become the new normal. A study published in the *Harvard Business Review* found that employees are looking for six kinds of flexibility in working.

- 1) Unconventional hours as a means to boost productivity
- 2) Flexible hours that allow for work-life balance
- 3) Remote work which is actually a hybrid of working from an office or from anywhere
- 4) Being location-independent
- 5) Cutting down on travel which amounts to unproductive time
- 6) Freelancing and gig job options

Kerala which is culturally diverse and blessed with Nature's bounties provides the perfect locale for Work Tourism. Travis Kalanick, the founder of Uber, the largest mobility platform in the world, had taken his team to Varkala in the State in 2007 and developed their revolutionary code while living in that beach town. James Joseph, a director at Microsoft who set up office in his rural Kerala village and managed his company's relationship with senior executives of the top 200 enterprises in India, wrote about that exciting experience of working without borders in his account 'God's Own Office'. Finally, it is a dream-come-true for anyone from anywhere aspiring to work in Kerala as KKEM embraces the unlimited possibilities of KFON.





V.K. Adarsh  
 Chief Manager (Technical)  
 Union Bank of India

# Ocean of Digital opportunities

**Creating dedicated last mile digital access is not the end solution, but maintaining it at an affordable cost is the real obstacle. Kerala government through its ambitious K-FON addresses this issue up to a large extent.**

**K**erala has made its indelible mark in India's digital landscape by Akshaya way back in 2002, and this event helped the state to graduate to the first e-literate state. Media and other well-wishers modified our tagline to 'gods own e-state'. On the education front, we have IT@School (renamed as KITE) which prompted many other Indian states to adapt the same to handhold their children to the digital highway. The state government's focus on Information and Communications Technology has many avatars, and many of these initiatives got national as well as international attention. So far, our footprint was on awareness, training, and e-governance domains. But the real challenge now is the digital backbone which requires dependable data connection throughout the state.

## **Digital jump in financial inclusion**

K-FON is planned to complement the existing digital public network of telecom players and cable network operators and to ensure data reach to

the digital have-nots. Bridging the gap between digital haves and have-nots is the need of the hour. Now almost all government-to-citizen (G2C) initiatives are tailored around DBT (Direct Benefit Transfer) and JAM trinity (Jandhan bank account, Aadhaar, Mobile). Ensuring quality and affordable digital access will definitely enhance the effectiveness of financial inclusion. Now Kerala is gearing up to declare a 100% digital banking milestone. State Government, RBI, and SLBC Kerala are working tirelessly to reach this vision target. It has manifold positive effects on universal access to banking products. Anyone can book a travel ticket, make fund transfer, payments at merchant establishments, utility payments like KSEB, water, telecom bill, etc in the comfort of home. Each and every electronic delivery of services requires payment support and dependable and meaningful financial inclusion efforts to help the common people to access eGov and other essential commercial services.

**On the education front, we have IT@School (renamed as KITE) which prompted many other Indian states to adapt the same to handhold their children to the digital highway.**

**M.Visweswarayya, the pioneer engineer who shaped modern India firmly believed that the state would cease to exist if it did not set up industries and once, he publicly stated “Industrialise or perish”. The modern adaptation of this quotable quote can be Digitalise or stagnate.**

The payment mechanism requires uninterrupted digital connectivity, by ensuring ‘data to all’. Small ticket transactions need careful support from the government and other stakeholders. This will push digital delivery uptake and fuel the digital payments space in the near future. Kerala is marching ahead in financial inclusion.

#### **Logistics e-advantage**

Kerala’s economy is largely dependent on the service sector, especially tourism and Knowledge-based industries. Providing wider digital network availability will boost the digital economy and employment opportunities within the state. Driven by the K-FON digital infrastructure and the resulting cheaper data, the digital revolution will not be restricted to cities. Open Network for Digital Commerce (ONDC) is considered a UPI moment in Indian eCommerce. As a predominantly consumer state, traders/sellers in Kerala state can taste the advantages of ONDC from its adoption stage itself. Enhancing the local digital network will stimulate the growth prospects of existing MSMEs. Remote education, Skill development through online mode, Healthcare access, Edu Tech, etc are other benefits. The

logistics advantage provided by the digital network is not limited to the said sectors, this will impart a brighter future for the R&D sector, Smart Cities, Transportation management, and rural companies such as Village BPOs, small ITeS ventures, etc. Another notable area in the Kerala scenario is the infotainment domain which is undergoing rapid change as OTT, and IPTV is gaining momentum.

