

### Mission Artificial Intelligence India: Instances where Indian Government rode the AI Train successfully in 2019

India is ahead of China and Israel in artificial intelligence readiness. AI has been described as the 'new electricity'. India should spare no effort to bring India to the top 10. India comes in at number 17 (with a marking of 7.515), lower than the United Kingdom, the United States, Scandinavia and most of Europe, but, interestingly, it is ranked higher than China and Israel, and beats tech heavyweights such as South Korea and even Estonia, which has the highest internet penetration rate in the world.

#### Initiatives in AI by Govt. of India in 2019:

- Safe and Ethical Use of AI:** Recently, the government of Tamil Nadu announced that they are working on a policy for the safe and ethical use of artificial intelligence. This first-of-a-kind policy will be like a rule book for the state agencies and vendors who will be using AI for governance services.
- Automated Facial Recognition System (AFRS) To Identify Criminals:** The National Crime Records Bureau (NCRB), Ministry of Home Affairs, Government of India recently released a tender in order to create Automated Facial Recognition System (AFRS).
- AI System in Government Buses:** In August, the Government of Uttar Pradesh and Karnataka announced the plan to install AI systems in the buses in order to alert sleepy drivers and avoid collisions.
- AI-based Traffic Scan:** In May this year, the Government of West Bengal and the state IT department along with the police alliance that they are working on an AI system in order to monitor vehicles and send an alert instantly to the police if there is any abnormality in the driving behaviour.
- Chatbot to Register House and Marriage:** A few months ago, the Information Technology, Electronics and Communications (ITEEC) department of Telangana announced that the department is working on chatbots which will work on robotic process automation (RPA). The chat will extract details like locations of sub-registrar offices (SRO), the fee for marriage, property and society registrations, among others.
- India to Use AI And 100 PF Supercomputer To Improve Weather Prediction:** The Union Secretary for Earth Sciences, Dr. M. Rajeevan announced the use of artificial intelligence and machine learning to help in improving the understandings of weather and climate phenomena and their forecasting.
- AI-based solutions for agriculture in India:** In October, the Government of Maharashtra announced the implementation of AI-based solutions for agriculture in India in order to reduce agricultural risks for farmers, under the Maha Agri-Tech project.
- AIRAWAT:** AIRAWAT or AI Research, Analytics and Knowledge Assimilation platform is a cloud computing platform for Big Data which has been announced by NITI Aayog this year
- AI For Improvement of Services in Rural Areas:** A few months ago, the CSC e-Governance Services India Ltd (CSC SPI) announced the development and delivery of new digital services to around 900 million citizens living in rural areas in India by using artificial intelligence and data analytics across sectors such as finance, education, healthcare, among others.

Click >>> [here](#) for more info.

#### FAME India so far

The Govt. of India has supported 425 electric buses on pilot basis since the launch of FAME India (Faster Adoption and Manufacturing of (Hybrid & Electric Vehicles in India) scheme that—in its second phase—aims to support (through incentives) about 7000 e-buses over a period of three years commencing from April 1, 2019. Since inception of the Faster Adoption and Manufacturing of (Hybrid & Electric Vehicles in India (FAME India) in 2015, about 2.8 lakh vehicles have been supported by way of extending demand incentives of about Rs. 359 crore. As pilot project, 425 e-buses were also supported for various cities in different states to promote public transportation. The Minister of Heavy Industries & Public Enterprises, Mr. Prakash Javadekar said. Notably, in August this year the Ministry sanctioned 5595 electric buses for intra-city and intercity operation under FAME II Scheme. Of these, 5095 electric buses were sanctioned to 64 city/state transport corporations for intra-city operation; 400 electric buses for intercity operation; and 100 electric buses for last-mile connectivity to Delhi Metro Rail Corporation.



