

Volume-1, Issue-3

#### August 2010

### A Vehicle for Analytical Thinking to Improve the Unique Urban Issues

#### MESSAGE BY M.K. SHANKARALINGE GOWDA, IAS, SECRETARY TO GOVERNMENT TRANSPORT DEPARTMENT, GOVT. OF KARNATAKA



It gives me immense pleasure to learn that *CiSTUP* is bringing out its Third Newsletter. The very fact that *CiSTUP* within a span of 10 months is coming out with its third issue of Newsletter speaks volumes of the activities that is being carried out in the centre.

I am very glad to learn that C*i*STUP has commenced the new M.Tech Course in

Transportation and Infrastructure Engineering. It is also very heartening to know that Bangalore Metropolitan Transport Corporation (BMTC) and the Karnataka State Road Corporation (KSRTC) have sponsored Five candidates for this New course. I am pretty certain that the sponsored candidates will gain rich experience from the Renowned Institution of learning and give back their beast to the parent organizations.

The varied activities that are being carried out at the centre will enlighten the different agencies in Karnataka and also assist us in solving various issues in transportation, infrastructure development and in urban planning. My hearty congratulations to the team at *CISTUP* and the Faculty of Indian Institute of Science that is associated with this centre.

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#### MESSAGE BY CHAIRMAN, PROF. T.G. SITHARAM



The third issue of this Newsletter gives a vivid picture of all the activities that took place in the centre during the period March-August 2010. *CiSTUP* is organizing a conference in the theme areas of the centre during 18<sup>th</sup> to 20<sup>th</sup> October 2010 (details are given in the second page of this Newsletter). A review of the *CiSTUP* research projects (7 Nos.) having a duration of one year was conducted by a Review committee

on  $23^{rd}$  July 2010. The committee was satisfied with the progress made so for. Newsletter also reports the Greening Initiative taken up by C*i*STUP at the Jubliee gardens of IISc on the occasion of  $100^{th}$  IISc batch of Students.

Let me at the outset extend HEARTY WELCOME to the FIRST BATCH OF STUDENTS in the new M.Tech programme in Transportation & Infrastructure Engineering and also the Research Students for Ph.D programme in C/STUP.

Having welcomed the first batch of students to the New M.Tech programme in Transportation & Infrastructure Engineering, I would like to express my sincere thanks to one and all at the Institute who were instrumental in commencing this New course at *CiSTUP*. We had an excellent response for the M.Tech. programme and 12 students (7 from regular and 5 sponsored from BMTC & KSRTC) have joined the centre. Further 5 Research students have joined for the Ph.D programme at *CiSTUP*. I am confident that the centre with the large number of activities throws up innovative solutions to the various problems facing the State and the Nation in the areas of Sustainable Transportation, Infrastructure Development and Urban planning issues. The centre has also developed state-of-art class room with the latest facilities for running the classes.

I hope you enjoy this issue of our newsletter which focuses on activities of centre along with a brief report on how to reduce pressure on Bangalore city.

#### Edited by: Prof. T.G. Sitharam

Published by: Centre for infrastructure, Sustainable Transportation and Urban Planning (C/STUP), Indian Institute of Science, Bangalore-560012

# **Up Coming Event**

Conference on Infrastructure, Sustainable Transportation and Urban Planning (Cistup@Cistup) on  $18^{TH}$  to  $20^{TH}$  Oct2010

**Venue:** J.N. Tata Auditorium, Indian Institute of Science, Bangalore-560012

#### Organized by:

Centre for *i*nfrastructure, Sustainable Transportation, and Urban Planning (C*i*STUP), Indian Institute of Science Bangalore, India

Two Technical sessions are being organized jointly with KSCST.

**Registration Fee** (for both Indian and Foreign Delegates):

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SI.	Category	Registration Fees	
NO	and the state	Till 15th	After 15th
	- Jun Could	Sep. 2010	Sep. 2010
100		(early bird)	
1	Academic,	2500 Rs.	3000 Rs.
225	Field, and	a a t	
12	R&D		S. 11
	organizations	A A A	
2	Students	900 Rs.	1000 Rs.

Conference registration fee is to be paid by demand draft only, in favor of "CISTUP-2010" payable at Bangalore. The fee includes; course material, working lunch, conference dinner, tea etc. All other expenses will be borne by the participants themselves.

