TERI SCHOOL OF ADVANCED STUDIES

PLACEMENT BROCHURE

M Tech (Urban Development and Management) 2018

teri school of advanced studies

Knowledge for Sustainable Development

Deemed to be University under Section 3 of the UGC Act,1956
Accredited with grade 'A' by NAAC

Contents

From the desk of Vice-Chancellor

TERI SAS can proudly say that its alumni are today part of the workforce of several forward-looking, sustainability-oriented corporates, agencies, consultancies, NGOs and even governments at all levels. The University is at the forefront of responding to global concerns on environment and sustainable development through knowledge creation and the development of a workforce that is empowered to guide sustainable economic growth and human well-being.

Building institutional and individual collaborations with like-minded Programmes/ Universities , our faculty ensure that the knowledge we create/imbibe through state-of-the-art research in these areas keeps our learning curriculum cutting-edge, inter-disciplinary and solutions oriented. This curriculum also benefits from a continuous feedback from academic peers at the national and global levels, from the employers of our students and from the students themselves—resulting in refined content and pedagogy on a periodic basis. The presence of international students and interactions with global experts ensures that a student of the TERI SAS is also comfortable in a multicultural setting.

With clearly identifiable areas of domain expertise, our students have the advantage of a systemic appreciation of problem solving needs through engagement with research projects, industry exposure and field visits. We are sure that our students will bring great value to your workforce and you will, while deploying them productively in your organization, give them the opportunity to hone their skills further for the greater global good. We would, of course, at all times value any feedback that you would like to offer us.

Dr Leena Srivastava
Vice-Chancellor
TERI SAS

From the desk of Pro-Vice Chancellor

Academic programmes at the TERI SAS are focused around the challenges of providing for a rising global population with a limited and degraded natural resource base. In moving towards sustainability, the implicit understanding is that there is no panacea or straight road, with recognized and established methodologies, tools or specializations leading to such development. The solutions therefore do not lie in a specific subject discipline, but must be appropriate and relevant to the context or the practical problem being addressed. Developing such an understanding among its students is best achieved through exposure to a variety of subjects, tools, and methodologies offered in interdisciplinary mode. This has been the guiding philosophy behind the programmes offered by the TERI SAS and is practised by building a theoretical understanding in courses covering a variety of traditional disciplines, such as ecology, natural and social sciences, governance, policy, law, and engineering.

At the TERI SAS, students are exposed to a new way of thinking that looks at problems not from the lens of a subject specialist, but from the perspective of one who recognizes the complex linkages between man and his environment.

The TERI SAS's programmes are unique, not only in terms of the degrees, but in terms of the fact that they equip the graduates to lead in a resource-sensitive world. The programmes leverage TERI's knowledge capital in sustainable development to deepen the social and ethical consciousness of higher education in India.

We are sure that you will find graduates of these programmes to be competent leaders with a holistic and long-term perspective for a world that demands new skills and attitude.

Your feedback will be most valuable to us, and we look forward to it.

Dr Rajiv Seth
Pro-Vice Chancellor
TERI SAS

ABOUT TERI School of Advanced Studies

The TERI SAS was established to disseminate the vast reservoir of knowledge devised by The Energy and Resources Institute (TERI), a not-for-profit, independent research institute recognized globally for its contribution to scientific and policy research in the realms of energy, environment, and sustainable development. TERI SAS's academic offering is rooted in the comprehensive research, consultancy, and outreach activities of TERI.

In 1999, the University was granted the "Deemed to be University" status by the University Grants Commission (UGC) and notified vide the Ministry of Human Resources Development, Department of Education, Government of India, notification no. F.9/19/95-U-3, dated October 5, 1999. Since its inception, the TERI SAS has offered not just world-class education, but also an environment that enables its students to develop fresh perspective in their subject areas. Before moving to Vasant Kunj, the University was housed in the Darbari Seth Block of India Habitat Centre from 1998 to 2008. In 2008, TERI SAS started functioning from its new 'green campus', located in Vasant Kunj. The University aspires to be an institution of advanced learning which meets the needs of a rapidly growing nation. The academic programmes are envisioned to provide the students with a holistic perspective of the subjects offered and encourage interdisciplinary learning.

Administration

The TERI SAS's Board of Management is responsible for its overall administration and control. All aspects of academic policy are under the purview of the Academic Council, chaired by the Vice Chancellor, which approves curricula, courses, and examination results. Furthermore, it appoints committees to look into specific academic matters arising from time to time.

Structure

TERI SAS has structured its academic programmes around the research experience and skill sets gained by TERI over the past three decades. Since its inception, the wide array of academic programmes offered by the University have been related to sustainable development and structured around four thematic areas—Biotechnology, Regulatory and Policy aspects, Energy and Environment, and Natural Resources. The University is a first-of-its-kind university in India to dedicate itself to the study of environment, energy, and natural sciences for sustainable development.

Department of Natural Resources

Aims to advance and impart knowledge about the environment and natural resources, including their characteristics and dynamics, their economic and societal value, and their management.

Department of Energy and Environment

Aims to advance and impart knowledge in aspects related to clean technologies, renewable energy management, and especially the interface between energy and the environment. Engaged in research in the broad area of clean technologies to achieve energy efficiency and minimize adverse environmental impacts.

Department of Biotechnology

Aims to advance and impart knowledge in the field of life sciences, emphasizing research and the interaction of science with society.

Coca-Cola Department of Regional Water Studies

Aims to advance knowledge and build core competencies among students, researchers, policymakers, and professionals in order to equip them to tackle the interwoven challenges of water sustainability, beyond cultural boundaries and across sectoral divisions.

Department of Business and Sustainability

Aims to provide research-based education that would equip students to implement an integrated approach to business sustainability.

Department of Policy Studies

Aims to achieve a critical mass of expertise and academic excellence that would provide a basis for influencing public policy and regulatory practice.

Centre for Post Graduate Legal Studies

Aims to be an interdisciplinary centre of excellence dedicated to legal research and teaching on issues pertaining to society and development.

Besides a set of core faculty members, the University also draws about 30 PhD qualified research professionals of TERI as adjunct faculty for its programmes. They have rich experience of working on projects related to regulatory studies, policy research, bioresources, biotechnology, energy, and environment.

ACADEMIC PROGRAMMES

At present, the following programmes are offered:

- PhD
- MSc (Environmental Studies and Resource Management)
- MSc (Geoinformatics)
- MSc (Climate Science and Policy)
- MSc (Plant Biotechnology)
- MSc (Economics)
- MSc (Water Science and Governance)
- MA (Public Policy and Sustainable Development)
- MA (Sustainable Development Practice)
- MBA (Infrastructure)
- MBA (Business Sustainability)
- MTech (Renewable Energy Engineering and Management)
- MTech (Urban Development and Management)
- MTech (Water Science and Governance)
- LLM (specialisation in Environment and Natural Resources Law and Infrastructure and Business Law)
- Diploma in Water Science and Governance
- Diploma in Renewable Energy (distance education mode)
- Advanced PG Diploma in Renewable Energy (distance education mode)

The academic programmes offered by the TERI SAS focus on the challenges of providing for the rising global population with a limited and degraded natural resource base. In moving towards sustainability, there is no panacea, or straight road with recognized and established methodologies, tools or specializations. The solutions, therefore, do not lie in a specific subject discipline but must be appropriate and relevant to the context or the practical problem being addressed. Developing such an understanding among the students is best achieved through exposure to a variety of subjects, tools, and methodologies in the interdisciplinary mode. This has been the guiding philosophy of TERI SAS's programmes and is practised by building a theoretical understanding of courses covering a variety of traditional disciplines such as ecology, the natural and social sciences, governance, policy, law, and engineering. Over the duration of their study, students converge upon a few areas based upon their interest, having been exposed to a new way of thinking that looks at problems not from the lens of a subject specialist, but from the perspective of one who recognizes the complex linkages between man and the environment.

The TERI SAS uses modern pedagogical tools, richly supplemented by field visits, live industry projects, and hands-on applications. It provides the best equipment and instruments, which includes state-of-the art computer hardware and software, well-equipped laboratories, video-conferencing facilities, and access to South Asia's most comprehensive library on energy and environment. TERI SAS was awarded the India Today award for the most innovative curriculum. It has also received grade "A" accreditation by National Assessment and Accreditation Council (NAAC).

Collaborations

Stressing the importance of the international perspective in its programmes, TERI SAS has entered into Memorandums of Understanding (MoUs) with several international universities aimed at facilitating a mutually beneficial exchange of students, faculty, knowledge, resources, and ideas.

The University encourages the exchange of ideas, cultural understanding, and a wide range of knowledge that would result from international exposure. In 2007, the University launched an academic exchange programme with Yale University (School of Forestry and Environmental Studies) with support from the V K Rasmussen Foundation. In 2008, the University launched another academic exchange programme with Freie University of Berlin, Germany, with support from DAAD (the German Academic Exchange Service).

TERI SAS has also signed MoUs for academic collaborations with North Carolina State University, University of Eastern Finland, Tor Vergata Economic Foundation (Rome, Italy), Utrecht University (Utrecht, The Netherlands), Carletin University (Canada), Simon Fraser University (Canada), Deakin University (Australia), University of Technology (Sydney).