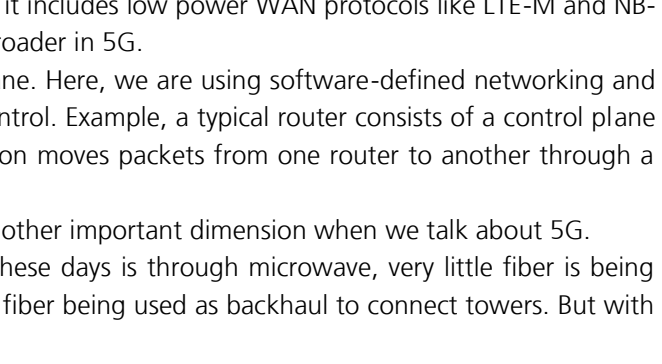
Shri. Narendra Modi, Hon'ble Prime Minister of India



Click >>> [here](#) for more info.

### Govt. of India think tank NITI Aayog released a report 'Health Systems for a New India: Building Blocks—Potential Pathways to Re-forms

The report identified five focus areas of future health system – to deliver on unfinished public health agenda, change health financing away from out of pocket so spend into large insurers, integrate service delivery vertically and horizontally, empower citizens to become better buyers of health, harness the power of digital health. The report on the outset criticizes multiplicity of health schemes. NITI Aayog has recommended that health system financing structure should be changed in such a way that predominant – undesirable – out-of-pocket expenditure is reduced and spending is directed towards larger risk-pools with strong strategic purchasing capabilities.

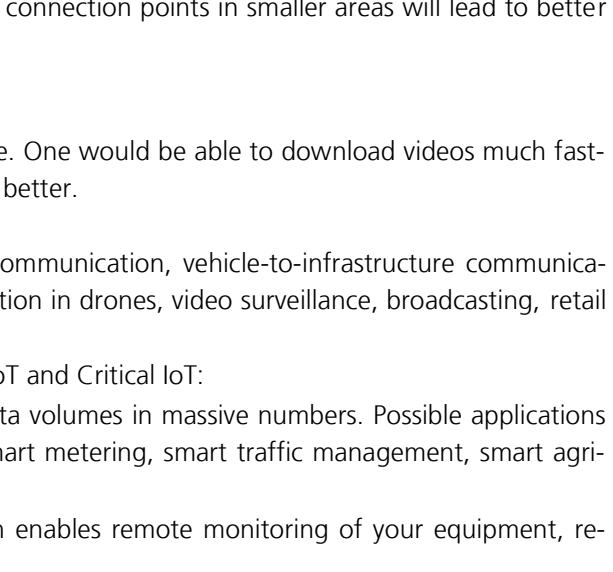


L to R: Mr. Bill Gates, Co-chairman of Bill and Melinda Gates Foundation, Dr. Rajiv Kumar, Vice Chairman, NITI Aayog, Mr. Amitabh Kant, CEO, NITI Aayog

#### Article

##### 5G Opportunity – Global and India Perspective

The cellular technology journey started off in India in the late '80s with 1G. Then 2G came which had limited data capabilities, which evolved to 3G where one could have slightly faster speeds from the data standpoint. With 4G, speeds became faster and consumption of video increased, thereby increasing the need of 5G. 5G is going to encompass not just mobile devices but a whole lot more other things including surveillance systems. 5G is not just about speed, it will be a new experience both for consumers as well as enterprises. With 5G, a new radio protocol is being built with a completely new interface that will improve speeds and lower latencies. Applications will include mobile broadband and smart cities.



##### 5G network consists of five key technology areas:

- Access – It refers to radio access which covers both cellular and non-cellular domains. Even Wi-Fi standards are now part of IoT. Similarly, it includes low power WAN protocols like LTE-M and NB-IoT also part of 5G standards. So, the access is far more wider and broader in 5G.
- Network – It refers to separating the control plane from the user plane. Here, we are using software-defined networking and network function virtualization techniques for providing software control. Example, a typical router consists of a control plane which decides which route to take. And then the forwarding function moves packets from one router to another through a network.
- Edge-computing – It is to make processing closer to the asset. It is another important dimension when we talk about 5G.
- Transport – Most of the connectivity between two cellular towers these days is through microwave, very little fiber is being used. Today it is said that over 20-25 percent of fiberisation is done, fiber being used as backhaul to connect towers. But with 5G, a lot more fiber will need to be deployed.
- Device – It refers not just to mobile devices but cars and a whole lot of connected devices.