#### **Digitalise or stagnate**

M.Visweswarayya, the pioneer engineer who shaped modern India firmly believed that the state would cease to exist if it did not set up industries, and once, he publicly stated “Industrialise or perish”. The modern adaptation of this quotable quote can be Digitalise or stagnate. The KFON is an ambitious project of the state government aiming to obviate the digital divide and propel growth. This will make our digital foundation safe and cost-effective; the scale of success is purely based on how we are utilising this well-calibrated public infrastructure for the economic prosperity of Kerala. The opening of a quality digital network aimed at common people is designed to widen the economic growth trajectory. Let it position Kerala as a model digitally inclusive state in India. ■



Dr. P.V. Unnikrishnan  
Member Secretary, K-DISC

# KFON and Kerala Knowledge Economy Mission

**The United Nations declared internet access a basic human right in 2016, aimed at weeding out social inequality and bridging the digital divide between the internet haves and have-nots, the Kerala Government led by Pinarayi Vijayan is the first to imbibe the spirit of the resolution in the country.**

Several studies have been done on the impact of broadband on employment. Gains of 2.5 to 4.0 additional jobs are estimated for each broadband job. A study titled 'Estimating Broadband Demand and its Economic Impact in Latin America' carried out by Columbia Business School Professor Raul L. Kaltz in 2009 quantified the macroeconomic impact of broadband technology on employment and productivity and found that closing the broadband gap of 11 million lines increases 3,78,000 jobs. While it is difficult to precisely measure causality, broadband technology contributes to the creation of jobs for deploying the infrastructure and jobs resulting from network externalities in other sectors of the economy. Ericsson, Arthur D. Little and Chalmers University of Technology quantified the isolated impact of broadband speed in 33 OECD countries, proving that



doubling the broadband speed for an economy increases GDP by 0.3%.

The World Development Report of 2016 which explored the relationship between broadband and economic growth concluded that fixed broadband brought about a positive economic impact on a country. A certain threshold of penetration is necessary before a significant economic impact is discernible from fixed broadband. The higher the level of broadband penetration, the higher the impact due to network effects. One study found that of all ICTs such as telephone, mobile, Internet use and broadband, the biggest economic impact is brought about by broadband.

### **Working in the Knowledge Economy**

A worker in the knowledge economy is equipped with analytical skills, the ability to critically examine issues, convergent/divergent thinking and a capacity for collaborative work. The skills and productivity of the knowledge worker who is

**A worker in the knowledge economy is equipped with analytical skills, the ability to critically examine issues, convergent/divergent thinking and a capacity for collaborative work.**

## **High-end knowledge work executed remotely requires infrastructure in the form of high-end connectivity, strong security systems (IP protection) and high-end access / computing devices.**

savvy in the internet, Robotics, GIS, GPS, IoT, 5G, Machine Learning and 3D printing are in tune with the times.

Working in the post-pandemic world is moving towards Work from Home models. Large volume communication is the backbone of this digital work. Employees need access to uninterrupted power, connectivity and concentrated work time at home. Having to live in cities to achieve this will hamper their daily lives due to high population density and resultant viral threats. To minimise health risks, people need to disperse to regional suburbs and villages which necessitates adequate infrastructure at home for work. Work from Home has also been found to disadvantage women who found themselves burdened with household chores, rearing children and the rigmaroles of online meetings and conference calls. The solution is to set up centres providing for Work Near Home (WNH) in each Panchayat. These shared workplaces or business hubs house groups of people belonging to multiple organisations.

The successful transition of the State into a knowledge economy depends on its ability to develop knowledge products and curate human resources to effectively transfer these for economic value. A knowledge worker equipped with knowledge products or services requires adequate infrastructure to facilitate the transfer of the same. As a substantial amount of work under this program is to be delivered remotely, the infrastructure requirement translates to 1) Network or Communication infrastructure 2) Access or Device infrastructure and 3) Physical spaces for working. These are home or remote centres near home. The extent of infrastructure depends on the nature of work and the capability of the employers and employees.

