



Indian Institute of Technology Kharagpur (WB) 721 302

Cryogenic Engineering Centre

Announces a One-day Training Programme on

**Causes and Prevention of Hospital Fires**

***Venue: Kolkata, West Bengal on September 03, 2017 (Sunday)***

***Venue: Kharagpur, West Bengal on September 10, 2017 (Sunday)***

***Venue: Bhubaneswar, Odisha on September 17, 2017 (Sunday)***

Fire in a hospital can be devastating for the patients, their relatives and the morale of the hospital. Even if there is no death in a fire accident, it leaves a deep scar on the image of the hospitals, apart from the financial damage it causes. According to reports in news media, there is one and only one root cause of all hospital fires: **Short Circuit!** However, it is not true in most of the cases! The over-simplification and wrong understanding, which are manifestations of incomplete knowledge on the mechanisms of initiation and spread of fire, often unjustly implicate persons and equipment for the lapses and direct the investigations in an entirely wrong direction. The fire departments, hospital administrations, state health authorities, insurance companies, doctors, nurses, attendants, machine operators, hospital architects, equipment purchase department and equipment suppliers need to understand why a hospital is particularly vulnerable to fires. With proper knowledge, awareness and appropriate system practices, hospitals can undertake required modifications of their system configuration and practices, including training of their personnel to prevent such fires.

**SHORT CURCUIT IS NOT THE ROOT CAUSE OF MOST OF THE FIRE INCIDENTS IN HOSPITALS!**

**Coordinator of the program:** Professor Kanchan Chowdhury, Professor, Cryogenic Engineering Centre

**Faculty and his credentials:** Professor Kanchan Chowdhury, Professor, Cryogenic Engineering Centre

- A Mechanical Engineering graduate (IIT Kharagpur 1978) and Ph D in Cryogenic Engineering (1984)
- Faculty at IIT Kharagpur since 1984
- Conducted research in the US, Germany and Australia
- At the invitation of Assam Government, surveyed about a dozen hospitals in Assam and submitted a 109-page report to Assam Government on root causes and prevention of fire in hospitals
- Published a paper entitled “Fires in Indian hospitals: root cause analysis and recommendations for their prevention” in Journal of Clinical Anesthesia (2014) 26, 414–424 by Elsevier.
- Presented invited talks at conferences and different hospitals in the country.
- Conducted training programs on Prevention of fires in hospitals at Kharagpur and Pune.

**Course Outline: *Hospital Fires: Root causes and their Prevention***

- Science of Fire, Fire dynamics and heat transfer, Fire triangle and mechanism of ignition and combustion.
- Hospital fire incidences around the world, Analysis of hospital fire incidences, Phenomenon of oxygen-enriched and chemical-enriched environment and danger of fire in ICUs, Neo-natal units and operating rooms.
- Sources of ignition in the oxygen- and chemical-enriched environment, Appropriate materials with oxygen-enriched environment.
- Dependence of ignition on O<sub>2</sub> concentration and temperature in environment. Dependence of ignition on chemical concentration in environment. Appropriate configuration with oxygen-enriched environment.
- Location of oxygen supply room, Liquid oxygen supply system, Oxygen pipeline system, Safety in oxygen supply room, Reserve and emergency oxygen supply system, Automatic changeover manifold system, Administration of oxygen, Measurement of oxygen concentration with commercial details.

- Ventilation in hospital wards, Enthalpy recovery wheel.
- Window air conditioning unit, Spilt air conditioning unit, Central air conditioning unit, Voltage stabilizers, Uninterrupted power supply (UPS) unit, Electrical equipment in hospitals, MRI and X-Ray Units, Oxygen concentrator, Mechanical ventilator, Neonatal incubator, Phototherapy unit, Radiant warmer, Hyperbaric system, Automatic sprinkler system.

**Eligibility:** Persons engaged in planning, construction, quality management, safety or administration of hospitals with degree or diploma in science, arts, commerce, engineering, medicine, nursing, architecture or law are eligible.

**Venue of Lectures:**

(At Kolkata) IIT Kharagpur Extension Centre HC Block, Sector - III Salt Lake City Kolkata – 700106, West Bengal <b>September 03, 2017 (Sunday)</b>	(At Kharagpur) Visveswaraya Guest House Lecture Hall IIT Kharagpur Campus Kharagpur 721 302 West Bengal <b>September 10, 2017 (Sunday)</b>	(At Bhubaneswar) IIT Kharagpur Extension Centre Mouza Samantapuri (Near Swosti Plaza) Bhubaneswar 751013, Odisha <b>September 17, 2017 (Sunday)</b>
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**Timing :** Classes will begin at 9-30 AM. There will be breaks for lunch and coffee. Classes to end at 5-30 PM.

**Registration:**

The following information about the participant is required for registration:

Name, Designation, Responsibility in hospital Industry, Name and Address of Company, Phone (Off), Phone (Res), Phone (Mobile), E-mail, Date of Birth, Highest Academic Qualification, Nationality, Proof of Bank transfer details and Amount,

Registration fee: **INR 6,000**. Bank transfer is the only mode of payment for all participants. A scanned copy of the bank transfer document is required for registration (as proof of payment).

Bank details: (a) Name of Bank : Syndicate Bank, (b) Address of Bank: IIT-SRIC Extension, Kharagpur 721302, India; (c)Account Name: CEP-STC, IIT Kharagpur; (c) Address of Beneficiary: Indian Institute of Technology, Kharagpur, PIN: 721 302, West Bengal, India; (d) Account Number: 9556 220 000 2955; (e) IFSC/RTGS Code : SYNB0009556 (f) Bank Swift Code: SYNBINBB120.

Course fee includes working lunch and tea/coffee provided during the course.

**Accommodation:**

Accommodation, if required, has to be arranged by participants themselves. However, at Kharagpur, it can be booked by the Coordinator (on request) on behalf of the participants at New Technology Guest House and Visveswaraya Guest House. Tariff can be seen at IIT Kharagpur website at <http://www.tgh.iitkgp.ac.in>.

**Sponsors please note:**

Please give copy of this brochure to the nominated person and request him to contact course-coordinator directly via e-mail to inform about their nomination and to communicate the participant details. If he/she wants to share his/her personal experiences regarding hospital fires with the coordinator of the program beforehand, the incidences can be taken up for discussion in the class during the program.

**Please E-mail all information to:**

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**LAST DATE OF APPLICATION AND REGISTRATION:**

**August 26, 2017 for Kolkata, September 02, 2017 for Kharagpur and September 09, 2017 for Bhubaneswar**