##### What will 5G offer?

- Massive device connectivity – It is predicted that by 2030, there will be nearly 30 billion connected devices.
- Ultra-reliability – The way radio interface has been built has made it a reliable network. The highly reliable network brings possibility of applications like remote surgeries, and use of robotics in manufacturing industries.
- Ultra-low latency – 5G promises a low latency of 1 – 10 milliseconds, which supports real-time applications used for gaming and connected cars.
- Higher capacity & more coverage –5G will enable implementation of multiple small cells within a particular area, resulting in better speeds within that specific area. Thus, more capacity through more connection points in smaller areas will lead to better customer experience.

##### 5G will enable new IoT use cases:

- Wide implementation of IoT will definitely improve video experience. One would be able to download videos much faster and view ultra-HD videos. The gaming experience is going to be much better.
- Even the AR and VR applications would run well.
- 5G applications in terms of connected cars include vehicle-to-vehicle communication, vehicle-to-infrastructure communication, etc. which will increase safety on the road. 5G will also find application in drones, video surveillance, broadcasting, retail industry, and so on.
- 5G-enabled IoT use cases can be classified into two categories: Massive IoT and Critical IoT:
  - Massive IoT refers to low-cost, low-energy and small volume data volumes in massive numbers. Possible applications would include smart logistics and smart city applications like smart metering, smart traffic management, smart agriculture and so on.
  - Critical IoT refers to applications like factory automation, which enables remote monitoring of your equipment, remote operations, remote surgeries and smart grid.

##### 5G adoption – global update:

As far as the US is concerned, all mobile operators have already made a head-start. In Europe, 5G rollout is a bit slow. They are lagging behind partly now as the operators are not ready yet. In Asia, countries like China, Japan, South Korea and Australia have already taken the lead and have started trials. These countries will adopt 5G quicker than India.

**The cost of spectrum in India is higher than anywhere in the world and operators are already burdened with debts of almost INR 5 -6 lakh crore.**

##### 5G status in India and roadmap:

The Indian Government is aiming full scale deployment of 5G networks by late 2019 or early to mid-2020. The government is also very proactive as far as the 5G is concerned. In September 2017, the Indian government constituted a 5G high-level forum and later launched a program called “Building an end to end 5G testbed”. It is also working closely with the academia to build more 5G use cases. The government allocated a budget of INR 2240 million to IIT Madras, Delhi, Kanpur and IISc to build 5G prototypes. Ericsson installed the first public access 5G testbed at IIT Delhi on July 2018.

##### Is India ready for 5G?

There is a lot of intent from the Indian Government to catch up and adopt technology as to how the West has been adopting, but India is not ready for 5G yet. The first and foremost reason is that the operators are not yet ready to invest in 5G. For 5G, India needs an investment of US\$ 50-60 billion which is a huge amount from an India perspective. The health of the Indian telecom industry today is not good. Operators are burdened with debts of almost INR 5-6 lakh crore. Second is the cost of servicing that debt while maintaining the existing customers of 300-400 million subscribers. There is additional cost involved adding more spectrum, adding more towers, etc.

Unfortunately, the cost of spectrum in India is higher than anywhere in the world. Therefore, operators need to spend a lot more money to buy a particular spectrum, build infrastructure and develop ecosystem. Hence, India is still two years away from actually using 5G.

References: Electronics Forum, IIT 2019 magazine, The Economic Times, Mouser Electronics

Article by [Mr. Aditya Fuke, Manager - Smart Cities & IoT, Fraunhofer Office India](#). He can be contacted at [ad.fuke@fraunhofer.in](mailto:ad.fuke@fraunhofer.in) for specific enquiries and support.

#### Recent Events / Activities

##### Nov 15<sup>th</sup> 2019: CII - EDU Summit - Reimagining the Future of Higher Education

Confederation of Indian Industry (CII) – Telangana Chapter had organized an education summit in Hyderabad on Nov 15<sup>th</sup> 2019, and invited Ms. Anandil Iyer, Director, Fraunhofer Office India to speak in the session on “Education-Research-Skills for Economic Growth”. Ms. Anandil Iyer delivered a presentation on “Converting Research into Products”. Her presentation was very well received by the audience, most of whom were from academia and industry focussing on workplace of tomorrow, which calls for a redesign of the higher education courses to enable students to develop new types of skills.



