

SESEI 3

Seconded European Standardization Expert in India

Newsletter

EUROPE | January 2019 | ISSUE 11

www.sesei.eu | dinesh.chand.sharma@sesei.eu | M: +91 98 1007 9461 | Tel: +91 11 3352 1500



CEN - European Committee for Standardization
CENELEC - European Committee for Electro Technical Standardization
ETSI - European Telecommunications Standards Institute

EC - European Commission
EFTA - European Free Trade Association

In this Issue

1. [Headlines of the Quarter](#)
2. [Standards, TBTs & IPR](#)
3. [Smart Cities](#)
4. [Automotive](#)
5. [ICT including services](#)
6. [Electrical Equipment including Consumer Electronics](#)
7. [Manufacturing/Make in India](#)
8. [R&D and Innovation](#)
9. [Energy Efficiency – Environment](#)
10. [EU-INDIA/Trade-FTA/Investments](#)
11. [Invest India](#)
12. [Events](#)
13. [Annexure 1](#)
14. [Indian rupee](#)
15. [About Project SESEI](#)



Greeting from Project SESEI 3!!!

Dear Readers,

On behalf of Project SESEI and its stakeholders, I take this opportunity to wish you all a very Happy New Year 2019.

With the onset of the year we are ready yet again with a fresh dose of our latest updates and information around policy & regulatory decisions and standards development activities being carried out in India around our project priority sectors. This eleventh edition of our “SESEI Newsletter Europe”, has all this and much more.

As recognized by EU through its “[Joint Communication – Elements for an EU Strategy on India](#)”, India is one of the fastest growing economy amongst the developing nations and is seen as a large market player and is a natural partner with a considerable consumer power, a manufacturing hub with skilled labour and technology advancements. India has taken initiative to consolidate its position at the World forum while representing the developing nations, and asked WTO that developing countries need to maintain policy space in certain aspects of ecommerce such as ownership and use and flow of data especially in the wake of the deployment of new technologies like IoT, M2M, etc. India is also under the process of drafting a new Merchandise Exports from India Scheme (MEIS) which will be WTO compliant and would help boost the country’s exports.

For the development of Smart Cities and other sustainable development in India, Germany has promised 765 million Euros in 2018. Germany is also collaborating closely with India on many big-ticket infrastructure and technology transfer projects. The German Ambassador launched the Smart City Innovation Lab - the intellectual platform for technology sharing. 2019 appears to be a promising year for the Smart City projects as 50 out of 100 command centers are expected to be fully functional by the end of 2019.

In the automotive sector creation of an effective ecosystem for the Electrical Vehicles is of paramount priority to the Government and all the necessary policies and regulatory steps are being taken. The Ministry of Power (MoP) has announced guidelines and standards for the development of electric vehicle charging infrastructure in India. Through these guidelines, the government aims to enable faster adoption of EVs, and support the development of EV charging infrastructure throughout the country. These guidelines will allow private charging stations to be setup at residences, and distribution companies (DISCOMs) will facilitate the same. The National Thermal Power Corporation of India (NTPC) is also collaborating with the vehicle aggregators like Ola, Uber, Zoom car etc. for development and utilization of public charging infrastructure. NTPC is also planning to provide charging solutions for the entire range of electric vehicles ranging from electric buses to electric 2/3-wheelers and developing associated e-mobility ecosystem across the country and is currently under discussion with various State/City administrations.

In the ICT sector, the current thrust of the government is towards introduction of 5G services in the country. The government expects to complete the processes for 5G spectrum auction by August 2019 and the implementation of services by 2020. The government has also freed a set of spectrum in the 5 Ghz band from licensing for providing Wi-fi and partially 5G services by telecom companies.

It is also very encouraging that India is slowly but surely becoming electronics hub for the handset and component manufacturing. A total 268 mobile handset and component manufacturing units have been setup in India and are creating more than 670K jobs. A similar trend is also witnessed in the automotive sector, where automotive giants like Volkswagen and Volvo are setting up their manufacturing and assembly units in India.

Apart from the manufacturing in India (Make in India), smart energy and deployment of smart meters has also been the main agenda items in the electrical sector. The national energy policy is being drafted by the Niti Aayog (think tank of the govt.) which shall lay down the road map for the country's push towards renewable energy.

Many more such news and updates have been captured in this 11th edition of our newsletter, which shall hopefully make the newsletter an interesting and informative read for all of you.

We will soon be changing the look and feel of our Newsletter and look forward to receiving your comments and suggestions to further improve it. Happy Reading once again.

Warm regards,

Dinesh Chand Sharma
Seconded European Standardization Expert in India (SESEI)

[Back to contents](#)

[The List of Draft Indian Standards as issued by BIS for eliciting technical comment along with Standards as published by ARAI and TSDSI are available as part of Annexure 1 to this newsletter.](#)

Headlines of the Quarter

Standards, TBTs and IPR

Policy space in ecommerce: India to World Trade Organization (WTO)

India has told the WTO that developing countries need to maintain policy space in certain aspects of ecommerce such as ownership and use and flow of data in “sunrise sectors like cloud computing and data storage.” India said policy space is needed in the facets related to hosting of servers as well as big data analytics and Machine to Machine (M2M) communication in the era of internet of things (IoT).

[Read More](#)

Number of patents granted by India shot up by 50% in 2017: UN

The number of patents granted by India shot up by 50% in 2017, keeping up a trend of steep increases, according to the UN's World Intellectual Property Organisation (WIPO). As per WIPO's 2018 report, patents granted by India increased from 8,248 in 2016 to 12,387 last year. Last year's number was more than double the 6,022 patents granted in 2015, according to WIPO statistics.

[Read More](#)

BIS Certification for Solar Inverters

Ministry of New and Renewable Energy (MNRE) recently issued guidelines for conducting tests on power inverters for use in photovoltaic (PV) power systems and utility-interconnected PV inverters. The government has mandated that the tests must be conducted by labs for compulsory registration with the BIS for the implementation of “*Solar Photovoltaics Systems, Devices and Component Goods Order 2017*”.

[Read More](#)

Govt hikes customs duty on smartwatches, telecom equipment up to 20%

To curb non-essential imports and improve widening current account deficit, the govt. has increased basic customs duty on electronic and telecom equipment to 20% from the current 10%. The duty hike will come into force from Dec 2018, the Central Board of Excise and Customs (CBIC) said in a notification. The current move will encourage local manufacturing, thus giving a boost to the 'Make in India' initiative of the government.