#### **Important Dates:**

Submission of full papers	: August 30, 2010
Acceptance of full papers	: September 15, 2010
Conference dates	: October 18-20, 2010

#### Advertisement:

A Souvenir will be published containing abstracts, conference program, messages, sponsor details, advertisement etc. The tariff for color advertisement is given below:

15 given be	1011.	the state of the s
Inside fro	nt cover:	Inside back cover:
Rs.60000	/-	Rs.60000/-
Full page	: Rs.50000/-	Half page: Rs.25000/-
Back cov	er: 65000/-	Contraction of the second

**Abstracts Received:** Out of 150 abstracts that were received 118 abstracts have been accepted after the review. The list of the accepted abstracts is put in the web page of C/STUP

#### Introduction

This conference is intended to serve as a forum where experts in the field of infrastructure, sustainable transportation and urban planning from India and abroad can get together to discuss the latest developments in their field, identify key issues and challenges, exchange information and learn from each other's experiences and develop an ambitious agenda for future research and Tachnology transfer activities.

Technology transfer activities.

#### Format:

The conference will be held for three days. Parallel Sessions on the themes listed below will take place. There will be one keynote session in the conference, and each technical session will have one invited lecture and one presentation by C/STUP stakeholder or sponsoring organizations. Panel discussion on infrastructure, sustainable transportation and urban planning will be held towards the conclusion of the conference. Also, Specific discussions on the various topics listed are planned on the concluding day of CISTUP@C/STUP 2010.

Theme of Cl	STUP@CISTUP 2010	Sponsorship
	ucture Development able Transport	Gold Sponsorship : Rs.4, 00,000/- (4 delegates free)
- Urban P	lanning	Silver Sponsorship : Rs.2, 00,000/-
- Any Oth	tion of Geoinformatics er Related Topic On	(2 delegates free) Sponsorship : Rs.1, 00,000/-
Above T	hemes	(1 delegate free) The sponsors will also be provided with
		exhibition stall of relative size.

#### Accommodation

A limited number of rooms will be reserved at the IISc guest houses for attendees (on payment basis). The guest house, and the campus at large, provides comfortable accommodation. Also, the list of nearby hotels will be made available on conference website. Visit http://cistup.iisc.ernet.in/conference/homepage.htm

#### **Conference Organizing Committee:**

Chairman: Prof. T.G. Sitharam, chairman, C*i*STUP Vice Chairman: Prof. M.S. Mohan Kumar and Prof.D. Nagesh Kumar, IISc Organizing Secretary: Dr. Ashish Verma, IISc Joint Organizing Secretary: Dr. K.V. Gururaja and Mr. Deepak Baindur

	Members:	
Prof Ananth Ramaswamy,	Prof. J.M. Chandra Kishen,	Prof Muddu Shekhar, lisc
lisc,	lisc	Dr. K.S. Nanjunda Rao, lisc,
Dr. P. Anbazhagan, lisc	Dr. H.N. Chanakya, lisc	Dr. Parameshwar Iyer, lisc,
	Mr.Hemanth Kumar, Kscst,lisc	Mr.Prithviraj, Kscst, lisc,
	Prof. H.S. Jamadagni, lisc	Dr. T.V. Ramachandra, lisc
Mr. A.R. Shiva Kumar	Prof. G.L. Siva Kumar	Prof. B.V. Venkatarama Reddy,
Kscst,lisc	Babu, lisc	lisc

# **Workshops and Lectures**

#### IISC OPEN DAY FESTIVAL AT CISTUP ON 26TH FEBRUARY

#### ONE DAY WORKSHOP ON EXECUTIVE

DEVELOPMENT FOR BMTC EXECUTIVES on 30th march 2010 Programme Coordinators: Prof.K.B.Akilesh & Dr. Anjula Gurtoo

Dept. of Management Studies

This workshop which was meant for BMTC executives had a participation of 34 Managers from BMTC from their different depots/offices. The workshop saw some innovative methods in the form of Games for analyzing and implementing various strategies/plans in an organization.

#### **Chief Guest:**

Sri Syed Zameer Pasha, I.A.S Managing Director, BMTC **Guest of Honor:** Prof. K.R. Yogendra Simha, Chairperson Dept. of Management Studies **Convener:** Prof. T.G. Sitharam, C*i*STUP. **Guest:** Sri S.K. Paramesh, Director (Technical)



## WORLD CAFÉ SOCIAL EXPERIMENT - PUBLIC PARTICIPATION IN THE INFRASTRUCTURE

#### ASPECTS AT IISc on 5th April 2010

Woprkshop Coordinators: Dr. P. Parameshwar Iyer and Dr. N.S.Anuradha Dept. of Management Studies

This social experiment helped the participants to come with many Innovative solutions to the various problems concerned with Waste Management, Traffic & Transport Management, Water Management and other relevant issues within the campus. A total of 53 charts were generated discussing the various issues.