Ms. Anandil Iyer delivering presentation at CII-EDU Summit



L to R: Ms. Anandil Iyer, Ms. T Sarita Reddy, Chairperson, CII Skills Council along with other panelists

##### Nov 18<sup>th</sup> 2019 : Germany's Energiewende in India, Bangalore

This year Travelling exhibition “Germany's Energiewende” to India was organized in Bangalore and Kochi. This was a public exhibition on Germany's transition to clean an sustainable energy sources. The exhibition opened on Nov 18<sup>th</sup> 2019 in Bangalore with a panel discussion on ‘Energiewende in India - Status quo and the future’. The panel comprised of the following speakers - Mr. Martin Rohlmann, Cultural Officer of the German Consulate Bangalore, Prof. Tejaji Kanitkar, National Institute of Advanced Studies (NIAS), Mrs. Palak Agarwal, Co-Founder & COO, Batti Ghar Foundation and Mr. Amir Bazzaz, Senior Consultant, Indian Institute of Human Settlements (IIHS). The German Consulate General in Bangalore had invited Ms. Anandil Iyer, Director, Fraunhofer Office India to moderate this panel discussion.



L to R: Mr. Amir Bazzaz, Mr. Martin Rohlmann, Ms. Anandil Iyer, Prof. Tejaji Kanitkar, Mrs. Palak Agarwal

##### Nov 19<sup>th</sup> 2019: Bengaluru Technology Summit 2019

Bengaluru Tech Summit, organized by Govt. of Karnataka is a gathering foreground for all those who thrive on businesses that leverage technology. Over the last few years, the summit has become a global catalyst, introducing next generation innovators to the market place and shrinking borders to bring world technology to Indian soil. It is a conducive stage, where industry experts share their insights on technological advancements in varied sectors and where businesses create fruitful cross-linkages to further their growth in the realm of Science, Information Technology and Biotechnology.



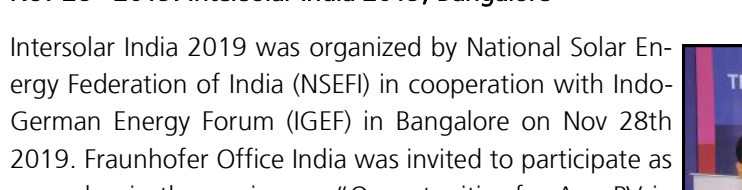
L to R: Mrs. Margit Hellwig-Boette, Mr. Siddharth Balachandran, Mr. Aravind Raman, Mr. Gerd Hoefner, Ms. Anandil Iyer, Mr. Ganapathy Venugopal

As a part of Global Innovation Alliances (GIA), the German Consulate General in Bangalore had conducted a session on Artificial Intelligence on Nov 19<sup>th</sup> 2019, and invited Ms. Anandil Iyer to participate as a speaker in a high-level panel discussion on “Artificial Intelligence – Driver of Sustainability”. The panel comprised of the following eminent speakers - Mr. Gerd Hoefner, Managing Director and President, Siemens Healthineers Pvt. Ltd., Ms. Anandil Iyer, Director, Fraunhofer Office India, Mr. Aravind Raman, Head, Country Strategy and Business Development, Bosch India, Mr. Ganapathy Venugopal, Cofounder & CEO, Axilof Ventures, and Mr. Siddharth Balachandran, Airbus BizLab Leader – India. The panel discussed the potential of AI to lead profound changes in the way humans, organizations and technology interact. This panel also highlighted the latest trends and challenges in the field of Artificial Intelligence regarding Healthcare, Agritech, & mobility/Aviation. Mrs. Margit Hellwig-Boette, German Consul General Bangalore moderated the panel discussion.