ACADEMIC CHAIRS AT THE UNIVERSITY

Indian Railways Chair for Sustainable Mobility

The Ministry of Railways, Government of India has set up an Academic Chair on Sustainable Mobility at TERI SAS which serves to bring the most competent academicians/professors from the field of rail infrastructure to lend strength to the ongoing research activities at the University. The Chair involves itself in the issues of rail infrastructure and greening of the railways.

UNESCO Chair

TERI SAS has been granted a UNESCO Chair in Climate Science and Policy. This is a prestigious award and is given to very few universities across the world. The TERI SAS has already tied up with various global universities for being partners in the UNESCO Chair. This includes the Scripps Institute of Oceanography, La Jolla, California, and the Yale Climate and Energy Institute at the Yale University, USA. The Chair serves as a means of facilitating collaboration between high level, internationally recognized researchers and teaching staff of the University and other institutions, particularly in India and other countries in Asia and the Pacific, as well as in Europe and North America.

HUDCO Chair

HUDCO has established an Academic Chair at the TERI SAS with the objective to accelerate research and development, training, and capacity-building in the habitat sector, facilitate capacity-building of urban local bodies, and promote research in the field of urban development and related areas.

INFRASTRUCTURE

Green Campus

TERI SAS has a 'green' campus. It puts into practice the very principles taught in its classrooms. An architectural delight, the campus has been planned to provide a setting that enhances learning, while simultaneously showcasing the concept of modern green buildings. Spread over two acres, the campus comprises an administrative block, an office block, a convergence and hostel block. The green building has 10 classrooms, each having a capacity for seating 32 students, three lecture halls with a capacity for 60, and an auditorium with a capacity for 100 to 150 persons. The building also has 10 well-equipped laboratories to complement cutting-edge research at the TERI SAS. The campus is aesthetically designed with several features of passive energy-saving design, energy-efficiency, and water and waste management systems.

Green Features

- Insulation of external walls
- Insulation on terrace done with vermiculite and puff insulation topped with China mosaic for efficient heat reflection
- Double insulation synergy azure glass is used in external façade with aluminum glazing
- Earth Air Tunnel (EAT), Thermal Mass Storage, and Variable Refrigerant Volume (VRV) systems are used for cooling the building
- Hunter Douglas louvers are used in the building for controlling the intensity of incoming sun rays
- Solar water heating system
- Waste water recycling with STP
- Rainwater harvesting

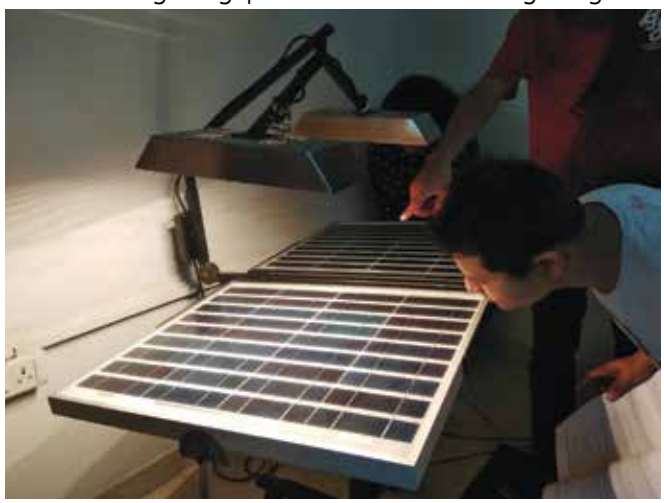
TERI SAS Laboratories

TERI SAS harnesses the best of modern technologies to support and encourage the intellectual curiosity of its students and faculty. It also has laboratories with advanced equipment and facilities to aid and stimulate research.

Solar Lighting Laboratory

TERI SAS has established a Solar Lighting Laboratory (SLL) which is a first-of-its-kind laboratory in India and achieved the NABL's accreditation (National Accreditation Board for Laboratories) as per IEC 62257-9-5 ed. 2.0. The laboratory adheres International Electrotechnical Commission (IEC), an international body that sets standards for all electrical, electronic and related technologies throughout the world standards for the testing of Solar Lighting Systems (SLS) and also recognized under the Lighting Global programme of International Finance Corporation (IFC). The laboratory is also supported by the Ministry of New and Renewable Energy (MNRE) and has sophisticated equipment and test setup that is used for testing lighting products.

The laboratory's facility is available for testing as per IEC and MNRE specifications for various lighting systems (both solar-based lighting and general lighting). The laboratory has also carried out various training programmes for different target groups. So far, SLL has tested more than 200 models of solar lighting systems including solar lanterns, solar home lighting systems, solar task lights, and multi-purpose solar lights. The ability of the laboratory to cater to the testing needs of both rural as well as urban lighting infrastructure makes it stand out from other laboratories. The laboratory is working towards strong quality assurance and testing programmes which will help in building consumer confidence towards the solar lighting products. The IFC's Lighting Asia–India programme is working with the University to achieve these goals.



As a way forward for the development and expansion of this laboratory, it is further planned to be linked with several other groups or programmes that require general lighting system (GLS) testing. The supreme testing equipment and authority for high quality assurance can lead to the transformation of the laboratory into a nodal agency for general (solar) lighting system testing not only for India, but entire Southeast Asia.

Environmental Monitoring Laboratory

The Environmental Monitoring laboratory (EML) is capable of providing practical training to the students through structured laboratory curriculum, including all kinds of relevant soil, water, and air monitoring experiments required at the master's level. It caters to the interdisciplinary application in research to all the students of the University.

The EML is state of art laboratory equipped with instruments such as UV-Visible Spectrophotometer, GRIMM Aerosol Spectrophotometer, Respirable Dust Sampler, High Volume Sampler, Gaseous Monitoring Kit, Handy Low Volume Air Samplers, Stack Monitoring Kit, PH Meter, Muffle Furnace Ion Selective Electrode, Turbidity Meter, Conductivity Meter, Jar Test Assembly, COD Digester (Reflux), BOD Testing Apparatus, Sensitive Balance, Bomb Calorimeter, Kjeldahl Unit, Microscope (Primostar Halogen), Muffle , TSI Optical Sizer, Potable As Analyzer, Q Track–Indoor Air Quality Monitors And Q Track– Velocicalc.

Combustion Laboratory

The Combustion laboratory has been established to test the performance of cookstoves based on energy efficiency as well as emissions using nationally and internationally accepted protocols such as Water Boiling Test (WBT), Controlled Cooking Test (CCT), and the Indian Standard on Solid Biomass Chulha Specification (BIS India). The hood method is used to capture and quantify the various products of incomplete combustion. The following instruments and support facilities are available in the lab: Moisture Meter, Bomb Calorimeter, Equipment to maintain isokinetic conditions, Aerosol Spectrometer And Dust Monitor, Low Flow Air Samplers (attached with SKC pump) for collection of bulk aerosols for characterization, Potable Gas Analyzer Digital Infrared Thermometer

Geoinformatics Laboratory

The Geoinformatics Laboratory at the TERI SAS is well equipped with state-of-the-art equipment such as high-end computers (workstations), scanner, digitizer, printer, navigation devices, Infra-red thermometers and others. It has licensed version of high-end latest commercial software like ERDAS Imagine, LPS, ArcGIS, GMS, and WEAP along with other advanced support system's mechanism. The laboratory is also equipped with web publishing tools like ArcGIS Advance and ArcIMS Servers. The laboratory is also equipped with various open source geospatial softwares, to expose our students to the powerful open source environment.

The laboratory also holds a good repository of geospatial information in both digital and hard formats.

The Geoinformatics laboratory of the Natural Resources Department of TERI SAS also operates through a network with several research institutions working in the arena of Geoinformatics and other associated fields both within and outside the country. We also support research and development activities of the country wide network of The Energy Resources Institute (TERI) branches located across the country.

Biotechnology Laboratory

Biotechnology laboratory is fortified with fundamental and advance facilities required for radical teaching and research applications in plant biotechnology. The laboratory is furnished with autoclave for sterilization, Biosafety Cabinet, Centrifuges, Conductivity Meter, Deep Freezers, Digital PH Meter, Gas Chromatography, Gel Documentation System, Ice Flaking Machine, Magnetic Stirrer, Microscopy Facilities, Nano-Drop Spectrophotometer, Refrigerated Shaking Incubator, Plant Growth Room, Vortex Shaker with Touch Plate, Water Bath for Incubations, Laminar Air Flow,

Master Cycler among other basic infrastructure. Additionally, the Bioinformatics laboratory with work station dedicated computer systems facilitated with advanced software, such as MATLAB, GCK, PAUP, and MacVector exists for 'in- silico' applications. Further, the plant biotechnology course is augmented by the support from research laboratories involved in research activities led by the faculty members in the areas of Genomics and Plant Development Biology, Nanobiotechnology, Bioinformatics, Microbial genetics and pathogenesis, Stress Physiology and Structural Biology.

Power System Laboratory

The Power System Laboratory gives a comprehensive idea about the practical aspects of power system infrastructure. The generated electrical power is transmitted through transmission lines and used mostly in rotating machines. The state-of-the-art laboratory infrastructure is equipped with the experimental facilities for providing training on transmission lines, DC machines, induction motors, synchronous machines, and transformers. The laboratory gives the opportunity for experimental verification of performance characteristics of the power system equipments along with exposure of modern day technologies for solving modern day power system problems. The experiments are designed keeping in mind the multidisciplinary approach of the students coming from different engineering and science backgrounds.

