



## The Urban Unit Delivers Intelligent Transport System and Command & Control Center for MBS

The Urban Unit is proud to have successfully designed, installed and commissioned a world class Command and Control Center and Intelligent Transport System for Lahore Metro Bus Service. The system provides smart traffic control solution for the Metro Bus Service (MBS) along with the normal ground traffic all along 27 km corridor. The MBS corridor has been developed on Ferozpur Road which serves as the main transport corridor for city commuters and has the highest number of passenger car units used for transport. This technology driven and cost effective traffic management solution has been provided with in-house resources and in record time.

ITS is a combination of Information and Communication Technology, Transportation Planning and Traffic Engineering. ITS provides the intelligent link between traveler's vehicles and infrastructure which provides the ability to gather, organize, analyze, use, and share real time information about transportation systems, people's driving behavior and enforcement issues.

The Intelligent Transport System installed by the Urban Unit is one of the world best adaptive traffic management system i.e. Sydney Coordinated Adaptive Traffic System (SCATS) which can retain traffic counts of multiple days and utilizes that historical data to implement signal cycle plans. Almost 100% efficiency has been achieved in terms of Signal Priority for buses. Indeed, it clearly earmarks the effort of the Urban Unit to transform the uncontrolled and reckless driving behavior observed in Lahore city into disciplined one.



The Command and Control Center at Arfa Karim Technology Park

ITS is complimented with Signal Priority which refers to phenomenon that Metro bus will be given priority in green signaling at each intersection every time; thus, reducing bus journey time and making it more efficient. The success of MBS system mainly depends on ITS and Signal Priority as provided by the Urban Unit for Lahore MBS. Similarly, the IP phones and Public Address System have ensured 100% accuracy in terms of bus scheduling. People can plan their journey and save time to get socio-economic benefits. This was never possible before.

The strength and capacity of the system has been well proven during the commissioning when various incidents were live monitored and remedial measures were taken at sight to ensure life security and convenience to public.

Keeping in view of the scale and importance of the project, it can truly be referred to as a milestone in the **Journey to Self-Reliance**.

### Testimonial of the Month

Board of Revenue is implementing Punjab Lands Records Management and Information Systems Project (PLRMIS) with the financial assistance of the World Bank. Spatial Data Pilot Project is an important component of PLRMIS which is being executed by the Urban Unit. In a recent report of the World Bank Implementation Support Mission, the Urban Unit's role was highly appreciated in the following words:

“The depth and professional level of the GIS pilot efforts demonstrated by the Urban Unit have been found to be matching the world's best practices. An especially valuable outcome of the pilot is building a mobile scanning capacity that will allow available musawee (local maps) of all districts to be scanned and geo referenced by the end of the year. Pilot linkage of the digitized musawee with Land Records Management and Information System (LRMIS) for Lodhran Tehsil and exposing data over the web is a proven demonstration of high professional capacity of the Urban Unit.”

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## The Urban Unit Set New Standards in Project Management

The Urban Unit managed the project right from the design and planning phase to the procurement, installation, completion and commissioning in professional manner.



MBS signal priority system

The major tasks completed include:

1. Provision of Intersection ITS Layout Plans including Signalization and Communication drawings for eighteen (18) intersections on the Ferozpur Road. The intersections were reduced from 18 to 8 by constructing an 8.5 km bridge. However, complete drawings of 18 intersections were provided by the Urban Unit.
2. Provision of Intelligent Transport System and Signal Priority for MBS on Ferozpur Road Corridor from Gajju Matta to Shahdara at eight (8) intersections
3. Establishment of the Command and Control Center with video based Surveillance System through installation of the CCTV Surveillance Network at 27 MBS at-grade and grade separated stations. The Unit provided complete video surveillance system lay out drawings for all 54 platforms, pedestrian areas and intersections. The unit has successfully installed and commissioned two video walls, the largest in South East Asia region, capturing the live streams from 338 cameras installed all along the MBS corridor.
4. Provision of (IP) Telephony for incessant liaison between all the stations and Command and Control Centre.
5. Establishment of One Month Data Management and Retrieving System for sustainable operations of the Metro Bus Service and subsidy allocation.
6. Provision of Public Address System on Metro Bus System (MBS) stations comprising of 202 Speakers and amplifiers for information provision to commuters regarding availability of next bus, station etc.
7. The Urban Unit team has ensured that each system meets the requirements of the future. The installed ITS can be expanded throughout the city. 250 more

intersections can be added in the installed SCATS system. More than 1,000 cameras can be added to the system and displayed accordingly. The storage capacity can also be enhanced as per need.

