

Support



Government of India

Department of Electronics & Information Technology
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2nd Smart Cities India 2016 Expo

11 12 13 May 2016

Pragati Maidan, New Delhi

*Smarter
Solutions for
a Better
Tomorrow*

www.smartcitiesindia.com

Organiser



Exhibitions India Group

2nd SMART CITIES INDIA 2016 EXPO

Smarter Solutions for a Better Tomorrow



Prime Minister's vision to recast India's urban landscape:

The launch of three mega urban schemes in India, i.e., Smart Cities Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT), and Housing for All in urban areas, will set in motion the process of urban transformation to enable better living. The missions are new, innovative and focused on pressing needs to improve the quality of life for citizens today, and in the future.

Currently, 31% of India's population live in cities, and generate 63% of the nation's economic activity. Urban population numbers are increasing rapidly, with almost half of India's population projected to live in cities by 2030. India's continued economic growth will be driven by this process.

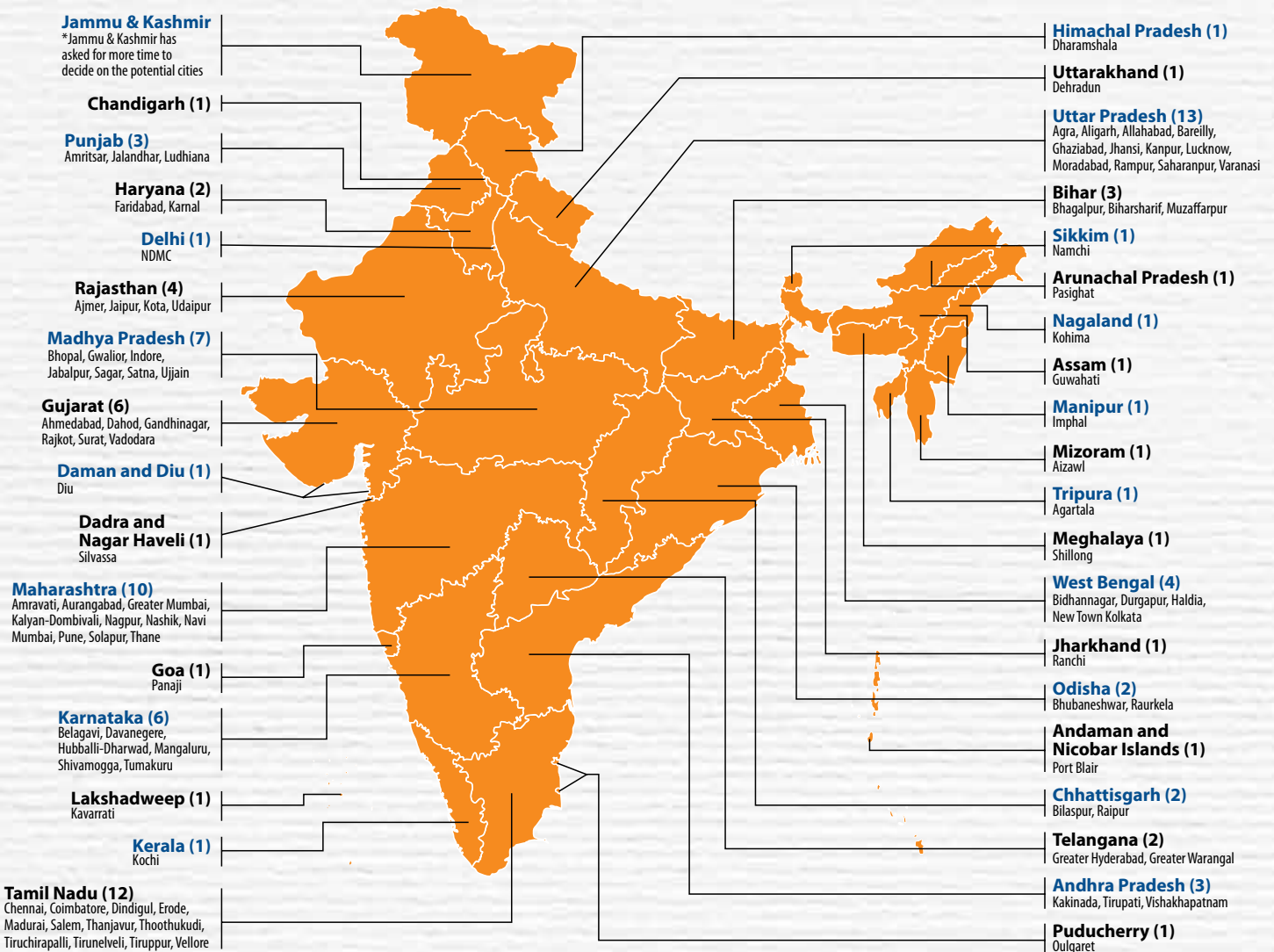
The core infrastructure elements are:

- Adequate water supply
- Assured electricity supply
- Sanitation, including solid waste management
- Efficient urban mobility and public transport
- Affordable housing, especially for the poor
- Robust IT connectivity and digitalization
- Good governance, especially e-Governance and citizen participation
- Sustainable environment
- Storm water drains to reduce flooding
- Pedestrians, non-motorized and public transport facilities, parking spaces
- Safety and security of citizens, particularly women, children and the elderly, and
- Health and education.



100 SMART CITIES

The 100 smart cities have been selected among the States and Union Territories (UTs) on the basis of equitable criteria, and each aspirant competed for selection as a smart city in a "city challenge" process. The selection provided equal weightage to the urban population, and the number of statutory towns in the State/UT.



* 12 cities have been shortlisted from Uttar Pradesh against 13 cities nominated for Smart City project



SMART WATER AND WASTE MANAGEMENT

Water

- Annual per capita water availability is expected to decline to 1,140 cubic meters by 2050, from 1,545 cubic meters in 2011
- Water related diseases are a primary cause of deaths in India, with around 38 million Indians affected by waterborne diseases annually
- Rainfall water, if harvested, is usable for drinking or irrigation
- Integrated Ganga Conservation Mission called "*Namami Gange*" to restore the river: INR 2,100 crores (US\$ 339 million) allocated for FY 2015-16.

Waste & solid waste

- Waste disposal and sewage treatment plants are missing in most Indian cities
- Around 60 million tonnes of municipal solid waste (MSW) is generated in urban India annually. With rapid urbanization and changing lifestyle and food habits, the amount of municipal solid waste will increase significantly
- All the major rivers including the mighty Ganga, Yamuna, Riva, Sutlej and Cauvery are polluted with sewage and industrial toxic waste
- e-Waste (obsolete, discarded, broken and surplus electrical and electronic devices) is of immediate and long term concern as the industry is unregulated and recycling can lead to major environmental degradation posing a major threat to human health.

Sanitation

- Swachh Bharat Abhiyan or the "*Clean India Mission*" is India's biggest cleanliness campaign that aims to accomplish the vision of "*Clean India*" by 2 October 2019 to coincide with Mahatma Gandhi's 150th birth anniversary at an expected cost of INR 62,000 crore (US\$ 10 billion)
- Roughly half the Indian population (around 594 million people) defecate in the open. The government has plans for an indoor toilet in every Indian home
- More than 38 billion litres of sewage is generated in urban India annually. Most of the untreated sewage is discharged into rivers, ponds or lakes, which is the main source of municipal water.

Products on display:

Water

- Analytical instruments
- Bathroom fittings and accessories
- Filtration systems
- Pipes and fittings
- Pumps and motors
- Water chemicals
- Water harvesting
- Water purification products and systems
- Water pollution monitoring systems, etc.

Waste & Solid waste

- Battery recycling
- Bio-medical waste management
- Construction waste recycling
- e-Waste recycling machinery
- Hazardous waste management
- Industrial waste disposal
- Machinery and equipment
- Paper recycling
- Recycling systems and technologies
- Waste storage containers
- Waste transport vehicles
- Waste treatment and recycling
- Waste-to-energy equipment, etc.