[Read More](#)

Department of Industrial Policy and Promotion (DIPP) wants strict compliance on procurement of local products

DIPP wants to amend the Public Procurement Order to take penal action against erring officials of procurement agencies of any govt. dept. if they include restrictive or discriminatory conditions against domestic suppliers in bid documents. The tightening of compliance is to give preference to products manufactured under **Make in India** for public procurement to push domestic industry.

[Read More](#)

Commerce ministry working on new export incentive scheme

The commerce ministry is working on a new World Trade Organization (WTO) compliant export incentive scheme for merchandise shipments to replace the existing Merchandise Exports from India Scheme (MEIS). The work is going on for the drafting of the new scheme, which will replace the existing MEIS. It will be finalised soon. It could be named as rebate of levies.

[Read More](#)

Smart Cities

Smart City's CITIIS prog strong platform for India, France to achieve their shared vision: Envoy

"The CITIIS (City Investments To Innovate, Integrate and Sustain) programme provides a strong platform for both India and France to achieve their shared vision of a sustainable future and a more equal and just society through collaboration. The CITIIS programme will be implemented by the Ministry of Housing and Urban Affairs and National Institute for Urban Affairs (NIUA). It is financed by the AFD, the Government of France and the European Union. [Read More](#)

50 smart cities integrated command and control centres to be ready by 2019

By March 31, 2019, Rs 1 lakh crore (12.5 billion euros) worth of work will be under implementation under the Smart Cities mission. As many as half of the smart cities' integrated command and control centres are expected to be ready by 2019. Currently work worth Rs 49,000 crore (6.12 billion euros) is on. Already 12 command and control centres are functional and another 26 are in the pipeline and 22 are under tendering process.

[Read More](#)

Status report on Smart city Mission India

SESEI released status report on 100 Smart Cities Mission in India covering Mission background, Selection Process, Monitoring, financing, Current implementation status, Challenges, Technologies, Convergence with other program, Standardization etc. **For the copy of Report please [click here](#) & Presentation is available [here](#)**

German leg-up for Smart City projects

Germany will provide technical support for conceptualising and implementing projects in five sectors under Smart City Mission in Cochin. Fraunhofer IAO, an autonomous agency under the German federal government, has signed an agreement with Cochin Smart Mission Limited for supporting them. German Ambassador to India Dr Martin Ney launched the Smart City Innovation Lab, the intellectual platform for technology sharing. Fraunhofer Institute has been providing technical, financial and social support to smart cities across the globe through project details preparation and studies. [Read More](#)

[Back to contents](#)

Automotive

Government Extends Duration of FAME I Program for EVs Again

This is the fourth time that FAME I has been extended since its inception in 2015. The government has decided to yet again extend the duration of the Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles (FAME) program aimed at facilitating the widespread adoption of electric vehicles. This time, the government has extended the program for a duration of six months or until the second phase of the program is implemented, whichever is earlier. The fourth extension is subjected to the following:

- The benefits of incentives available to conventional battery vehicles will be discontinued from October 1, 2018.
- Vehicles that do not need registration will get excluded from the program with effect from October 1, 2018, irrespective of the battery type.

[Read More](#)

New EV Charging Station Guidelines Announced

With the goal to facilitate the widespread adoption of electric vehicles (EV) in the country, the Ministry of Power (MoP) has announced guidelines and standards for the development of electric vehicle charging infrastructure in India. Through these guidelines, the government aims to enable faster adoption of EVs, promote an affordable

tariff rate, and support the development of EV charging business throughout the country. [Read More/Download Guidelines](#)

Transport department to revamp emission testing system

Under the new emission testing management system, vehicle database of ETCs will be linked to the Centre's Vahan 4 online vehicle registration network. [Emission testing centres](#) (ETCs) issuing fake pollution-under-control (PUC) certificates is likely to be a thing of the past once the transport department comes up with a foolproof online network. The dept. has floated a tender inviting service provider's to set up this system. [Read More](#)

New Vehicles to be Pre-Fitted with High Security Registration plates from April 2019

All new vehicles will be sold pre-fitted with High Security Registration Plates (HSRP) from the 1st of April 2019. The Ministry of Road Transport & Highways (MoRTH) has notified amendments in Central Motor Vehicles Rules, 1989 to this effect. The notification mandates that the HSRP including the third registration mark shall be supplied by the vehicle manufacturers along with the vehicles manufactured on or after the 1st day of April, 2019. [Read More](#)

NTPC Signs Memorandum of Understandings (MoUs) with Seven Electric Vehicle Aggregators

NTPC signed MoUs with Vehicle Aggregators Ola, Lithium, Shuttli, Bikxie, Bounce, Electrie and Zoom Car for development and utilization of public charging infrastructure. This collaboration with Aggregators, having presence in the entire spectrum of e-mobility across India, will lead to development of charging infrastructure for the various vehicle segments as well as effective utilization of public charging infrastructure. [Read More](#)

SUN Mobility and SmartE partner to transform Electric Vehicle (EV) adoption in the country

Sun Mobility, a leading provider of energy infrastructure and services for electric vehicles (EVs), and SmartE, an EV fleet operator, have entered into a partnership for providing battery swapping service. By using SUN Mobility's Smart Batteries, which use the advanced Lithium ion technology, the weight of the vehicle is reduced by ~100 Kgs improving the efficiency of the vehicle, therefore allowing for increased mileage, better pickup and higher gradients. [Read More](#)

Sectorial report on Indian Automotive Industry

SESEI released a sectorial report on Indian Automotive industry covering Market segmentation, Status, Growth Drivers, e-mobility, ITS, Govt, Policy & Initiatives, Technical regulation & standardization etc. **For report Please [click here](#) and presentation is available [here](#).**

Transport Ministry (MoRTH) issued following notifications:

- Notification no. GSR 1081(E) regarding amendment in rule 90 of the CMVR, 1989- (additional condition for national Permit), fitness periodicity of two years, mandating FASTag etc. [Read more](#)
- Draft Notification no. GSR 1073(E) regarding common format for the Driving License and Registration certificate. [Read more](#)
- Notification no. G.S.R. 931(E) regarding Special requirements for transportation of Livestock. [Read more](#)
- Notification Issued for Inclusion of Quadricycles as Non Transport Vehicles [Read more](#)
- Notification no. S.O 6108 (E) regarding Amendment in erstwhile notification S.O. 1365(E) dated 13 December 2004- Manufacture of Motor Vehicle in Relation the their Parts, Components and Assemblies. [Read more](#)
- Notification no. G.S.R 1192(E) regarding Light and Signalling Device. [Read more](#)
- Notification no. S.O. 6052(E) regarding High Security Registration Plates (Order), 2018. [Read more](#)