High-end knowledge work executed remotely requires infrastructure in the form of high-end connectivity, strong security systems (IP protection) and high-end access/ computing devices. The infrastructure is made possible through Kerala Knowledge Economy Mission's (KKEM) decentralised Work Near Home (WNH) centres. Medium-level knowledge work executed remotely requires network connection, access devices, knowledge enablers and data/knowledge resources. The Government may provide support through subsidies on access devices and the establishment of high-speed networks in this case. Again, KKEM supports such work through setting up WNH centres, enhancing the reach through a network such as KFON, providing knowledge repositories at subsidised rates to employees and providing Digital Workforce Management System (DWMS) for supporting the project management of remote work. For low-level knowledge work which happens at the employee's premises, the Government may provide support to the employer through subsidies on procuring access devices and internet connectivity, providing DWMS platform and establishing a high-speed network. ■



Hareesan Mottammal  
Chief Engineer (IT,CR&CAPs),  
KSEBL

# The role of KSEBL in laying out the KFON network

**The government of Kerala, KSEBL, and KSITIL have formed a Joint Venture Company, Kerala Fibre Optic Network Ltd. (KFON) for the purpose of building a high-speed, reliable and scalable optical fibre network across the State to provide connectivity to more than 30,000 Government & educational institutions and 20 lakh economically backward households and to provide quality and affordable internet services to the citizens by leveraging the Transmission and Distribution infrastructure of KSEBL.**

**K** FON aims to work on the principles and guidelines of openness and transparency; to leverage infrastructure and provide access to Optical Fibre Network/ bandwidth in a non-discriminatory manner to all eligible Telecom/Internet Service Providers and any other service providers to enable them to provide services across the state of Kerala, specifically in rural/remote areas; to sell bandwidth, lease dark fibre and provide any value-added services deemed necessary; to create Information and Communication Technology infrastructure required for the rapid development of the economic sector in the state of Kerala.





KSEBL has a pivotal role in the establishment of KFON Ltd. and in laying out the KFON Network.

- KFON Ltd. was formed in the shareholding pattern of 49:49:2 in favour of KSEBL, KSITIL, and, the Government of Kerala respectively. The assistance, various rights to use, additional fibre being laid, and any goods & services, provided by KSEBL to KFON, shall be treated as a contribution of KSEBL to KFON as equity participation.
- As a result of the implementation of complete electrification in Kerala, KSEBL has power distribution network in every nook and cranny of the state. KFON is connecting the government offices, households and other beneficiaries in all the 14 districts using the OFC laid through the electricity distribution network of KSEBL. Around 35,000 km of KFON optical fibre is being brought to the city, village & home through the

distribution power lines of KSEBL.

- The KSEBL project for providing a Reliable Communication & Data Acquisition system to all Substations of level 110 KV & above, by drawing OPGW (optical fiber composite overhead ground wire) along the EHT Transmission towers of KSEBL, is included as package-B of the KFON project. The 48 fibre OPGW laid under this scheme are equally shared by KSEBL & KFON. About 2,900 km OPGW OFC is being laid through 110 & 220 KV transmission lines of KSEBL. The Right of Way and assets of these OPGW routes will be owned by KSEBL. In case of OPGW OFC already laid by KSEBL, KFON is allowed usage of a few free fibre core(s) in certain links.
- KSEBL has also provided the required space at 375 Substations for installing communication/networking equipment in pre-fabricated structures for setting up PoPs (Point of Presence) of KFON network across Kerala. KSEBL also provided the required power supply at PoPs from the substation panels. The fibre route network prepared by KFON is validated by KSEBL and is providing up-to-date KSEBL network data required for the expansion/ upgradation of KFON.
- A Network Operating Center (NOC) is set up in Ernakulam to monitor the functioning of the equipment & network installed. The Data Recovery (DR) Center for the KFON systems was set up in KSEBL Data Center, Trivandrum.
- KSEBL section offices are giving prior intimation to KFON in case of scheduled maintenance works, that may directly/indirectly affect KFON fibre laid through the distribution poles of KSEBL, in order to shift/dismantle/ rework KFON fibre safely during such works. Also, KSEBL is providing assistance for restoration of the fibre cuts.
- KSEBL formed District level and State level KFON coordination committees including all the stakeholders for site level coordination of works and for resolution of issues. KSEBL is providing guidance and supervisory services for all obligatory compliances/ Rules/Regulations/SOPs/ Safety measures as required by Kerala State Electricity Regulatory Commission & statutory bodies for accessing the power infrastructure.
- KSEBL also proposes to assist KFON in preparation of a business plan to ensure that the KFON is financially self-sufficient to operate its business. KSEBL will provide all support & assistance to promote KFON internet to KSEBL consumers & citizens. KSEBL stands to benefit immensely from the KFON project. KSEB Ltd is entitled to the usage of the communication lines being laid as part of the project for its own use. The organization shall thus be spared of all the network usage overheads including that for last mile connectivity. Considering the anticipated increase in network overheads owing to enhanced automation avenues in SCADA systems, installation of Smart Meters, energy auditing, IoT technologies, high speed & reliable connectivity to Substations & Generating stations, etc., the availability of free OFC & bandwidth would provide a critical advantage to KSEBL also. ■



