Problem Based Learning

Proceedings of the Conference

Caribbean Education for Sustainable Urban Development

Online International Conference
1st-2nd October 2020

Co-funded by the Erasmus+ Programme of the European Union

CityLab CAR Project
"Engaging students in sustainable caribbean cities"

Editorial project:
Tom Coppens, Nina De Jonghe, Elena Fregonara, Diana Rolando, Alice Barreca, Perry Polar, Asad Mohammed, Stijn Rybels.

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CityLab conference is organised online by the European project "Citylab CAR: Engaging students in sustainable caribbean cities", and hosted by the University of Antwerp.

https://www.uantwerpen.be/en/projects/citylab-car/
http://ec.europa.eu/programmes/erasmus-plus/news/first-higher-education-capacity-building-projects-selected_en

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Caribbean Education for Sustainable urban Development Conference 2020

Dear reader,

We are proud to present the e-book of the international conference of the Citylab CAR project that took place on October, 1 and 2, 2020.

The CITYLAB car project was co-funded by the ERASMUS+ programme of the European Union. The project brought together 10 Caribbean and 5 European Higher Education Institutions around a common goal: innovating teaching so that the next generation of urban professionals will be better equipped to make life in urban areas more sustainable. Cities face global trends such as mass migration, ageing, resource depletion, climate change, degrading environmental conditions, urban poverty and exclusion and injustice. These problems are typically "wicked problems", in the sense that trying to solve problems in one domain is likely to trigger new problems in other domains. Moreover, such problems need to be

addressed from a systemic perspective, often in collaboration with numerous stakeholders with varying capabilities, interests and values. In order to build a more sustainable society, such problems will have to be dealt in an innovative and holistic way, including different perspectives and using multiple forms of knowledge. The new generation of students will require skills and competences that allow integrative and holistic thinking, that foster collaboration between different scientific disciplines and that incorporate informal and practice-based knowledge in transdisciplinary settings.

Higher education has a duty in preparing future professionals in such tasks. Current teaching methods in Europe and the Caribbean are not yet fully adapted to these new requirements. Too often, courses reside within disciplinary silo's, which are on the one hand necessary to advance scientific progress in one domain but on the other hand narrow our perspective. Too often, courses are detached from real world problems and real life actors, so that trained competences and skills sometimes lack realism. And finally, too often students are rather passive learners rather than active constituents of new knowledge.

The CITYLAB CAR project aimed to innovate teaching methods by introducing and strengthening problem based learning (PBL) in the curriculum of Caribbean and European institutions. Problem based learning is a well established teaching approach that has demonstrated advantages in teaching soft skills such as critical and holistic thinking, intrinsic motivation and collaborative problem solving. To this end, 10 Caribbean and 2 European institutions developed Citylab Modules. These are accredited modules within existing teaching programmes, which are open for students from multiple disciplines. The students have been working on urban problems, ranging from wetland conservation to port waste management in small groups, with students often from different backgrounds. Their problems and solutions have been developed in

collaboration with external stakeholders, such as local governments, companies or citizens. The modules have been coached by teachers from different faculties. The project also encouraged teacher mobility through the exchange of experts during the project. The project involved more than 600 students and 50 teachers in 14 modules.

This e-book presents the outline of the different modules and the output of the student work. The Citylab car project organised a student competition for student teams that had been participating in the Citylab Modules. The work of the students was presented through an online exhibition on the first day of the conference for an international jury. It also presents the outcome of the keynote lectures and debates at the conference. Due to COVID19 measures, the partners of the consortium have organized a hybrid conference, combining national conferences held in the Caribbean participating countries and online key-note speeches from Khanjan Mehta and Rogier van den Berg.

With the final conference, the Citylab CAR project came to an end, but its mission will continue. The developed modules in this project will thrive and expand within the participating institutions and beyond, offering a new generation of students the necessary skills and competences to make the difference.

We wish you a pleasant lecture of this book and we hope that it can inspire you as a teacher, student or urban professional.

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Asad Mohammed, Co-Coordinator
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Rogier van den Berg
Director Urban Development
WRI Ross Center for Sustainable Cities
World Resources Institute

Biography

Rogier van den Berg is the Director of Urban Development for WRI Ross Center for Sustainable Cities. As part of WRI's program focused on more accessible, equitable, healthy and resilient cities, van den Berg leads global programming on strategic urban planning, land use, climate change adaptation, urban resilience, equitable development, housing and more.

As a core member of the Executive Team, he helps to guide the overall strategy of the Cities program. Van den Berg is an urban planning and urban development specialist, architect, former entrepreneur and academic.

Earlier, he led UN-Habitat's Urban Lab, which he set up in 2014. It was created to respond to urban planning demand in cities, and rapidly expanded its scope to become a multidisciplinary urban project and integrated planning facility working in 80 cities globally. Van den Berg led global teams working at the intersection of infrastructure, urban planning, urban resilience, climate change adaptation, technology, recovery and reconstruction, and public space. He has established and implemented development projects and programs together with cities and partners in Europe, Africa, Latin America, the Caribbean, the Middle East and Asia.

His keynote presentation "A Next Generation of Urban Professionals" is available on the project website.

Khanjan Mehta
Vice Provost for
Creative Inquiry
Director of the
Mountaintop
Inititative
Lehigh University

Biography

Khanjan Mehta is the inaugural Vice Provost for Creative Inquiry and Director of the Mountaintop Initiative at Lehigh University. Mehta champions the creation of integrated learning, research, and entrepreneurial engagement ecosystems where students, faculty, and external partners come together to increase their capacities for independent inquiry, take intellectual risks and learn from failure, recognize problems and opportunities and effect constructive and sustainable change.

The Creative Inquiry Faculty Fellowship led by Mehta supports faculty as they integrate project-based and inquiry-driven learning in courses. Across these programs, Mehta expects students to take radical ownership in their projects, and envisions faculty mentors as partners and co-creators striving to propel their projects forward on the journey towards tangible, sustainable impact: impact that concurrently builds the skillsets, mindsets, and portfolios of pioneers and change-makers in a rapidly changing world.

Earlier, Mehta was the Founding Director of the Humanitarian Engineering and Social Entrepreneurship (HESE) Program, Assistant Professor of Engineering Design, and Affiliate Professor of International Affairs at Penn State. HESE is an integrated learning, research, and entrepreneurship program that brings together students and faculty across campus in the rigorous research, design, field-testing, and launch of technology-based enterprises in low- and middle-income countries. Mehta has led technology-based social ventures in Kenya, Tanzania, India, Cambodia, Sierra Leone, Philippines, Mozambique and several other countries.

His keynote presentation "From Creative Inquiry to Sustainable Impact" is available on the project website.

Postcards of the CityLab modules

P1. University of Antwerp (UA), Belgium

Design Studio 3: Development & Implementation

Faculty of Design Sciences
University of Antwerp

In this design studio, students focus on implementation and feasibility of complex spatial projects. The studio starts with a design proposal (the result of the previous course: design studio 2) and aims to rework the initial proposal based on financial, political, societal and technical feasibility constraints, using design support tools and financial models. Students work in groups and individual on their own assignment. The module is fully integrated in the program whereas theoretical courses provide insights and methods that are immediately used in the studio.
The selection of the study area and problem statement of the design studio has been set up in collaboration with local stakeholders. The students present their final result for policy makers.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *MSc Urbanism and Spatial Planning*

MODALITY *Mandatory - core studio course*

ECTs *12* LEVEL *Graduate/Master*

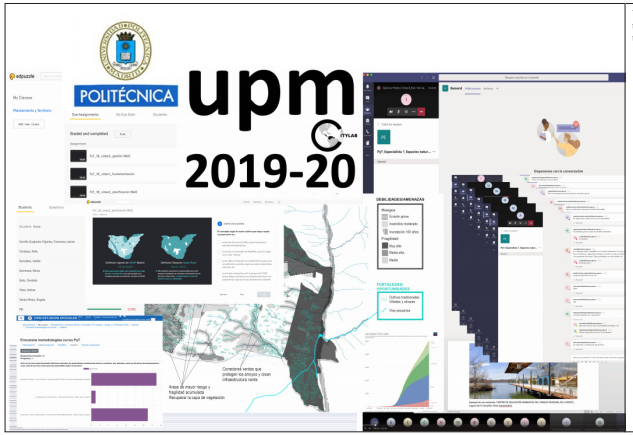
TIMING *September 2019 - January 2020*

STUDENTS *30* TEACHERS *4*

CONTACT *tom.coppens@uantwerpen.be*

Co-funded by the Erasmus+ Programme of the European Union

P3. Universidad Politécnica de Madrid (UPM), Spain



Urban and Spatial Planning
Urban and Spatial Planning Department, School of Architecture
Universidad Politécnica de Madrid

