

Workshop on Lightning Protection and Safety

November - 2007

India & Bangladesh– South Asia

The non-governmental organizations – CISSA (Centre for Innovation in Science and Social Action) in India organized a series of Two – Day Workshops in collaboration with South Asian Technology Research and Information Centre (SATRIC), Srilanka. TARA (Technical Assistance for Rural Advancement) in Bangladesh supported and organised the program in Bangladesh in association with BLRC, Dept. of Physics, Jahangirnagar University and in India by Lightning Awareness Cell (LAC), Regional Energy Centre (REC).

This well thought two-day workshops were organized with the aim of creating awareness and engineering skill among the participants in the area of Lightning Physics, Importance on lightning protection, design, development, installation and maintenance of lightning protection systems. It also addressed the safety concerns of human beings, livestock and house-hold property.

The programme was resourced by eminent speakers of international repute with vast knowledge and expertise in the field of lightning protection systems application and engineering. Since the workshop was planned and scheduled well in time, the response from the industries, government and private establishments, R&D institutions was overwhelming. More than hundred and twenty practicing engineers, managers attended the programme. Opportunity was given to participants to have free interaction with speakers in each session in expressing their view points. Each workshop ended with panel discussion and the feed back received from the delegates was excellent.

The media coverage of the workshop was very encouraging. National and regional newspapers in Bangladesh and India published the programme events elaborately, highlighting the major issues being faced the south Asian countries in respect of human safety and loss of economics. This programme paved the way to draw the attention of the government through media on urgent measures to be taken relating to lightning protection.

The outcome of this two-day workshop would be seen in much larger perspective. The message of lightning protection is getting percolated at all levels. Architects and systems designers are started realising the importance of lightning protection at the early stage of the structural design and cost-effective methods exists at international level. The similar awareness programme in the form of workshops and seminars in future at other major cities in India may help to reach more people. In the coming days, there will be more demand on better lightning protection products.

Details on the events of the two-day workshop conducted in Bangladesh and four major cities in south India are given the following pages.

Two – day Workshop on Lightning Protection & Safety Programme Details

I. Chittagong, Bangladesh

Date & Venue: 5th and 6th November 2007

Regional Public Administration Training Centre (RPATC)
Chittagong, Bangladesh

Agenda: Basics of Lightning, Human Safety & Safety Guidelines
Structural Protection, Risk Analysis, Protection of low-voltage
systems, Protection of Communication systems, Alternative Air-
terminal systems and Case-studies

Faculty: Dr. Chandima Gomes, BSc, PhD, CEng (UK), CPhys (UK)
A Senior Lecturer in Physics, Colombo University

Prof. Dr. Abdul Mannan Chowdhury
Dept. of Physics Jahangirnagar University, Dhaka

Dr. Munir Ahmed, Programme co-ordinator
Lightning Awareness Centre, Dhaka, Bangladesh

Mr. R.Ganesan, Senior Scientist (Retd)
SAMEER – Centre for Electromagnetics, Chennai, India

Mr. S. Gopakumar, Managing Director
Cape Electric India Pvt. Ltd, Chennai, India



Two – day Workshop on Lightning Protection & Safety Programme Details

II. Bangalore – South India

Date & Venue: 12th and 13th November 2007

Indian Institute of Science (IISc)
Bangalore, Karnataka, India

Agenda: Basics of Lightning, Human Safety & Safety Guidelines
Structural Protection, Risk Analysis, Protection of low-voltage systems,
Protection of Communication systems, Alternative Air-terminal
systems and Case-studies

Faculty: Dr. Chandima Gomes, BSc, PhD, CEng (UK), CPhys (UK)
A Senior Lecturer in Physics, Colombo University

Prof. (Dr). G.R. Nagabhushana, AICTE Emeritus Fellow
High Voltage Engineering Division, IISc, Bangalore

Dr. S. Murali Das, Scientist,
Centre for Earth Science Studies, Thiruvananthapuram

Mr. R.Ganesan, Senior Scientist (Retd)
SAMEER – Centre for Electromagnetics, Chennai, India