# The Gandhian Influence on Malayalam Journalism

**M**ahatma Gandhi, honoured as the 'Father of the Nation' was a veteran and committed journalist.

He considered journalism an effective tool to convey his ideas to the masses of India. Gandhiji defined the objectives of journalism as follows: "One of the objectives of a newspaper is to understand popular feeling and give expression to it, another is to arouse among the people certain desirable sentiments and the third is to fearlessly expose popular defects".

To keep away from external influences, he avoided advertisements in his papers. He used easily comprehensible simple language which could touch the hearts of the readers.

Gandhiji's periodical publications were 'Indian opinion' (1904: a weekly in English, Tamil, Hindi and Gujarati published in South Africa). Satyagrah (1919) an unregistered weekly in Hindi and Navajeevan (1919, Gujarati weekly) Young India (1919, English weekly), Harijan (1933, English weekly and Harijan Bandhu, its Hindi Edition).

Gandhiji's journalistic activities influenced the Indian press including Malayalam.

## Gandhiji and Kerala

Gandhiji was very much interested in the social reformation and political struggles for freedom in Kerala. He guided almost all struggles in the State including Khilafat Movement, Vaikom Satyagraha,

Guruvayur Satyagraha, Agitation for Temple Entry and the Struggles for Responsible Government. The Congress party and Gandhiji gave guidance to the organizers of the struggles to connect them indirectly with the national goals. Gandhiji, visited



Dr. M.V. Thomas  
Former Deputy Director, I&PRD

Kerala five times i.e. in 1920, 1925, 1927, 1934 and 1937.

## Gandhiji and Malayalam Newspapers

All major newspapers in Malayalam were influenced by and associated with Mahatma Gandhiji and his movement. They gave wide coverage to his activities, ideas and messages by publishing speeches, writings and reports on his political activities.

### Malayala Manorama

The Malayala Manorama published articles and editorials on Gandhiji even before he came to India and became the quintessential leader. While Gandhiji was leading struggles in South Africa, 'Malayala Manorama' (published from Kottayam since 1890) wrote an article on his charity and patriotism on 29th January 1908.

On the occasion of the first visit of Gandhiji to Travancore, the Malayala Manorama wrote an editorial to welcome him. It said "He is considered first in importance among the people living in the world today. It is sure that any emperor, head of religion, literary man or any other person living in the world has not acquired one percent of fame, love and respect Mahatma Gandhi is getting from the people".

K.P.K Pisharady, Assistant Editor of the Manorama was the only journalist who followed Gandhiji in all programmes during his last visit to Travancore in 1937. The autobiography of Gandhiji and his letters to various persons on various issues were translated and published in the Malayala Manorama.

On the day of the martyrdom of Gandhiji, the Manorama wrote an editorial entitled "The extinguished Universal Light".

### Mathrubhumi

The 'Mathrubhumi' published from Kozhikode was a product of

the freedom struggle in Kerala. K.P. Kesava Menon, who was the Secretary of the K.P.C.C. functioned as its founder Editor. He says: "When the Mathrubhumi was started, the best model to run a newspaper was 'Young India', published under the editorship of Gandhiji." Mathrubhumi started publishing as a daily newspaper on the same day Gandhiji started the Salt Satyagraha. Mathrubhumi weekly started publishing with the cover picture of Mahatma Gandhi.