Heat Transfer Laboratory

The Heat Transfer Laboratory is designed to incorporate the practical concepts of heat and mass transfer applied to renewable energy systems and energy conservation techniques. The experiments are designed to give comprehensive knowledge of heat transfer through conduction, natural convection, forced convection and radiation. The lab is fully equipped with experiments on heat exchanger. It also provides knowledge of boiling and condensation processes. The lab explores the basics of mechanical engineering and is designed such that the students are able to acquire interdisciplinary knowledge in an easy way.

Energy Simulation Laboratory

Energy Simulation Lab enhances the soft computing skills of the students and enables them for modelling and simulation of energy systems. The laboratory experiments are designed to experimentally verify what they have learnt in the previous laboratories through software applications. The experiments are carried out using renewable energy simulation softwares viz. PVsyst for Solar PV, WAsP for wind, RET Screen for renewable energy project management, HOMER for microgrid applications. MATLAB is also discussed to be used for power flow solutions especially in renewable energy sector

Biofuel and Waste Utilization Laboratory

The Biofuel and Waste Utilization Laboratories are distributed between the TERI SAS and TERI Gram at Gual Pahari, Gurgaon. Combustion process and fuel properties such as proximity analysis, COD, etc., are studied at the lab in TERI SAS, while experimental studies on biomass conversion processes such as gasification, biomethanation, and pyrolysis are carried out on facilities at TERI Gram.

TERI SAS Library

The TERI SAS library supports the university's academic and research programmes by meeting the information requirements of students, researchers, and faculty members. Electronic and print resources are available in Natural Resources, Environment, Sustainable Development, Plant Biotechnology, Geoinformatics, Renewable Energy, Infrastructure, Regulations, Public Policy, and related areas.

The Digital Library provides access to electronic books, journals, databases, PhD theses, CDs, links to resources, news, and information alerts about the library. The online bibliography database of the university library can be accessed to search any particular title using the author's name, keyword or title itself. The faculty and students can retrieve online information from the dedicated terminals situated in the library. Network resource sharing facilities are provided through DELNET and interlibrary loan services from the libraries of other universities and institution, such as American Information Centre, Delhi University, Indian Institute of Technology (IIT), Jawaharlal Nehru University (JNU), and more.

Electronic Resources: Theses/ Dissertations (Submitted by the TERI SAS Students), E-journals and Databases: JSTOR/SCIENCE DIRECT /SPRINGER/OPEN ACCESS JOURNALS, E- Books, E-Government Documents and Reference Collection, In-house publications (Newsletters and Journals), Electronic articles and journal content-page alert services are available along with access to holdings of national and international university libraries.

BOARD OF MANAGEMENT

Chairman

Dr Leena Srivastava
Vice-Chancellor, TERI SAS

Members

Dr Rajiv Seth
Pro Vice-Chancellor, TERI SAS

Deans

Dr Prateek Sharma
Dean (Academic), TERI SAS

Dr Arun Kansal
Dean (Research and Relationships), TERI SAS

Three Eminent Academicians Nominated by the Chancellor

Dr Dipankar Gupta
Former Professor in the Centre for the Study of Social Systems, JNU

Dr Ashok Gulati
Infosys Chair Professor for Agriculture, ICRIER

Dr Ashok Khosla
Chairman, Development Alternatives

Nominee of the Government of India

Air Marshal K K Nohwar (Retd)

Nominee of Sponsoring Society

Mr Inder Walia
Former Group Director (HR), Bharti Enterprises

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Chairman and Managing Director, Suzlon Energy Limited

Ms Anita Arjandas
MD and CEO, Mahindra Lifespace Developers Ltd.

Mr Ishteyaque Amjad
Vice President (Corporate Affairs),Coca Cola India Pvt. Ltd.

Dr Alok Adholeya
Honorary Advisor, Sustainable Agriculture Division, TERI (Co. Opted)

Two Teachers (from Professor and Associate Professor)

Dr Smriti Das
Associate Professor, Department of Policy Studies, TERI SAS

Dr Anandita Singh
Professor, Department of Biotechnology, TERI SAS

One Teacher of the Rank of Assistant Professor

Dr Soumendu Sarkar,
Assistant Professor, Department of Policy Studies, TERI SAS

Controller of Examination

Dr Seema Sangita
Assistant Professor, Department of Policy Studies, TERI SAS

Registrar

Capt Pradeep Kumar Padhy(Retd)
TERI SAS

ACADEMIC COUNCIL

Chairperson of the Council

Dr Leena Srivastava
Vice-Chancellor, TERI SAS

Dr Rajiv Seth
Pro Vice-Chancellor, TERI SAS

Deans

Dr Prateek Sharma
Dean (Academic), TERI SAS

Dr Arun Kansal
Dean (Research and Relationships), TERI SAS

Heads of the Departments

Dr Sapna Narula
Department of Business and Sustainability, TERI SAS

Dr Suresh Jain
Department of Energy and Environment, TERI SAS

Dr Sudipta Chatterjee
Department of Natural Resources, TERI SAS

Dr Chaithanya Madhurantakam
Department of Biotechnology, TERI SAS

Dr Nandan Nawn
Department of Policy Studies, TERI SAS

Mr M V Shiju
Centre for Post Graduate Legal Studies, TERI SAS

Professors

Mr S Sundar
Emeritus Professor, Department of Policy Studies, TERI SAS

Dr Anandita Singh
Professor, Department of Biotechnology, TERI SAS

Associate Professors from Departments

Dr Naqui Anwer
Associate Professor, Department of Energy and Environment, TERI SAS

Assistant Professors from the Department by Rotation of Seniority

Dr Anu Rani Sharma
Assistant Professor, Department of Natural Resources, TERI SAS

Ms Fawzia Tarannum
Lecturer, Department of Regional Water Studies, TERI SAS

Nominees of the Vice Chancellor

Dr Kanchan Chopra
Professor and Former Director, IEG

Dr Malathi Lakshmikumaran
Director, Lakshmikumaran & Sridharan

Dr T C Kandpal
Professor, Centre for Energy Studies, IIT Delhi

Co-opted Members

Dr Anubha Kaushik
Professor and Dean, School of Environment Management, GGSIU

Dr Vivek Suneja
Dean(Planning), FMS, Delhi University

Dr Rakesh Khosa
Professor, Department of Civil Engineering, IIT Delhi

Secretary

Capt Pradeep Kumar Padhy
Registrar, TERI SAS

M. Tech (Urban Development and Management)

Programme Overview

India is projected to add 300 million new urban residents by the year 2050 to the already existing large base of 377 million urban residents. The management of such a great magnitude of population growth in urban areas is a challenge that comprises of coping with the crumbling urban infrastructure, deficiencies in urban services, financial woes at municipal level, governance issues and an unprecedented impact on environment.

These complexities of urban growth and its management from the perspective of sustainable development require a multi-disciplinary approach and expertise. There is a severe shortage of professionals having the required technical and managerial skills for such tasks and their demand is increasing rapidly. In addition, the existing urban institutions and governance of cities require extensive capacity building to provide for urban development that is sustainable, equitable and enhances the livability of urban residents. India has moved to the paradigm of smart cities where the government is investing vast amount of financial resources into the urban infrastructure that makes the need for skilled manpower much more pertinent.

The MTech programme in Urban Development and Management (UDM) at the TERI SAS was launched in July 2013 with all the above-mentioned requirements in perspective. The programme focuses on sustainable urban development with a distinctive multi-disciplinary approach. It equips the students with cutting-edge technical skills like data modelling, managerial capabilities, and understanding of socio-economic, environmental and legal issues associated with urban development and its components like infrastructure and environment.

The uniqueness of the programme is in promoting learning through research-based teaching, engagement of practitioners, and a diverse pedagogy ranging from classroom teaching, tutorials, discussions about various case studies, and fieldworks. Apart from classroom teaching, the programme also exposes students to the work of urban local bodies, parastatals and urban development consultants through two intensive internships. Overall, the programme helps in building capacities for understanding the real-world urban development and management problems and identifying solutions for sustainable urban development.

Highlights of M.Tech (UDM) Programme

- **Field work and research based teaching**
- **Intensive internships at Urban Local Bodies (ULBs) and Parastatals**
- **Skill-building in Sustainable Urban Development**

Programme Structure

The two-year programme offers 72 credits through course work at the university, 12 weeks of internship with municipal corporations and parastatals, and one full semester of internship with international organizations, consulting firms, financial institutions, research organizations, or urban local bodies.

Course Curriculum

SEMESTER 1	SEMESTER 2
Urban governance	Urban ecology and environment
Project management	City and regional planning and management
Stochastic modelling	Real estate development
Theories of urbanization	Geoinformatics for Urban Development
Sustainable provision and management of urban services	Regeneration and city competitiveness
Urban finance	Research methodology
Urban development policies and programmes	Urban development policies and programmes
Technical writing {credits not counted}	

SEMESTER 3	SEMESTER 4
Major Project Part-1 Internships with Municipal Corporations and parastatals to orient students towards the role of these organizations and contribute towards ongoing urban development projects	**Major Project Part-2** Internships with bilateral or multilateral agencies/consulting firms/financial institutions/research organizations for developing skills and capacities in the formulation, execution, and monitoring of the assigned projects, and enhancing understanding of critical issues of the urban development sector.
Urban systems modelling	
Sustainable urban transport	
Urban disaster management and climate resilient cities	
Urban housing policy and practice	
Energy efficient buildings	

Students Exchange Programme

Stressing the importance of the international perspective in its programmes, the TERI SAS has entered into Memorandums of Understanding (MoUs) with several international universities aimed at facilitating a mutually beneficial exchange of students, faculty, knowledge, resources, and ideas. TERI SAS had signed MoUs for academic collaboration with The Universite De Reims Champagne-Ardenne, Reims, France in the year 2013. Under the mutual agreement, selected students of MTech Urban Development and Management program have been part of the exchange program since the year 2014. From the current batch, Ms. Tarishi Kaushik was selected for the exchange program from TERI SAS.

