

CIGRE INTERNATIONAL TUTORIALS & COLLOQUIUM

(Under the aegis of CIGRE Study Committee D2 on Information Systems and Telecommunication)

SMART GRID

13-15 November, 2013

Venue : Infosys, Electronics City, Mysore, Karnataka, India

<p><i>Supported by</i></p>  <p>Ministry of Power</p>	<p><i>Organized by</i></p>  <p>CIGRE India</p>	 <p>CBIP</p>	 <p>POWERGRID</p>	<p><i>In association with</i></p>  <p>Infosys</p>	 <p>ISGTF India Smart Grid Task Force</p>  <p>ISGF India Smart Grid Forum</p>
<p>STEERING COMMITTEE</p> <ul style="list-style-type: none"> • Mr. P. K. Sinha, Secretary, Ministry of Power (GoI) ** • Mr. B.N. Sharma, Jt. Secy (Dist.), Ministry of Power (GoI) • Mr. Tarun Kapoor, Jt. Secy, Min. of New & Ren. Energy • Mr. A.B. Ibrahim, MD, CESC Ltd., Mysore • Mr. R.N. Nayak, CMD, POWERGRID • Mr. M. Govindappa, MD, MESCOM • Mr. Pankaj Kr. Pandey, MD, BESCO • Mr. M.R. Kamble, MD, KPCL • Mr. V. Balakrishnan, Member of Board, Infosys • Mr. V.K. Kanjlia, Secretary CIGRE-India & CBIP <p>**Consent awaited</p>			<p>ORGANISING COMMITTEE</p> <ul style="list-style-type: none"> • Mr. B.N. Sharma, Jt. Secy (Dist.), Ministry of Power (GoI) • Mr. I.S. Jha, Director (Proj.), POWERGRID • Mr. N.S. Sodha, Chairman, NSC D2 & ED, POWERGRID • Mr. N. Lakshman, Director (Tech), MESCOM • Mr. H. Nagesh, Director (Tech), BESCO • Mr. P. Bhaskar, Director (Tech.), KPCL • Mr. B. Bhagya Naik, Director (Tech.), CESC Ltd., Mysore • Dr. C.N. Raghupathi, VP & Head Infosys India Business Unit • Mr. Reji Kumar, President, India Smart Grid Forum • Mr. K. Ramakrishna, AGM, POWERGRID, Puducherry • Mr. A.K. Mishra, AGM, POWERGRID • Mr. Ananth Chandramouli, Sr. Manager, Infosys • Mr. M.N. Ravinarayan, Director, Taurus Powertronics Pvt Ltd • Mr. V.K. Kanjlia, Secretary CIGRE-India & CBIP • Mr. P.P. Wahi, Director, CBIP 		
<p>TECHNICAL COMMITTEE</p> <ul style="list-style-type: none"> • Mr. Carlos Samitier, Chairman CIGRE SC D2 • Mr. MONTI Maurizio, Secretary, CIGRE SC D2 • Mr. N.S. Sodha, Chairman, NSC D2 & ED, POWERGRID • Mr. S.K. Soonee, CEO, POSOCO • Dr. C.N. Raghupathi, VP & Head, Infosys • Mr. Reji Kumar, President, India Smart Grid Forum • Mr. Prakash Nayak, Former MD, ABB • Prof. S.A. Khaparde, IIT, Mumbai • Dr. S.C. Srivastava, IIT, Kanpur • Dr. S.N. Singh, IIT, Kanpur • Mr. Prashant Gopala Krishnan, Kalki Tech • Mr. Ananth Chandramouli, Sr. Manager, Infosys • Ms. Bindoo Srivastava, Infosys • Ms Kumud Wadhawa, DGM, POWERGRID • Mr. Lhoussain Lhassani (NL), Special Rep. for PS3 • Mr. V.K. Kanjlia, Secretary, CIGRE-India and CBIP • Mr. P.P. Wahi, Director, CBIP 					