ICT including services

Government starts facility for security testing of telecom products

The government has started a facility for testing telecom products and equipment to ensure security in digital communications at the national level. A state-of-art facility for preparation of security assurance standard putting India at the forefront of technology was also inaugurated. This facility will work for security from the national perspective and also facilitate the development of testing and certification ecosystem in the country. [Read More](#)

5G Services Likely to be Rolled Out By August 2020: Department of Telecommunications (DoT)

The government expects to complete processes for 5G spectrum auction by August 2019 and the services will be rolled out by 2020. TRAI has given a preliminary set of recommendations, which the working committee at the DoT is looking at. Task force has also given a broader set of (spectrum) bands on which DoT will work. The 5G committee of the telecom ministry has said about 6,000 Mhz of spectrum can be made available without delay for the next generation mobile service. [Read More](#)

Data & cyber security may come under TRAI, Telecom Commission

The remits of the telecom regulator and the Telecom Commission are in the process of being widened that may see them overseeing issues such as data privacy, security and cybercrime, which are currently being looked into by the IT ministry. These changes, which will come through an amendment in laws, underline the fact that consumers access most of their data via mobile phones, and hence the telecom department will need to get involved. [Read More](#)

Govt Frees A Set Of Spectrum For WiFi, 5G In 5 GHz Band From Licence

The government has freed a set of spectrum in the 5 Ghz band from licensing for providing Wifi and partially 5G services by telecom companies. No permits would be required for the spectrum in the range of 5150-5250 Mhz band, 5250-5350 Mhz and 5725-5875 Mhz, according to an official notification. The move is seen to push setting up of Wifi services in the country and facilitate development of 5G ecosystem. [Read More](#)

Notifications, Consultation Papers, recommendations, policies and directives

- Consultation paper on Estimation of Access Facilitation Charges and Co-location Charges at Cable Landing Stations. [Read more/download](#)
- Consultation paper on Methodology for levy of Spectrum Charges for provision of Satellite based Services using Gateway installed in India under 'sui-generis' category. [Read more/Download](#)
- Telecommunication Mobile Number Portability (Seventh Amendment) Regulations, 2018. [Read more/Download](#)
- Telecommunication Tariff (Sixty Fourth Amendment) Order, 2018. [Read more/Download](#)
- Consultation Paper to Check on over-the-Top (OTT) Players. [Read more](#)
- Consultation Paper on Review of extant provision for sending the printed bills to consumers of landline and postpaid Mobile subscribers. [Read more](#)
- Govt notifies new telecom policy, renames Telecom Commission as Digital Communications Commission. [Read more/Download](#)
- Department of Telecommunications (DoT) released notification for National Digital Communications Policy 2018. [Read more/download](#)
- Department of Telecommunications (DoT) Notifies Rules For Inflight Connectivity. [Read more](#)

Electrical Equipment including Consumer Electronics

BIS approves TUV Rheinland's solar equipment test lab in Bangalore

Major certification body the Bureau of Indian Standards (BIS) has recognised TUV Rheinland's PV testing laboratory located in Bangalore, so that the lab is now authorised to conduct testing of solar modules. Manufacturers can now approach TUV Rheinland for testing, in order to comply with BIS requirements, under the CRS scheme and in line with the Solar Photovoltaics, Systems, Devices and Components Goods. [Read More](#)

Smart electricity meters in rural India a win-win: Asian Development Bank (ADB)

ADB is planning to scale up a satellite-based smart meters project, implemented in a village in Uttar Pradesh, as it finds it to be a win-win solution for several stakeholders, including the consumers as well as discoms. As part of its USD 200 million loan for Energy Efficiency Services Limited (EESL) to implement various demand-side energy efficiency projects in India, the ADB assisted pilot is running in a village in Varanasi in 5,000 households. [Read More](#)

Appliances, consumer electronics should be excluded from FTAs to boost domestic manufacturing: Report

Appliances & consumer electronic (ACE) products should be excluded from the purview of FTA with a view to boost domestic manufacturing and promote exports, a report has suggested. It has asked the government to not cut or eliminate import duties in this sector under the proposed mega trade deal Regional Comprehensive Economic Partnership (RCEP). A report from PwC and CEAMA has asked the government. [Read more](#)

[Back to contents](#)

Manufacturing/Make in India

Ericsson Commences Exports of 5G Ready Telecom Equipment From Pune

Swedish telecom gear maker Ericsson has commenced exporting 5G telecom equipment from its facility in Pune, Maharashtra, to the other markets in the Southeast Asia. This move was marked to be in accordance with the Modi-government initiated "Make in India" program. Reports revealed that the Swedish manufacture is further looking for more Southeast Asian markets to its portfolio to which the company plans to export products from its facility in India. [Read More](#)

Three indigenous supercomputers to be ready by March 2019

The first 3 supercomputers to be indigenously built under the Make In India initiative will be ready for operations by March 2019. These machines are pitched to be useful in improving disaster management services and for issuing better weather forecasts, among others. This will be the first set of supercomputers to be built under the central government's ambitious Rs 4,500 crore (562.5 million euros) worth National Supercomputing Mission (NSM). [Read More](#)

Manufacturing sector activity rises in October on robust order flow: PMI

The country's manufacturing sector activity improved in October, as firms scaled up production and employment levels amid strong rise in new business order flows. The Nikkei India manufacturing Purchasing Managers' Index strengthened from 52.2 in September to 53.1 in October as new orders and production increased at the quickest rate in four months. This is the 15th consecutive month that the manufacturing PMI remained above the 50-point mark. In PMI parlance, a print above 50 means expansion, while a score below that denotes contraction. [Read More](#)

Govt mandates preference to ‘Make in India’ vehicles in procurement

The Government has mandated preference to be given to domestically-manufactured vehicles with minimum 65 per cent local content in public procurement of automobiles, according to an official notification. As per the new norms notified by the Heavy Industries Ministry with an aim to “encourage Make in India” and to promote manufacturing and production of goods and services locally, “preference shall be provided by all Government procuring entities to domestically manufactured automobile and automotive components”. [Read more](#)