The PBL module has been naturally integrated into the Architecture's grade curriculum since the content and the subject fully match the existing one of "Planeamiento y Territorio" (5th year). The objective for the students has been to make a proposal of a Master Plan in the municipality of study. The method is not just a design studio but an improved "Hybrid PBL", as defined by Gonzalez (2016). In a previous Citylab PBL experience, the aim was to improve agent implication. This new edition focuses on improving the acquisition of key professional knowledge by the students. In this sense, we had two objectives: (i) to apply new teaching methods for the integration of the theoretical contents into the practical ones and (ii) to assess to what extent this method improves the students' involvement and understanding of the mission and the importance of Planning for architectural studies. The alternative teaching methods programmed combined several already integrated (puzzle and role playing dynamics, kahoot, practical exercises), with two new: flipped learning and "nuclear knowledge" evaluation which is an alternative to traditional examinations systems (Norman & Schmidt, 1992), based on the percentage of the competences gained by the students.
The local stakeholders involved were individual citizens, NGOs and local administration officials.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

Citylab-Car final deliverable approved
01.10.20

PROGRAM *Fundamentals for Architecture*

MODALITY *Design studio - core course*

ECTs *6* LEVEL *Undergraduate*

TIMING *Spring semester 2020*

STUDENTS *79* TEACHERS *2*

CONTACT *francisco.lamiquiz@upm.es*

Co-funded by the Erasmus+ Programme of the European Union

P4. Politecnico di Torino (POLITO), Italy

Restoration and Valorisation of Heritage Assets

Architecture and Design Department
Politecnico di Torino

The Atelier is carried on during the first semester of the second year of the Master of Science in "Architecture for the Restoration and Development of Heritage Assets". It facilitates the interaction between Restoration and Economic evaluation disciplines, by introducing students to the problems of economic-financial viability in the conservation of historical, architectural, environmental heritage assets. Through a case-study students experience the PBL approach, in which they face real problems involving stakeholders, including the owner of the assets that plays a key role. The module is organized taking into consideration the whole curriculum of the Master of Science. It is strictly linked to the disciplines of the first year and with the other disciplines of the second year: design, technology, urban planning, restoration, materials science, GIS and modelling for cultural heritage. Furthermore, the module is organized assuming the contents of the first level degree, oriented to give the students the essential knowledge necessary to develop the "professional" character of the Master's degree course.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

01.10.20

PROGRAM *Heritage Preservation and Enhancement*

MODALITY *Mandatory - core studio course*

ECTs *6* LEVEL *Graduate/Master*

TIMING *September 2019 - January 2020*

STUDENTS *35* TEACHERS *7*

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Co-funded by the Erasmus+ Programme of the European Union

P6. University of the West Indies (UWI Team 1), Trinidad and Tobago

PLAN 6002, PLAN 6003, PLAN 6005

Department of Geomatics Engineering and Land Management
University of the West Indies

CITYLAB CAR - Final version - 01.10.20

The courses are a progressive three-part suite (PLAN 6002/ 6003/ 6005). Rather than operating as simply a vehicle for the transfer of an existing body of knowledge the three courses progressively develop an urban design development plan from a Structured Site Study and Survey in PLAN 6002, a Development Brief in PLAN 6003 and finally an Urban Design Workshop in which the Development Brief evolves into an Urban Design Proposal undertaken in real-time and focussed on a real site using the design studio/workshop as a framework.
The work has responded to the PBL methodology and engages with the process of design, not in the conventional structuralist approach implicit in the idea of a 'problem' that needs to be solved but as a 'project' that is creatively and constructively engaged.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *Urban and Regional Planning*

MODALITY *Core course*

ECTs *6* LEVEL *Graduate*

TIMING *2019/20*

STUDENTS *8* TEACHERS *2*

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Co-funded by the Erasmus+ Programme of the European Union

P6a. University of the West Indies (UWI Team 2), Trinidad and Tobago

THE UNIVERSITY OF THE WEST INDIES
AT ST. AUGUSTINE, TRINIDAD AND TOBAGO

GEOG 3111: Natural Hazards
Department of Geography, Faculty of Food and Agriculture
University of the West Indies

01.10.20

The course introduces students to the concepts of risk, hazard and vulnerability. it reviews a range of natural hazards operating of different spatial and temporal scales, including geological (volcanoes, earthquakes), hydrological (floods), climatological (drought, hurricanes) and biological (diseases, epidemics), and examines the possible changes to risk under climate and sociological change. Emphasis throughout is on the use of appropriate technology and social structures to mitigate hazard impact.
Delivery of the course is through a series of lectures, field trips, class discussions, peer-teaching and problem-based assignments.

PROGRAM *Geography, Environmental and Natural Resource Management*

MODALITY *Mandatory core course*

ECTs *6* LEVEL *Undergraduate/Bachelor*

TIMING *September - December 2019*

STUDENTS *72* TEACHERS *1*

CONTACT *gabrielle.thongs@sta.uwi.edu*

OTLAB CAR - Engaging students with sustainable Caribbean cities

Co-funded by the Erasmus+ Programme of the European Union

P7. University of Trinidad and Tobago (UTT), Trinidad and Tobago

Research Methodology
Postgraduate Studies
University of Trinidad and Tobago

01.10.20

This course will introduce students to approaches, strategies, data collection and data analysis methods relating to research across disciplines. Students will be exposed to basic concepts utilized in quantitative research methods. The course provides a holistic and macrolevel perspective of research methods that is necessary for students to advance in their academic research activities.
The primary aim of this module is to utilize the problem-based learning approach to enhance critical thinking and foster innovation in students so that they can better internalize the approaches, strategies, data collection and data analysis methods relating to research methods.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *M.Phil and PhD Programme*

MODALITY *Mandatory course*

ECTs *6* LEVEL *Postgraduate*

TIMING *2nd semester of 2019/2020*

STUDENTS *8* TEACHERS *1*

CONTACT *samantha.chadee@utt.edu.tt*

Co-funded by the Erasmus+ Programme of the European Union

P8. University of Guyana (UG), Guyana

Urban Geography

Faculty of Earth and Environmental Sciences
University of Guyana

A Problem-based and Collaborative approach to teaching and learning was defined as a teaching method for the delivery of the course. It introduces the contemporary field of urban geography. Key concepts and theories which help explain urban process, urban form and spatial structure are examined through historical and cross-cultural perspectives. The critical importance of globalization in transforming urban space is highlighted through a variety of interconnected themes and selected issues which affect the form and functioning of cities and their urban spaces in the 21st century. The topics addressed are: 1) the Urban Transport problem, 2) Environment Problems and Sustainable Cities, and 3) Transformation of urban space, social vulnerability and urban poverty. These topics are addressed through: Lectures and class seminars; Case study revies; and Group fieldwork: interviews with stakeholders, data collection, analysis, presentation and report writing.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

CITYLAB - final online version
01.10.20

PROGRAM *Geography*

MODALITY *Elective course*

ECTs *6* LEVEL *Undergraduate/Bachelor*

TIMING *September to December 2019*

STUDENTS *18* TEACHERS *1*

CONTACT *rawle.edinboro@uog.edu.gy*

Co-funded by the Erasmus+ Programme of the European Union

P9. Government Technical Institute (GTI), Guyana

Urban Planning and Research
Building Department
Government Technical Institute

CITYLAB - final online course
01.10.20

In this course students will acquire and develop and apply a range of urban design skills and professional knowledge. Students will also be engaged in collaborative fieldwork, research, analysis and design activities to provide concrete evidences, informed ideas and design activities to provide concrete evidences, informed ideas and proposals. Consequentially, developed urban design analyses and proposals will be presented before a prescribed body attached to the Governmental Technical Institute.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *Architectural Drawing*

MODALITY *Elective course*

ECTs *6* LEVEL *Undergraduate*

TIMING *2nd semester*

STUDENTS *15* TEACHERS *6*

CONTACT *ifillgary@yahoo.com*

Co-funded by the Erasmus+ Programme of the European Union

P10. Anton de Kom University (AKU), Suriname

Spatial Planning and Environment

Faculty of Technology
Anton de Kom University of Suriname

01.10.20

This course should help students to understand how spatial planning can enhance achievement of environmental goals. Almost all topics within Spatial Planning and Environment where included. The students did research within the following themes with the area Clevia, Gunny's park and Leonsberg:

- *Energy efficiency and safe environment*
- *Poor sanitation within the urban coastal area of Surinam and the health risks that comes with it*
- *Water Management in an urban context*
- *The Transformation of Rural Areas Through Urbanization*
- *The decline of nature due to urbanization*

An urban lab is expected to embrace all aspects to achieve the learning objectives.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *Environmental Sciences*

MODALITY *Mandatory course*

ECTs *3* LEVEL *Undergraduate*

TIMING *2019-2020, 3th semester*

STUDENTS *24* TEACHERS *2*

CONTACT *angelika.namdar@uvs.edu*

Co-funded by the Erasmus+ Programme of the European Union

P11. Polytechnic College Suriname (PTC), Suriname

Practical Assignment 1, 2 & 3
College of Technology
Polytechnic College Suriname

Assignment 1: Each group has to make a problem mind map, identify the economic, environmental, infrastructural and social factors causing the divers problems in their chosen urban area. They have to make a site visit. They have to give special attention to housing and utilities, public and private transportation, safety, public areas, high risk groups.
Assignment 2: Each group selects an identified problem to work out as a project. They have to identify the relevant stakeholders, categorize them and identify the relations between them. The have to interview these stakeholders about their perspective on the groups selected problem. Each group has to identify potential obstacles that will influence the research regarding the selected problem in the selected urban area. Each group has to determine which method it will use to acquire relevant information for the solution.
Assignment 3: the student will focus on their project plan, consider possible urban area development with regard to the identified problems and also selected the sustainable development goal. At the end of the course, the students will evaluate how they experienced this module and present their posters and short video.