Director, IISc P. Balaram speech

A view of world café experiment

#### LECTURES AND SEMINAR'S

#### 9<sup>th</sup> Apr 2010

Activity-Based Travel Modeling: Overview, Applicability and Potential Implementation In Indian Urban Areas By Prof. R. Chandra Bhat, Transportation engineering, The University of Texas at Austin

#### 24<sup>th</sup> Feb 2010

Making Of A Janmarg - First Full Brts In India By Prof. H.M. Shivanand Swamy, Prof and Associate Director, Centre for Environmental Planning and Technology (CEPT), AHMEDABAD

#### 23<sup>rd</sup> Apr 2010

Measures for Enhancing Road Safety on Non-Urban Roads

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By Dr. S. Gangopadhyay, Director, Central Road Research Institute, New Delhi

#### 30<sup>th</sup> Apr 2010

**Frogs In The City: What Do They Indicate?** By Dr. K.V. Gururaja, Research Scientist, C*i*STUP

#### 30<sup>th</sup> Apr 2010

Infectious Diseases and Malformations in Frogs: Are We Too Follow?

By Dr. H.P. Gurushankara, Postdoctoral Fellow Department of Bioscience, University of Mysore, PG Centre, Hemagangotri, Hassan.

#### 23<sup>rd</sup> Jul 2010

An Integrated Framework For Analysis Of Water Supply In A Developing World City By Dr. Veena Srinivasan Environmental Earth System Science Department, Stanford University,

# Workshops

## WORKSHOP ON "TRANSPORT NETWORK FOR INDIA VISION 2020"

on 22<sup>nd</sup> April 2010 **Conveners:** Prof. T.G. Sitharam and Dr. Kota Harinarayan

Co-ordinator: Deepak Baindur

#### Objectives:

- To review the infrastructure and service markets of road, rail, air and waterway transport modes in the Indian context;
- Undertaken an integrated, system approach to multimodal transport network that includes land, sea and air transport throughout India;
- To identify the key issues and challenges within and between the transport modes in India;
- To identify critical areas of research for realizing a comprehensive multimodal transport

#### List of Presentations:

Indian Air Transport	:	Prof. Kota Harinarayana, NAL
Indian Rail Transport	:	Mr. Ravi Babu, RITES
Indian Road Transport	:	Prof. M.N. Sreehari, Member ABIDe
Indian Intermodal Transport	:	Dr. Ashish Verma, C <i>i</i> STUP
Indian Waterways	:	Mr. Deepak Baindur, C <i>i</i> STUP



## WATER AND A CITY - A DOCUMENTARY FILM ABOUT BANGALORE'S

RELATIONSHIP WITH WATER on 22<sup>nd</sup> April 2010 Directed by: Swati Dandekar, Duration: 52 minutes





**Synopsis:** With growing urbanization across India, many towns and cities are crying for more water. How much of the perceived shortage of water is due to a lack of resources, and how much due to lack of awareness and poor management? Located in Bangalore, India's IT capital, the film traces the journey of water into and out of urban homes. Along this journey, it looks at access to water for the poor, the politics of water pricing, urban India's continuous exploitation of natural resources, and explores possible alternatives for a sustainable water future.

# **Activities at the Centre**

## ACADEMIC INITIATIVES

**New M.Tech programme:** New M.Tech programme in Transportation & Infrastructure Engineering is commencing in the Institute from this Academic year 2010, The total number of applications received for this new course was 308 out of which only 107 candidates were shortlisted for the written test. From this only 50 candidates were called for interview. From among this 50 only Nine (9) candidates were selected from the general category.

Total number of applications received from the sponsored candidates (from the Stakeholders of C*i*STUP i.e. KSRTC, BMTC) was 13 out of which five (5) candidates were selected.

**Research Admissions:** Institute has offered Research Programme in the Transportation & Infrastructure Engineering Stream through the Civil Engineering Department to C*i*STUP. Those candidates who opted for this particular subject were interviewed at the centre and Six candidates were selected for Research Admissions in the centre.

**The Post Doctoral Research Fellowships:** The Post Doctoral Research Fellowships programme is initiated at the centre to encourage talented young researchers to interact with the centre's faculty and motivate them to pursue a research career. Selected fellows get the opportunity to participate in the centre's research and publications. This fellowship is aimed at candidates who have completed their PhD in the past six years and also have professional and/or research experience.