Attraction of the colloquium

- Opportunity to Interact with renowned experts during the event from about 50 participating countries like : Australia, Argentina, Austria, Argentina, Algeria, Belgium, Bosnia and Herzegovina, Brazil, China, Canada, Croatia, Colombia, Czech Republic, Germany, France, Finland, Ireland, Italy, Israel, Japan, Mexico, Norway, Netherlands, Poland, Portugal, Romania, Russia, Spain, Switzerland, South Korea; Sweden, South Africa, Serbia, Slovenia, Thailand, United States, United Kingdom, Uruguay,
- 51 Top quality technical papers including 23 international papers.
- Views by International Experts as Chairmen of various sessions
- Tutorials by Senior Experts on the Subject



INVITATION



N.S. Sodha, Chairman
CIGRE NSC D2 &
ED, POWERGRID

CIGRE India is honored to host meeting of CIGRE Study Committee D2 on “Information Systems and Telecommunication” in India on 12th November 2013 in conjunction with CIGRE International Tutorial and colloquium on Smart Grid from 13th to 16th November 2013 at Infosys Campus, Mysore.

In my capacity as Chairman of CIGRE National Study Committee D2, I have pleasure in extending a cordial invitation to Individuals and Institutions concerned for participation in the above event.

We look forward to welcoming you in Mysore and hope your stay and experience will be a memorable one.

ABOUT CIGRE STUDY COMMITTEE D2

Study Committee D2 of Cigré is in-charge of monitoring emerging technologies and current practices in the field of information system and telecommunication for the Electric Power Industry (EPI), evaluating their possible impact on present and future needs of all players in the EPI. In a broad sense, it deals with the principles, requirements, design, engineering, performance, operation and maintenance of IT and telecom systems such as:

- Telecommunication and information systems for voice, data, video services.
- Specialized solutions for Tele-protection, SCADA, EMS and DMS systems.
- Information systems and networks for operational and business needs.
- Requirements and aspects of energy flow-control, security, economy, transparency, quality and regulation.

OBJECTIVE

To provide an international forum to share information between electric utilities, manufacturers, universities, standardizing bodies and authorities in selected topics in the field of information technology and telecommunications including Smart Grid.

PROGRAMME

12th Nov. 2013	Meeting of CIGRE SCD2 on Information Systems & Telecommunication
13th Nov. 2013 (0900-1800 hrs)	Tutorials : <ul style="list-style-type: none">• T1 - Cyber Security ;• T2 - Computing & Software for Smart Grid• T3 - Communication Challenges for Smart Grid;• T4 - Integration of Renewable
14th-15th Nov. 2013 (0900-1800 hrs)	International Colloquium on Smart Grid
16th Nov. 2013	Technical visit to allied areas on the subject followed by post conference tours

PROGRAMME FOR ACCOMPANYING PERSONS

Accompanying persons are wife/son/daughter or either an immediate relative normally residing with the participants.

The programme including local sightseeing will be organized for accompanying persons, on payment. The details of the programme will be made available at the time of registration.

ABOUT THE TUTORIALS & COLLOQUIUM

The Colloquium is the biennial Technical Discussion Forum of the Study Committee for members, associates and experts of the discipline from the host country. The Papers going to be discussed under three Preferential Subjects are as under:

Preferential Subject 1 : Role of ICT in Power System

- Communication System for Smart Transmission - Sheela Rani, **India**
- Challenges and Benefits of a Unified Synchronism Network CASE CHESF - Rodrigo Leal de Siqueira, **Brazil**
- Smart, utility-grade Wi-Fi Mesh for Distribution Grids- Paul Schwyter, **Switzerland**
- Architecting a Packet-based Wide Area Network to Support Current, Developing, and Future the Utility Use Cases and Applications - R. Irons Mclean, **United Kingdom**
- Approaches to Smart Grid Communications Networks in Japanese Electric Power Companies - Naomasa Takahashi, **Japan**
- Trends and Concerns Regarding the Use of IP and Other Communication Transport Solutions in the Utility Environment - Marco C. Janssen, **Netherlands**
- The Role of Communication Systems for Smart Transmission - Srinivas Patkar, **India**