Internships and Placements

The University facilitates placement of students for major projects and final placements through placement cell in relevant industry and suitable organizations. Students undertake intensive internship with municipal corporations, parastatals and urban development consulting organizations.

Some of the key recruiters have been IPE Global, KPMG, Mehta & Associates, Consortium for DEWATS Dissemination (CDD) Society, Five-M Energy Private Limited, Urban Management Centre (UMC), ICT Consultants ICLEI South Asia, Simplex Infrastructure Limited, Housing and Urban Development Corporation Limited (HUDCO), National Institute of Urban Affairs (NIUA), Centre for Economic and Social Studies, Centre for Environment Education, Nagrika Policy Research Foundation and TERI.

Why hire us?

Students are well versed with the functioning of the ULBs in the third semester. With three month long exposure in the ULBs across India, helps students review and analyse the current policy and programmes. Not only students provide individual inputs as urban managers in the engagement but helps develop hollistic approch towards the Urban Development Process.

Hands-on exposure towards working in multilateral firms in the field of monitering and evaluation, research and development, consultation, academics etc. diversifies the student's background and make them adaptive towards various urban and enviornmental challenges. Hence, the UDM program acts as catalyst in nurtuing the students in both theoritical and practical framework.

Student's engagement with Urban Local Bodies

The students of batch 2016-2018 were part of the following projects during their internship with urban local bodies in the 3rd semester, across India.

Delhi Development Authority, New Delhi

- Preparation of Comprehensive Management Plan for the Conservation & Redevelopment of Sultan Garhi
- Landscape Conservation and Preparation of Comprehensive conservation management plan: A Case of Mehrauli Archaeological park, New Delhi
- Redevelopment of Bikaji Cama Place District Centre, New Delhi
- Development of Tourism Plan for the preparation of Comprehensive conservation management plan of Mehrauli Archaeological Park, Delhi
- Adaptive Reuse of Heritage Structures

New Delhi Municipal Council

- Redevelopment of Khan Market, New Delhi

Municipal Corporation of Gurgaon

- Mapping of Waste Collection Points and Identification of Unserved Areas
- Analysis of Existing Scenario of Sewerage Management and Forecasting its Future Demand

Municipal Corporation Chandigarh

- 24 x 7 Water Supply, Manimajra, Chandigarh

Imagine Panaji Smart City Development Limited

- Impact Assessment of Rejuvenation of Mandovi Riverfront on Stakeholders

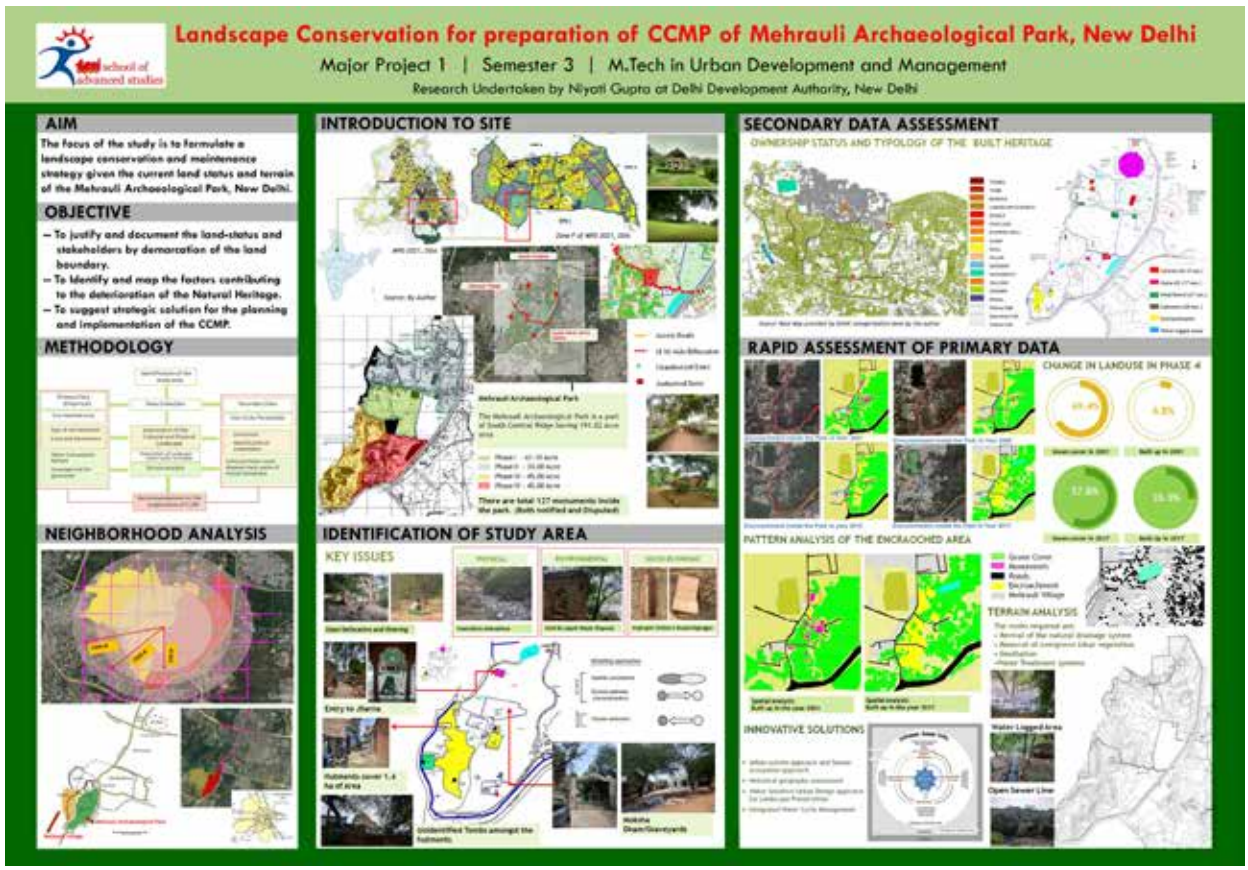
Pune Smart City Development Corporation Limited

- Network of Smart Elements for Pune & Importance of Green Areas for Pune City

Udaipur Smart City Limited

- Promotion and Conservation of the Identity of Lake City, Udaipur


Redevelopment of Bhikaji Cama Place, New Delhi (Pedestrinisation & Neighbourhoods Study)
Major Project 1 | Semester 3 | M.Tech in Urban Development and Management
Research Undertaken by Aashima Bhandari at Delhi Development Authority, New Delhi
AIM
The project aims an integrated development of Bhikaji Cama Place as an area which acts as a focal point for surrounding neighbourhood accomodating diverse needs of various socio-economic groups.
OBJECTIVES
• To understand the various components and approaches for an urban redevelopment project.
• To ensure demand driven redevelopment of area as per stakeholder needs without altering the built space.
• To ensure universal accessibilty within the site and surrounding area by integrating various transport modes.
• To develop Bhikaji Cama Place as a neighbourhood level open spaces by creating linkages with surrounding neighbourhoods.
RESEARCH FRAMEWORK
NEIGHBORHOOD ANALYSIS
INTRODUCTION TO SITE
DEVELOPMENT PHASES
IDENTIFICATION OF SITE AREA
PRIMARY DATA ANALYSIS
Connectivity
Circulation and Places
Public Space and Amenities
LAND USE
PARKING
CIRCULATION
ACTIVITY MAPPING


Landscape Conservation for preparation of CCMP of Mehrauli Archaeological Park, New Delhi
Major Project 1 | Semester 3 | M.Tech in Urban Development and Management
Research Undertaken by Niyati Gupta at Delhi Development Authority, New Delhi
AIM
The focus of the study is to formulate a landscape conservation and maintenance strategy given the current land status and terrain of the Mehrauli Archaeological Park, New Delhi.
OBJECTIVE
– To justify and document the land-status and stakeholders by demarcation of the land boundary.
– To identify and map the factors contributing to the deterioration of the Natural Heritage.
– To suggest strategic solution for the planning and implementation of the CCMP.
METHODOLOGY
NEIGHBORHOOD ANALYSIS
INTRODUCTION TO SITE
IDENTIFICATION OF STUDY AREA
KEY ISSUES
SECONDARY DATA ASSESSMENT
OWNERSHIP STATUS AND TYPOLOGY OF THE BUILT HERITAGE
RAPID ASSESSMENT OF PRIMARY DATA
CHANGE IN LANDUSE IN PHASE 4
PATTERN ANALYSIS OF THE ENCROACHED AREA
TERRAIN ANALYSIS
INNOVATIVE SOLUTIONS

Study Tour and Students Activities

Field Visits

- **Bhubaneswar Development Authority**

A statutory agency which is responsible for development and beautification of Bhubaneswar.
Responsible for creating development plans, regulating development and use of land.
Apart from the main city, Bhubaneswar, BDA covers 158 revenue villages covering an area of about 393.57 sq.km.