##### Nov 18<sup>th</sup> - 19<sup>th</sup> 2019: Morgenstadt: Global Smart Cities Initiative Meeting

Morgenstadt: Global Smart Cities Initiative of Fraunhofer IAO and University of Stuttgart had organized the kick-off meeting of three cities Kochi (India), Saltillo (Mexico) and Piura (Peru), which are chosen under International Climate Protection Initiative (IKI) 2017 of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). This meeting was organized in Barcelona on Nov 18<sup>th</sup> for the objective. The purpose of this meeting was to discuss the common challenges faced by these three cities especially in water and energy, and discuss the local solutions that could be adapted to tackle these challenges. Site visits to Sabadell (40 kms from Barcelona) was also organized on Nov 19<sup>th</sup> to experience the best practices in water and mobility sector.

The respective municipal officials of the three cities and representatives of two Morgenstadt network partners Innogy and ICLEI participated in this meeting. Ms. Raji, General Manager, Cochin Smart Mission Ltd. (CSML) and Dr. Debjani Ghosh, Associate Professor, National Institute of Urban Affairs (NIUA), Govt. of India represented the city of Kochi in this meeting. Their participation was coordinated by Mr. Aditya Fuke, Manager - Smart Cities & IoT, Fraunhofer Office India, who also represented Fraunhofer Office India in this meeting.



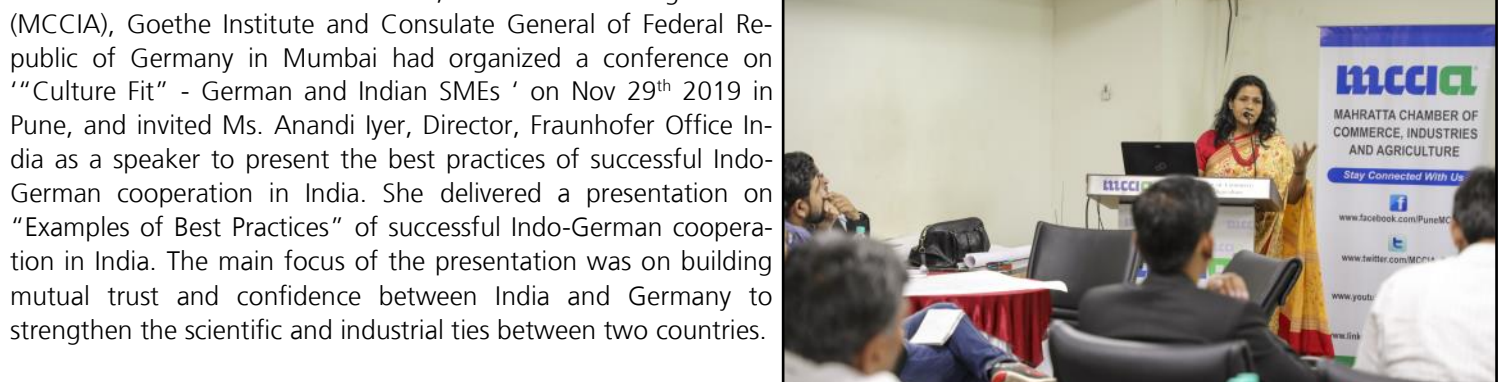
Ms. Raji, R presenting the city profile of Kochi in the Morgenstadt meeting on Nov 18th 2019



Simulation cell of the wastewater treatment plant



Hybrid Bus of Sabadell city bus company



Smart Tower

Smart Charging Station

Smart Building (Affordable Housing for LIGs)

Visit to Grow Smarter Project

##### Nov 20<sup>th</sup> - 22<sup>nd</sup> 2019: Visit of Ms. Anandil Iyer, Director, Fraunhofer Office India to Germany

Ms. Anandil Iyer represented Fraunhofer Office India in “Futuras in Res 2019 What's the IQ of AI?” organized by Fraunhofer Gesellschaft on Nov 21<sup>st</sup> & 22<sup>nd</sup> 2019 in Berlin. She had coordinated the participation of Prof. Padmanabhan Anandan, CEO, Wadhvani AI, who was one of the speakers in the panel on “Empathy & Human-Machine-Interaction”. She also attended Fraunhofer Alumni Summit 2019 in Berlin.



