Summary of Academic Research Visit in Kolkata

Dated: 09-11 May, 2012

With the Joint Collaboration of

Global COE Program (G-COE) of Tokyo University of Science (TUS), Japan

&

West Bengal Fire & Emergency Services, Kolkata, India

Global COE Program, Tokyo University of Science
Center for Education and Research on Advanced Fire Safety Science and Technology in East Asia
Center for Fire Science and Technology, Research Institute for Science and Technology
東京理科大学
Tokyo University of Science
Global COE Program

Preamble

In major cities in East Asia, large-scale and complex high-rise buildings and underground facilities are being built in an unprecedented rate with rapidly growing economy in this area. The structural configurations and building materials have changed drastically. There is a fear however that this change would lead to some side-effects in affecting the potential fire risk.

Tokyo University of Science (TUS) initiated a project called ***"Center for Education and Research on Advanced Fire Safety Science and Technology in East Asia"*** supported by the Japanese Government as a Global Center of Excellence (GCOE) Program.

Establishing a collaborative relationship with researchers in various cities of East Asia, it aims to establish research and education method to minimize potential fire risks in new spatial configurations associated with urbanization and in the use of new materials increasing with industrialization and greater need of energy conservation.

Focusing on the Urban Building Fire Safety Issues, This research visit has been organized to understand the fire safety conditions in Kolkata, India. As the fire risk in the Asian countries is increasing alarmingly and Kolkata is also urbanizing very rapidly, this visit was planned as one of the activities of Global COE Program (GCOE) of Tokyo University of Science, Japan in collaboration with **West Bengal Fire & Emergency Services, Kolkata, India** under the collaborative Research Study on Urban Building Fire Disaster Mitigation & Safety Issues in Asian Mega Cities.

Visiting Team Members:

- Mr. Kyoichi Kobayashi (Professor, Tokyo University of Science, Japan & **Visiting Team Leader)**
- Mr. Yamada Tokiyoshi (Professor, The University of Tokyo, Japan)
- Mr. Nisida Yukio (Researcher, Tokyo University of Science, Japan)
- Mr. Muhammad Mamun (Warehouse Inspector, Fire Service & Civil Defence, Bangladesh)
- Md. Shaidul Alam Chowdhury (2nd Year Student, Masters Course in Fire Science & Technology, Tokyo University of Science, Japan & Fire Officer , FSCD, Bangladesh)

Visit Activities:

The 05 team members of team arrived Kolkata on 09 May, 2012 the same day. After that, Md. Shaidul Alam Chowdhury and Mr. Muhammad Mamun went for preparatory meetings and synchronization was done for the effective visit of the team.

West Bengal Fire & Emergency Services Visit:

On 10 May, 2012 The Research Team of TUS had courtesy meeting at **West Bengal Fire & Emergency Services** and exchange of views was performed between the visiting members and experts of Fire personnel. During this visit, the TUS team was cordially welcomed by Shri D.P. Tarenia, IPS, Director General, Additional Director General Mr. D. P. Biswas and Director also welcomed the team later on.

During this meeting, there were several presentations and interactions. At first, A Welcome Speech along with a brief presentation on "**West Bengal Fire & Emergency Services** & Fire Safety" was done by Shri D.P. Tarenia, IPS. An Opening Remarks was also done by Prof. Kyoichi Kobayashi as a team leader. Than ADG Mr. D. P. Biswas made a presentation about Devastating Fire of AMRI Hospital.

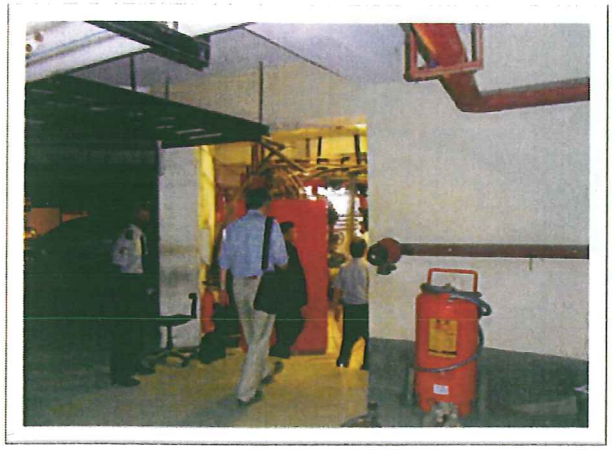
After finished the part of **West Bengal Fire & Emergency Services visit, the team visited** 01 shopping mall (super market), 01 residential building, AMRI Hospital and 01 under construction shopping mall. Then next day on 11 May we visited Kolkata Fire Brigade Training Institute, Bahela, Kolkata. This whole visit was assisted by fire personals.