Sanitation

- Bathroom cleaners
- Effluent treatment plants
- Lavatories
- Odour eliminators
- Sanitizers and disinfectants
- Sewage & sludge treatment, etc.





SMART ENVIRONMENT

- India, as a country, releases the fourth largest amount of CO₂ emissions
- 627,000 die every year of particulate air pollution
- Use of chemical fertilisers and pesticides and the push for genetically modified crops have affected land fertility
- Native forests in India are disappearing at a rate of up to 2.7 percent per year.

Products on display:

- Air pollution control management & systems
- Environmental protection systems
- Equipment & tools recycling
- Renewable energy
- Clean fossil fired power generation
- Power plant optimization
- Financial institutions
- Pollution control equipment manufacturers
- Pollution control technology innovators
- Environment institutions / organizations

SMART URBAN PLANNING

- India plans to build pedestrian skywalks, walkways, cycle tracks, etc. in cities
- The government has launched Saansad Adarsh Gram Yojana (SAGY) to develop 2,500 of the 6 lakh (0.6 million) villages across the nation
- Government plans to develop 200 low-cost airports in Tier-II and Tier-III towns across the country
- The amusement park industry estimated to reach INR 4,000 crore (US\$ 645million) by 2020
- Between 2010 and 2050 India is expected to add about 500 million to its 2011 urban population of 377 million

Products on display:

- Airport surveillance and safety equipment
- Geospatial technologies
- High speed rail
- Infrastructure developers
- Landscaping and park furnishings
- Nano rail
- Playground equipment
- Sports and athletic equipment
- Theme parks / amusement park products, etc.

SMART BUILDINGS

- Plan to build 60 million homes - 40 million in rural areas, and 20 million in urban areas – under the "Housing for All" by 2022. INR 22,407 crore allocated for FY 2015-16
- More than 3,124 green building projects, with a footprint of over 2.75 billion sq. ft. registered with the Indian Green Building Council (IGBC), of which 617 green building projects are certified and functional
- Automation technologies to play a key role in the efficient operations of buildings. The industry estimates the Indian building automation and control systems market to grow three fold in revenue terms by 2019
- Smart monitoring, cross-device compatibility, voice commands, wireless connectivity, lighting enabled by motion sensors are a few features of smart homes.



Products on display:

- Smart heating & cooling
- Combined heat and power
- Water heating systems
- Building automation systems and products
- Smart home devices
- Smart appliances & living solutions
- Elevators/escalators/autowalks
- Building efficiency systems & devices
- Project developers, etc.





SMART IT & COMMUNICATIONS

- India's share of the global IT industry at 7 percent is largely owing to exports
- Government of India targets Internet of Things (IoT) industry at US\$ 15 billion by 2020
- Indian business process management (BPM) market is expected to reach US\$ 50 billion by 2020
- Digital India mission to transform India into a digitally empowered society and knowledge economy by 2018
- Sensors market in India is one of the fastest growing in Asia-Pacific, and expected to grow at a CAGR of over 20 percent between 2015-20
- India, the fourth largest base for young businesses in the world, with 3,000 tech start-ups, is estimated to be 11,500 by 2020 (Nasscom and Zinnov Management Consulting Pvt Ltd.)
- Some Indian cities have announced citywide wireless networks with time limits of free usage by consumers
- India is the world's second largest tele-communications market with over 990+ million subscribers.

e-GOVERNANCE

- India currently lacks a full fledged ICT framework for implementation of e-Governance
- The formulation of National e-Governance Plan (NeGP) by the Department of Electronics and Information Technology (DeitY) and Department of Administrative Reforms and Public Grievances (DAR & PG) in 2006 has boosted the e-Governance process
- e-Governance has been identified as one of the 9 pillars in the Digital India mission
- PPP model is to be adopted wherever feasible to enlarge the resource pool
- e-Governance will be a key feature in enabling Smart Cities in India
- 1,100 services are targeted under the NeGP. 600 services can be accessed across the length and breadth of the country.