CITYLAB CAR. - Engaging students with sustainable Caribbean cities

Citylab CAR - Final project submitted
01.10.20

PROGRAM *Infrastructure*

MODALITY *Mandatory course*

ECTS *5, 7, 6* LEVEL *Undergraduate*

TIMING *April - September 2020*

STUDENTS *54, 33, 16* TEACHERS *5*

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c.weidum@ptc.edu.sr,
s.rambali@docent.ptc.edu.sr

Co-funded by the Erasmus+ Programme of the European Union

P12. Universidad Iberoamericana (UNIBE), Dominican Republic

Urban Toolbox: stitching informal and formal neighborhoods
School of Architecture
Universidad Iberoamericana

The module addressed the informal condition in the city of Santo Domingo specifically in the context of the settlements that have been surrounded by the speculative development of the formal city. This condition accentuates and perpetuates the inequality that characterizes the social structure of the Dominican Republic. The students will generate a strategy for the creation of public space, infrastructure and services through a new model of housing development that involves private investment, public regulation and community engagement that integrates the slums with the adjacent formal neighborhoods.
The students will participate in the research and development of the project using PBL. They will be involved in the problem(s) definition process and in the development of proposals.
The teachers will follow up and guide the students, making sure they apply the PBL principles and methodology and that they consider all the premises established from the urban perspective.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

01.10.20

PROGRAM *Architecture*
MODALITY *Mandatory course*
ECTs *2.5* LEVEL *Undergraduate*
TIMING *September - December 2019*
STUDENTS *29* TEACHERS *2*
CONTACT *jml@pulsoestudio.com, m.vargas5@unibe.edu.do*

Co-funded by the Erasmus+ Programme of the European Union

P13. Pontificia Universidad Catolica Madre y Maestra (PUCMM), Dominican Republic

MOVER: Green Mobility. Towards sustainable and clean mobility

Faculty of Social Sciences, Humanities and Arts /School of Architecture and Design
Pontificia Universidad Católica Madre y Maestra

01.10.20

This course addresses the design and execution of urban projects using the PBL methodology. The students have worked actively in the planning, implementation and evaluation of real urban design projects.
The real-life problem addressed is how Dominican cities defy the concept of sustainable mobility. MOVER is the project that aims to study sustainable mobility on educational contexts.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *Architecture, (Ecology, and Social Communication)*

MODALITY *Design studio*

ECTs *16.5* LEVEL *Undergraduate*

TIMING *January - May 2020*

STUDENTS *57* TEACHERS *6*

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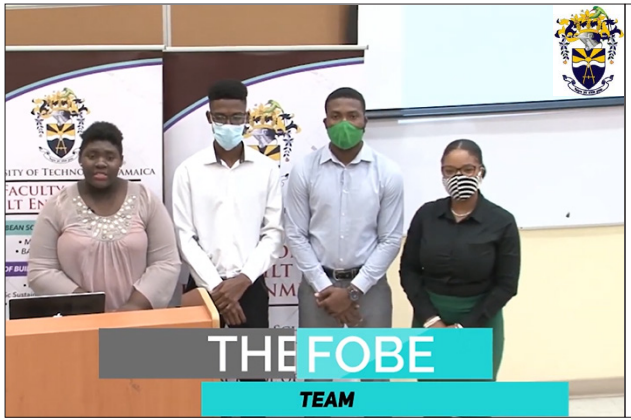
Co-funded by the Erasmus+ Programme of the European Union

P14. University of technology (UTECH), Jamaica



Community Development and Planning
Faculty of the Built Environment
University of Technology, Jamaica

01.10.20

This course will explore the notions of community development by providing an overview of the history of community development as a field, and will examine the current debates over strategies and practices, and signifcant policy initiatives. Students will be introduced to current approaches to the revitalization of distressed communities and sustaining or improving "stable" communities. A key feature of the module is its relationship to local, regional, and national development in urban and rural areas.
Topics covered include the theoretical basis for community development, the history of the field, community development as economic development, community organizing, and the role of the national government and NGOs, planners and other professionals in the community development process. Students will have the opportunity to work with local community organizations through class projects.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *Urban and Regional Planning*

MODALITY *Elective course (workshop)*

ECTs *6* LEVEL *Undergraduate/Bachelor*

TIMING *2nd semester*

STUDENTS *21* TEACHERS *3*

CONTACT *carcher@utech.edu.jm*

Co-funded by the Erasmus+ Programme of the European Union

P15. Caribbean Maritime Uninversity (CMU), Jamaica

Logistics Management
Faculty of Shipping and Logistics
Caribbean Maritime University

This course is designed to familiarize the students with the core concepts of Logistics and Supply Chain Management using a problem based learning approach. The knowledge and understanding that they obtain will serve as a foundation to solve problems utilizing logistic principles, by enabling the timely movement of goods and services and to mitigate envrionmental challenges in Jamaica. The module is a core course for Shipping and Logistics students and it is offered as an elective for Engineering students.
The students were divided into groups and each group was tasked with identifying a problem within the overarching theme (the sources and impacts of pollution on Kingston Harbour) posed in the course. The groups then had to come up with approaches and/ or solutions to that problem.

CITYLAB CAR - Engaging students with sustainable Caribbean cities

PROGRAM *Logistics and Supply Chain Management (Engineering in Industrial Systems)*

MODALITY *Mandatory core course (and elective)*

ECTs *6* LEVEL *Undergraduate/Bachelor*

TIMING *September - December 2019*

STUDENTS *25* TEACHERS *7*

CONTACT *nspence@faculty.cmu.edu.jm*

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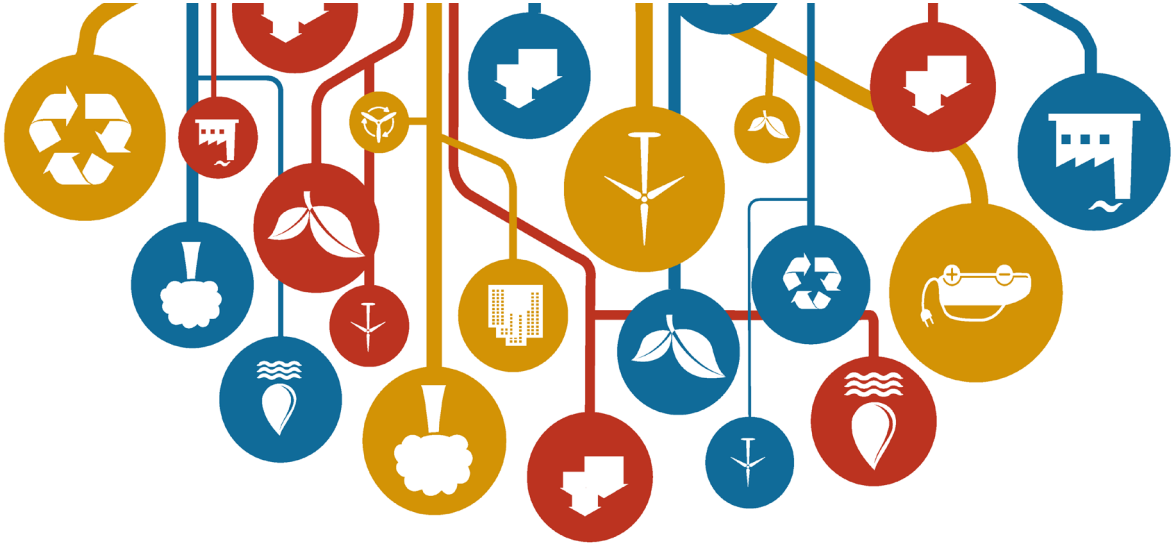