Visit of Fire Brigade Kolkata

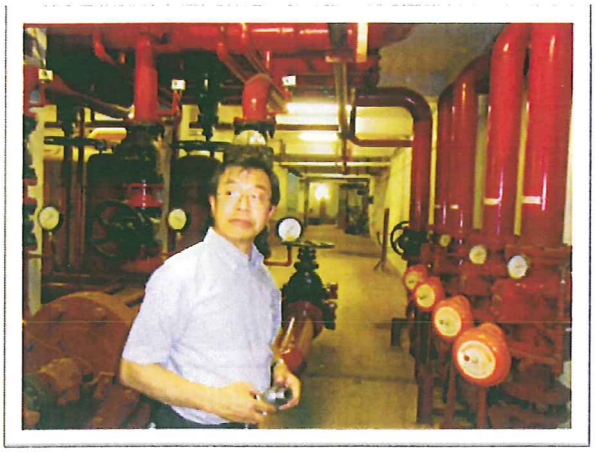
Visit of Fire Brigade Kolkata

Visit of Shopping Mall

Visit of Shopping Mall



Visit of residential House



Visit of residential House

Visit of residential House

Visit of residential House

Visit of AMRI Hospital

Visit of AMRI Hospital

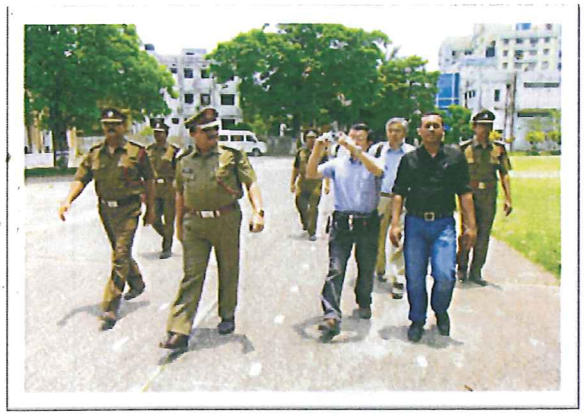
Visit of AMRI Hospital (Fire Origin)

Administrative officer of AMRI Hospital

Visit of under construction Building

Visit of under construction Building

Visit of Fire Brigade Training Institute



Visit of Fire Brigade Training Institute

Welcome party: A welcome party was organized by TUS on 10May, 2012 where fire personals joined. The guests were warmly received by TUS team where the informal nitration took place for the development relationship.

Wrapping up: For the effective disaster management, it is important that the central government, the local government, the designated public, Volunteers and even private citizen must work out their roles appropriately. It is the high time that we should prepare ourselves for the preparation of any kinds of fatal disaster. So, lets us join hands and march towards for a safer world.

バンコク洪水調査

2011 年にタイで発生した洪水は、7 月から 3 か月以上続き、2011 年 11 月 5 日の時点で 446 人が死亡し、600 万ヘクタール以上が浸水した。浸水地域は北部のチエンマイ県からバンコクまで、58 の県に及んだ。バンコクの中心部でも冠水が広がったが地下鉄には被害が及ばなかった。その防災対策の現状とあわせてバンコク郊外の工業団地についてその後取られた対策を把握した。

バンコクの地下鉄は 2004 年 7 月に営業キロ 20.0 ㎞、駅数　18 で開業した。大雨洪水対策では、駅の出入口が過去 200 年の最高洪水水位より 1.2～1.5m高く階段を設けており、それに加え高さ 1 m以上の防潮板が設置されている。

図 1　バンコク地下鉄路線

出典　社団法人　日本地下鉄協会、最新世界の地下鉄、2005 年

図 - 1　Phahon Yotin 駅出入口階段にせまる浸水

出典　朝日新聞 2011 年 11 月 6 日日曜日朝刊

写真１　バンコク地下鉄、Lat Phrao 駅で防潮板を設置して出入り口封鎖 October 14, 201114:31

出典　http://www.caplogue.com/archives/6192459.html

写真２　Phra Ram 9 駅のかさ上げされた部分にあるエレベータ

写真３　階段 6 段（約 1.3m程度）をかさ上げして洪水に備えている Phetchaburi 駅

写真４　Huai Khwang 駅入り口の階段（7 段）

写真５　バンコク近郊の工業団地において河川の堤防かさ上げ工事が行われていた。

以　上