Mr. S. Gopakumar, Managing Director
Cape Electric India Pvt. Ltd, Chennai, India



Two – day Workshop on Lightning Protection & Safety Programme Details

III. Chennai – South India

Date & Venue: 14th and 15th November 2007

Indian Institute of Technology (IIT)
Chennai, Tamilnadu, India

Agenda: Basics of Lightning, Human Safety & Safety Guidelines
Structural Protection, Risk Analysis, Protection of low-voltage systems,
Protection of Communication systems, Alternative Air-terminal
systems and Case-studies

Faculty: Dr. Chandima Gomes, BSc, PhD, CEng (UK), CPhys (UK)
A Senior Lecturer in Physics, Colombo University

Prof. (Dr). G.R. Nagabhushana, AICTE Emeritus Fellow
High Voltage Engineering Division, IISc, Bangalore

Dr. S. Murali Das, Scientist,
Centre for Earth Science Studies, Thiruvananthapuram

Mr. R.Ganesan, Senior Scientist (Retd)
SAMEER – Centre for Electromagnetics, Chennai, India

Mr. S. Gopakumar, Managing Director
Cape Electric India Pvt. Ltd, Chennai, India



Two – day Workshop on Lightning Protection & Safety Programme Details

IV. Coimbatore – South India

Date & Venue: 16th and 17th November 2007
Hotel CAG Pride
Coimbatore, Tamilnadu, India

Agenda: Basics of Lightning, Human Safety & Safety Guidelines
Structural Protection, Risk Analysis, Protection of low-voltage systems,
Protection of Communication systems, Alternative Air-terminal
systems and Case-studies

Faculty: Dr. Chandima Gomes, BSc, PhD, CEng (UK), CPhys (UK)
A Senior Lecturer in Physics, Colombo University

Prof. (Dr). G.R. Nagabhushana, AICTE Emeritus Fellow
High Voltage Engineering Division, IISc, Bangalore

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Centre for Earth Science Studies, Thiruvananthapuram

Mr. R.Ganesan, Senior Scientist (Retd)
SAMEER – Centre for Electromagnetics, Chennai, India

Mr. S. Gopakumar, Managing Director
Cape Electric India Pvt. Ltd, Chennai, India



Two – day Workshop on Lightning Protection & Safety Programme Details

V. Kochi – South India

Date & Venue: 19th and 20th November 2007
Human Productivity Centre
Kochi, Kerala, India

Agenda: Basics of Lightning, Human Safety & Safety Guidelines
Structural Protection, Risk Analysis, Protection of low-voltage systems,
Protection of Communication systems, Alternative Air-terminal
systems and Case-studies

Faculty: Dr. Chandima Gomes, BSc, PhD, CEng (UK), CPhys (UK)
A Senior Lecturer in Physics, Colombo University

Prof. (Dr). G.R. Nagabhushana, AICTE Emeritus Fellow
High Voltage Engineering Division, IISc, Bangalore

Dr. S. Murali Das, Scientist,
Centre for Earth Science Studies, Thiruvananthapuram

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SAMEER – Centre for Electromagnetics, Chennai, India

Mr. S. Gopakumar, Managing Director
Cape Electric India Pvt. Ltd, Chennai, India



Lightning Protection of Telecom Installations

Round Table Conference

Wednesday, 28th Nov 2007, 9.30 am to 1 pm

The Ambassador Hotel, New Delhi

The program was organised by ASSOCHAM (Associated Chamber of Commerce and Industry), coordinated by CISSA. In view of the changed international standards on Lightning protection during 2006, the program was focused to upgrade the usage of Surge Protective Devices in India. Program was inaugurated by Mr. R N Padukone, Sr Deputy Director General, Telecommunication Engineering Centre, New Delhi. Prof. (Dr). G.R. Nagabhushana, AICTE Emeritus Fellow, High Voltage Engineering Division, IISc, Bangalore in his talk explained about the various technologies used for Surge Protection and emphasised that Lightning protection has to be done only according to IEC62305 standards. Usage of Non Standard Technologies and methods are also discussed. Surge protection used in India by various telecom companies were discussed in detail. At present class B arresters with a voltage protection level of 4 KV used by all telecom companies in India. Such arresters will not give any protection at the event of a transient since these devices are installed in MCB distribution boards which can withstand a voltage impulse of just 2.5 KV. ASSOCHAM in the reply requested all the standardizing agencies in India to look into these issues seriously. ASSOCHAM will prepare a report about the program and will forward the recommendations to the government for implementation.



Report of Programs in Bangalore, Chennai, Cochin

Overall Comparison