The Urban Unit secured the cooperation of City Traffic Police and other departments especially Lahore Development Authority (LDA), Traffic Engineering & Planning Authority (TEPA), Punjab Information Technology Board (PITB), Punjab Metrobus Authority (PMA) and National Engineering Services Pakistan (NESPAK) to complete the first ever Intelligent Transport System in the country. The project was completed with maximum level of efficiency and transparency and in minimum time. The project involved heavy procurements which were made in the most transparent manner. Compliance of all the applicable regulations was ensured which is a hallmark of the Urban Unit's normal working ethics and procedures.

The result was a system which is first of its kind in the country providing 24/7, 365 days of a year surveillance of the Metro bus corridor and helping in the general traffic management.

## The Urban Unit becomes the Repository of Technical Expertise on ITS

The dedicated team comprised Mr. Abdul Razzaq (Project Lead), Dr. Murtaza Bukhari (Transport Specialist), Mr. Abdul Rauf (IT Specialist), Mr. Muhammad Kashif (Finance Specialist) and other members who worked day in and day out to make this project a reality. ITS experts i.e. Mr. Ali Asgher and Mr. Zulfiqar Ahmed were also involved. The Urban Unit team has gained a lot of practical experience and technical expertise during the exercise which may be employed for MBS projects in other cities of the country and abroad. The enhanced capacity and confidence of the Urban Unit will definitely result in design and implementation of similar complex projects in different areas of governance.

The exemplary project management skills and expertise employed by the Urban Unit team was highly appreciated at the apex level in the province. The Punjab Government announced a cash prize of One Million for the UU team along with certificates.

### Spotlight

The ITS project owes greatly to the highly dedicated efforts of the UAE based Pakistani experts on ITS, viz. Mr. Ali Asghar and Mr. Zulfiqar Ahmed. The Urban Unit team presented souvenirs and certificates of appreciation in a special ceremony held on April 26. Dr. Nasir Javed appreciated that Mr. Ali Asghar and Mr. Zulfiqar made shuttle journeys from UAE to Lahore to complete this project and shared their expertise with generosity and in a spirit of high patriotism.

## MoU Signed to Establish R & D Unit for Sustainable Urban Transport

In year 2011, GOP and UNDP have entered into an agreement for a project titled “Pakistan Sustainable Transport” (PAKSTRAN) with the purpose of reducing the growth of energy consumption and related greenhouse gas emission from transport sector in Pakistan. To implement Punjab Component, UNDP has established CIU-Punjab, which is housed in the Urban Unit and provided with funding to support activities related to BRT Planning, designing, institutional strengthening and capacity development initiatives.

The Component Implementation Unit (CIU)-Punjab and UET Lahore have signed an MOU on 23<sup>rd</sup> of April, 2013 to establish a R&D unit at UET Lahore. The R&D Unit at UET will conduct research on sustainable transport system in Pakistan. This is the first kind of R & D unit in Pakistan where the transport related research will be carried out.

6. A technical support centre helping the cities in carrying out applied research and providing evidence based solutions in a rapidly urbanizing environment.

The R&D Cell will receive funding from PAKSTRAN during 4 years of project life. For long term sustainability of R&D Cell and oversight, a steering committee has also been formulated consisting of:

1. CEO Urban Unit/ Component Project Director, CIU-Punjab;
2. Chairman, DTEM, UET, Lahore;
3. Project Director, Transport Planning Unit, Transport Department, Government of Punjab.

## The Urban Units Conducts Project Management Workshop at CIMLA

In order to improve the project management skills of officers of the Military Lands and Cantonment (MLC) group, the Urban Unit conducted a three day workshop in collaboration with the Cantonment Institute of Management and Land Administration (CIMLA) from the 25<sup>th</sup> to 27<sup>th</sup> of March at the CIMLA premises.

The workshop consisted of lectures and activities which were conducted by Brig. Najam Saqib from CIMLA and the Urban Unit team led by Ms. Nadia Qureshi. Simulative



The CEO Urban Unit and Vice Chancellor UET after the signing of MoU

The objective of R&D unit at DTEM is to act as a resource facility in the service of the Punjab Government and the profession by:

1. Enhancing R&D capacity and improving the technical abilities of DTEM faculty and transport professionals associated with the UET;
2. Carrying out research and development work in transport sector for developing MBS and other rapid transit mode projects in Punjab;
3. Developing data bases and reference materials to augment academics;
4. Offering capacity development and training programs for professionals.
5. Providing continuing education opportunities as well as consultancy services especially focusing on developing MBS projects in Punjab and other provinces of Pakistan.