Ministry sends new industrial policy for Cabinet approval: commerce and industry minister

The New Industrial Policy has been sent for the Union Cabinet’s consideration. The New Industrial Policy, which will replace the 27-year-old existing policy, aims to resolve bottlenecks arising from inadequate infrastructure, restrictive labour laws and complicated business environment. The policy is in sync with the government’s ‘Make in India’ target to increase the share of the manufacturing in the economy to 25% by 2022 from 16-17% now. The policy would have some financial implications as the government may provide incentives for use of transformational technologies like AI, IoT, and robotics. [Read more](#)

[Back to contents](#)

R&D and Innovation**IIT-Delhi, IBM enters into a multi-year research collaboration on AI**

Indian Institute of Technology (IIT) Delhi and IBM have entered into multi-year research collaboration on artificial intelligence (AI). The collaboration will enable the duo to develop AI solutions for organisations across all sector. AI solutions will be trained to comprehend complex questions using natural language techniques and derive new insights using domain knowledge. IBM researchers will partner with students and professors from the IIT Delhi to conduct joint research in AI systems. [Read More](#)

Prime Minister’s panel wants mandatory R&D funding by companies

The Prime Minister’s Science Technology and Innovation Advisory Council (PM-STIAC) wants to make it mandatory for medium and large enterprises in key sectors to set aside funds for research and development after the Economic Survey pointed out the abysmal levels of investment in this area. It had said that R&D investment in India has been stagnant for 20 years at 0.6-0.7% of gross domestic product with that by the private sector at 0.35%. The high-level panel wants the private sector to step up in this regard and take that share to at least 1% of GDP by 2022. [Read more](#)

Government to invest INR 3600 Crore on R&D, innovation and start-up ecosystem

Government of India has approved a National Mission on Interdisciplinary Cyber-Physical Systems with an investment of over Rs. 3600 crores (450 million euros). The Mission will cover in a seamless way, R&D, Technology Development, Human resources and Skills, Innovation, Start-up Ecosystem and strong Industry and International Collaborations. [Read more](#)

[Back to contents](#)

Energy Efficiency-Environment

Draft "Indian Wind Turbine Certification Scheme (IWTCS)"

Ministry of New and Renewable Energy (MNRE), in consultation with National Institute of Wind Energy, has prepared a draft certification scheme incorporating various guidelines issued by MNRE and titled under "Indian Wind Turbine Certification Scheme (IWTCS)". The IWTCS is a consolidation of relevant National and International Standards (IS/IEC/IEEE), Technical Regulations and requirements issued by Central Electricity Authority guidelines issued by MNRE and other international guidelines. [Read More / Download](#)

National Institution for Transforming India (NITI Aayog) to present National Energy Policy (NEP) to PM

Niti Aayog, is likely to place the much-awaited NEP document before PM. The policy, will lay the road map for the country's push towards renewable energy and reducing fuel imports. The broad objectives of the policy include enhanced energy independence, increased access at affordable prices, greater sustainability and higher economic growth. The policy is likely to focus on aligning energy prices with benchmarks in the international market to enable market driven prices and limiting subsidies to identified beneficiaries. [Read More](#)

Govt planning to bring renewable power in Indian energy mix

The Govt. is planning to bring in more renewable power in the Indian energy mix and trying to create a balance in energy production through efficient but cleaner conventional power sources such as hydro and gas which are traditionally cleaner sources of energy however. Thus, coal based plants which is a cheaper source of energy continues to be in the power mix, but this balance is being maintained by supplying the incremental power needs through alternative source of cleaner energy such as solar. [Read More](#)

Government to implement ECBC for saving energy and reducing air pollution and power outages

First in the country, the Andhra Pradesh State government is going to launch **Energy Conservation Building Code (ECBC)** for saving energy and reducing air pollution and power outages. The groundbreaking ECBC implementation has been made mandatory by incorporation of the ECBC clause in online Development Permission Management System (DPMS) by the Directorate of Town and Country Planning (DTCP) of the Municipal Administration department. [Read More](#)

[Back to contents](#)

EU-India/Trade-FTA/Investments

Indian, French companies ink pacts worth 200 Million Euro

As many as 12 formal agreements worth 200 million euros have been signed between Indian & French companies, including Thales Group. These agreements were signed at the first edition of Indo-French Investment Conclave in Nagpur organised by the Indo-French Chamber of Commerce and Industry (IFCCI), in association with the Embassy of France. [Read More](#)

European Union (EU) to Join Hands with India for the Growth of Sustainable Technologies

EU has issued a [joint communication](#) to reinforce EU-India strategic partnership, build a strong partnership for sustainable modernization, join forces to consolidate the rules-based global order, based on multilateralism with the UN and the WTO address global challenges and seek common responses to security threats and regional issues. [Read More](#)

Germany to provide developmental assistance of 765 Million Euros to India in 2018

As part of the six decade old Indo-Germany Development Cooperation, Germany will provide funds to the tune of 765 million Euros in 2018 for undertaking various developmental works in India, including big-ticket projects like the Smart Cities Mission and Clean Ganga. [Read More](#)

[Back to contents](#)

Invest India

Invest India wins top UN award for promoting renewable energy investment

Invest India has received the top UN Investment Promotion Award in recognition of its efforts to boost investments in the renewable energy sector in India. A non-profit venture of the Department of Industrial Policy and Promotion, Invest India promotes sustainable investment. [Read More](#)

'India to attract \$100 billion investment in telecom sector'

It is estimated that India could attract \$100 billion by 2022 in the Telecom sector and the government is working on it. The National Digital Communication Policy 2018 would help to push investment in the sector. The government is giving all support to the industry in terms of rationalising levies, making available of sufficient spectrum and removing hurdles to promote local manufacturing. [Read more](#)

[Back to contents](#)

Event calendar 2019

India m2m + iot Forum

When: 14-15 Jan 2019

Where: India Habitat Centre, [New Delhi](#), [India](#)

India m2m + iot Forum is a cohesive and shared platform, which validates united and collective vision of the global m2m and iot ecosystem. **For more information please [click here](#)**

India Digital Summit

When: 17-18 Jan 2019

Where: The Lalit New Delhi, [New Delhi](#), [India](#)

The India Digital Summit will cover areas like value added services, m-commerce, payment and networking, crucial issues relevant to the use and application of various digital media viz. the web, mobile, social media, etc. for the efficient positioning, placement, and promotion of Brands and their products and many more. **For more information please [click here](#)**