- Disaster Resilient Telecommunications Systems for Smart Grid in Japan - Atsushi Ohara, **Japan**
- Last Mile Connectivity Challenges in Smart Grid - Chander B. Goel, **India**
- Home Energy Management System based on the Measurement and Control of Electricity Consumption of Home Appliances - Roberto Castán, **Mexico**
- Communications Alternatives for Smartgrids: The Integrated Approach - Jaume Darne, **Spain**
- Preparing ICT Towards Electrical Business Continuity - J. Costa, **Uruguay**
- Adaptability of Wireless Sensor Network for Integrating Smart Grid Elements in Distribution System - Mrityunjai Tiwari, **India**
- Communication Challenges for Smart Grid – D. Maheswaran, **India**
- Integration of 4G Communication Network Technologies with Smart Grids - Tushar Saxena, **India**
- Experience of Upscaling and Integration of Regional Level Synchrophasors Pilot Projects to a National Level project - V. K. Agrawal, **India**
- Prototype and Evaluation of Communication Network for WAMPAC System Based on International Standards - Yoshizumi Serizawa, **Japan**
- First steps towards synergising communication System, Wams And Situational Awareness system - U.G. Zalte, A.R. Kulkarni, **India**
- Role of ICT in Power System - Sachin Agarwal, **India**
- Role of ICT in Power System, Kishor G. Chavan, **India**
- Role of ICT in Power System - Harsh Sharma, **India**
- Alarms Rationalization in Mexico Power Units - Octavio Gomez, **Mexico**
- Synchrophasor: Implementation, Testing and Operational Experience, Uttam Mishra, **India**
- Out-of-step Detection using Wide Area Measurements, Srinu Babu. Matta, **India**
- A Smart Grid Application for Dynamic Reactive Power Management - G. Vamsi Krishna Kartheek, **India**
- WAN Network Communications Architectures for Smartgrids: Case Studies comparison - Arzuaga, Aitor, **Spain**

Preferential Subject 2 : Standards, Security and Leading-edge Technologies in the context of Power Systems

- Future Control Centre with Advent of Smartgrid - Manoj Kumar Tripathi, **India**
- Ultra Large-Scale Power System Control Architecture - J. Taft, **United States**
- Achieving Redundancy Using Configuration Exchange Through Goose Communication in Substation – Y.A. Ravishankar, **India**
- Building an Interoperable Grid with Industry-Standard IPV6 Architecture - P. Pereira, **Portugal**
- Real time Energy Management in Smart Grid - Sunil Kumar Vuppala, **India**
- Cyber Security Challenges on Account of Interconnected ICT Solutions Across the Complete Value Chain from End Consumer to Bulk Generators - S.R. Vijayan, **India**
- Construction of Next-generation Security Infrastructure to Cope with New Types of Cyber Attacks - Takehiro Sueta, **Japan**
- Application of a Cyber Security Assessment Framework to Smart Grid ICT Architectures - Giovanna Dondossola, **Italy**
- Comprehensive Cyber Security Strategy for Smartgrid Equipment Manufacturers - Miguel Angel Álvarez, **Spain**
- Saturable-Core FCL Based on the Normal Conductor Direct Current Coil - Dong Kun, **China**
- Preventive Simulation Studies Based on Single-Phase Test of 750 kV Magnetic Controllable Reactor - Qu Tong, **China**
- Research on Periodic Oscillation Test Equipment for TCR Thyristor Valves - Liu Bu Feng, **China**
- On line/Automatic and Manual Applications of Infrared Thermography in Electrical Sector - T.P.Singh, **India**
- Cyber Security – Secure Communication Design for Protection and Control IEDs in Substations - Sukumara T., **India**
- Is the Stationary Lithium-Ion Battery A Good Choice for the Telecommunications in an Electric Power Utility? - Alexandre Pinhel Soares, **Brazil**