National Seminar
Final Reports

P4 Italy

Politecnico di Torino

Scientific and organizing committee
prof. Rocco Curto
prof. Elena Fregonara
prof. Diana Roalando
arch. Alice Barreca

AGENDA

National program ITALY – Politecnico di Torino			
Introduction			
Time	**Activities**		**Duration**
9:30 am – 10:00 am	Welcome	Prof. Guido Saracco, Rector of the Politecnico di Torino	5 min
		Arch. Antonino Iaria, Councilor to town planning of the Metropolitan City of Turin	5 min
	Introduction to works	Prof. Rocco Curto, Politecnico di Torino	10 min
	Presentation of the project Citylab CAR - Engaging Students in Sustainable Caribbean cities	Prof.ssa Elena Fregonara, Politecnico di Torino	10 min
Projects presentation			
10:00 am – 10:45 am	"From Problem to Project". Reuse and economic enhancement perspectives for the Città della Salute e della Scienza in Turin	Prof. Rocco Curto, Prof. Manuela Mattone, Arch. Diana Rolando, Arch. Alice Barreca, Arch. Nadia Frullo (Politecnico di Torino)	45 min
10:45 am – 11:45 am	Presentation of reuse and enhancement projects: students proposals and transformation scenarios		
	Rethinking the "Città della Salute e della Scienza" site . An efficient building rehabilitation proposal.	Maria Isabella Gallo, Emma Gelsi, Laura Ghio	20 min
	A new multifunctional landmark for the "Città della Salute e della Scienza"site	Giandomenico Crisarà, Laura Crupi, Antonina Sturniolo	20 min
	Hotel 4.0, complex for new habitability	Giovanni Caci, Gabriel Giordano, Farimah Piraei, Daniele Salvatore Meloni	20 min
Workshop with students, professors and external experts: "Parco della Salute can no longer wait"			
11:45 am – 01:15 pm	Moderator	Prof. Rocco Curto, Politecnico di Torino	90 min
	Participants	Arch. Antonino Iaria, Metropolitan City of Turin Arch. Rosa Gilardi, Metropolitan City of Turin Arch. Giacomo Leonardi, Metropolitan City of Turin Ing. Sandro Petruzzi, Università degli Studi di Torino Dott. Giovanni La Valle and Arch. Paolo Melchior, Città della Salute e della Scienza di Torino Arch. Elena Frugoni, Superintendence of Archeology, Fine Arts and Landscape for the City of Turin Prof.ssa Carla Bartolozzi, Politecnico di Torino	

PLENARY SESSION

Timing: 5 min
Presenter: Prof. Rocco Curto, Politecnico di Torino
Topic: Introduction and Welcome

The activity began by welcoming the guests and participants. A brief description of the principal theme of the project and the topics of the atelier was given.

Timing: 5 min
Presenter: Prof. Guido Saracco, Rector of Politecnico di Torino
Topic: Welcome

The Rector of Politecnico di Torino, prof. Guido Saracco underlined how the PBL approach and, more generally, the issues and teaching approach applied during the atelier are coherent with the Politecnico di Torino strategic plan "Polito for Impact" as the "Città della Salute e della Scienza" area currently has a strategic role for health, research and innovation in Turin. The student groups worked jointly and faced real problems (and some possible solutions) and acquired a sense of responsibility towards their own work, also fostering their future professional perspectives. The effectiveness of this approach is also underlined by the results achieved, which are potentially able to activate urban regeneration projects as well as to support both the private sector and local authorities.

Timing: 5 min
Presenter: Arch. Antonino Iaria, Metropolitan City of Turin
Topic: Welcome

Antonino Iaria represented the point of view of the Municipality of Turin and stressed the importance of projects designed by students with the constant interaction with teachers and stakeholders. In addition, he highlighted

the importance of studying the territorial context in which urban regeneration projects are inserted and all the socio-economic analyses related to the study area ("Città della Salute e della Scienza" site) that is going through an urban transformation process.

Timing: 5 min
Presenter: Prof. Elena Fregonara, Politecnico di Torino
Topic: CityLAB Car Project Presentation

Elena Fregonara introduced the CityLab Car project and explained that the Problem Based Learning (PBL) approach made possible to integrate educational purposes with research activities by activating also fruitful interactions between students, teachers and different stakeholders. This plenary session was therefore aimed at presenting the PBL method and discussing some final project proposals with stakeholders and other experts.

Timing: 20 min
Presenter: Prof. Rocco Curto, Prof. Manuela Mattone, Arch. Diana Rolando, Arch. Alice Barreca, Arch. Nadia Frullo
Topic: "From Problem to Project. Reuse and economic enhancement perspectives for the Città della Salute e della Scienza in Turin"

Manuela Mattone presented the Master of Science in Architecture for Heritage preservation and enhancement and the specific learning goals of the atelier which allowed students integrate competences from two main disciplines (architectural and urban restoration and economic enhancement), as well as to acquire skills in other fields such as architectural and urban composition, history of architecture, urban planning, energy retrofit, data georeferencing for the management of large territorial systems, digital history and visual heritage for the promotion of tangible and intangible assets.

Rocco Curto highlighted the intention of this atelier to be in line with the goals of the Agenda 2030, taking into account the sustainability of the interventions proposed and the impact that they could have on the entire city, and to the main principles of the Whole Building Design approach for achieving

high performing results. Moreover, he also underlined the importance of applyingPBL by involving stakeholders and external experts in the elaboration of the students' projects and by sharing objectives and results with them. Moreover, he presented the complexity of the main real problem and subproblems related to the real case proposed to the students as case study during the atelier: the "Città della Salute e della Scienza" of Turin..

In relation to this, Alice Barreca showed the methods used during the atelier, where PBL was applied on "flipped classrooms", activities with the stakeholders and the World Cafè: this has been very effective in empowering students and making them more involved in the teaching process. Moreover, she highlighted that the atelier provided specific operational tools for the students' professional career and made it possible to make them aware of their project choices, starting from a critical approach.

Nadia Frullo presented the history and the complex property framework of the property assets and highlighted both their relevant cultural value and all the issues related to their current state of maintenance.

Finally, Diana Rolando showed the results of the learning process, with particular reference to the choice of specific building retrofit interventions, the new functions proposed in the redevelopment projects and the analysis of their economic-financial feasibility. In particular, she highlighted how the quantification of the retrofit interventions costs and the application of Life Cycle Costing (LCC) made possible to identify the best retrofit scenario and how the Discounted Cash Flow analysis (DCF) results supported the evaluation of the projects' realization and their future management.In conclusion

she also highlighted the results of the atelier at urban level: a possible masterplan, made up of a functional mix which is adaptable to existing buildings, which represents a useful starting point to continue the dialogue with the involved stakeholders, as well as to activate a fruitful debate also with other stakeholders.

Timing: 15 min
Presenter: Maria Isabella Gallo, Emma Gelsi, Laura Ghio
Topic: Students Project 1 - Rethinking the "Città della Salute e della Scienza" site . An efficient building rehabilitation.

Maria Isabella Gallo presented the project concept developed for the enhancement of the "Odontostomatologia" building: starting from the analysis of the urban context, the specific location of property assets, a redesign of both the interior spaces and the outdoor spaces has been done to link the existing building to the city and adapt it to anew function.

The new function, as Emma Gelsi explained, was chosen to set up a specialized physiotherapy center, respecting the current role of the existing building. The lower level was developed in order to maintain the connection with the other buildings surroundings and it was transformed into a wellness area.

Laura Ghio showed some alternative retrofit interventions which were considered and evaluated; in particular it was analysed the replacement of windows and the insulation of the floors, thus increasing the energy performance level of the building. The feasibility of the intervention was also assessed by considering the initial costs and subsequent operating costs and revenues.

Timing: 15 min
Presenter: Giandomenico Crisarà, Laura Crupi, Antonina Sturniolo
Topic: Students Project 2 - A new multifunctional landmark for the "Città della Salute e della Scienza" site

The project proposed by Giandomenico Crisarà, Laura Crupi and Antonina Sturniolo concerns the current "Clinica Medica e Chirurgica" buildings and proposes differentiations for residential types (both in size and price) by challenging the housing market.

The proposed intervention is fully compatible with the historical value of the existing buildings, protects and enhances their architectural value , by improving also their energy efficiency e.

The students highlighted that, even if the redevelopment of ths asset into a new Landmark for the city could represent a great opportunity for the city of Turin, the real crucial problem is to understand if the real estate market is able to recognize the great value of this architecture, its strategic position and its extraordinary externality.