International Conference on Networks & Communications (NCO)

When: 19-20 Jan 2019

Where: [Chennai](#), [India](#)

International Conference on Networks & Communications looks for significant contributions to the Computer Networks, Communications, wireless and mobile computing for wired and wireless networks in theoretical and practical aspects. **For more information please [click here](#)**

International Conference on Electrical, Electronics & Computer Science

When: 27 Jan 2019

Where: [Kapila Business Hotel](#), [Pune](#), [India](#)

The International Conference on Electrical, Electronics & Computer Science is the premier forum for the presentation of new advances and research results in the fields of Electrical, Electronics & Computer Science. The

conference will bring together leading academic scientists, researchers, and scholars in the domain of interest from around the world. *For more information please [click here](#)*

Symposium of International Automotive Technology (SIAT) 2019

When: 16-18 Jan 2019

Where: Pune, India

The Symposium on International Automotive Technology will cover areas like safety, emissions, engines, noise, electric mobility, alternate fuels, electronics, intelligent, transportation, structural reliability & vehicle dynamics, and much more. *For more information please [click here](#)*

Auto India Expo Chandigarh

When: 18-20 Jan 2019

Where: Chandigarh, India

Auto India Expo is largest automobile exhibition to spread across multiple cities of India, from Chandigarh, touring, Jaipur, Ahmedabad, Indore, Raipur, Pune, Hyderabad and Nagpur. It is going to be a 4 month long extravaganza of Automobile excellence. *For more information please [click here](#)*

2019 IEEE International Conference on Smart Cities (ICSC)

When: 20-21 January, 2019

Where: IIT Madras

“International Conference on Smart City Model (ICSCM 2019)” is being organized by The IEEE Madras Section and IIT Madras, Chennai at IIT Madras during 20 to 21 January 2019. The goal is to emphasize on the challenges and opportunities that would aid the stakeholders to successfully lay a road map for the implementation of Smart City, considering special emphasis on economics, environment and equity. *For more information please [click here](#)*

Digital Transformation Conclave

When: 31 Jan 2019

Where: Le Meridien New Delhi, [New Delhi, India](#)

The Digital Transformation Summit is designed for CXOs and top-level decision makers of organizations who are either embarking upon a digital journey or made some inroad into their journey. *For more information please [click here](#)*

Blockchain 2.0 Summit

When: 01 Feb 2019

Where: Vivanta by Taj - M G Road Bangalore, [Bengaluru, India](#)

A full-day conference on how blockchain is bringing in disruption across industries! Learn how the Blockchain technology is building smarter ways to manage any transactional process across industries with the least friction. *For more information please [click here](#)*

INDIA ELECTRONICS EXPO

When: 04-05 Feb 2019

Where: Palace Grounds, [Bengaluru, India](#)

India Electronics Expo is a showcase of Indian Electronics companies showcasing their products and services to buyers from around the world. *For more information please [click here](#)*

India IoT Summit

When: 08 Feb 2019

Where: The Lalit Mumbai, [Mumbai, India](#)

India IoT Summit aims to connect people, devices and accessories and events in a seamless manner to simplify the process of simpler tasks and improve the quality of complex decision making. Developments in the related fields of artificial intelligence, robots/bots and M2M communications promise a more connected world. *For more information please [click here](#)*

Smart Urbanation 2019**When: 13-14 February, 2019****Where: Shangri-La Hotel, Bengaluru**

Smart Urbanation collocated with 6th Smart Cities Summit is India's leading platform for government and private stakeholders to dialogue and derive decisive ways to outline India's urban reality and future strengthened with technological revolution. **For more information please [click here](#)**

Electric Vehicle India Summit supported by NITI Aayog**When: 26-27 Feb 2019****Where: [New Delhi, India](#)**

The EV India Summit will address the competitive landscape of electric vehicles worldwide, coupled with the vast opportunities and potential challenges of EV development in India. **For more information please [click here](#)**

India Electronics Week**When: 26-28 Feb 2019****Where: Karnataka Trade Promotion Organisation, [Bengaluru, India](#)**

The major focus of the show will be on “manufacture smart electronics and how IoT adoption is promoting business efficiency and growth”. **For more information please [click here](#)**

India IoT Symposium Mumbai**When: 20-21 Feb 2019****Where: [Mumbai, India](#)**

India's Largest IoT Symposium aims to create a lively environment of interaction among the international and national researchers and the Internet of things (IoT) solution seekers. It is a platform to discover the opportunities that the IoT has to provide for the industrial setting. **For more information please [click here](#)**

IEEE International Conference on Sustainable Energy Technology**When: 26 Feb-01 Mar 2019****Where: KIIT University Bhubaneswar, [Bhubaneswar, India](#)**

The IEEE International Conference on Sustainable Energy Technology is an international conference being planned to bring together professionals and executives in the energy sector, electrical power companies, manufacturing industries, research institutes and educational bodies to share and exchange ideas and information pertaining to sustainable energy technologies. **For more information please [click here](#)**

India E-Vehicle Show & BV Tech Expo**When: 22-24 Mar 2019****Where: NSIC Complex, [New Delhi, India](#)**

The 2nd India E-Vehicle Show & BV TECH EXPO INDIA platform offers an unrivaled opportunity for companies in the Electric Vehicle (EV) industry to showcase their latest products, services, and innovations. **For more information please [click here](#)**

Conference on Connected Vehicles**When: 06-07 Mar 2019****Where: Radisson Blu Bengaluru Marathalli Outer Ring Road, [Bengaluru, India](#)**

Connected Vehicles will cover topics like a sustainable business model, building cybersecurity standards & best practice, sync the smart car with the smart mobility, enhancing the customer relationship through telematics, connected fleet telematics, and much more. **For more information please [click here](#)**

International Conference on Internet of Things: Smart Innovation and Usages**When: 18-19 Apr 2019****Where: Krishna Engineering College, Ghaziabad, [India](#)**

The International Conference on Internet of Things: Smart Innovation and Usages mission is to bring innovative academics and industrial experts to a common forum in order to facilitate constructive dialogues based on

theoretical concepts and practical ideas in the field of Advanced Computer Science, Communication and Automation. **For more information please [click here](#)**

Conference on Commercial Vehicle Forum (CVF)

When: 25 Apr 2019

Where: The Westin Pune Koregaon Park, [Pune, India](#)

CVF is the only conference of its kind, dedicated to the Commercial Vehicle Sector in India. Attendees come hungry to learn from our highly interactive panel sessions that include industry experts from all corners of the CV space (CV Manufacturers, Logistics Service Providers, Auto Component Suppliers, Government, Auto Associations and more).