Gandhiji visited the 'Mathrubhumi' on 13th January 1934 to unveil the photo of its Managing Director K. Madhavan Nair. The 'Mathrubhumi' was the only newspaper Gandhiji ever visited in Kerala.

### Kerala Kaumudi

The 'Kerala Kaumudi' started publication as a weekly newspaper. The newspaper championed social renaissance and upliftment of backward classes.

In those days the Kerala Kaumudi reported without any omission about Gandhiji's Kerala visit and his speeches against untouchability.

It is doubtful whether there is any other newspaper which has given so much publicity to the messages of Gandhiji on eradication of untouchability as the 'Kerala Kaumudi'. It also fully reported his meeting with Sree Narayana Guru in March 1925 at Sivagiri. C.V. Kunjuraman, an eyewitness, wrote a report on the meeting in Kerala Kaumudi. It contained a verbatim reproduction of the conversation between the Guru and Mahatma Gandhi.

### Al-Ameen (1924-39)

The Al-Ameen (1924-39) was a Kozhikode based pro-nationalist newspaper that started publication on 12th October 1924 by Muhammed Abdu Rahiman, a follower of Mahatma Gandhi. He was associated with the Khilafat



△ Gandhiji at Vaikom Satyagraha

Movement and Indian National Congress in Malabar. The Al-Ameen tried to strengthen the national movement by fostering a spirit of nationalism in Malabar.

### Deenabandhu (1942-63)

The Deenabandhu was the most prominent newspaper in Cochin which took an active role in the freedom movement in that state. It was the official organ of Kochi Rajya Praja Mandalam. V.R. Krishnan Ezhuthachan, the founder and General Secretary of the Praja Mandalam was the editor.

The name 'Deenabandhu' was given to honour Deenabandhu C.F. Andrews (1870-1940), an English Priest. Considering his contributions to social reformation and the freedom movement in India, it was Gandhiji who gave him the title 'Deenabandhu' (Friend of the poor). A Malayalam edition of Gandhiji's Harijan was published under the auspices of Deenabandhu Company.

All the Malayalam newspapers were respectful to Gandhiji and gave full support to his ideals and programmes. They made it a point to take his lofty messages to the masses. ■





Suryagayathri  
Information assistant, I&PRD,  
Kozhikkode

# Looking forward to more hassle-free services to the public

**With the implementation of the cheapest and fastest KFON project, panchayath can avail hassle-free services to the public at their fingertips.**

Meppayur grama panchayat is becoming a role model for local self-government institutions by implementing various projects. With the realization of K-FON Meppayur Panchayat would excel in technological aspects too. The majority of the services provided by the government are delivered online. Out of 273 services, 213 are submitted through ILGMS software so much so that there will be no need to visit government





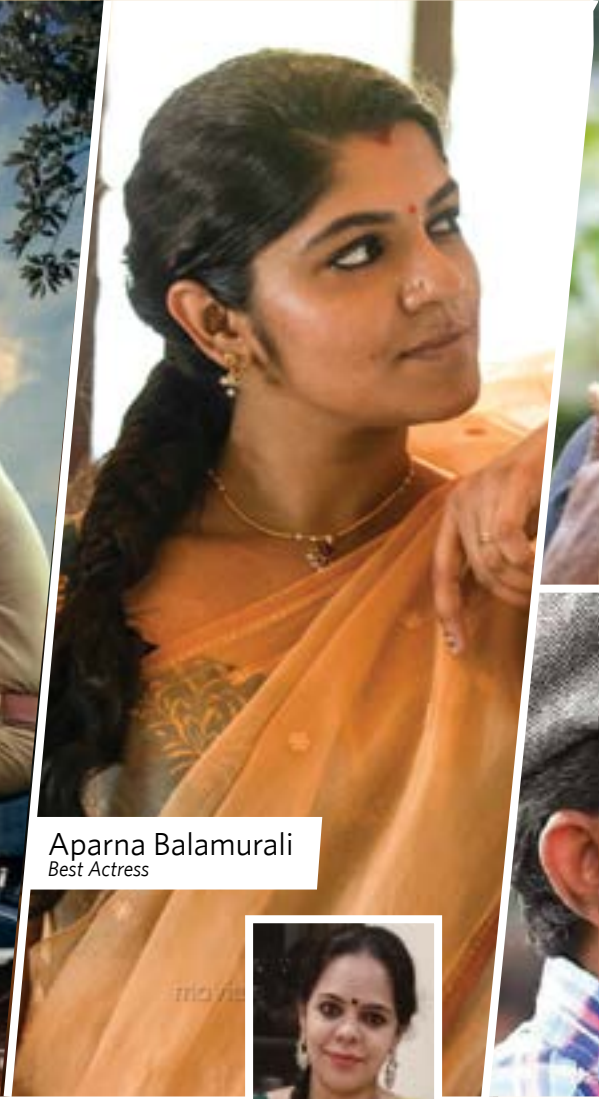
offices frequently. With the implementation of the cheapest and fastest KFON project, panchayath can avail hassle-free services to the public at their fingertips.