Timing: 15 min
Presenter: Giovanni Caci, Gabriel Giordano, Farimah Piraei, Daniele Salvatore Meloni
Topic: Students Project 3 - Hotel 4.0, complex for new habitability

Giovanni Caci, Gabriel Giordano, Farimah Piraei and Daniele Salvatore Meloni presented the project concept developed for the enhancement of the "Patologia Medica e Chirurgica" buildings. The analysis of the context and the activities located nearby the buildings made it possible to identify the hotel function integrated with non-standardized but user-based housing as possible functional mix. The feasibility analysis showed that the intervention is cost-effective and provides quality, enhancement and new future perspectives both to these buildings and the urban context.

P6 & P7 Tinidad and Tobago

University of the West Indies
Hosting University
University of Trinidad and Tobago

AGENDA

Trinidad and Tobago National Conference – CITYLABS CAR

2nd October 2020

Zoom link:

https://utt.zoom.us/j/95264418518?pwd=TzlRS1NXVFZ2VGx1ZFlLSkZ3KzU5Zz09

Meeting ID: 952 6441 8518
Passcode: 6v&Zc.^B

1:00 pm -2:00pm	**Introduction and Pleanry Session** Welcome and Introduction – Professor Marlon Knights, Vice President, Research Impact and Postgraduate Studies, UTT The CIYTLAB CAR project – Dr. Asad Mohammed, Project Lead, UWI The Impact of COVID 19 on the PBL experience – Professor Betty McDonald, Head, Professional Development Unit, UTT Discussant – Dr. Bidyadhar Sa, UWI
2:00pm -3:45pm	**World Cafe Workshop – PBL practice in the Caribbean: The CITYLABS CAR Experience** Discussions: Implementing PBL: Challenges and Opportunities Teacher and student strategies in a PBL Course What next? -Sustainability of CITYLABS CAR modules and future approaches

PLENARY SESSION

Timing: 6 minutes
Presenter: Professor Marlon Knights, Vice President, Research Impact and Postgraduate Studies, UTT
Topic: Opening Remarks

The importance of the Citylabs project to enhancing the University of Trinidad and Tobago's role role in addressing urban challenges as well as the importance of fostering innovation in teaching through problem-based learning can improve achievement of learning objectives and enhance the quality of the teaching and learning experience for students and teachers at the institution, were highlighted.

Professor Knights referred to the increasing relevance of the problem-based learning approach as an innovative teaching strategy in light of the covid-19 pandemic when all classes are to be delivered online.

Additionally, it was highlighted that the Citylabs project is considered an important platform that can be used to strengthen partnerships between the UTT and UWI as well as external stakeholders.

Timing: 5 minutes
Presenter: Dr Perry Polar, the University of West Indies
Topic: The Citylabs Car Project on behalf of UWI.

In this short address, the background and overarching objectives of the project were summarized. It was emphasized that the goal of the Citylabs Car project wasn't just to produce better academics but at its core to produce individuals who can better critical thinkers, better solve problems and be more productive in their workplace.

It was highlighted that the project is in fulfillment of UWI's strategic plan and the involvement of UWI and UTT which would represent the majority of the tertiary education sector in the country, meant that that

the maximum number of persons would benefit from the project.

Dr Polar also spoke about the strengthening of the partnership between UWI and UTT which the project fostered allowing both institutions to understand each other in a more profound way.

Timing: 17 minutes
Presenter: Professor Betty McDonald, Head, Professional Development Unit, UTT
Topic: The Impact of COVID 19 on the PBL experience.

Professor McDonald briefly reviewed what is Problem-Based Learning which could be considered pedagogical method in which a real-life problem or situation is presented for investigation, analysis, solution, synthesis and evaluation.

The impacts on delivery of education in light of the Covid-19 pandemic in Trinidad and Tobago which requires that all classes be delivered online was mentioned. In common with PBL online needs, emphasis must be placed on: Collaboration, Communication, Critical Thinking, Creativity. Because the Corona virus is easily contagious, it's helpful to use a Learning Management System The speaker shared her experience in maximizing online collaboration especially in PBL which calls for purposefully focusing on: Learning Outcomes, Learning Resources and Learning Activities.

The point was made that online learning Activities for honing PBL skills were seemingly endless and PBL participants may be involved in: Guided activities, Case studies, Blogging, Games, Collaborative mind mapping & brainstorming and Discussion Forums.

Some of the main challenges of utilizing PBL approach for online delivery of courses were highlighted and included: Desire to be motivated

by others rather than Self, Reluctance to be engaged in personal research, problem-solving, divergent, critical and lateral thinking skills, Reluctance in developing collaborative skills, Lack of confidence in communication skills, Timidity with respect to presentations, and Technology challenges.

Timing: 25 minutes
Presenter: Dr. Bidyadhar Sa
Topic: Discussant

Dr Sa commended Professor McDonald for her talk and summarized the key points of her discussion.

He pointed out that the Faculty of Medical Sciences at the University of the West Indies has been using PBL for almost 31 years, since 1989. Although in this challenging time moving to online PBL was important and has largely been done, he emphasized that the the Caribbean lagging behind in this area since online PBL been around since 1990s in other countries

One critical issue was highlighted – learning is a social process but with online we don't have that physical face to face interaction. Dr Sa then went on to engage all participants by asking critical questions detailed below.

P8 & P9 Guyana

University of Guyana

Hosting university

Government Technical Institute

Scientific and organizing commettee

Dr. Temitope Oyedotun
University Administrator (Dean)
and CityLab team leader

Mr. Rawle Edinboro
Teacher and CityLab Project Coordinator

AGENDA

GUYANA National Conference – CITYLAB CAR
2nd October 2020
Zoom link:
Join Zoom Meeting
https://zoom.us/j/92416226995?pwd=dFJFa21PRmJqUnZ5c0JnTDRxSFZMUT09

Meeting ID: 924 1622 6995
Passcode: 492321

1:00 pm -2:00pm	**Introduction and plenary Session** • Welcome and Introduction – Dr. Temitope Oyedotun, Dean Faculty of Earth and Environmental Sciences, University of Guyana • Opening Remarks – Prof. Paloma Mohamed-Martin, Vice Chancellor of the University of Guyana • Remarks by Ministry of Education Official – Patrick Onwuzirike, Assistant Chief Education Officer, Ministry of Education • The CITYLAB CAR project – Mr. Rawle Edinboro, Faculty of Earth and Environmental Sciences, University of Guyana • Embracing Problem-based learning (PBL): Teaching and learning strategies from the experience of the Government Technical Institute - Ms. Alero Proctor, Government Technical Institute • Reflections on PBL and the impact of COVID-19 – Mr. Rawle Edinboro (U.G) and Ms. Renita Duncan (GTI) • A student perspective on a PBL-type project – Ms. Kim Chan-Bagot, CityLab U.G student.
2:00pm -3:45pm	**World Cafe Workshop – PBL practice in the Caribbean: The CITYLABS CAR Experience** Discussions: Implementing PBL: Challenges and Opportunities (to be facilitated by Ms. Renita Crandon-Duncan) Teacher and student strategies in a PBL Course. Working with stakeholders: Opportunities and Challenges (to be facilitated by Mr. Rawle Edinboro) What next? -Sustainability of CITYLABS CAR modules and future approaches (open discussions)
4:00 pm	**Summary and Closing Remarks –** Rawle Edinboro

PLENARY SESSION

Timing: 5 min
Presenter: Dr. Temitope Oyedotun, Dean, Faculty of Earth and Environmental Sciences, University of Guyana
Topic: Brief remarks on the CityLab Project and introduction of the opening speaker, Prof. Paloma Mohamed-Martin, Vice-Chancellor, University of Guyana

In introducing Prof. Paloma Mohamed-Martin as the opening speaker, Dr. Oyedotun drew connections with her active involvement in the first Guyana National CityLab seminar held last July. He pointed to her leadership role in guiding changes in the way the University of Guyana, as a higher education institute, is approaching new educational challenges.

Timing: 15 min
Presenter: Prof. Paloma Mohamed-Martin, Vice-Chancellor (opening speaker), University of Guyana
Topic: Perspectives on the changing climate for the delivery of education at U.G.

Professor Paloma Mohamed-Martin offered her perspectives on:

- The relevance of the problem-solving approach to urban problems,
- The future learning in light of disruptive scenarios/environments and the associated need to have among us graduates who will be able to cope with disruptive environments.

The remarks made were informed by Prof. Mohamed-Martin's role both as a University academic and an administrator. She pointed to the significance of the CityLab project to the University of Guyana's blueprint on the path forward and acknowledged the relevance of the Problem-based learning in educating students to be better able to solve the many real-life urban problems. Coincidentally, it was pointed out that many aspects of the approach being advocated by U.G were already in sync with several

areas of the PBL approach.