For more information please [click here](#)

5th Smart Cities India 2019 expo

When: 22-24 May 2019

Where: Pragati Maidan, New Delhi

India is one of the fastest growing economies in the world. Investment planned across the key government initiatives includes Highways – USD 106.5 billion, Railways – USD 131.7 billion, Ports – USD 61.5 billion, Airports – USD 58 billion, Industrial Corridors – USD 100 billion, Smart Cities – USD 14.6 billion and Clean India - USD 29 billion.

For more information please [click here](#)

15th World Conference on Transport Research

When: 26-31 May 2019

Where: Mumbai, India

The conference aims to bring together academics, practitioners, managers, and policymakers from all parts of the world, to share cutting-edge research and advanced state-of-practice. The conference also includes special sessions, technical tours, an exhibition and social events. This knowledge event provides a unique opportunity for experts to exchange ideas in all areas of transport research. **For more information please [click here](#)**

Transport India Expo

When: 22-24 May 2019

Where: Pragati Maidan, [New Delhi, India](#)

The conference will cover important topics including Efficient urban public transport and facilities; Developing the Intra-city multimodal infrastructure; Parking infrastructure and management for smart cities; Driver skills development program and much more. **For more information please [click here](#)**

[Back to contents](#)

Annexure 1**ICT/LITD**

The following Draft Indian Standards were issued for by Electronics and Information Technology division council at BIS during the last quarter for eliciting technical comment:

Electronics and Information Technology Division Council (LITDC)			
S. No.	Document No.	Title of the Doc	IEC/ISO
1	LITD 27(13076)	Information technology – Underwater acoustic sensor network (UWASN) – Part 1: Overview and requirements	ISO/IEC/JTC1 TC- 41 SC- 41 (P); IEC TC- 124 (P); IEC TC- 124 (P)
2	LITD 27(13077)	Information Technology – Internet of Things (IOT) – IOT Use Cases	ISO/IEC/JTC1 TC- 41 SC- 41 (P); IEC TC- 124 (P); IEC TC- 124 (P)
3	LITD 09 (13107)	Radio Disturbance Characteristics for Protection of Receivers used on Board Vehicles, Boats and Internal Combustion Engines — Limits and Methods of Measurement (Second Revision)	IEC TC- 77 (P) ;IEC TC-CISPR (O) ;IEC TC- 77A SC- 77A (P);ISO TC- 77B SC- 77B (P) ;ISO TC- 77B SC- 77B (P)
4	LITD 09 (13106)	Radio Interference Characteristics of Overhead Power Lines and High-Voltage Equipment Part 3 Code of Practice for Minimizing the Generation of Radio Noise (Second Revision)	IEC TC- 77 (P) ;IEC TC-CISPR (O) ;IEC TC- 77A SC- 77A (P);ISO TC- 77B SC- 77B (P) ;ISO TC- 77B SC- 77B (P)
5	LITD 09 (13105)	Radio Disturbance and Immunity Measuring Apparatus and Methods — Specification Part 1 Radio Disturbance and Immunity Measuring Apparatus Section 1 Measuring apparatus (Third Revision)	IEC TC- 77 (P) ;IEC TC-CISPR (O) ;IEC TC- 77A SC- 77A (P);ISO TC- 77B SC- 77B (P) ;ISO TC- 77B SC- 77B (P)
6	LITD 09 (13104)	Limits and Methods of Measurement of Radio Disturbance Characteristics Part 5 Electrical Lighting and Similar Equipment (Third Revision)	IEC TC- 77 (P) ;IEC TC-CISPR (O) ;IEC TC- 77A SC- 77A (P);ISO TC- 77B SC- 77B (P) ;ISO TC- 77B SC- 77B (P)

7	LITD 09 (13103)	Limits and Methods of Measurement of Radio Disturbance Characteristics Part 2 Electromagnetic Compatibility (EMC) — Requirements for Household Appliances, Electric Tools and Similar Apparatus Section 2 Emission – Product Family Standard (Fourth Revision)	IEC TC- 77 (P) ;IEC TC-CISPR (O) ;IEC TC- 77A SC- 77A (P);ISO TC- 77B SC- 77B (P) ;ISO TC- 77B SC- 77B (P)
8	LITD 09 (13102)	Limits and Methods of Measurement of Radio Disturbance Characteristics Part 2 Electromagnetic Compatibility (EMC) — Requirements for Household Appliances, Electric Tools and Similar Apparatus Section 1 Emission (Fourth Revision)	IEC TC- 77 (P) ;IEC TC-CISPR (O) ;IEC TC- 77A SC- 77A (P);ISO TC- 77B SC- 77B (P) ;ISO TC- 77B SC- 77B (P)
9	LITD 09 (13101)	Limits and Methods of Measurement of Radio Disturbance Characteristics Part 4 Industrial, Scientific and Medical Radio-Frequency Equipment (Second Revision)	IEC TC- 77 (P) ;IEC TC-CISPR (O) ;IEC TC- 77A SC- 77A (P);ISO TC- 77B SC- 77B (P) ;ISO TC- 77B SC- 77B (P)
10	LITD 12(13157)	Electrotechnical Vocabulary – Part 713: Radio communications: transmitters, receivers, networks and operation	IEC TC- 103 (O); IEC TC- 103 (O)
11	LITD 17 (12163)	Data Privacy Assurance : Part 2 Engineering and Management Guidelines	ISO/IEC/JTC1 TC- 27 SC- 27 (P); ISO/IEC/JTC1 TC- 37 SC- 37 (P):
12	LITD 17 (12162)	Data Privacy Assurance : Part 1 Engineering and Management Requirements	ISO/IEC/JTC1 TC- 27 SC- 27 (P); ISO/IEC/JTC1 TC- 37 SC- 37 (P):

Electrical Equipment including Consumer Electronics (ETD)

The following Draft Indian Standards were issued for eliciting technical comments for Electro Technical Sector at BIS:

Electrical Equipment including Consumer Electronics (ETD)			
S. No.	Document No.	Title of the Doc	IEC/ISO
1	ETD 42 (13137)	Wind Turbines Generator Systems Part 13 Measurement of Mechanical Loads	IEC TC- 88 (P); IEC TC- 88 (P)
2	ETD 42 (13135)	Wind Turbines - Part 12-2:Power performance of electricity-producing wind turbines based on nacelle anemometry	IEC TC- 88 (P); IEC TC- 88 (P)

3	ETD 42 (13136)	Wind Turbines - Part 12-1:Power performance measurements of electricity producing wind turbines	IEC TC- 88 (P); IEC TC- 88 (P)
4	ETD 42 (13170)	WIND TURBINES PART 26 WIND ENERGY GENERATION SYSTEMS SEC 3 : AVAILABILITY FOR WIND POWER STATIONS	IEC TC- 88 (P); IEC TC- 88 (P)
5	ETD42 (13166)	WIND TURBINES PART 25 COMMUNICATIONS FOR MONITORING AND CONTROL OF WIND POWER PLANTS SECTION4: MAPPING TO COMMUNICATION PROFILE	IEC TC- 88 (P); IEC TC- 88 (P)
6	ETD42 (13167)	WIND TURBINES PART 25 COMMUNICATIONS FOR MONITORING AND CONTROL OF WIND POWER PLANTS SECTION6:LOGICAL NODE CLASSES AND DATA CLASSES FOR CONDITION MONITORING	IEC TC- 88 (P); IEC TC- 88 (P)
7	ETD 42 (13168)	WIND TURBINES PART 26 SEC 1: TIME-BASED AVAILABILITY FOR WIND TURBINE GENERATING SYSTEMS	IEC TC- 88 (P); IEC TC- 88 (P)
8	ETD42 (13169)	WIND TURBINES PART 26 SEC 2: PRODUCTION-BASED AVAILABILITY FOR WIND TURBINES	IEC TC- 88 (P); IEC TC- 88 (P)
9	ETD42 (13165)	WIND TURBINES PART 25 COMMUNICATIONS FOR MONITORING AND CONTROL OF WIND POWER PLANTS SECTION 1: OVERALL DESCRIPTION OF PRINCIPLES AND MODELS	IEC TC- 88 (P); IEC TC- 88 (P)
10	ETD 02 (13184)	Draft Amendment No.3 To IS 15652 : 2006 Insulating Mats For Electrical Purposes — Specification	IEC TC- (P); IEC TC- (O); IEC TC- (O)
11	ETD 02 (13185)	LIVE WORKING – ELECTRICAL INSULATING MATTING	IEC TC- (P); IEC TC- (O); IEC TC- (O)
12	ETD 16(6824)	OUTDOOR/INDOOR TYPE LIQUID IMMERSSED DISTRIBUTION TRANSFORMERS UPTO AND INCLUDING 2 500 kVA, 33kV — SPECIFICATION Part 2 Natural/Synthetic Ester Liquid Immersed	IEC TC- 14 (P); IEC TC- 96 (P); IEC TC- 96 (P)
13	ETD-51(13268)	Road Vehicles — Vehicle to Grid Communication Interface Part 8: Physical Layer and Data Link Layer Requirements for Wireless Communication	--
14	ETD-51(13267)	Road Vehicles — Vehicle to Grid Communication Interface Part 5: Physical Layer and Data Link Layer Conformance Test	--
15	ETD-51(12366)	Road Vehicles — Vehicle to Grid Communication Interface Part 4: Network and Application Protocol Conformance Test	--
16	ETD-51(13265)	Road Vehicles — Vehicle to Grid Communication Interface Part 3: Physical and Data Link Layer Requirements	--

17	ETD-51(13263)	Road Vehicles — Vehicle to Grid Communication Interface Part 2: Network and Application Protocol Requirements	--
18	ETD-51(13257)	Road Vehicles — Vehicle to Grid Communication Interface Part 1: General Information and use-case Definition	--
19	ETD 15 (13288)	Rotating electrical machines – Part 27-4: Measurement of insulation resistance and polarization index of winding insulation of rotating electrical machines	IEC TC- (P); ISO TC-43 SC-1 (O)
20	ETD 15 (13287)	Rotating electrical machines - Part 14: Mechanical vibration of certain machines with shaft heights 56 mm and higher - Measurement, evaluation and limits of vibration severity	IEC TC- (P); ISO TC-43 SC-1 (O)

Transport (TED)

The following Draft Indian Standards were issued for by Transport engineering division council at BIS during the last quarter for eliciting technical comment

Transport Engineering Division Council (TED)			
S. No.	Document No.	Title of the Doc	IEC/ISO
1	TED 22 (12922) W	SPECIFICATION FOR PNEUMATIC COUPLING BETWEEN T TRACTORS AND TRAILERS	ISO TC- 40 SC- 40 (O); ISO TC- (P); ISO TC- 1 SC- 1 (P); ISO TC- 2 SC- 2 (P) ; ISO TC- 3 SC- 3 (P);
2	TED 22 (12921) W	TESTING AND ACCEPTANCE CRITERIA OF PNEUMATIC COUPLING BETWEEN TRACTORS AND TRAILERS	ISO TC- 40 SC- 40 (O); ISO TC- (P); ISO TC- 1 SC- 1 (P); ISO TC- 2 SC- 2 (P) ; ISO TC- 3 SC- 3 (P);

At Automotive Research Association of India (ARAI)

The following Draft Indian Standards were issued for by Automotive Research Association of India during the last quarter for eliciting technical comment