Preferential Subject 3 : Renewable generation plant communications

- Renewable Generation Plant Communications - Siddharth Baburao Rokade, **India**
- The Application of Teleprotection Systems in Cogeneration Plants - Fernando Castro, **Spain**
- Renewable Generation Plant communication - Anant D. Sant, **India**
- Development of Photovoltaic Power Generation Facility Monitoring System for Decentralized Power Plant Operators - Kazumi Inoue, **Japan**
- Communication Architectures to Connect Renewable Energy Resources in the Residential Area Jeongjoon Lee, **South Korea**
- Renewable Generation Plant Communications - Laureano Bouzon, **Brazil**
- Renewable Generation – Tariff Mechanism for Enabling DSM and DR at Consumer Level - Sachin Shukla, **India**

PUBLICATION OF PAPERS

The papers will be available for downloading from CBIP/ CIGRE India website (www.cbip.org) before the colloquium for all registered delegates. A report on the colloquium will be prepared after the colloquium and will also be available on the website.

REGISTRATION

The perspective participants and authors willing to attend or make presentation in the above colloquium may register themselves by visiting our website (www.cbip.org) or by sending the following details to CBIP along with the requisite fee as mentioned below:

REGISTRATION FORM			
Willing to attend Tutorial T1 <input type="checkbox"/> ; T2 <input type="checkbox"/> ; T3 <input type="checkbox"/> T4 <input type="checkbox"/> And Colloquium <input type="checkbox"/> (Pl. tick)			Photo
Delegate Name:..... Designation:.....			
Organisation: Address for Correspondence.....			
Phone.....Fax.....E-mail.....			
<ul style="list-style-type: none"> • Accompanying person if any : (Seperate registration Form with Photo to be sent) • Accommodation required at Infosys Campus, Mysore Yes <input type="checkbox"/> No. <input type="checkbox"/> OR at Hotel Yes <input type="checkbox"/> No <input type="checkbox"/> • Accommodation required from to..... • Pickup at Bengaluru /Mysore Required Yes <input type="checkbox"/> / No <input type="checkbox"/> – Pl. tick in the box • Are you CIGRE SC D2 or WG Member; <input type="checkbox"/> Author of Paper <input type="checkbox"/> Pl. tick in appropriate box 			
For International participants additional details are required apart from the above information:			
Passport No.	Date & Place of Issue	Arrival date, Time & flight number	Departure date, Time & flight number

REGISTRATION FEE

Sl. No.	Event	Registration fee for the Participants from India & other SAARC Countries (in INR)				Participants from other Countries (in US\$)	
		General Participants	Participants from State Power Corpn.	Students	Accompanying persons	Participants	Accompanying persons
1	Tutorial	3000.00		500.00	500.00	US\$100	US\$ 25
2	Colloquium	10,000.00	5,000	1,000.00	2,000.00	US\$300	US\$75

Note : 12.36 % ST will be chargeable extra for the payment in Indian currency

Members of CIGRE Study Committee D2 and its associated working Groups are exempted from Payment of Registration fee.

Fee covers registration kit, tea /coffee, lunch on conference days. The charges for travel & accommodation etc. will be extra.

CUT OFF DATE FOR REGISTRATION IS 10/11/2013

To reduce difficulties, due to standard security checks at the gate of the venue with regard to ID etc. participants are requested to send their registration form latest by 10/11/2013

SPONSORSHIP & PRIVILEGES

The colloquium provides an opportunity for sponsoring companies to promote their products/services to a focused audience, besides networking with utility engineers during tea/coffee and lunch intervals. Sponsors are assured of full visibility. The details of Fee and privileges category wise are indicated hereunder:

Sl. No	Sponsorship Category	Fees		Privileges
		INR	US\$	
1	Platinum	5,00,000.00	10,000	<ul style="list-style-type: none"> • Wide publicity as Platinum sponsor • Company logo on Backdrop and all publicity materials • Advertisement (back cover) and two pages editorial in proceeding • 10 delegates exempted from Registration fee. • Distribution of brochures etc. to the delegates.
2	Gold	3,00,000.00	6,000	<ul style="list-style-type: none"> • Wide publicity as Gold sponsor • Company logo on Backdrop and on all publicity materials • Advertisement (inside cover) and two page editorial in proceeding • 05 delegates exempted from Registration fee. • Distribution of brochures etc. to the delegates
3	Silver	2,00,000.00	4,000	<ul style="list-style-type: none"> • Company logo on Backdrop as well as on all publicity materials for the event • One page Advertisement in the proceeding. • 03 delegates exempted from Registration fee. • Distribution of brochures etc. to the delegates
4	Supporter	1,00,000.00	2,000	<ul style="list-style-type: none"> • Company logo on Backdrop as well as on all publicity materials for the event • 02 delegates exempted from Registration fee

MODE OF PAYMENT

All the payments for the event (registration fee, sponsorship and accommodation through CIGRE India, to be made by the following methods:

- Online payment
- Banker's cheque payable to : Central Board of Irrigation and Power, New Delhi
- Bank transfer : Bank charges if any are to be borne by Participants

Beneficiary Name (Payee Name & address) : Central Board of Irrigation & Power, Malcha Marg, Chanakyapuri, New Delhi - 21

PAN No. : AAAJC 0237F ; Service Tax Numbers.: AAAJC 0237F ST001

Complete Bank Details : Bank Name: HDFC Bank ; Saving Bank Account Number : 00031110004411

Branch & Address: G-3/4, Suryakiran Building, 19, Kasturba Gandhi Marg, New Delhi 110001;

Branch /RTG/NEFT IFSC: HDFC0000003; MICR Code: 110240001; Swift code: HDFCINBBDEL

All the payments details for the event to be furnished along with the registration form and Name of the event should be mentioned under subject in all the correspondence relating to this event.

OFFICIAL TRAVEL PARTNER

M/s Cox and Kings Limited has been appointed as the Official Travel Partner for this event. For all your travel related requirements, such as airport/ railway transfers, local city tours, Post conference Tours, pre and post accommodation in Bengaluru or Mysore, kindly contact Ms. Manpreet Kohli at manpreet.kohli@coxandkings.com and ibtconf.del@coxandkings.com. You may also reach her at her direct number +91 11 2676 7925.

ACCOMMODATION

CIGRE-India has arranged reasonable number of accommodation near the conference venue, provided by the Co-Sponsor M/s Infosys, Mysore, which will be allocated on a first come first serve basis. Those who wish to stay on the campus need to note that "Housekeeping services will be provided once during day time. Bed linen and Bathroom amenities will be provided by Infosys. No service of food in rooms. Telephones in room can only be used for internal calling. Infosys has self-service Laundromat service on campus, delegates can pay and use this facility. Room on campus are twin bedded, Infosys does not have double bed / family rooms on campus. Alcohol beverages are not allowed on campus. Smoking is allowed only in designated areas. Food court is located approximately 1 km from the accommodation. No transport is available to reach the food court from rooms

CIGRE-India is happy to help you organize your stay in Mysore. For Accommodation facility at Infosys please write to us at (vishandutt@cchip.org). For accommodation in Hotels at Mysore please contact the official travel partner.

PICKUP FOR PARTICIPANTS FROM BENGALURU AIRPORT TO MYSORE AND BACK

Transfer from Bengaluru Airport to Mysore and return will be provided to participants (on payment basis) who have pre booked their services with Cox and Kings Limited. Participants will be met on arrival at the Bengaluru International Airport provided that they inform Cox and Kings of their travel schedules well in advance. Upon arrival at the airport and after claiming your luggage and passing through customs, participants should come out in the arrival lounge of the terminal. Look for Cox and Kings representatives holding "SMART GRID" sign for transfer to Mysore.

For group transfers by coach there will be fixed departures from Bengaluru International Airport every 03 hours on 12th and 13th November 2013. Group transfer from Infosys, Mysore for Bengaluru International Airport will be provided 15th and 16th November.

Bengaluru airport to Mysore Transfer (one-way) – 4-5 hrs. Journey by road.