- **Kalinga Institute of Social Sciences, Bhubaneswar**

A residential institute for tribal people based in Bhubaneswar. It provides accommodation, study, career development, and healthcare to 25,000 tribal students each year at its integrated residential campus located in Bhubaneswar.


- **Nandankaran Zoological Park, Bhubaneswar**

Nandankanan Zoological Park is a 400-hectare zoo and botanical garden in Bhubaneswar, Odisha, India. Established in 1960, it was opened to the public in 1979 and became the first zoo in India to join World Association of Zoos and Aquariums in 2009.



- **Vastukar Foundation**

Founded on October 31, 2012, Vastukar Foundation is a non profit initiative for promoting research in architecture, planning & related fields. Vastukar Foundation is committed to its mission for empowerment through education.



- **Lingaraja Temple, Bhubaneswar**

Lingaraja Temple is a Hindu temple dedicated to Harihara, a form of Shiva and Vishnu and is one of the oldest temples in Bhubaneswar, the capital of the East Indian state of Odisha. The temple is the most prominent landmark of the Bhubaneswar city and one of the major tourist attractions of the state.


- **ITPI, Regional Chapter, Bhubaneswar**

Introduction to history of Planning of Bhubaneswar and surrounding towns.
Drawing comaprisons based on planning services with other planned cities of India in Post independence era.


- **Chillika Lake, Puri**

Chilika lake is a brackish water lagoon, spread over the Puri, Khurda and Ganjam districts of Odisha state on the east coast of India, at the mouth of the Daya River, flowing into the Bay of Bengal, covering an area of over 1,100 km2.
It is the largest coastal lagoon in India and the second largest lagoon in the world.


- **Jagannath Temple, Puri**

- **Konark Sun Temple, Konark**


Transformation of the Urban Land Use and Planning in Bagdola, New Delhi

City Regional Planning and Management | Urban Development and Management

Amandeep Ghorela, Niyati Gupta, Nishant Bhatnagar, Samradh Singh Chauhan

Study Context

Dwarka area was developed where the Lo-harehri village once stood. The neighborhood is being developed as a smart city under Delhi Development Authority's 'smart sub-city' project.

Scope Of Study

With the projected Urbanization Index of the Sub-urban Area of Dwarka, various neighborhoods has undergone volumetric and socio-economic changes.

The study of the Urban Village: Bagdola aims at identifying and mapping the:

- Population Density and Spatial Changes
- Economic Strata for Planned and Un-planned settlements
- Socio-cultural changes and challenges

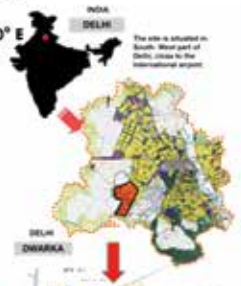
Methodology

Development Controls

1. Village is physically located within the boundary of Delhi Cantonment tehsil but is under Bijwasan constituency being maintained by MCD South.
2. Entire village comes under funnel zone due to close proximity to IGIA as depicted below.

Introduction to Village: Bagdola

Bagdola Village, New Delhi
Location Coordinates - 28.5715° N, 77.0730° E
District - South-West Delhi
Tehsil - Delhi Cantonment
Zone - K2
Urban Local Body - SDMC
Constituency - Bijwasan
Revenue Department - Sarojini Nagar
Ward No. - 141
Land Use - Residential (as per MPD 2021)



LOCATION OF BAGDOLA VILLAGE

DISTRICT MAP OF SOUTH-WEST DELHI

Guidelines from Airport Authority of India

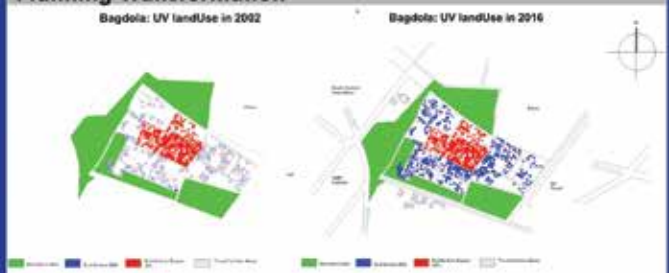
As per Color Coded Zoning Map (CCZM) Bagdola lies in ZONE K-11

Permissible top elevation in meters above mean sea level (AMSL) for this zone is 234.91 m.Site elevation for Dwarka Sec 8 is 215 m. AMSL

The zone lies in red zone and for any development work to take place here, a mandatory NOC is required from the AAI.

Source : Ground Safety Rules (G.S.R.) 751 E, Ministry of Civil Aviation

Planning Transformation

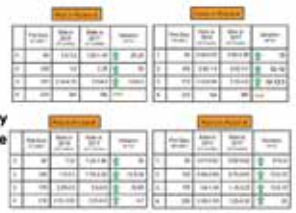


Landuse Transformation

After DDA acquired the village and were later converted to revenue villages, the surrounding area highlighted in blue, were carved out by the authority as part of planned development. However the services like water, electricity, solid waste etc is still governed and maintained by the SDMC.

Land-Economics Transition

1. DDA acquired land around the village and planned 4 pockets namely A,B,C,D.
2. Rates of property in the area has varied over the years owing to a number of factors namely airport, railway line, noise pollution, metro line and more.
3. The current circle rate as decided by DDA is Rs.1,27,680/- sq m.



Socio-physical Transition

1. Employment Shift from agriculture to secondar and tertiary sector
2. Change in the lifestyle and migration of the newer generation to the city area
3. Transition in the food and religious habits, in terms if customs, creed, rituals etc. along with the transition in spaces

Academic Projects

Understanding transformation of the urban land use and planning in Bagdola, New Delhi

1. Aim and Objective

The study aimed at mapping the change in land use pattern of the village Bagdola, New Delhi and analyze its impact on social, cultural and economic strata.

The Objective of the study were -

- Map changes in population density and spatial structure
- Analyze economic variation in planned and unplanned settlements
- Study socio-cultural changes and respective challenges

2. Case Study

There are total 368 urban villages in the city of Delhi. A large number of these villages are part of "Pappankalan complex". The study aimed at mapping the transition from farmland to a revenue village of Bagdola, one of the village in Pappankalan village. . The governance structure and role of the villagers were also identified which stimulated the process of conversion of the land, thereby affecting the lives of the people.

3. Learning Outcomes

- Develop skills to map spatial changes using survey methods
- Economic assessment of the urban village
- Development of understanding of relationship between land values and land use changes
- Integrated assessment of basic infrastructure and service provisioning within the urban village boundary

Revival Of Neela Hauz Lake, Vasant Kunj, New Delhi

Urban Ecology and Environment | Urban Development and Management

Submitted By - Aashima Bhandhari & Nishant Bhatnagar

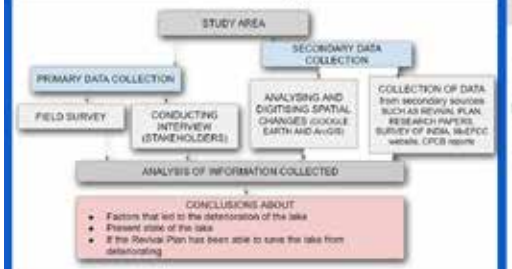
Study Context

Neela Hauz is a 500 year old lake located on Aruna Asaf Ali Road next to JNU Campus in Vasant Kunj, New Delhi. For years it has held a cultural as well as a biological significance but due to recent infrastructural developments in its close proximity the lake has been considerable reduced in size depicting a classic case of clash between ecology and human activities.

Scope Of Study

- To study the impact of development of infrastructure on the ecology of Neela Hauz Lake and to analyse if the revival plan of the lake has been able to make a positive impact on the lake ecosystem.
- To identify the indicators that would help to analyse the existing condition of the lake.
- To study the change in the condition of the lake (positive/negative) by quantifying the indicators.

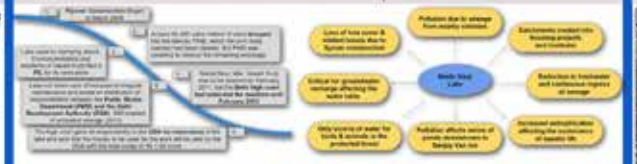
Methodology



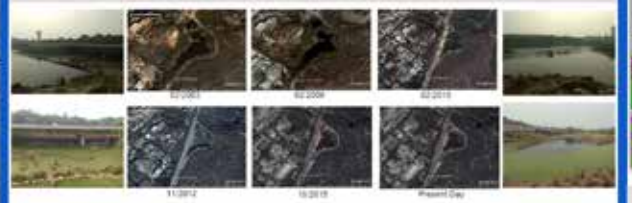
Framework Adopted

- The dumping of malba might have gone unnoticed if it were not for the efforts put in by two NGOs FORCE and Tapas.
- Together along with the residents of surroundings areas a 'CITIZENS GROUP FOR PROTECTION OF NEELA HAUZ' was created with the agenda of protecting the lake from long term damage. Special thanks to them for highlighting the issue.