Products on display:

- Big data
- Cloud computing
- Data security and management
- Firewalls and protection
- Geographic information system (GIS)
- Internet of Things (IoT)
- Location-based services
- Mobile apps
- Mobile devices
- Mobile marketing
- M-payment
- Sensors
- Smart cards
- Smart devices (Routers / modems, etc.)
- Telcos
- Wireless technologies / products, etc.
- Information management services
- Big data services
- Storage devices and solutions
- Hardware solutions
- Software services
- Cyber security solutions
- Central and state governments

SMART SECURITY AND SAFETY

- India's homeland security market is expected to be worth US\$ 16 billion by 2018
- India's fire and safety equipment market is expected to reach US\$ 4.3 billion by the end of 2017
- The electronic security market in India is projected to grow at a CAGR of 24.0% during FY 2013-FY 2018
- It is estimated that India will invest INR 550 billion (US\$ 8.8 billion) in the private security industry by 2016
- India is estimated to be amongst the top 10 security markets in the world by 2020.

Products on display:

- Access control
- Barriers / turnstiles / bollards
- Biometrics
- Burglar / fire alarm systems
- CCTV / video surveillance devices
- Detection control devices
- Personnel safety equipment
- Screening and scanning equipment
- Security systems
- Tracking systems
- Under vehicle inspection, etc.





SMART GRID

- India's energy demand is expected to increase 3 times in the coming 10 years, out of which 2/3rd would be carried by the grid
- In the XIIth plan, the Government has proposed to invest around USD 86.4 billion to upgrade the present electricity system
- Smart grids will significantly reduce the environmental impact of the whole electricity supply system
- Smart grids is the answer to shortage of power, power theft, access to electricity in rural areas, power loss in the grid, inefficient power consumption, poor reliability, etc.
- 14 smart grid pilot projects to be implemented by state-owned distribution utilities in India
- Government has approved the National Smart Grid Mission (NSGM) an institutional mechanism for planning, monitoring and implementation of policies and programs related to smart grid activities. The total outlay for NSGM activities for 12th Plan is Rs 980 crore with a budgetary support of Rs 338 crore.

Products on display:

- Distribution automation and substation automation
- Energy efficiency
- Electricity distributors
- Electronic power conditioning equipment
- Fault detectors
- Microgrids
- Power meters
- Renewable energy
- SCADA / DMS
- Smart meters
- Smart appliances
- Telecommunications
- Transformer monitoring systems
- Voltage sensors, etc.

CLEAN ENERGY

- About 400 million people in India lack access to electricity: the government has promised electricity for every household by 2019
- The Indian power sector is expected to attract investment of US\$ 250 billion by 2019 across diverse areas of the energy sector
- India has an installed capacity of 267 gigawatt (GW) as of March 2015, dominated by fossil fuels; the additional electricity demand creates a large opportunity for renewable energy sources
- India's target to install 100 GW solar power capacity by 2022 could make it one of the largest solar power markets in the world, creating 10 lakhs (1 million) jobs
- 14 smart grid pilot projects to be implemented by state-owned distribution utilities in India
- Investment of around INR 25,300 crore (US\$ 4 billion) to roll out a new metering system and upgrade distribution networks in the country
- Indian LED industry set to touch INR 21,600 cr (US\$ 3.48 billion) by 2020.

Products on display:

- Batteries/invertors/UPS
- Combined heat and power (CHP)
- Energy saving devices
- Energy storage
- LED lights
- Rooftop solar systems
- Smart grid
- Smart meters
- Solar heaters
- Street lighting
- Thermostats
- Voltage regulators, etc.



SMART EDUCATION & SKILLS TO BUILD SMART CITIES

- India needs to improve elementary education to move ahead in the digital era, and citizens need to adapt to change
- “Skill India” mission to provide training and skill development for 500 million Indian youth by 2020
- Indian government to frame new education policy to provide maximum and easy access to better education to all sections of society
- India's online education market is expected to be US\$ 40 billion by 2017. The demand for online education learning in the K-12 segment, and advancements in technology to support this new way of education



- It is estimated that only 2.3% of the workforce in India has undergone formal skill training as compared to 75% in Germany, 80% in Japan, 96% in South Korea, 68% in UK, and 52% in USA
- A skill gap study has indicated there is an additional net requirement of 11.92 crore skilled manpower in 24 key sectors by 2022
- One of the biggest challenges of skill development with sustainable livelihood is that 93% of India's workforce is in the informal/unorganised sector.