Automotive Research Association of India (ARAI)		
S. No.	Code	Title of the Doc

1	AIS-012 (Part 1) (Rev.2) / D2 Oct 2018	Performance Requirements for Front Fog Lamps for Motor Vehicles
2	AIS-012 (Part 3) (Rev.2) / D2 Oct 2018	Performance Requirements for Cornering Lamps for Motor Vehicles
3	AIS-012 (Part 5) (Rev.2) / D2 Oct 2018	Performance Requirements for Direction Indicators for Motor Vehicles
4	AIS-012 (Part 6) (Rev.2) / D2 Oct 2018	Performance Requirements for Front and Rear Position (Side) Lamps, Stop-Lamps and End-outline Marker Lamps for Motor Vehicles
5	AIS-012 (Part 7) (Rev.2) / D2 Oct 2018	Performance Requirements for Reversing Lamps & Manoeuvring Lamps for Motor Vehicles
6	AIS-012 (Part 10) (Rev.2) / D2 Oct 2018	Performance Requirements for Daytime Running Lamps for Motor Vehicles
7	Draft AIS-017(Part 6)/D3	Procedure for Establishing Whole Vehicle Safety Conformity of Production (WVSCOP) for L, M & N category of vehicles
8	Draft AIS-091(Part 3)/D8	Interchangeability dimensions for ensuring safe coupling between N3 category Haulage Tractors and T3 & T4 category Semi-Trailers }
9	Draft Amd 2 to AIS-140	Intelligent Transportation Systems (ITS) - Requirements for Public Transport Vehicle Operation
10	Draft Amd 3 to AIS-099	Approval of Vehicles with regards to the Protection of the Occupants in the event of a Lateral Collision
11	Draft Amd 2 to AIS-145	Additional Safety features for Category M & N Vehicles
12	Revised Draft Amd. 10 to AIS-063	Requirements for School Buses
13	Draft AIS-137 (Part 7)/D1/Dec 2018	Test Method, Testing Equipment and Related Procedures for Type Approval and Conformity of Production (Cop) testing of Agricultural Tractors, Construction Equipment Vehicles (CEVs) & Combine Harvester for Emission Norms as per CMV Rules 115 and 126
14	Draft AIS-017(Part 6) / D4/Dec 2018	Procedure for Establishing Whole Vehicle Safety Conformity of Production (WVSCOP) for L, M & N category of vehicles

ICT at TSDSI

Activities at TSDSI			
"List of New Item for Proposal at TSDSI"			
New Item Proposal	Name	Version	Status
NIP 216	Development of Cyber security standard	TSDSI-SGSS-NIP216-V1.0.0-20181203	Reserved
NIP 214	Study of FiCaD and FiDaR	TSDSI-SGN-NIP214-V1.0.0-20181130	Reserved
NIP 212	NB-IoT Extensions	TSDSI-SGN-NIP212-V1.0.0-20181120	Reserved
NIP 211	Broadcast Offloading	TSDSI-SGN-NIP211-V1.0.0-20181112	Reserved
For complete details of the NIP please click here			
"List of Work Item status update"			
Work Item	Name	Version	Status
No Work Items introduced since last quarter			
For complete details of the Work Items (WI) please click here and select Work Items			
"Status update of Study Items at TSDSI"			
Study Item	Name	Version	Status
SI63	SI on Broadcast Offloading	TSDSI-SG1-SI63-V1.0.0-20181206	Approved
For complete details of the Study Items please click here			
"List of SWIP Status Update"			
SWIP	Name	Version	Status
SWIP585	Approved Version of the PPDR Questionnaire	TSDSI-SGSS-SWIP585-V1.0.0-20181128	Accepted
SWIP571	SWIP on Information Centric Networking	TSDSI-SGSS-SWIP571-V1.1.0-20181204	Reserved
SWIP573	Default values of scheduled bandwidth for mapping UL PTRS with transform precoding	TSDSI-SGN-SWIP573-V1.1.0-20181203	Reserved
SWIP574	Change Request for TS 38.214 and TS 38.331 to include fast SRS precoding	TSDSI-SGN-SWIP574-V1.1.0-20181130	Reserved
SWIP588	A contribution to Cloud report for SGSS TP – DEC	TSDSI-SGSS-SWIP588-V1.0.0-20181130	Accepted
SWIP589	TSDSI-SGSS-DCPW-Report	TSDSI-SGSS-SWIP589-V1.0.0-20181204	Accepted
SWIP590	Views and Proposals for TSDSI RIT/SRIT submission	TSDSI-SGN-SWIP590-V1.0.0-20181204	Reserved
SWIP591	Technical Consistency of solution proposals for SRIT/RIT	TSDSI-SGN-SWIP591-V1.0.0-20181206	Accepted
SWIP592	Summary of Email discussion on IMT-2020 VVV on SWIP 578 from September 2018	TSDSI-SGN-SWIP592-V1.0.0-20181206	Accepted

SWIP593	Cover Letter for IMT-2020/VVV	TSDSI-SGN-SWIP593-V1.0.0-20181206	Accepted
SWIP594	Broadcast and Unicast offloading using DTT spectrum for 2G/3G/4G/5G and public Wi-Fi Networks	TSDSI-SGN-SWIP594-V1.0.0-20181206	Accepted
SWIP594	Broadcast Offload	TSDSI-SGN-SWIP594-V1.1.0-20181217	Accepted

[For complete details of the SWIP please click here and select SWIP](#)

[Back to contents](#)

Indian rupee

The Indian numeral system is based on the decimal system, with two notable differences from Western systems using long and short scales. The system is ingrained in everyday monetary transactions in the Indian subcontinent.

Indian semantic	International semantic	Indian comma placement	International comma placement
1 hazar	1 thousand	1,000	1,000
10 hazar	10 thousand	10,000	10,000
1 lakh	100 thousand	1,00,000	100,000
10 lakhs	1 million	10,00,000	1,000,000
1 crore	10 million	1,00,00,000	10,000,000
10 crores	100 million	10,00,00,000	100,000,000
100 crores	1 billion	100,00,00,000	1,000,000,000

Conversion applied above at 1 Euro = 80 INR and for more information please [click here](#)

About Project SESEI 3

SESEI stands for “Seconded European Standardization Expert in India” and is a 5-partner’s project based in New Delhi, India, with the objective to increase visibility of European standardization and promote EU/EFTA-India cooperation on standards and related issues. The Project is managed by the European Telecommunications Standards Institute (ETSI), a European Union recognized Standards Organization, and is further supported by the other two other recognized EU Standards Organizations CEN and CENELEC. The other two partners to this Project are the European Commission and the European Free Trade Association. It is a Standardization focused project, with a priority emphasis on the following sectors: ICT, Automotive, Electronic Appliances including Consumer Electronics and Smart Cities etc.

[Back to contents](#)

SESEI

European Business and Technology Centre
DLTA Complex, South Block, 1st Floor
1, Africa Avenue, New Delhi 110029
Mobile: +91 9810079461
Desk: +91 11 3352 1525 Board: +91 11 3352 1500
Fax: +91 11 3352 1501
E-mail: dinesh.chand.sharma@sesei.eu
www.sesei.eu

CEN - European Committee for Standardization www.cen.eu
CENELEC - European Committee for Electro Technical
Standardization
www.cenelec.eu
ETSI - European Telecommunications Standards Institute
www.etsi.eu
EC - European Commission
www.ec.europa.eu
EFTA - European Free Trade Association
www.efta.int