K FON is a project envisaged by the government of Kerala to provide the fastest internet at the best quality and at the lowest rate. The activities of setting up optical fiber cable for K FON are in progress at the Meppayur panchayat. The cable for 119 KM has already drawn in seven nearby panchayaths starting from the Meppayur substation. As part of this project, the internet connection was facilitated in 19 offices including the panchayat office, government schools, KSEB, village office, and police station. Out of the five aggregation pops of K-FON in

the district, one is in Meppayur. KFON can avail fast internet ranging from 10MB to 100MB per second.

Even though many of the government services are provided online, sometimes low speed and network issues might create some crisis for the general public. With the consummation of KFON, the public will get the fastest internet and can avail of the government services as early as possible without visiting the government offices. In the first phase, free internet service will be given to the BPL families. According to the list for the year 2009, there are 2,488 BPL families in the Meppayur panchayat. Currently, we have to pay the tariff rates decided by the private mobile companies as many are depending on them for internet services. The realization of K FON will ensure the fastest and lowest rate of the internet to the common man.

Many faced difficulties when education was made online during the period of pandemics. But with the implementation of Sajjam project, the panchayat has ensured online study facilities for all students by placing public wifi centres in the panchayat. With this Meppayur, has become the first 'complete free wifi panchayath' in Kerala. Free internet facilities were provided at 79 centres including Anganwadis, child care centres, libraries and clubs. This project was implemented to put an end to the digital divide during the time of online education. This was accomplished with the aid of the panchayat fund and with the cooperation of the general public. ■



Aparna Balamurali  
Best Actress



Arathy. K.R.  
Assistant Information Officer,  
I&PRD

# Stupendous laurels bestowed upon Malayalam

**Ayyappan and Koshy are never the ones to let go. Their legendary, headstrong rivalry gets murkier every time they try to defend their ego and honour. So how can they falter when the honour of their revered creator was at stake? Ayyappan and Koshy competed fiercely, but this time, not against each other. The obsessive, slow-burning duel between the two classic characters was pitted against some outstanding movies at the 68th national film awards. And the cult film emerged victorious by making Sachi aka Sachidanandan the best Director.**

**T**he national film awards announcement on 22 July 2022 saw *Ayyappanum Koshiyum* grab many a recognition. The Best Director award became an homage to the late Sachi, who had delivered the biggest hit and the most critically acclaimed film of his career. This made the 68th national awards poignantly memorable for all Malayalis across the world.

Nanchiamma, a folk singer from a humble tribal hamlet in Attappadi, won the 68th National Film Award for Best Female Playback Singer. She immortalized the song *Kalakkatha* from *Ayyappanum Koshiyum*. At 60, Nanchiamma was a chance discovery by Sachi and Lady Luck.

Biju Menon, an artiste adored by Keralites for the characters he portrayed and all the more for his character, was adjudged the Best Supporting Actor. His transformation from the modest policeman to the





**Nanchiamma**  
Best Female Playback Singer

vengeful Mundoor Madan was subtly powerful.

Popular stunt masters Mafia Sasi, Rajasekhar, and Supreme Sundar together fought their way up to win the award for Stunt Choreography for *Ayyappanum Koshiyum*. The raw and wild fight sequences captured the imagination of viewers and the same has now been acknowledged by the national film jury.