Timing: 20 min
Presenter: Mr. Patrick Onwuzirike , Stakeholder and Deputy Chief Education Officer, Ministry of Educatiiion
Topic: The importance of education students to solve problems in society

Mr. Onwuzirike remarked that Problem-based Learning (PBL) in an intriguing approach, the methodology of which should be embraced as a means of developing competent, rounded and fit for purpose graduates. It was noted that the Ministry of Education was currently pursuing a policy of applied research and that there is opportunity for this to gain more ground with the application of PBL.

From the students' perspective, Mr. Onwuzirike commented that PBL offers opportunity for students to think independently and to increase their knowledge and understanding while developing other positive attitudes such as teamwork and respect for others.

In closing, Mr. Onwuzirike expressed the view that there is potential immense benefit of PBL in education.

Timing: 25 min
Presenter: Mr. Rawle Edinboro, CityLab Project Coordinator/Teacher, University of Guyana
Topic: An Overview of the CityLab Car Project.

The key project objectives, aims and approach were explained, in addition to the reason for the focus on PBL and urban sustainability.

Participants were also briefed regarding the status of the Project.

Timing: 15 min
Presenter: Ms. Alero Proctor, GTI CityLab Project Partner/Teacher, Government

By way of a brief PowerPoint presentation, Ms. Proctor outlined several teaching and learning strategies adopted by her as a PBL Facilitator in

Technical Institute
Topic: Embracing Problem-based learning (PBL): Teaching and learning strategies from the experience of the Government Technical Institute

the classroom. Some of the teaching and learning strategies discussed included: collaborative learning, critical thinking, inquiry-guided learning, team-based learning, group discussions and community visits. Ms. Proctor also demonstrated cases in which PBL strategies were applied to the design and development of students' projects.

Timing: 20 min
Presenters: Ms. Renita Crandon-Duncan, GTI CityLab Project Partner/Teacher, Government Technical Institute and Mr. Rawle Edinboro, CityLab Project Coordinator/Teacher, University of Guyana
Topic: Reflections on PBL and the impact of COVID-19.

In reflecting on the PBL approach, Ms. Crandon-Duncan pointed to the usefulness of working in partnership with stakeholders to address real urban problems. It was however noted that COVID-19 led to many stakeholders being unavailable to accommodate students and necessitated a change in approach. A notable challenge in this regard was the restricted ability to collaborate due to physical distancing rules. It was also noted that COVID-19 demanded that more time be expended in planning for PBL.

Opportunities through the PBL approach were identified as: collaboration with industries, establishment of networks, more student-centred work, development of real work skills and improved teamwork.

Mr. Edinboro noted that COVID-19 effectively challenges the notion of a preferred physical setting for the PBL classroom and presents other challenges regarding time and new skills in support of effective work as a learning facilitator. Issues such as gauging peer-to-peer learning, managing student distraction and monitoring group behavior were identified as areas of concern in transitioning from the physical setting to the online mode for the application of PBL.

In summary, other general challenges noted were the challenge of maintaining a continued dedicated on-campus team, capacity-building support (training) for PBL facilitators and the level of willingness among students to embrace the PBL approach.

Timing: 15 min
Presenters: Ms. Kim Chan-Bagot, Student, University of Guyana
Topic: A student perspective on a PBL-type project.

As a student, Ms. Kim Chan-Bagot emphasized the difference in learning under the PBL approach. It was stated that working on the project provided a great learning opportunity for students, whereby learning was stimulated in a different way. Additionally, the following were highlighted as key points coming from the students' perspective and based upon their experience of working on the urban blight project:

- More active involvement in dealing with real urban problems and better opportunity for students to develop their own understanding of such problems.
- Opportunity to make decisions as a team and think creatively.
- The advantage of multi-disciplinary talents among group members.
- The development of teamwork skills.
- The importance of working with stakeholders.

P10 & P11 Suriname

Anton De Kom University of Suriname

Hosting University

Polytechnic College Suriname

Scientific and organizing committee

Bihari Renuka
Polytechnic College Suriname
Teacher PTC

Chatterpal Rawieskoemar
Centrum voor Landbouwkundig Onderzoek Suriname
(AdeKUS) Researcher

AGENDA

Caribbean Education for Sustainable Urban Development Conference

Paramaribo, 25 september 2020

Betreft uitnodiging deelname Nationale sessie Suriname, dinsdag 29 september 2020 van 12:00-14:00 uur

Geachte heer/mevrouw,

De Anton de Kom Universiteit van Suriname organiseert in samenwerking met het Polytechnisch College Suriname, i.h.k.v. de **afsluitingsconferentie Caribbean Education for Sustainable Urban Development Conference**, van het door de Europese Unie gefinancierde CITYLAB CAR Engaging students in Sustainable Caribbean Cities"project, de **nationale sessie** op **dinsdag, 29 september 2020, van 12:00 tot 14:00 uur.**

Het programma ziet er als volgt uit:

Time	Activity
Introduction and Keynote	
	Welcome and Introduction by Angelika Namdar
12:00 pm – 13:00 pm	Keynote speech "Problem Based Learning. Wat is het, wat is het niet, en kunnen we daar nu echt problemen mee oplossen?" by Prof. dr. Koen DePryck
World Café Workshop	
	Introduction World Café by Dayenne Tjon A San
13:00 am – 14:00 pm	3 rooms & 3 themes: 1. Implementing Problem Based Learning: challenges and opportunities 2. Teacher and student strategies in a PBL course 3. Working with real life problems and external actors
	Recap by rapporteurs of the rooms
	Closing Remarks National Conference by Angelika Namdar

De bijeenkomst zal virtuele zijn. U kunt **voor de nationale sessie registreren** door een **emailbericht** te versturen **naar angelika.namdar@yahoo.com**, met vermelding van uw naam, organisatie, emailadres en telefoonnummer. U ontvangt na registratie per email de inloggegevens voor de sessie en overige instructies over het world café.

De registratie voor de internationale sessies van 1 en 2 oktober doet u op https://forms.uantwerpen.be/en/conferences/citylab-car/registration/keynote-speeches/?_ga=2.8369332.763437324.1600876115-1021464692.1600777065

Een bijzonderheid in het internationale programma is de studenten presentaties op 1 oktober 2020, waarbij het AdeKUS team haar onderzoek om 9:00 uur zal presenteren en het PTC team om 09:20 uur. De winnaar van de studenten competitie wordt op vrijdag bekend gemaakt.
Voor het volledige programma verwijzen wij u naar de website https://www.uantwerpen.be/en/conferences/citylab-car/programme/

Wij kijken uit naar uw deelname.

Met vriendelijke groeten,

Angelika Namdar
Coördinator Citylab team Suriname

PLENARY SESSION

Timing: 10 min
Presenter: Angelika Namdar, Host, Anton de Kom Univerity
Topic: Introduction

Introduction and welcome

Angelika Namdar, introduced herself and Dayenne form PTC and local PM's and gave a introduction about the Citylab project, the objectives and the involvement of both partners Anton de Kom University and Polytechnic College Suriname in the Citylab-Car project.

We, de AdeKUS and the PTC, invited you for this seminar, with regards to the EU funded Erasmus+ project, which we are implementing together with our partner universities from Denmark - Aalborg, Antwerp, Brussel (VUB), Dominicaanse Republiek, Guyana (UG + GTI), Jamaica (Utech + CMU), Spain-Madrid, Italie (Turin), Trinidad (UWI + UTT)

This project "ENGAGING STUDENTS IN SUSTAINABLE CARIBBEAN CITIES, Citylab" aims to stimulate innovation in teaching in higher education through problem-based learning in the Caribbean, to make higher education institutes and students better prepared to deal with contemporary urban problems and challenges.

Problem-based learning is a proven innovative approach for introducing real-world problems in the education program with huge possibilities to transform the quality of learning and teaching. In the first presentation Dr.

Quitzau will give us more inside in this topic. It is a kind of active, integrated and constructive learning method that works from a student centered approach and emphasizes on learning to learn and learning by doing.

As planners, we choose to work on specific urban problems and challenges. As these problems are in general complex of nature, they require a multi - and transdisciplinary approach.

The selection of urban problems demands cooperation with urban actors and provides the opportunity to structurally strengthen the relationship between the higher education institutes and several public and civil society organizations. That's why we are happy that you all recognized the importance of planning and involvement of stakeholders and discuss the approaches we follow within PBL with us.

Timing: 60 min
Presenter: Prof. dr. Koen De Pryck, Keynote speaker, Vrije Universiteit van Brussel
Topic: Problem based learning. What is it, what is it not, and can we really use it to solve problems?