Prof. Padmanabhan Anandan speaking in Futuras in Res 2019

In addition, Ms. Anandil Iyer had a strategic meeting with Dr. Hinrich Thoenken, Special Ambassador Digitalisation, Govt. of Germany and Dr. Tilmann Holzer, Speaker, Federal Ministry of Health, Govt. of Germany to discuss the roadmap of Indo-German cooperation on AI in Healthcare.

##### Nov 28<sup>th</sup> 2019: Intersolar India 2019, Bangalore

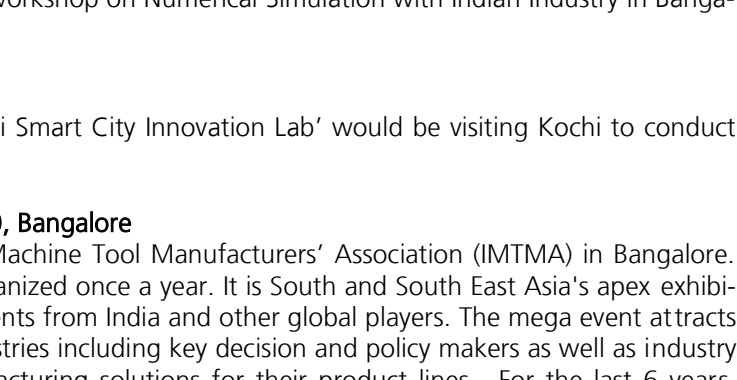
Intersolar India 2019 was organized by National Solar Energy Federation of India (NSEFI) in cooperation with Indo-German Energy Forum (IGEF) in Bangalore on Nov 28<sup>th</sup> 2019. Fraunhofer Office India was invited to participate as a speaker in the session on “Opportunities for AgroPV in India” at Innovation Stage in Intersolar India 2019. Mr. Sanmatti Naik, Manager – Energy (RE) represented Fraunhofer Office India during this event and participated in the panel discussion on “Potential of AgroPV in India - Opportunities for Indian Industry”. The other panelists were Dr. Rashi Gupta, Managing Director, Vision Mechatronics, Mr. Pranav Mehta, Chairman Global Solar Council, Chairman NSEFI, Dr. Vineet Saini, Joint Director-Dpt. of Science & Technology (DST), Govt. of India. The panel discussed the prospects of collocating agriculture and solar power generation and its scope in Indian market. Mr. Naik briefly introduced Fraunhofer and its activities in Agro-PV. Mr. Tobias Winter, Director, IGEF moderated the panel discussion.



L to R: Mr. Subrahmanyam Pulipaka, NSEFI, Mr. Tobias Winter, IGEF, Dr. Rashi Gupta, Vision Mechatronics, Mr. Pranav Mehta, NSEFI, Mr. Sanmatti Naik, Fraunhofer Office India, Dr. Vineet Saini, DST, Mr. Kulkarni H.B., KSES

##### Nov 29<sup>th</sup> 2019: Conference - “Culture Fit” - German and Indian SMEs

Maratha Chamber of Commerce, Industries & Agriculture (MCCIA), Goethe Institute and Consulate General of Federal Republic of Germany in Mumbai had organized a conference on “Culture Fit” - German and Indian SMEs” on Nov 29<sup>th</sup> 2019 in Pune, and invited Ms. Anandil Iyer, Director, Fraunhofer Office India as a speaker to present the best practices of successful Indo-German cooperation in India. She delivered a presentation on “Examples of Best Practices” of successful Indo-German cooperation in India. The main focus of the presentation was on building mutual trust and confidence between India and Germany to strengthen the scientific and industrial ties between two countries.



Ms. Anandil Iyer delivering presentation in ‘Culture Fit’ Conference

#### Important meetings

##### Nov 29<sup>th</sup> 2019: Meeting with Mr. Makarand Phadke, Senior Vice President- Innovations, Reliance Innovation Leadership Centre, Reliance Industries Ltd.