This year, the Malayalam film industry won 14 honours, doubling the feat of the previous edition. Anees Nadodi won the award for the Best Production Design for the film *Kappela*. *Malik* fetched the award for the best Re-recording shared by Vishnu Govind and Sree Sankar.

Debutant director Kavya Prakash earned special mention for her film *Vaanku*, which explored the ramifications in a conservative society when a woman aspires to be the muezzin at the mosque. The film was based on a short story by acclaimed writer Unni. R. In the non-features category, Nikhil S Praveen was selected for Best Cinematography for *Shabdikkunna Kalappa*. The short film, directed by Jayaraj, is an adaptation of Ponkunnam Varkey's short story that depicts the warm relationship between a farmer and his ox. The award for Best Educational Film has gone



**Sachi**  
Best Director



**Mafia Sasi**  
Stunt Choreography



**Biju Menon**  
Best Supporting Actor

to *Dreaming of Words* directed by Nandan. The documentary traces the life and work of Njattiyela Sreedharan, a fourth standard drop-out, who compiled a dictionary connecting four major Dravidian languages – Malayalam, Tamil, Kannada and Telugu. *MT Anubhavangalude Pusthakam*, a book that illustrates the creative and cinematic journey of M T Vasudevan Nair earned special mention for the Best Writing in Cinema category. The author of the book Anoop Ramakrishnan will be awarded posthumously. Anoop Ramakrishnan, who was a leading visual designer, passed away in December 2021.

'Thinkalazhcha Nishchayam', a small-budget film by Senna Hegde has adjudged the best Malayalam Film. The film turns the camera towards the family of a girl who is getting engaged, giving the audience a realistic and hilarious depiction of the chaos that unfolds. The movie received rave reviews when it was released on the OTT platform.

Malayalam cinema has contributed stupendous works towards this edition of national film awards, at the same time contributing several award-winning artists to other industries as well.

Aparna Balamurali, Malayalam's own girl next door, opened up a plethora of doors to her creative pursuit by fetching the coveted Best Actress award for Tamil film *Soorarai Pottru*. Her portrayal of the highly motivated and bubbly Bommi catapulted her to pan-Indian fame.

Shalini Usha Nair, a demure Malayali writer-director shared the award for the best Screenplay with Sudha Kongara for 'Soorarai Pottru'. The much-admired film is only her second after her directorial debut *Akam* released in 2012.

Sidharth Menon won a Special Jury mention as an actor for his Marathi film *June*. Though lesser known to Kerala, he is a Malayali by birth. Brought up in Pune, Sidharth has been active in drama and Marathi, Hindi and films.

This year's award announcement has left movie-lovers and Keralites across the globe elated. Malayalam cinema has once again proved its mettle by bagging many prestigious awards, including the best director and female actor, tweeted Chief Minister Pinarayi Vijayan.

The 68th National Film Awards were announced for films that released in 2020. Awards were delayed by two years due to the COVID-19 pandemic. Filmmaker Vipul Shah headed the jury for the feature film category while non-feature films were overseen by Chitrartha Singh. ■





Ignatius Pereira  
Senior Journalist

# Chengannur Central Hatchery: A success story

**Established in the year 1961 by the Government of Kerala, the Chengannur Central Hatchery (CCH) is a success story that has earned the awe of poultry farmers, especially in the districts of Alapuzha, Kottayam and Pathanamthitta. The hatchery primarily supplies day-old chickens to poultry farmers who then rear them and become successful farmers.**

**P**oultry farmers who are regular customers of the CCH proudly vouch that chicks sourced from there are healthy and vibrant. And that is certified by observing the chicks as mobile and happy plus constantly on the go, curious, moving, and scratching around.

Every day the hatchery witnesses a never-ending demand for its two primary products; day-old chicks and fresh eggs. The CCH is the best place in Kerala to get linked to if anyone from the erstwhile Central Travancore part of the State has designs of becoming a successful poultry farmer.

In the financial year, 2021-2022 the CCH produced 7,53,686 eggs of the Gramasree chicken, a crossbred backyard chicken breed developed at the University Poultry Farm, Mannuthy in 2005 as part of the golden jubilee celebrations of the College of Veterinary and Animal Sciences affiliated to the Kerala Veterinary and Animal Sciences University. Gramasree is a coloured bird for backyards having the reputation as good layers.