Keynote speaker and speech

Angelika introduces the keynote speaker dr. Koen de Pryck from the University of Brussel and gave the briefly introduces the keynote speech with the title "Problem Based learning. What is it, what is it not, and can we really use it to solve problems?"

Summarize the events and Topics addressed:

- The gap between the required competences of young urban professionals and current teaching methods in Higher Education in the Caribbean
- The large Gap between the required competencies on the labor market and the current education outcomes.
- The aim of the Citylab-Car project (and beyond): this project aims to

stimulate innovation in teaching and learning through Problem Based learning in higher education institutions to better prepare teachers and students to deal with urban problems and challenges.

- Smart cities, farms boats etc. : example of how innovation is used in effectively solving a real life problem. The experts/researchers involved in projects to solve real (world) problems in any sector use their competencies and apply these and their knowledge to innovate and solve real world problems.
- Ingredients for effective problem based learning: The problem that needs to be solved is a real world problem and not a hypothetical one, so the solution cannot always be developed in a controlled environment. The experts involved can come from many disciplines, but even if they do not have the necessary expertise, this can be recruited. An adaptable team is also key, in which the experts not only need theoretical knowledge but also practical skills/competencies to deal with in situ problems. There needs to be a methodology and the experts need to have a willingness to learn, be able to improvise.
- Project Based Learning
- Problem Based learning to Project Based learning and how that is related to a school curriculum.

P12 & P13 Dominican Republic

Pontificia Universidad Católica Madre Y Maestra

Hosting University

Universidad Iberoamericana

Scientific and organizing committee

Orisell Medina-Lagrange
PUCMM

Melisa Vargas
UNIBE

AGENDA

National program DOMINICAN REPUBLIC			
Introduction & plenary session			
Time	**Activities**		**Duration**
2:00 pm-3:15 pm	Welcome & Introduction	Orisell Medina-Lagrange PUCMM	5 min
	Presentation of the Citylab project and results by Campus Teams	Melisa Vargas/Orisell Medina-Lagrange	20 min
	Guest Speaker: Arch. Shaney Peña. Cities, Development and Education: Reflections 2020		30 min
Workshop: PBL Practices in the Caribbean - the Citylab experience			
03:15 pm-04:45 pm	**World Café**	Rafael Dorvile-Control Master	
	1. Implementing PBL: opportunities and challenges	Orisell Medina-Lagrange-PUCMM & Victoria Martínez – CDP PUCMM	20 min
	2. Teacher and student strategies in a PBL course	Carmen Gloria Prado & Lisa Rubio -CDP PUCMM	20 min
	3. Working with real life problems and external actors	Audelín Henríquez & Virginia Flores- PUCMM	20 min
	4. After Citylab: what's next? Sustainability of Citylab module(s) and ideas on future approach	Melisa Vargas & Andrés Rojas-UNIBE	20 min
04:45 pm	**Recap & closing of the National conference**		

PLENARY SESSION

Timing: 5 min
Presenter: Orisell Medina-Lagrange, Citylab Manager, PUCMM
Topic: Welcome

The activity began by welcoming the guests and participants. A brief description of the Citylab CAR project and its impact on the participating universities was given. The live broadcast of the plenary session was announced on @pucmmTV on Youtube, and that the Workshop part would continue in the Zoom room, after the conferences.

Timing: 10 min
Presenter: Melisa Vargas, Citylab Manager, UNIBE
Topic: UNIBE Results presentation

Melisa Vargas referred to the implementation process of the PBL module, the workshop carried out in July 2019 at PUCMM, the internal and external collaborations and actors involved, and as the passage of the pandemic caused the use of the digital manufacturing laboratory to be limited and put at the service of the manufacture of parts for artificial respirators, in joint with INTEC university. The scope of the implemented module was presented as well as a summary of the process and its results.

Timing: 10 min
Presenter: Orisell Medina-Lagrange, Citylab Manager, PUCMM
Topic: PUCMM Results presentation

The aspects presented in the implementation of the MOVER module were presented in two aspects before the module and during the module. Before the start of the module, students and teachers received training in PBL on the project's Moodle platform. Before the beginning of the module, the implementation design was developed and this process was guided by the Centre for Teacher Development, as well as contacts with external partners was initiated. The urban intervention, modelling and simulations Laboratory

(Inmosilab) was also inaugurated.

During the implementation of the module, 3 main workshops were held to support the improvement of student performance: Workshop "Building Together" (teamwork and communication skills), Graphing workshop and The Expert Game Workshop, where students from the various participating careers met, opening the interdisciplinary work process of the project. The various interventions of internal and external stakeholders were presented, in the form of talks, visits and trainings of the software and lab equipment's.

The general scheme of the formulation of the students' projects was presented within the module, the preparation phases, the preselection of teams and the final presentation to the staff of project teachers, the proposal of the U PARK team being selected.

Timing: 45 min
Presenter: Arch. Shaney Peña-Gómez, director Planning and Projects Department, Ministry of Tourism
Topic: Reflections 2020: ¿Sustainable cities?

The architect Shaney Peña presents her vision from her experience in diverse levels of urban planning and landscape architecture, on what the term sustainable cities implies, integrating concepts and situations that are permeating the development of the human being in our cities: data, refugees, climate change, resources and people happiness.

Questions and remarks

- Has the housing issue been addressed since its recognition as a capitalist state? Or do you think that the solutions, which are few, have been more socialist or communist?
- What can be done to adapt the boulevards and integrate them as public spaces, if you think it is feasible? Since they do not appear in the

maps presented.

- The point of approaching sustainability and urban development from a scientific-data base is extremely interesting. How appropriate is it to approach the science of cities? And what is the reality of the DR in managing to address sustainability from a scientific basis?

P14 & P15 Jamaica

University of Technology
Hosting University
Caribbean Maritime University

Scientific and organizing committee

Carol D. Archer, PhD
Project Coordinator, Caribbean City Lab Project

AGENDA

UNIVERSITY OF TECHNOLOGY, JAMAICA
CARIBBEAN MARITIME UNIVERSITY

CARIBBEAN CITY LAB – ENGAGING STUDENTS IN SUSTAINABLE CARIBBEAN CITIES
NATIONAL SEMINAR, OCTOBER 2, 2020

AGENDA

1:00 p.m.	Welcome and Overview of Caribbean City Lab Project – *Dr. Carol Archer, Team Leader, University of Technology, Jamaica*
1:10 p.m.	Remarks - Dr. Haldane Johnson, Acting Deputy President, UTech, Ja. - Mrs. Karen Gayle, Senior Standards Development Officer, UCJ
1:20 p.m.	Graduate Perspective of PBL – Ms. Larketh Richards
1:30 p.m.	Review of approach to Problem Based Learning: Our Experiences - University of Technology, Jamaica - Caribbean Maritime University
1:50 p.m.	Results - Viewing of Student Projects: UTech, Ja./CMU ***Question and Answer***
2:30 p.m.	World Cafe - Feedback and Suggestions for Implementing PBL in National Curriculum - implementing PBL: Challenges and Opportunities - Teacher and student strategies in a PBL course - Working with real life problems and external actors - After CityLab: What's next? Sustainability of the City Lab module(s) and ideas on future Approach
2:50 p.m.	Presentations (5 minutes each)
3:10 p.m.	Closing Remarks – Mr. Nicolas Spence, CMU

PLENARY SESSION

Timing: 10 minutes
Presenter: Dr. Haldane Johnson, Deputy President, University of Technology, Jamaica
Topic: Curriculum changes to support the Strategic Direction of the University

In his opening remarks, Deputy President Johnson indicated that he endorsed the implementation of PBL as a pedagogical approach as this will allow the University to meet one of its strategic objectives to enhance its teaching and learning approach.

Dr. Johnson stated that UTech, Ja. is committed to expanding our training of the PBL approach so that more academic staff from different faculties will be involved, and trained to implement PBL methods to solve some of our current issues here in Jamaica. He is of the view that by entrenching this new pedagogical approach, we will be advancing one of the University's strategic objectives, our national objective–Vision 2030--to make Jamaica a place to live, raise family and do business by 2030, and to meet the global objectives for the UN SDGs

Timing: 10 minutes ....
Presenter: Karen Gayle, Standard Office, University Council of Jamaica
Topic: Introduction

Mrs. Gayle congratulated the staff and students of the two universities for collaborating on this important initiative. She noted that UCJ, the quality assurance and accrediting body of Jamaica supports the HEI cutting edge approach to teaching and learning which is a main consideration in granting accreditation status. She encouraged the move from the pilot phase to the implementation of PBL on a broader level within HEI here in Jamaica.