Group Transfer charges (by coach) : US\$ 60 per person. Individual transfer charges (by car): US\$ 125;

Mysore airport/ station to Infosys transfer (one-way) Individual transfer charges (by car): US\$ 40.

For more details pl. contact official travel partner.

GENERAL INFORMATION

Visa Requirement : All visitors to India require a visa, except visitors from Nepal and Bhutan. The best place to get your visa is at Indian Embassy or High Commissions in your country of residence. Please check your nearest Embassy, Consulate or High Commission for all the details for getting visa. Keep your passport with you at all the time. The invitation letter if needed can be sent by CIGRE India to the participants on request.

Travel: Bangalore is well connected by air, rail and road to Delhi, Chennai, Mumbai, Kolkata and Hyderabad and to most of other cities and Towns. Mysore is well connected to Bangalore by road and rail. There is also one flight from Bangalore to Mysore at noon.

Climate: Mysore enjoys a salubrious climate all year round, with the monsoon June to October the Climate in Nov. is Pleasant and average temperature is between 15 to 25 degree Centigrade.

Official Language: The official language of Colloquium is English.

India the host country : India is endowed with towering mountain ranges, rolling hills, lofty plateaus and extensive plains, which have played their role in shaping its cultural, economic and political history. The most outstanding characteristics of India, and probably one of its greatest charms, is undeniably, its diversity. India is a country with a sense of individuality and rich heritage; its civilization is unique

in vitality and antiquity. It offers the visitor something special everywhere, and in everything. It is a land of treasures, temples, palaces, forts and magnificent scenery. Those seeking footprints of history will find that India has been a vast arena, where races and cultures have battled and blended, creating sublime achievements in art, religion and philosophy.

About INFOSYS, MYSORE : Infosys Mysore campus is one of the biggest corporate campuses in the world and is a medley of delightful and diverse architecture and facilities. To make the most of your visit, we urge you to explore the campus to the fullest and enjoy the facilities and amenities that we have to offer. There are some fundamental aspects of the campus which are requested to be followed by all personnel who are residing on campus. They are as follows:

- Please carry a photo ID for security clearance at Gate 1.
- Visitor badge is a critical part of our security policy – please wear it at all times.
- The guests must comply with standard security checks, with regard to ID & Luggage scanner
- General conduct, including dress code should be in tune with the sanctity of a corporate working campus.
- Due to paucity of parking, vehicle will be permitted only up to Information Center (B 14) for pick up & drop of the guests (No Parking inside).
- Please do not walk on the grass to help minimize the impact of large group, so we do ask all to be mindful of this.
- Do not enter restricted buildings – Security Guards will direct you accordingly.
- Please use Floating Restaurant and Food Courts for food and beverage requirement. These facilities operate on pay and use basis. Timing are: (Breakfast - 7:30 hrs to 9:30 hrs; Lunch - 12:00 hrs to 14:30 hrs; Dinner - 19:00 hrs to 22:00 hrs).
- Recreation Center (RC) houses a Super Market, Medical Center, ICICI Bank, Infosys Store, Airtel & Vodafone store, Salon for ladies and gents.
- Vehicles movement are restricted in accommodation area, please use bicycles to move around.
- Children below age of 18 years will not be allowed on campus.

About Mysore : 180 Kms from Bengaluru Airport lies the abode of untold grandeur and glory. Mysore, the capital city of the Wodeyars has always enchanted its admirers with its quaint charm, rich heritage, magnificent palaces, beautifully laid-out gardens, imposing buildings, broad shady avenues and sacred temples. There's an old world charm about the city that reaches out and touches everyone. Mysore or Mahishur as it was called earlier, traces its history back to the mythical past, when Goddess Chamundeshwari of Chamundi killed the wicked buffalo-headed demon, Mahishasura. Mysore is the second largest city of Karnataka. It is known the world over for its exotic sandalwood and rich silks. Its grand and imposing palaces, majestic temples, gardens leave an ever-lasting impression on the visitor. Situated 770m above sea level, Mysore has a warm and cool climate throughout the year.