Products on display:

- Classroom technologies
- Educational games and gadgets
- Educational institutions
- Interactive white boards
- e-Learning appliances and products
- Laboratory/training equipment
- Teaching systems, etc.

SMART MANUFACTURING

- “Make in India” is an initiative to encourage companies to manufacture in India, create jobs, make India self-reliant, and to attract foreign investment
- Government of India to launch “Zero Defect, Zero Effect” to manufacture high quality products without impacting the environment. This will focus on using clean technology
- Ministry of Micro Small and Medium Enterprises (MSME) to implement schemes to benefit local manufacturing across the country. India has close to 35 million MSMEs
- Government of India plans to launch food processing and textile parks in the coming years
- The national manufacturing policy is by far the most comprehensive and significant policy initiative taken by the Government. The policy is the first of its kind for the manufacturing sector as it addresses area of regulation, infrastructure, skill development, technology, availability of finance, exit mechanism and other pertinent factors related to the growth of the sector.



Products on display:

- Advance machineries
- Industrial safety equipment
- Manufacturing service providers
- New technologies
- Quality monitoring systems
- Remote monitoring devices
- Robotics
- Turnkey solutions, etc.





SMART HEALTH

- The Indian hospital and healthcare industry has the potential to be a global hub for healthcare services. An increasing number of global players are focusing on the Indian market to provide efficient, and latest technology in healthcare delivery
- The Indian medical tourism industry is expected to reach INR 36,000 crore (US\$ 5.80 billion) by 2018. India is placed among the top three medical tourism destinations in Asia due to the low cost of treatment, quality healthcare infrastructure and availability of highly-skilled doctors
- With 360 million policies, India's life insurance sector is the largest in the world. The insurance industry has potential to reach USD 1 trillion by 2020
- Two villages in Jaipur district will be developed as "Health Smart Villages" under which data will be collected and computerised to manage the health scenario of the places.

Products on display:

- Ambulances
- Healthcare institutions
- Hospital equipment and furniture
- Insurance companies
- Medical devices and diagnostics products, etc.

DISASTER MANAGEMENT

- The Indian subcontinent is amongst the world's high disaster prone areas
- Almost 85 percent of India's area is vulnerable to one or multiple hazards
- Around 60 percent of the land is vulnerable to earthquake (high-risk seismic zones), 68 percent to drought, 8 percent to cyclones, and 12 percent to floods
- Initiatives taken to strengthen disaster reduction strategies. An Expert Group to recommend preparedness and prevention with respect to natural disasters caused by earthquakes, floods and cyclones.

Products on display:

- Camp/logistics equipment
- Emergency response equipment
- Explosive detection
- Firefighting equipment
- First-aid products
- Medical and evacuation equipment
- NBC (Nuclear, biological, chemical) detection equipment
- Night vision devices
- Radio communication systems
- Test and measurement instruments, etc.





GLIMPSES





SMART VILLAGES: MAKES A SMART WORLD



IN MAHATAMA GANDHI'S WORDS THE SMART VILLAGE IS:

- An ideal Indian village will be constructed to lend itself to perfect sanitation
- It will have cottages with sufficient light and ventilation built of a material obtainable within a radius of five miles
- The village lanes and streets will be free of all avoidable dust
- It will have wells according to its needs and accessible to all
- It will have houses of worship for all; also a common meeting place, a village common for grazing its cattle, a co-operative dairy, primary and secondary schools in which industrial education will be the central fact, and it will have panchayats for settling disputes
- It will produce its own grains, vegetables and fruit, and its own khadi
- That village may be regarded as reformed where the largest possible number of village industries are flourishing
- In which nobody is illiterate
- Where the roads are clean, there is a fixed place for evacuation, the wells are clean
- There is harmony among the different communities, and untouchability is completely absent
- In which everybody gets cow's milk, ghee etc., in moderate quantities
- In which nobody is without work, and which is free from quarrels and thefts
- The idea of village swaraj is that it is a complete republic, independent of its neighbours for its own vital wants, and yet interdependent for many others in which dependence is a necessity
- Thus every village's first concern will be to grow its own food crops and cotton for its cloth
- It should have a reserve for its cattle, recreation and playground for adults and children
- Then if there is more land available, it will grow useful money crops, thus excluding ganja, tobacco, opium and the like
- The village will maintain a village theatre, school and public hall