Issues Due To Development

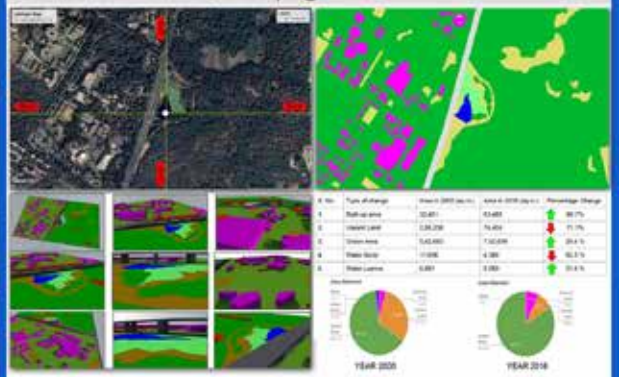


Present Scenario



Redevelopment Plan

Quantifying Indicators



Water Quality Test

- It may be the result of stones and pebbles used in sedimentation and filtration process that the total hardness and calcium hardness has increased after the water treatment process.
- Construction of flyover and deposition of sand, cement and mortar in the lake bed may have played role in increasing total hardness and calcium hardness.
- The biological mechanism is working quite well in reducing the BOD level of sewage water.

Stakeholders

SWOT Analysis

Recommendations

- Specialised authorities to beframed to protect water bodies inclusive of experts such as water quality and water management managers.
- The government should include all the stakeholders in the decision making process rather than just a handful of officials.
-Sewage treatment should be dealt with innovative and non-conventional approaches.
- If due to development there is an impact on the catchment areas, measures should be taken or alternatives framed to compensate for those losses too.

Neela Hauz Lake in Delhi and its linkages to the Sustainable Ecological Development

1. Aims and Objectives

Aim of this study was to study and analyze the impact of infrastructure development and revival action plan and the ecological sustainability of Neela Hauz Lake, Delhi.

The Objectives of the study were –

- To identify relevant indicators for evaluating the change in the condition of the lake over past 10 years.
- To evaluate the success of the Revival Plan of Neela Hauz Lake
- Identify actions to improve the condition of the lake and strategies that can be emulated for other similar projects.

2. Case Study

Mehrauli Village is located behind Qutub Complex. Over the years, the village has outgrown from rural characteristics and adapted to the urban features without upgradation of basic infrastructure.

The Neela Hauz Lake, a natural depression near Sanjay Van in South Delhi, which was once the source of drinking water for the locality had turned into a dumping ground for the sewage water and debris. The issues aggravated after the construction of flyover over the lake that started in the year 2008. In 2013, revival of the lake through natural process (planting aquatic plants and tanks) began and the lake is now the symbol of environmental regeneration.

3. Learning outcomes

- Understand institutional structure and conduce SWOT analysis
- Identification of stakeholders and their roles
- Innovative and Non-innovative approaches towards sewage treatment
- Learning application of DPSIR framework to study an urban issue

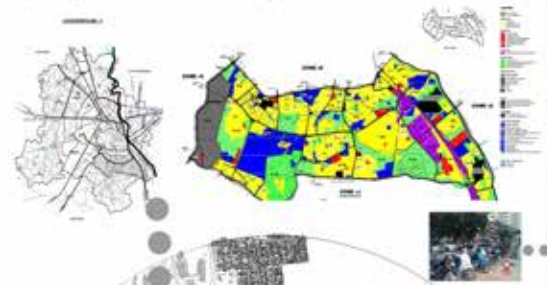
Planning of Nehru Place - Financial Hub

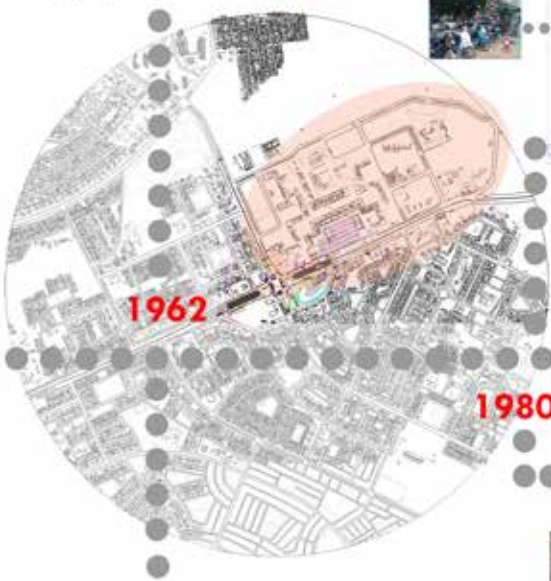
Location

Nehru Place today was originally called Kalkaji Complex,was the biggest of all the 15 District Centres proposed in the 1962 master plan of Delhi.

Planned by Delhi Development Authority,the 38-hectare site was built atop the Aravalli mountain range.

Kalkaji Complex was established in 1969 as a local community Centre, intending to serve its neighbouring areas and decentralise Connaught Place as a business hub.





The main plaza of Nehru Place is a 4-storey complex, home to around 1500 offices, 400 registered IT dealers,computer retailers, textile and digital printing shops, and eateries.

Reforms in Spatial Organization of the Plaza

Organization of Formal and Informal Sector:

In the last 24 years, nehru place has transformed From grey market to an organised one.

After National policy street vendors 2009, 360 hawkers were accomodated which later exapanded to 600. Later 2014 Street vendor's Act, the area was declared as no-vending zone

Reduction in Retail occupancy of the complex : 2002-2010

1980

In the 1980s, there was a growing market for the IT industry

Nehru Place became the grey market to meet these demands, providing a wide range of IT products from international brands to pirated software and repair services.

2002

BRINGING OVER A LAKH OF PEOPLE TO NEHRU PLACE TRANSLATES TO

16298 2 WHEELERS
16353 CARS
1739 3 WHEELERS
69 BICYCLES
5043 BUSES
And few hundereds on foot

2010

Water and electrical Services

Reforms in electrical services have veen done but dark patches within the building complex still exists

Between the textile, digital printing and it industries, and hundreds of hawkers Selling items from spare electronic parts And pirated sofware to clothes and shoes, Nehru place has become a city of its own.

Urban Infrasturcture and Services

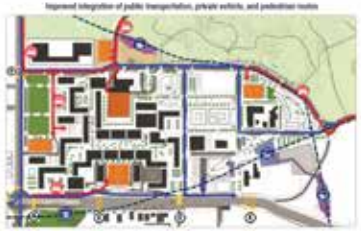
Transport and Parking

New and improved Road Links

Improved integration of public transportation, private vehicle, and pedestrian routes

City-level connectivity is only from the south and west.

No bus routes enter nehru place Bus stops, informal 3-wheeler stands, parking, pedestrian crossings are all merged into one 'survival-ofthe-fittest' syndrome



2016

NEHRU PLACE WAS PLANNED FOR 5500 ECS PARKING SPOTS. (BUT THEY WERE NOT MADE)

CURRENT DEMAND: 6621 ECS

PROJECTED DEMAND IN 2020: 9530 ECS
ECS=ESTIMATED CAR SPACE
PARKING SPILLOVER ONTO 14% OF ROAD AND FOOTPATH AREAS

Solid waste management- CnT

8 locations are proposed for public toilets, placed every 250m; 50 WC for men and 50 for women

Revitalization of Urban Services of Nehru Place, New Delhi

Hifzur Rahman | Niyati Gupta | Samradh Chauhan
TERI University, New Delhi

Revitalization of Urban Services in Nehru place, New Delhi

1. Aim and Objective:

The Study aimed to identify the gaps in the existing development plans towards operation and maintenance of urban infrastructure and services in the commercial hub Nehru Place, Delhi.

The objectives of the study were –

- To study the transition in the area development plans
- To study the institutional setup for provision of 'basic services'
- To identify issues and propose redevelopment plan for the area

2. Case Study

As part of an 'Urban Design' project in the 1980's the space comprised of fifty buildings with over 1.5 lakh employees and about 4.5 lakh visitors per day. In the present scenario, with the continuing level of services like water, energy, waste management and fire safety: the massive area is no less than a 'live bomb'. In 2010, reforms in urban services were undertaken that included public transport, parking, electricity, water, communication and solid waste services. Yet, even after six years of the reforms, the occupancy of the retail outlet remains 60-70 percent.

3. Learning outcomes

Lacunae in services were identified for:

- Institutional structure and complexity in provisioning of urban services
- Developing understanding of solid waste collection and disposal mechanism
- Understanding informal sector integration in commercial complex
- Defining strategy for assessment of safety and security issues for women

URBAN SYSTEM MODELLING

DRIVERS OF CHANGE AND NEIGHBOURHOOD FACTOR - AHMEDABAD CITY

Quantification and Simulation Changes

COURSE INSTRUCTOR - Prof. Deepty Jain
Presented By: Aashima Bhandari, Niyati Gupta
Gaurav Roy , Samradh Singh Chauhan
MEU 183 M.Tech Urban Development and Management

Analysing Drivers of Change (1990-2001)

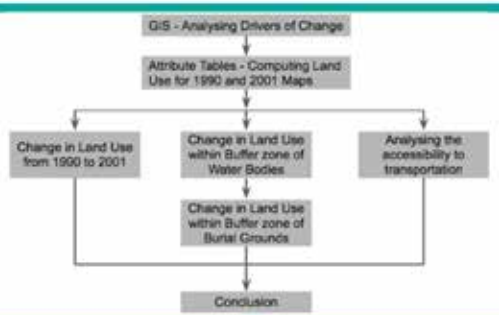
Aim

To quantify the transition of the landuse pattern by defining the Dominant Land Use of Ahmedabad for the year 1990 and 2001 using ArcGIS and Excel.