Out of the Gramasree eggs produced at CCH, 6, 04,530 were

used for hatching at the hatchery out of which 4, 97,367 eggs successfully hatched and were sold to farmers. During that year 1, 46,292 gramasree eggs produced at CCH were also sold as table eggs. Veterinary surgeon, Dr. Mathews Thankachan, who is the CCH Production Manager said that during the same year 48,811 eggs of the ornamental and native breed were produced there out of which 46,190 were hatched and sold. In addition to that, the quail unit of the CCH also produced 2, 36,105 eggs out of which 1, 42, 825 hatched and the rest sold as table eggs. The quail unit of the CCH has a high reputation and the chicks from there are much sought after by farmers.

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Chicks sold are mainly for backyard poultry rearing to individuals to promote the rural economy. Chicks of the four native breeds Kadakkanath, Karingkozi, Thalasseri, and naked neck are the ones promoted by CCH promoted for backyard farming.

Dr. Mathews said that the eggs meant for hatching are meticulously chosen through a scientifically approved sorting and selection process to ensure that the healthiest chicken with a low mortality rate is produced. No artificial means are used to keep the hens laying: the hens at CCH lay eggs the natural way, he said. Buyers have the option to buy day-old female chicks as this is done through a foolproof sex selection process before the chicks reach the sales counter.

The breeder flock management is also one of the best. This is after taking into serious consideration that the vigour and health of chicks depend on the care of their parents before the egg is laid. The breeding flock at CCH is healthy and free of physical shortcomings that can interfere with proper mating and egg production, Dr. Mathews said.

The hatchery unit of the CCH complex is situated in a bio-security location. The selection of eggs for the hatchery includes a check on cleanliness soon after collection, only eggs of average size and perfect shape are selected and eggs with thin shells are discarded. While it may not be possible for all the selected eggs to reach the incubator immediately, these are stored in a cool humid room where they can be stored for a maximum of seven days. The candling process during incubation is done after seven days and within ten days. All efforts are taken to maximize incubation results, Dr. Mathews said.

To ensure the health of the layers, the CCH has its poultry feed production unit within its sprawling 11-acre complex. Five different types of feed are produced for the chicken and quails. The feed produced is utilized only after going through a comprehensive lab testing process. Because of the quality of the feed, the table eggs sold from the CCH have the unique taste of rustic table eggs when compared to the commercial table eggs available in the market. This is the main reason for the high demand for CCH table eggs- and the supply fails to meet the demand because only the fresh eggs rejected for hatching are sold.

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## Lucky Bill Mobile App Launched

The government of Kerala has launched a lucky bill mobile app to boost sales and curb GST evasion. Chief Minister Pinarayi Vijayan has launched this novel intervention of the GST department recently. The lucky bill app was introduced by the State Goods and Service Tax Department with the aim of getting the service and goods bills directly to the department. This is the first of its kind in India. This will encourage the public to demand goods and services bills they have purchased and will compel the merchants to distribute bills for the same. It is envisaged to increase tax compliance and uplift sales in establishments coming under the purview of GST. A considerable hike will be there in the tax revenue of the government as the tax paid by the public will be channelized entirely to the government.

Attractive prizes are offered for customers who upload bills of their purchase of goods and services. There are daily, weekly, monthly, and bumper prizes given to the lucky draw winners. Gift packet worth 1000 rupees offered by Kudumbashree and Vanashree will be rewarded to 50 citizens in daily lucky draws. Twenty-five weekly lucky draw winners will be rewarded with KTDC family stay packages (3 days and two nights). The first prize is ten lakh rupees, the second prize is two lakh rupees each for five people, and the third prize is one lakh rupees each for five people will be distributed to the monthly lucky draw winners. The bumper prize is twenty-five lakh rupees. The beneficiaries of the app will get prizes worth a total of five crores per year. Citizens can download the lucky bill mobile app from the Google play store or from the official website [www.keralataxes.gov.in](http://www.keralataxes.gov.in). Once the app is installed, beneficiaries can register the details and can upload the goods and service bills.



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