The participants during the CIMLA workshop

exercises enabled the participating MEOs and CEOs to engage with real life situations and present detailed project management plans based on their experiences and learning from the workshop. The participants learned that effective project management was necessary for the successful planning, implementation and completion of any project. Project managers must adopt a disciplined project management approach using key project management methods, tools, and documents to guide their progress.



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In order to successfully manage military Lands and for the effectual functioning of the Cantonment Boards, it is important that officers of the Military Lands and Cantonment Group are able to manage and oversee large scale projects.

## Certificate and Stipend Distribution for Urban Internship Program



The interns receiving the certificates

The stipend and certificates were distributed among 242 interns belonging to Faisalabad district on 12<sup>th</sup> of April. The interns had completed their Internship during the summer last year at WASA office and Nusrat Fateh Ali Khan Auditorium in Faisalabad. The Urban Unit team members, Mr. Umair Saeed and Mr. Iqtadar Khan and GCU Faisalabad faculty member, Ms. Irum Sultana conducted the event. The interns showed their great enthusiasm during the ceremony and called the internship experience very much rewarding for their future careers.



The jubilations at the end of the ceremony

### Call for Papers

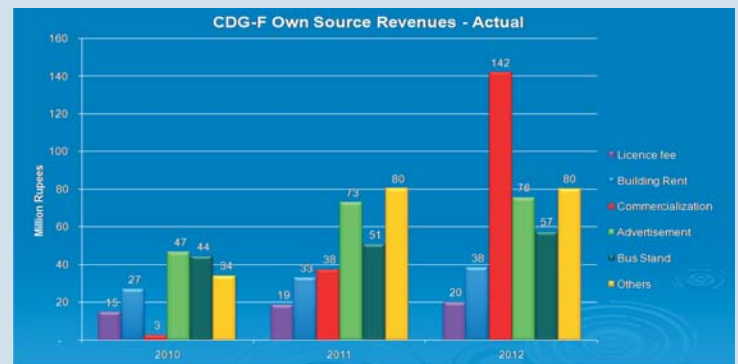
**Pakistan Journal of Urban Affairs**, Urban Unit's quarterly research journal, welcomes submission of papers from scholars, practitioners, researchers and public sector professionals. For more details: <http://www.pjua.gop.pk/>

## Best Practice Series

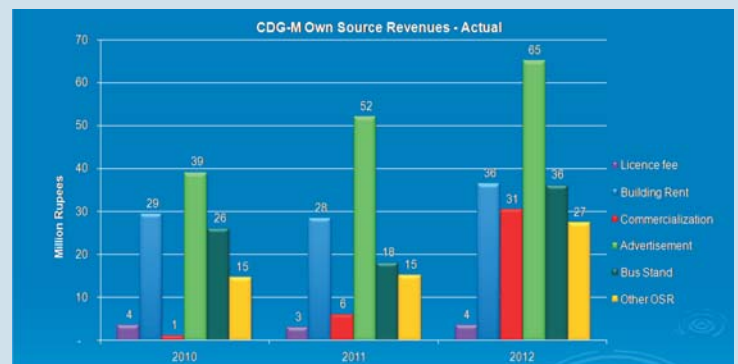
### Quantum Leap of Own Source Revenue in Faisalabad and Multan

Own Source Revenues (OSR) of Faisalabad and Multan City District Governments (CDG) demonstrates that a dedicated team leader and his team can bring about a quantum jump in municipal OSR in a very short time.

In **CDG Faisalabad**, actual collection of OSR increased by 244% in 2012 compared to 2010. This is because, a survey was conducted in 2012 to impose fee on illegal billboards. Similarly in 2012, recovery of Fee for Reclassification of Land Use was more than three times the budgeted amount. This was also made possible after conducting of a survey of illegal land use and subsequent demolition of unauthorized buildings. Billboards were surveyed and those blocking view, illegal, dangerous or of irregular size, were removed.



In **CDG Multan**, almost similar activities were planned and an ambitious OSR target of Rs. 264 million was set for 2013 out of which Rs. 290 million has already been collected till March.



The process used for survey, assessment, billing, collection and recovery of different heads of OSR was the same and so was the Team Leader, Mr. Nasim Sadiq who was DCO Faisalabad and then became DCO Multan in September 2012.