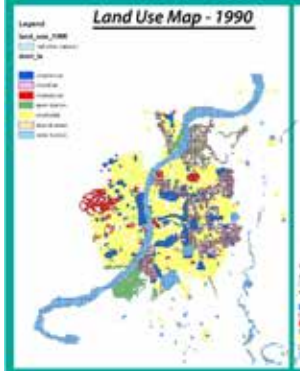
Objective

Objective of the exercise is to explain the various land uses by justifying the dominant landuse for each cell and calculating the number of cells for different landuse category by explaining change of one cell to the other cell due to neighbourhood influence.

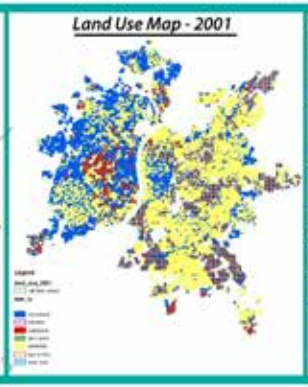
Methodology - Landuse



Land Use Map - 1990



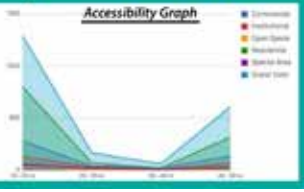
Land Use Map - 2001



Major Road Network

Dominant Landuse is identified on the basis of the selected landcover by interpreting the attribute table showing the maximum no. of cells.
The conclusion about the study about the transportation says that within a period of time, people started moving towards outer areas of the cities due to congestion and urban sprawl.
Institutional areas are along or near the roads infrastructure indicating the easy accessibility.
Geostatical analysis: The data is generalised by crossing it with a grid of 100 x 100 shape area.

Accessibility Graph



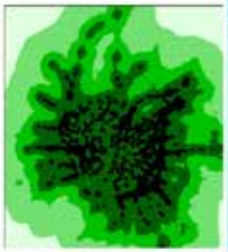
Simulation Changes - Neighbourhood Factor (Metronamica)

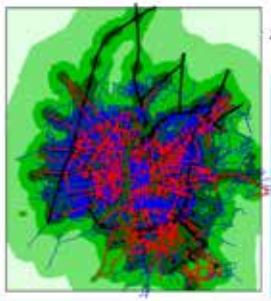
Metronamic

As an integral spatial decision support system, Metronamica models socio economic and physical planning aspects which further incorporates a mature land use change model that helps to make these aspects spatially explicit.

Aim: To develop the simulation and scenarios for different land use change.

Objective: To study the accessibilty parameters and neighbourhood potential of one state to change into the other state.





Accesibility Parameters

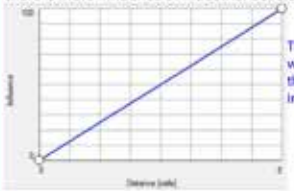
Accessibility	Vacant	Residential	Industrial	Commercial	Institutional	Restricted	Total	Accebility ratio
0.0 ... 0.2	8472	0	0	0	0	0	8472	-
0.2 ... 0.4	21330	0	0	0	0	727	22057	-
0.4 ... 0.6	17911	72	0	0	0	1258	19241	-
0.6 ... 0.8	15966	1365	553	324	333	2535	21499	0.468200052
0.8 ... 1.0	5642	2796	728	959	281	758	10523	0.531791908
Total	69321	4233	1281	1283	614	5278	81571	-

Accessibility	Vacant	Residential	Industrial	Commercial	Institutional	Restricted	Total	Accessibility Ratio
0.0 ... 0.2	2270	0	0	0	0	0	2270	-
0.2 ... 0.4	20823	0	0	0	0	213	21036	-
0.4 ... 0.6	16811	30	0	0	0	1067	17908	-
0.6 ... 0.8	14243	303	36	9	27	1753	16371	0.043573941
0.8 ... 1.0	14774	4620	1247	693	587	2175	24096	0.956426059
Total	68921	4953	1283	702	614	5208	81571	-

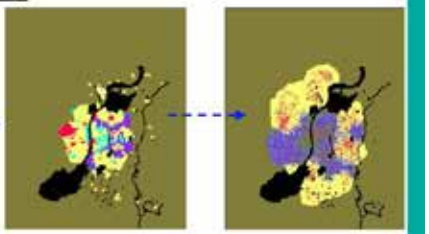
Scenario Discussion (Neighbourhood Factor)

Scenario 01 - Residence on Industrial

As the distance between residential and industry increases there is more influence of industrial development.

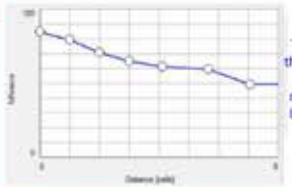


The graph shows that with increase in distance the influence level increases.

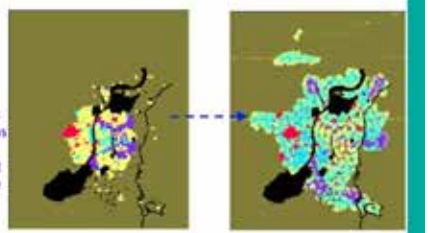


Scenario 02 - Residence on Commercial

Residential development attracts institutional development.



The reason for the dip is that the institutional areas are required close to residential development but as they require large space and create noise.



Spatial Data Assessment and modelling spatial changes using METRONAMICA

1. Aim and Objective:

The study aimed to model and simulate the change in land use pattern for Ahmedabad city taking into account the effects of accessibility, neighborhood, zoning and suitability.

The objectives are –

- To quantify the change in land use pattern in Ahmedabad between 1983 – 2001
- To quantify and measure the effect of factors on changing development pattern of the city
- To build scenarios for changing socio-economic structure and improving accessibility in the city
- To develop simulation and assess the impact of alternate scenarios

2. Case study:

The study is based on the city of Ahmedabad for the years 1983-2001. Spatial data was analyzed to quantify different factors – change in land use pattern, accessibility and suitability and measure their impact on evolution of the city. Cellular automata based simulation software (METRONAMICA) was used to simulate the land use change for the city.

3. Learning Outcomes:

- Developing hands on skills on tools like GIS for quantifying changes
- Developing skills on application of advanced tools like METRONAMICA for urban simulations.
- Understanding the role of simulations and modelling techniques in urban studies
- Understanding the relationship between accessibility and spatial development pattern

OUR FACULTY

Dr Suresh Jain
HOD and Professor,
Department of Energy and Environment

Dr Abhijit Datey
Assistant Professor,
Department of Energy and Environment

Dr Bhawna Bali
Assistant Professor,
Department of Energy and Environment

Deepty Jain
Lecturer,
Department of Energy and Environment

Dr N Yogeshwaram
Assistant Professor,
Department of Natural Resources

Dr Prateek Sharma
Dean and Professor, Faculty of Department of Energy and Environment

Dr Shaleen Singhal
Professor,
Department of Energy and Environment

Guest Faculty

Name of Visiting Faculty	Designations
Dr Anvita Arora	Director & CEO, iTrans
Dr Rumi Aijaz	Senior Fellow at ORF
Dr Shibani Ghosh	Public Interest Lawyer and a Fellow at CPR
Prof Sudesh Nangia	National Coordinator, UGC Faculty recharge programme.
Dr Suneel Pandey	Senior Fellow & Director, TERI
Dr Yogesh Gokhale	Principal Investigator, Division of Forestry and Biodiversity, TERI
Dr. Mukti Advani from CRRI	Scientist, CRRI
Mr Alok Shiromany	Senior Partner, M/s Shiromany Tyagi & Co., Chartered Accountants
Mr Shashikant Chopde	Senior Research Associate, ISET
Ms Chitrangada Bisht	Area Convenor & Program Manager, GRIHA council
Ms Raina Singh	
Prof Jamal Ansari	Director, REPL
Prof Shyamala Mani	Senior Research faculty, NIUA

Students Profile

Graduation	Guru Nanak Dev University, Amritsar
Major Project I	Redevelopment of the Bhikaji Cama Place, New Delhi **(Delhi Development Authority, New Delhi)**
Major Project II	Road Safety Education and Awareness Programme, Ajmer and Bharatpur, Rajasthan
Work Experience	36 Months (Pankaj Sangwan Associates, Gurgaon)
Area of Interest	Redevelopment and regeneration, Transport, Urban Housing, Inclusive Planning, Disaster resilient design, Financing of ULBs, Energy Efficient Buildings, Real Estate Development and Geoinformatics

Aashima Bhandari

Graduation	Giani Zail Singh Punjab Technical University Campus, Bathinda
Major Project I	24 x 7 Water Supply, Manimajra, Chandigarh (Smart City Project of MC, Chandigarh)
Major Project II	Consulting Services to Audit the Implementation by the directions issued by the Supreme Court Committee on Road Safety
Work Experience	24 Months (Zion Creations, Panchkula)
Area of Interest	Transportation Infrastructure, Real Estate Development, Sustainable Services in Urban and Rural Areas and Energy Efficient Buildings

Amandeep Ghorela

Graduation	Guru Nanak Dev Engineering College, Ludhiana
Major Project I	Rejuvenation and Revitalization of Santa Inez Creek, Panaji (Goa) (Smart City Mission - Imagine Panaji Smart City Development Limited)
Major Project II	Swachh Survekshan 2018
Area of Interest	Urban Infrastructure, Geospatial mapping, Urban Planning, Transportation Planning,

Arshjot Singh

Graduation	Amity School of Architecture and Planning, Noida
Major Project I	Redevelopment of Sultan Garhi, New Delhi (Delhi Development Authority, New Delhi)
Major Project II	Swachh Survekshan 2018
Area of Interest	Housing, Urban Planning, GIS Mapping, Urban Governance, Transportation Planning, Sustainable Urban Infrastructure

Gaurav Roy

Graduation	Jawaharlal Nehru Technological University, Hyderabad
Major Project I	Preparation of comprehensive conservation management plan of Mehrauli Archaeological Park, New Delhi (Delhi Development Authority, New Delhi)
Major Project II	
Work Experience	6 Months (GKP Infracon Pvt. Ltd.)
Area of Interest	Sustainable Urban Infrastructure and Urban Services, Urban Housing and Green building, Urban Ecology and Environment, Disaster Management and Climate Resilient cities.