Out of 5 applications received, the interview committee after conducting the interview of all the candidates, selected two who have joined for the Post Doctoral Fellowship of C*i*STUP

**Summer Young Research Fellowships:** The centre at Indian Institute of Science [IISc] offered Summer Young Research Fellowships for two months to bright undergraduate (Bachelor of Engineering, Bachelor of Science – PCM) and M Sc (Environment Science, Geology, Geography), M Tech/ME students. Students are placed with Research groups at the Centre, Associate Faculty of the centre or with the faculty at Indian Institute of Science. Selected students get the opportunity to participate in the centre's research and publications. The programme is initiated at the Centre to encourage young talented students to interact with the scientists and motivate them to pursue a research career. Out of the 35 applications received the review committee after scrutiny and review shortlisted 10 candidates for the Young Research Fellowship award for this academic year.

## OTHER ACTIVITIES AT THE CENTRE

#### Cateye:

C/STUP has accepted the initiative of the Security Officer of the Institute for sponsoring the installation of Cat Eyes within the campus for upgrading the Institute Road Safety issues-which happens to be one of the Theme areas of the centre. A total of 250 CATEYE's are installed within the Institute Campus.



Our Institute Security Officer Mr. Chandrasekhar said

"Prof T.G.Sitharam Chairman C/STUP was gracious to sponsor fixing of CAT EYE road reflectors to improve the visibility of road edges and traffic Signage at certain stretch of the road. We thank for his initiative and generous support".

#### CiSTUP Library:

C/STUP Library was established in order to provide the information and documentation support to the manpower working in the organization. The library is building a good collection of documents in the domain area of the organization and providing various kinds of library services to the users.

C/STUP Library has established a well automated library system with the help of software e-Granthalaya developed by NIC. The software provides all kinds of features required to automate the in-house activities as well as library services. The library web OPAC is a web based user interface to access the library catalog for searching. The web OPAC also provides the secured way of accessing member specific information from the library.

## **Academic Activities**



**Bicycle library:** It is a unique library section with books, magazines and newsletters on Bicycle and its utility. A few in the list are Bike for Life, Bicycle and Planning for cycling. We intend to maintain a wide variety of Books on cycling issues, and already have more than twenty books on cycling and related issues.



**Services:** Borrow, renewal, reservation, and recall, CAS, Recent additions, SDI, Reprographic service, Referral service, Display of announcement, Recommendations of documents, Internet Bibliographic search systems at the Web site http://10.158.11.21/granth2/welcome.asp and Email facility.

AN INITIATIVE OF GREENING JUBILEE GARDENS – PLANTING OF SAPLINGS TO CELEBRATE THE INTAKE 100TH BATCH OF IISC STUDENTS AND 1ST BATCH OF CISTUP STUDENTS

It is proposed to celebrate the unique event of intake of 100<sup>th</sup> batch of students to IISc academic programme and also the first batch of students to the new programme – M Tech programme at C*i*STUP, planting of tree sapling in IISc campus is envisaged. This is significant that the trees planted would mark the beginning of the saga for

centuries to follow. The freshers (new students) will have the opportunity not only planting but also to nurture them during their stay on campus. IISc has actively taken up planting of saplings on the campus to replenish in the surroundings of new departmental buildings. Similar such programme was implemented on 5<sup>th</sup> June – the World Environment Day and about 600 saplings were planted around Aerospace engineering and Physical sciences buildings. The proposed planting would be taken up at Jubilee Gardens, which has incidentally completed 25 years of existence.

This initiative would be jointly implemented with the participation of Centre for infrastructure, Sustainable Transportation and Urban Planning (C*i*STUP), IISc Nursery, IISc Green Gang and IISc student Council.



Saplings of several indigenous species would be procured for this purpose in order to generate a healthy native population of trees on the campus. Each of the student/Faculty members will be given the opportunity of planting a sapling and each sapling will have identification tag with the ID of the species, date of planting and other details (Name, SR number and the academic programme). This enables the student/Faculty to adopt and nurture a sapling for the period of their stay in IISc campus and also later.

#### News:

**Executive Council & RAAC of C/STUP**—Mr. R.M.N.Sahai who has taken charge as Director General of EMPRI was inducted into the EC of C/STUP in place of Mr. B.Basappa, former Director General of EMPRI who is now transferred as Director Institute of Wood Technology.

**RAAC-** Mr. R.M.N.Sahai was also inducted to the RAAC of C*i*STUP in place of Mr. B.Basappa.

# **Other Activities**

## HERE'S HOW TO BETTER B'LORE: REDUCE PRESSURE ON CITY BY DEVELOPING NEIGHBORING CITIES (Appeared in DNA Newspaper on June 21<sup>st</sup> 2010)

#### - Prof T.G. Sitharam



Bangalore has expanded from 175sq km in 1971 (with about 20 lakh population) to about 800sq km today (of 70 lakh plus population), bringing urban sprawl and dispersal of development. Due to this, motorists have to travel longer distances to meet their daily needs, most being done with personal vehicles.