LOCAL & POST CONFERENCE TOURS : Local Places To Visit Are As Under. For More Details Please Contact Official Travel Agent

Half day city tour of Mysore - (LT – 01) : The infatuation with Mysore begins with the Maharaja's Palace, at the heart of the city. It is a veritable treasure trove of exquisite carvings and works of art from the world over. Overlooking the city of Mysore are the Chamundi Hills, where stands a monolithic statue of the Nandi Bull. Proceed to the Rajendra Art Gallery which has some remarkable selections of paintings by Raja Ravi Verma, Nicholas Roerich and traditional paintings in the Mysore style.

Half Day excursion to Somnathpur - (LT – 02) : Somnathpur is located 33km east of Mysore known for the Keshava Temple. Built in 1268 and dedicated to Lord Shiva, the temple is a marvellous example of Hoysala architecture. The walls of this star studded temple are covered with exquisite sculptures in stone depicting various scenes from the Ramayana and Mahabharata and the life and times of the Hoysala kings.

Day excursion to Coorg - (LT – 03) : Golden temple - The Namdroling Nyingmapa Monastery (or Thekchog Namdrol Shedrub Dargye Ling) is the largest teaching center of Nyingmapa – a lineage of Tibetan Buddhism – in the world. Located in Bylakuppe — part of the Mysore district of the state of Karnataka — the monastery is home to a sangha community of over five thousand lamas (both monks and nuns), a religious college (or shedra) and hospital, Cauvery Nisarga dhama – an island formed by river Kaveri and is used as a picnic spot, Abbi falls- a place situated at about 7 kms from Madikeri amidst natural beauty and was formally christened as “Jessie falls” in honour of Chiplin's first daughter, but later on called as “Abbey falls”, Elephant Camp – Dubare, which is an elephant capturing and training camp of the Forest Department of Coorg. Dubare is located in between Kushalnagar and Siddapur on the banks of river Kaveri also visit Raja seat a favourite vantage point with the royalty, which offers a tremendous view of the misty blue hills, and valleys with green fields. The area around the Raja's Seat has been developed into a garden.

Day Excursion to Shravanabelagola, Bellur, Halebeedu (LT – 04) : Full day excursion to Sravanabelagola, Belur & Halebid. The district town of Hassan (194 km) is a convenient base for visits to Sravanabelagola, the oldest Jain shrine in South India and the beautiful Hoysala temples at Belur and Halebid. Sravanabelagola (84 km / 02 hrs) : is one of the oldest and most important Jain pilgrimage centre. Later visit Belur (90 km from Sarvanabelagola) The serenity of Belur is attributed to the celebrated temple of Channakeshava, built by the Hoysala King Vishnuvardhana in 1117 A.D. to commemorate his conversion from Jainism to Vaishnavism. The main structure of the temple, which is star shaped, is a homogenous architectural unit on a raised platform. Also visit Halebid located 17km east of Belur, was the ancient capital of the Hoysala Empire. Founded in the early 11th century as Dwarasamudram (Gateway to the seas), it was destroyed by the armies of the Delhi Sultanate in 1311 and 1327 AD, after which it was deserted and later renamed Halebid (Old Capital). The Hoysaleswara temple at Halebid, the largest of the Hoysala temples, was started in 1121 AD, about 10 years after the temple at Belur, but despite 86 years of labour, it was never completed. Nevertheless it is easily the most outstanding example of Hoysala art.

FOR MORE DETAILS PLEASE CONTACT CONFERENCE SECRETARIAT

Mr. V.K. Kanjlia, Secretary & Treasurer, CIGRE India,

C/o Central Board of Irrigation & Power, CBIP Building, Malcha Marg, Chanakyapuri, New Delhi-110021, India

Contact person – Mr. Vishan Dutt, Sr. Manager (Tech.), CIGRE India – (Mobile No. 9811431554)

Phone: +91-11-26115984/1294; **Fax:** 91 11 26116347; **E-mail :** vishandutt@cbip.org; cbip@cbip.org; **Website:** www.cbip.org