- It will have its own waterworks, ensuring clean water supply. This can be done through controlled wells or tanks
- Education will be compulsory up to the final basic course
- As far as possible every activity will be conducted on the cooperative basis
- There will be no castes such as we have today with their graded untouchability
- The task before every lover of the country is how to reconstruct the villages of India so that it may be as easy for anyone to live in them as it is supposed to be in the cities.

After the launch of 100 Smart Cities Mission, its time to make Smart Villages. The Government is preparing its plan for 2,500 Smart Villages by 2019. According to the 2011 census of India, 68.84% of Indians (around 833.1 million people) live in 640,867 different villages. The size of these villages varies considerably. 236,004 Indian villages have a population of fewer than 500, while 3,976 villages have a population of 10,000+. Most of the villages have their own temple, mosque or church depending on the local religious following.

We define a Smart Village as a bundle of services which are delivered to its residents and businesses in an effective and efficient manner. Dozens of services including construction, farming, electricity, health care, water, retail, manufacturing and logistics are needed in building a smart village.

Computing, communication and information technologies play a major role in design, delivery and monitoring of the services. All the techniques and technologies needed to build a smart village are available now and some of them are being used in villages in India but these are disparate, fragmented and piecemeal efforts. The need of the hour is: strategy, integrated planning, and above all monitoring and execution of the activities using appropriate governance models.

2nd Smart Cities India 2016 expo will host a special session on Smart Villages and will assemble pradhans, sarpanches, innovators and influencers who are working towards the vision for Smart Villages in India.



MAYOR'S CONCLAVE

The 2nd Smart Cities India 2016 is organising Mayor's Conclave-a dynamic and exciting business programme for industry and government, engaging multiple stakeholders to address the needs of urban sustainability. The full day event offers a common platform to both industry and city leaders/ mayors (national and international) to foster best practices in urban policy innovation, encourage collaboration, boost investments and offer lucrative business opportunities.



OBJECTIVE

The focus of Mayor's Conclave 2016 is to improve collaboration between cities and businesses. Cities need private sector involvement to address their urban challenges, improve efficiency and implement innovative solutions. Companies, meanwhile, can benefit from a better understanding of cities' needs and gain access to entirely new and lucrative markets. Through Mayor's Conclave both local governments and businesses will have the opportunity to work together in solving urban challenges.

Four sessions spread over a day will focus on a number of presentations and keynote addresses by Mayors (national and international) and thought leaders on sustainable urban development and inspiring city case studies (requirements, opportunities and challenges). Mayor's Conclave offers opportunity to participate actively in discussions and explore approaches in addressing:

- Smart leadership for smart cities
- Strategies to develop smart cities in India
- Role of citizens in developing smart cities
- Financing and monitoring smart cities projects



SMART CITIES INDIA 2016 AWARDS

Smart Cities India 2016 Awards, is an annual event designed to felicitate, recognize and encourage individuals, policy makers, companies, government bodies and associations working behind the successful execution of the mammoth dream of developing 100 smart cities and rejuvenation of 500 cities in India. The award recognizes pioneering projects that aim to make cities more liveable, sustainable and economically viable by honouring best practices and models in the smart cities concept. The objective is to foster the development of future cities enhancing quality of life, innovation, competitiveness and efficient management.

Smart Cities India 2016 Awards is being organised at Pragati Maidan, New Delhi on May 13, 2016 on the sidelines of the Smart Cities India expo. The nominated projects should be inventive and have brought a significant impact on the lives of citizens.