Bangalore renewal planning strategies must integrate land use and transportation to improve economic and social environments, based on sustainable development for the city that is suffering from haphazard growth. To manage a city's growth, zoning and growth management, along with appropriate use of available land for public infrastructure, is essential. Infrastructure development should be inclusive and quick. Collaborative ways of strategic planning, implementation and monitoring of goals are viable alternatives. Compared to large scale road widening to decongest traffic, it is better to maximize accessibility of an area by practicing inclusive design. Regarding good transport integrated planning, which attempts to place higher densities of jobs or residents near high-volume transportation (like metro, BRTs and circular railway), needs to be done with inter-modal connectivity.

Planning authorities must encourage higher densities with higher floor area ratios to reduce per-capita infrastructure costs. Parking requires small garages near high density areas, and historic, religious or social centres need to be integrated into renewal plans. Successful urban renewal plans, supported by regional planning in neighboring cities like Tumkur, Mysore, Kanakapura and Hassan, will help reduce congestion. Development of tier II cities like Bellary, Belgaum and Hubli-Dharwad, with large-scale, job-creating industries can reduce migration of people to Bangalore.

Environmental conservation, along with development of parks and playgrounds, must be given utmost importance. Water supply must be taken up very seriously through rejuvenation of the Arkavathi catchment, storing more water at TG Halli reservoir, and adopting rainwater harvesting techniques. Restoration of old buildings, roads and basic infrastructure like power, water and sewerage is very essential.

Environmental planners must focus on smaller energy production systems and waste disposal plans. Tax benefits must be provided for green buildings and adopting green technologies. Attempts should be made to reduce noise pollution. Fire, flood, and other emergencies can often be mitigated by identifying secure emergency evacuation routes and building emergency centers.

Planning resources and strategies are needed to address problems of slum development. Urban reconstruction development plans must work with government agencies and private interests to develop workable methods. Democratisations of planning and development processes have played a huge role in allowing the public to make important decisions; these needs to be strengthened. A framework for continuous presence of elected local-level governments for their effective functioning to ensure provision of urban services and infrastructure must be strengthened.

(The writer is the chairman, Centre for *infrastructure*, Sustainable Transportation and Urban Planning (C*i*STUP), Indian Institute of Science)

Welcome Ceremony for the First Batch of M.Tech (Transportation and infrastructure Engineering) AND Research Students of C/STUP



M. Tech Students, Research Students and Associate Faculty

To welcome the First batch of Students in the New M.Tech in Transportation & Infrastructure Engineering and also the Research Students in C/STUP a get together function with High Tea was organized at C/STUP class room on 4th August at 5.00 pm for the entire Fresher's along with the Associate Faculty of C/STUP and the Staff at C/STUP.

Prof. Mujumdar, Chairman of Civil Engineering and Prof. T.G. Sitharam, Chairman of C*i*STUP along with few other Associate faculty of C*i*STUP participated in the welcome ceremony.

## NEWS

Latest Awards Received by Karnataka State Road Transport Corporation (KSRTC) from March 2010 to July 2010, C*i*STUP congratulates KSRTC for getting the following awards.

- KSRTC BAGS "GOLDEN PEACOCK ECO-INNOVATION AWARD-2010"
- KSRTC receives the "CHIEF MINISTER RATHNA AWARD" for the year 2009-10
- KSRTC receives the BEST 'Public Sector bus fleet operator of the year' award





Golden Peacock Award

Rathna Award

### International Award to BMTC

C/STUP congratulates BMTC for getting the UITP-ITF International Award for 2010. UITP is the International Public Transport Association representing over 2700 city local, regional and national transport system in over 90 countries worldwide. This Association is an International forum for liaisoning between professional public transporters and public transport providers. UITP develops policy regarding public transport and encourages communication and debates.UITP is a major propagator and co-ordinator of public transport. On considering the excellent performance in the field of commuter friendly initiatives, IT initiatives and environmental friendly initiatives BMTC was honoured with special award titled "SPECIAL MENTION FOR TRANSPORT OPERATION: WIDE APPLICATION OF INNOVATION" during UITP conference held on 27.03.2010 at Leipzig, Germany.

## C*i*STUP Stall at Karnataka State Council for Science and Technology (KSCST) Exhibition held on 15th to 17th April 2010 at J.N. Tata Auditorium Hall, IISc, Bangalore.





#### **Contact Us:**

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