Md. Hifzur Rahman

Graduation	Guru Nanak Dev University, Amritsar
Major Project I	Sustainable Approach to Solid Waste Management (Municipal Corporation, Gurugram)
Major Project II	Change in landuse and livelihood parttern in Peri Urban Areas of Gurgam
Area of Interest	Sustainable Urban Transport, Green Buildings, Geo-informatics, Real Estate, Sustainable Urban Infrastructure and Inclusive Urban services

Nagina Chawla

Graduation	Malaviya National Institute Institute of Technology, Jaipur
Major Project I	Redevelopment of Khan Market (Planning & Design) (New Delhi Municipal Council)
Major Project II	Rajasthan Road Sector Modernization Project
Area of Interest	Redevelopment & Regeneration, Transportation Planning, Infrastructure Design, Urban Planning, Governance, Energy Efficient Building Design, GIS based mapping, Real Estate

Nishant Bhatnagar

Graduation	Aayojan School of Architecture, Jaipur
Major Project I	Landscape Conservation and Preparation of CCMP: A Case of Mehrauli Archaeological park, New Delhi (Delhi Development Authority, New Delhi)
Major Project II	Gurugram Rejuvination Project
Work Experience	12 Months (FRONTDESK Architect's Jaipur)
Area of Interest	Urban Economics, Housing, Social Inclusive Planning, Transportation planning, Building energy simulations and design

Niyati Gupta

Graduation	Sanghvi Institute of Management & Science Indore, University - RGPV Bhopal
Major Project I	Network of Smart Elements for Pune & Importance of Green Areas for Pune City (Pune Smart City Development Corporation Ltd, Pune)
Major Project II	SDG Oriented planning and design for neglected cities and community participation
Area of Interest	Sustainable Urban Transportation, Urban Housing, Redevelopment of urban areas, Urban Governance, Poverty Alleviation, Waste Management, Sustainable Urban Services

Samradh Singh Chauhan

Graduation	Galgotia's College of Engineering And Technology, Greater Noida
Major Project I	Sewerage Management and Estimate its Renewable uses (Municipal Corporation, Gurugram)
Major Project II	Assessment of Municipal Solid Waste Management - Collection and transportation startegy
Area of Interest	Sustainable urban transport, Green buildings, Geoinformatics, Real Estate, Sustainable urban infrastructure and inclusive services

Shraddha Sharma

Graduation	Guru Gobind Singh Indraprastha University, New Delhi
Major Project I	Preparation of comprehensive conservation management plan of Mehrauli Archaeological Park, New Delhi (Delhi Development Authority, New Delhi)
Major Project II	Smart City project
Area of Interest	Sustainable Urban Infrastructure and Services, Transportation Planning, Housing, Urban Governance, Urban Disaster Management, Real Estate, Energy Efficient Buildings.

Tarishi Kaushik

Graduation	Yagyavalkya Institute of Technology, Jaipur- Rajasthan Technical University.
Major Project I	Promotion and Conservation of the Identity of Lake City, Udaipur (Udaipur Smart City Ltd.)
Major Project II	Promotion of smart and sustainable solutions for development of sustainable cities in India
Area of Interest	Environment and Development, Economics, Infrastructure Development, Urban System Modelling, Governance and Urban heritage conservation.

Vaibhav Ojha

Placement Procedure and Guidelines for Recruiters

The campus recruitment activity for M Tech (Urban Development and Management) is conducted to serve dual purposes—placement of the students for their final project which is undertaken in the fourth semester and the formal job recruitment on completion of the programme.

Our placement process consists of two phases:

Masters' Thesis Project	
Recruitment Period	Availability of Students
October to December 2017	January to June 2018
Job Placement	
Recruitment Period	Availability of Students
October 2017 to June 2018	June 2018 onwards

We welcome you to visit our campus for interviewing and selecting students for major projects and final placements. You may interact with the students either through telephone, video conference, or in person. Interested organizations may contact the Placement Cell. The contact details are mentioned at the back of the brochure.

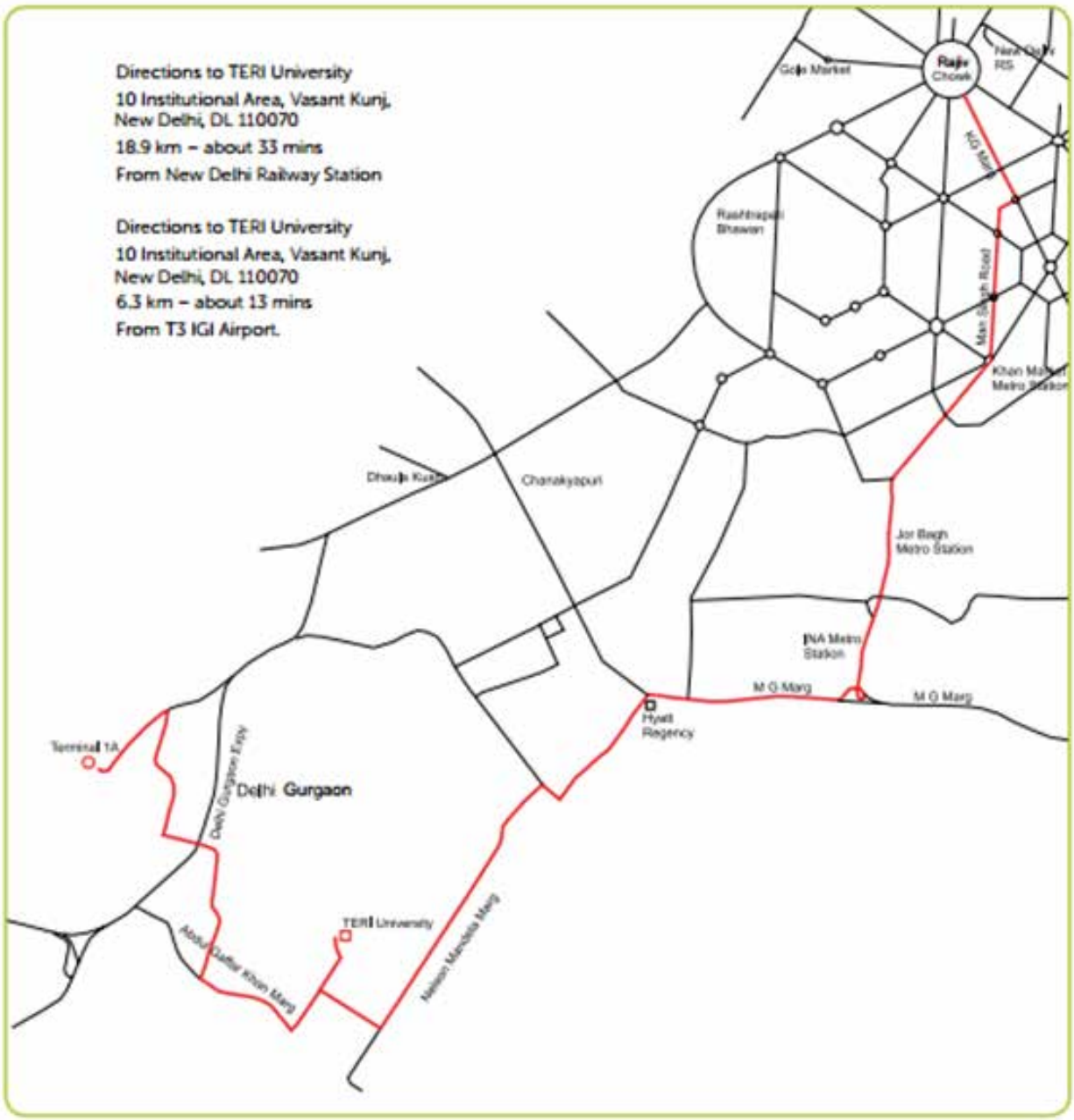
Recruiters

The TERI SAS facilitates placement of students for major projects and final placements through placement cell in relevant industry and suitable organizations. Students undertake intensive internship with municipal corporations, parastatals and urban development consulting organizations.

Some of the key recruiters have been

- IPE Global
- KPMG
- Mehta & Associates
- Consortium for DEWATS Dissemination (CDD) Society
- Five-M Energy Private Limited
- Urban Management Centre (UMC)
- ICT Consultants
- ICLEI South Asia
- Simplex Infrastructure Limited
- Housing and Urban Development Corporation Limited (HUDCO)
- National Institute of Urban Affairs (NIUA)
- Centre for Economic and Social Studies
- Centre for Environment Education
- Nagrika Policy Research Foundation and
- TERI SAS.

Map to Reach TERI SAS



teri school of advanced studies

Knowledge for Sustainable Development

Deemed to be University under Section 3 of the UGC Act,1956
Accredited with grade 'A' by NAAC

PLACEMENT CELL

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