Who can participate:

- Entrepreneurs
- Businesses (building & construction, realtors, infrastructure, renewable energy, financing/funding institutions)
- Cities
- Municipal and government departments
- Public sector units
- Non-government organisations
- Associations and institutions
- Public or private consortiums
- Research centres

Award categories:

- Safe city
- Green building
- Architectural design award
- City healthcare achievement
- Smart educational city
- Mobility and intelligent traffic management
- Smart finance for smart cities
- Smart energy
- Smart village

Smart Cities India 2016 Awards: To enter, please fill the form available online: <http://www.smartcitiesindia.com/smartcitiesindia-awards.aspx>

Proposals must be submitted electronically via this website and are to conform to the terms and conditions here included.



SMART CITIES INDIA 2015 EXPO HIGHLIGHTS

207 Participants	39 Conference sessions	12,721 Business visitors
40 Countries	3 Country pavilions	17 Indian states visited the expo
241 Speakers	1,478 Conference delegates	7 Central government ministries endorsed the expo

2nd SMART CITIES INDIA 2016 EXPO INVITES

Exhibitors: Reserve your booth space today. Over 350 international and national participants are expected to showcase their products, technologies and services to over 20,000 conference attendees and professional visitors engaged in smart cities concepts worldwide.

Sponsors: Leverage your brand prominently through promotion in various marketing collaterals and activities, including pre, on-site and post event coverages. Some high visibility opportunities are available and are tailor made to suit your marketing needs.

Speakers: Professionals are invited to submit abstracts (200 words), for the 2nd Smart Cities India 2016 conference at: conference@smartcitiesindia.com.

Partners: Countries; regional and state governments; cities; SEZ's; townships and companies are invited to discuss pavilions, conference sessions, workshops, special displays, etc. with the organisers.



VISITOR PROFILE

2nd Smart Cities India 2016 Expo will attract buyers who actively source new and innovative products from India and around the world

- Government representatives from ministries, regulatory bodies, SPV's, municipalities, local authorities, etc.
- Embassies and trade offices
- CEOs, COOs, VPs, Country Managers and other senior management or decision makers of public and private organizations
- Engineers, architects, and consultants
- Suppliers and buyers of relevant technologies
- Companies and consultants involved in smart cities concepts
- Project management companies
- System integrators
- Builders and property developers
- Media and advertising companies
- Non-governmental organizations
- Banks and financial institutions
- End-users, etc.



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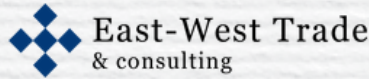
Certification Partner



Entrepreneurship Partner



Supporting Partners



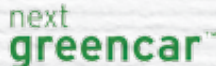
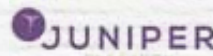
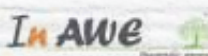
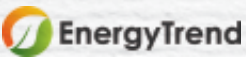
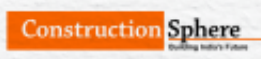
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*Service tax @ 14% will be applicable.

** Power supply will be charged extra.

Support



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Ministry of Rural Development

Organiser



Exhibitions India Group

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Exhibitions India Group (EIG), founded in 1987, is a trade promotion organization, encouraging investments, joint ventures, and technology transfers, etc. The group acts as an interface between government, industry, media and academia.

EIG is amongst a select number of Indian organizations with membership to UFI (The Global Association of the Exhibition Industry) and Indo-German Chambers of Commerce. EIG is certified by Trace International, Inc. (USA) for transparency in international commercial transactions. EIG has ISO 9001:2008, ISO 14001:2004 and ISO OHSAS 18001:2007 certifications.

With 130+ employees, EIG is headquartered in New Delhi, and has regional offices in Ahmedabad, Bangalore, Chennai, Hyderabad and Mumbai. International markets are covered by satellite offices located in California (USA), Köln (Germany), Tokyo (Japan), Nairobi (Kenya) and Dubai (UAE).



FOR EXHIBITION ♦ SPONSORSHIP ♦ SPEAKER ENQUIRIES, PLEASE CONTACT

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