Ms. Anandil Iyer, Director, Fraunhofer Office India met with Mr. Makarand Phadke, Senior to discuss potential cooperation between Fraunhofer and Reliance Industries in innovation in biotech. Mr. Phadke is also Chairman of Science Technology & Innovations Committee, Federation of Indian Chambers of Commerce and Industry (FICCI). She also discussed the potential cooperation between Fraunhofer and FICCI to develop a roadmap for setting up a robust Science and Technology ecosystem in India.

##### Nov 29<sup>th</sup> 2019: Visit of The Administrative Bureau of Radio Stations, Govt. of China to Fraunhofer Office India

A high-level delegation of The Administrative Bureau of Radio Stations of the Chinese Government led by Mr. Alexander Zink, Senior Business Development Manager, Fraunhofer IIS visited Fraunhofer Office India for an introductory meeting with Fraunhofer India team to understand the activities of Fraunhofer in India with focus on Broadcasting technologies, Industry 4.0, IoT and Automotive Technologies.



Govt. of China delegation at Fraunhofer Office India

#### Upcoming Events

##### Jan 08<sup>th</sup> - 10<sup>th</sup> 2020: Visit of Mr. Michael Kasper, Head of Cyber-Security, Fraunhofer Singapore to Fraunhofer Office India

During Mr. Kasper's visit, Fraunhofer Office India is organizing a workshop with IT Companies in Bangalore on Cyber Security at Fraunhofer Office India.

##### Jan 13<sup>th</sup> 2020: Visit of Dr. Joerg Kuhnert, Fraunhofer ITWM to Fraunhofer Office India

During Dr. Kuhnert's visit, Fraunhofer Office India is organizing a workshop on Numerical Simulation with Indian Industry in Bangalore at Fraunhofer Office India.

##### Jan 13<sup>th</sup> - 24<sup>th</sup> 2020: On-site assessment in Kochi

Project coordination team of Fraunhofer IAO of the project ‘Kochi Smart City Innovation Lab’ would be visiting Kochi to conduct city analysis and interview some key stakeholders.

##### Jan 23<sup>rd</sup> - 28<sup>th</sup> 2020: Indian Metal Forming Exhibition (IMTEX) 2020, Bangalore

Indian Metal Forming Exhibition (IMTEX) is organized by Indian Machine Tool Manufacturers’ Association (IMTMA) in Bangalore. IMTEX is a flagship event for the Indian metal cutting industry machine once a year. It is South and South East Asia's apex exhibition showcasing the latest trends as well as technological refinements from India and other global players. The mega event attracts visitors from a wide spectrum of manufacturing and ancillary industries including key decision and policy makers as well as industry captains who are keen to source latest technologies and manufacturing solutions for their product lines. For the last 6 years, Fraunhofer has been showcasing its capabilities in lightweight technologies in Automotive components, forming technology and additive manufacturing along with select exhibits at IMTEX, and every year, Fraunhofer has received a constructive reciprocation for its capabilities from the organizers IMTMA. This will be an ideal platform for various Fraunhofer institutes to present their industry 4.0/AI topics and showcase exhibits in the areas of industrial processes, human-machine interaction, autonomous systems, digital twins etc.

For more details about the event, please click >>> [here](#)

##### Feb 4<sup>th</sup> 2020: Large Industry 4.0 Summit - Organised by Maratha Chamber of Commerce, Industries & Agriculture (MCCIA), Pune

##### Feb 20<sup>th</sup> 2020: Fraunhofer International Day.

Visit of Ms. Anandil Iyer to Fraunhofer HQ for the International Day.

##### Mar 2<sup>nd</sup> - 8<sup>th</sup> 2020: Visit of Dr. Markus Wolperding, Director, Fraunhofer IGB to India

Dr. Markus Wolperding will visit Pune, Mumbai and New Delhi for business meetings with high-level potential clients. He will also participate as a speaker in International Business Summit - Organised by Maratha Chamber of Commerce, Industries & Agriculture (MCCIA) on Mar 2<sup>nd</sup> 2020 in Pune.

##### Mar 16<sup>th</sup> - 17<sup>th</sup> 2020: DWHV Annual Symposium 2020 (Focus: Cities and Climate), New Delhi

Intersolar is the world's leading exhibition & conference series for the solar industry. As part of this event series, Intersolar India in Mumbai is India's most pioneering exhibition and conference for India's solar industry. It takes place annually and has a focus on the areas of photovoltaics, PV production and solar thermal technologies. For more details about the event, please click >>> [here](#)

##### Mar 18<sup>th</sup> 2020: Meeting of the German Organizations in Bangalore, hosted by Invest in Bavaria

##### Apr 24<sup>th</sup> - 25<sup>th</sup> 2020: RenewX 2020, Hyderabad

RenewX intends to accelerate the growth of the South Indian Renewable Energy Industry and contribute to the country's sustainable economic development. RenewX will provide an excellent platform for organisations to capitalise and penetrate this lucrative market. The event will bring together stakeholders from the sector and will help set a growth agenda for the future. For more details about the event, please click >>> [here](#)

##### Apr 25<sup>th</sup> - 26<sup>th</sup> 2020: Hannover Messe 2020

Activities of Fraunhofer Office India in Hannover Messe 2020 tbc. \*

##### Apr 28<sup>th</sup> - 30<sup>th</sup> 2020: WINDENERGY India 2020, New Delhi

WINDENERGY India 2020 is organised by Indian Wind Turbine Manufacturers Association (IWITMA) and PDA Trade Fairs Pvt Ltd. The 3-day trade fair and conference will provide a vibrant platform to meet, interact and engage with policymakers, regulatory authorities, international and domestic technology, solutions and service providers from the wind power industry. For more details about the event, please click >>> [here](#)

##### Aug 2020 - 6<sup>th</sup> Fraunhofer Innovation and Technology Platform (FIT), New Delhi

The Flagship event of the Fraunhofer – Fraunhofer Innovation and Technology Platform (FIT) is held once every two years. It focuses on different thematic fields and showcases Fraunhofer's cutting edge technologies, innovations and futuristic solutions, and is typically attended by more than 200 delegates from India and abroad. The 6<sup>th</sup> FIT Platform will focus on Artificial Intelligence across Healthcare, Agriculture, Education, Smart Cities & Infrastructure and Smart Mobility & Transportation, and catalyse collaboration in this very important field between India and Germany.

Further details of 6<sup>th</sup> FIT Platform would be shared in the upcoming issues of Fraunhofer Office India e-newsletter.

##### Sept 9<sup>th</sup> - 12<sup>th</sup> 2020: The 3<sup>rd</sup> Global RE-Invest, New Delhi

The 3rd Global RE-INVEST Renewable Energy Investors Meet & Expo, organised by the Ministry of New and Renewable Energy (MNRE), Government of India. It is a platform for International Solar Alliance (ISA) Partnership and Renewable Energy Investors Meet and Expo. The 3rd Global RE-Invest will also host the Second Meeting of the ISA Assembly and the ASEAN Ministerial Meet. For more details about the event, please click >>> [here](#)

##### Sept 23<sup>rd</sup> - 25<sup>th</sup> 2020: Renewable Energy India (REI) Expo, New Delhi

Over the years, REI has been established as the most comprehensive, reputed and Asia's largest expo in this domain where the green community congregates to discuss the trends, addresses challenges and showcases the best and most innovative technological solutions available to overcome them. For more details about the event, please click >>> [here](#)

##### Dec 15<sup>th</sup> - 17<sup>th</sup> 2020: Intersolar India 2020, Mumbai

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#### Automotive

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[A deep dive into sector's situation: ETAuto releases India Auto Industry Status Report](#)  
[Sluggish demand in H1: Auto components sales fall record 10% to Rs 1.87 lakh crore](#)  
[Slowdown for India's auto sector continues as global car sales fall](#)  
[Auto sector may spend Rs 17,000 cr on capex till FY21 despite slowdown](#)



#### Manufacturing

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[Steel demand to slow down on weak auto, manufacturing demand](#)  
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[Factory output contracts again, falls to lowest in six years](#)



#### Renewable Energy

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[Renewables to account for 55% of energy mix by 2030: IISc](#)  
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