Timing: 15 min
Presenter: Larketh Richards, Member of the Campus Team, UTech
Topic: Research Findings on the implementation of PBL in the Educational System in Jamaica

Mrs. Richards presented the findings of her research on PBL in the education system in Jamaica. Mrs. Richards conducted her research in 2017 as part of her Masters in Workforce Education. She noted that the introduction of PBL was a major challenge to the traditional approach to teaching and learning in the secondary school system. At first, the students were resistant to the approach because they were not accustomed to identifying the information needed and go in search of this information. Most times the students are told the information they need and where and how to access this information. Based on the PBL approach, it was apparent that the students needed to enhance their critical thinking skills. Enhancement of critical thinking is not a dominant feature of the traditional approach to teaching and learning. According to Mrs. Richards, the traditional approach only supports the lower level taxonomy for learning, teaching and assessment that relates to the memory and recall.

She observed from her research that the application of PBL allowed the students to demonstrate a greater level of creativity. The students organized ideas, generated possible solutions and constructed/applied these solutions. By engaging in these activities associated with PBL, the students were engaged in the higher level of Bloom's taxonomy. She noted that the students would perhaps have benefited more from PBL had it been introduced at the earlier stage of their education.

During the Q & A session, the students concurred with Mrs. Richards and pointed out that they had similar experiences with the introduction of the PBL.

Timing: 50 minutes.
Presenter: Students from UTech and Students from CMU
Topic: Students'experiences

Students from the two universities displayed and discussed their experiences with implementation of the PBL Project. The two universities agreed to this approach as this was the first time that a national audience viewed the students' works.

The students outlined the approach they employed for the courses, the activities they engaged with and the solutions that they implemented. The students from UTech, Ja. lamented the fact that they were not able to fully engage the community residents–one of the major stakeholders due to the COVID pandemic which prevented them from going into the communities. Both groups of students were disappointed that the duration of the courses did not allow them to fully implement their proposed solutions. All students indicated that they benefitted greatly from the PBL experience and recommended that the universities introduce PBL from the first year.

Citylab International Student Competition

presenting the projects of the students involved in the Citylab modules

Jury Composition

Caribbean education for Sutainable urban Development - 2020

Orisell Medina
Professor
Escuela de Arcquitectura y Diseño
Pontificia Universidad Católica Madre y Maestra
Dominican Republic

Tom Coppens
Professor
Coordinator CITYLAB CAR
University of Antwerp
Belgium

Angelika Sadhana Namdar
Director Faculty of Technological Sciences (FTeW)
Lecturer Spatial and Urban Planning
Institute of graduate studies &research (IGSR)
Anton de Kom University - Surinam

Khanjan Metha
Vice Provost for Creative Inquiry
Director of the Mountaintop Initiative
Lehigh University
United States of America

Rogier van den Berg
Director Urban Development
WRI Ross Center for Sustainable Cities
World Resources Insititute

Maj-Britt Quitzau
Associate Professor
Department of Planning
Aalborg University
Denmark

CITYLAB Student Competition

Competition rules and criteria

Each higher education institution selected a student team of 4 students who were involved in the Citylab module to represent their institution during the online Citylab student competition on October 1. The student teams prepare a video of maximum 3 minutes to introduce their project and learning experience, and 2 posters: one poster focuses on the learning experience and the PBL approach used in the Citylab course; while the other poster illustrates the results of the course: the final student project.

The posters and videos are submitted in advance and available online (in Miro) for all conference participants (Visit the virtual Citylab Student Exibition).

Student Exhibition

Until de day of the online jury (between Monday 24/09 - Thursday 01/10), all participants can check out the student projects online and post questions and comments (via Miro). Here, the public can vote for a student team who should win the 'public's favorite – award'.

Student Jury

Each project will be evaluated by an international and interdisciplinary jury based on the video, posters and the

online Q&A. The student team will receive a timeslot to go live in discussion with the jury and answer their questions. Afterwards, the jury will evaluate and select the winning team according to the following topics:

1. (Problem Based) Learning process
2. Interdisciplinary work
3. Collaboration with local stakeholders
4. Sustainable Development Goals
5. Relevance for the Caribbean region (in case of EUR teams: European region)

Each criteria has the same weight in the final evaluation of the projects.

Jury Award

The jury graded each project with a score from 0 to 4 per category. This way each project got a score on 20 from each jury member. After the online presentations, the jury discussed their evaluation and selected nominees and a winner per category and finally an overall winner with outstanding results in all the categories.

Problem Based Learning Experience

Nominees: University of Guyana and University of the West Indies (team 2)
Winner: University of the West Indies (Team 2)

Interdisciplinary work

Nominees: University of Antwerp, Caribbean Maritime University, University of Trinidad and Tobago
Winner: University of Antwerp

Collaboration with local stakeholders

Nominees: Politecnico di Torino and Universidad Iberoamericana
Winner: Politecnico di Torino

Addressing the Sustainable Development Goals

Nominees: University of Technology and Universidad Iberoamericana
Winner: Universidad Iberoamericana

Relevance in the Caribbean region

Nominees: Polytechnic College Surinam, Anton de Kom University of Surinam, University of the West Indies (team 1)
Winner: Anton de Kom University of Surinam

OVERALL WINNER
Pontificia Universidad Católica Madre y Maestra

Public's Favourite Award

Between Monday and Friday morning (GMT+2) a public voting link was available on a page in the virtual exhibition in Miro. Through this link people could vote for their favourite team.

The students of Ponitificia Universidad Católica Madre y Maestra was chosen as the winning team according to the poll.

UA

P1
University
of Antwerp

Belgium

Winner for *Interdisciplinary work*

Citylab Student Competition

1 october 2020

University of Antwerp
Design studio 3
Chiem Jacobs, Janic Rodriguez
Chris den Heijer, Milo Keunen

Universiteit Antwerpen

LEARNING EXPERIENCE

Team

Hi! Our team consists out of Milo Keunen, Chiem Jacobs, Jasper Roelen, Chris den Heijer and Janic Rodriguez. In the past two years our design team worked in three design studios, which resulted in a masterplan design and an advice for the municipality of Brecht. In addition to the hard work and educational achievements, we enjoyed working together, both within and outside the university environment.

Structure of the course

Course structure of MSc. Stedenbouw en Ruimtelijke Planning UA

The master's programme for urbanism and spatial planning at the University of Antwerp is built up around three design studios. In each of these studios, student teams are put to work on the various phases that make up spatial development projects. The third and final design studio, i.e. the CityLab course, focuses on the feasibility and implementation of projects designed by the teams in the previous studios. This course is characterised by an interdisciplinary method and a strong focus on sustainable development goals.

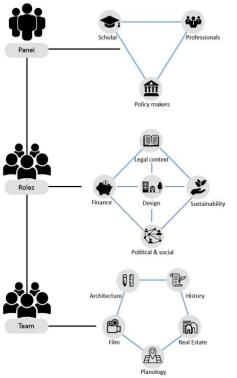
This design studio stands out due to the emphasis put on the possible pitfalls that may follow proposed designs. In this studio, students are encouraged to consider the implications and risks concerning their projects and are urged to develop a strategy to enhance their project's feasibility.

Interdisciplinary work

The interdisciplinary workflow of this course is enhanced through intermediate evaluations in which students discuss their progress with a broad panel of leading scholars and professionals experienced in planning outside the academic gates.

Furthermore, each team member was assigned a different role, based on the most prominent sensibilities in project management: political and social feasibility, financial feasibility, legal context and ecological sustainability. The last character, the designer, finally translated the input coming forth from these feasibility studies to a final masterplan.

Though such a workflow is challenging at times, most teams fare well due to the different profiles that make up the design teams. For instance, our group consisted of an architect, an historian, a filmmaker, a real estate specialist and a planning specialist. This variety of disciplines made it so that a balance was found between each individual's strengths and weaknesses.

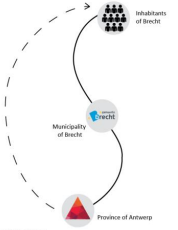


Interdisciplinarity of the project

Collaboration with local stakeholders

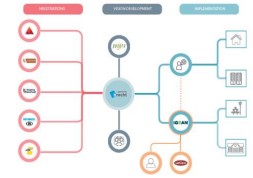
In the previous design studios the residents of Brecht were involved to provide input on the current state of public transport and the village in order to make a comprehensive analysis of the village of Brecht.

Throughout the process, both the municipality and the province have been in close contact with us as consultants, providing information and advice.



Scheme of collaborations

After the collaborations during the design phases, our team drew up a plan for tomorrow. In the process architecture of our project, all the important interactions with local and supra-local stakeholders are meticulously planned in order to make our project socially sustainable.



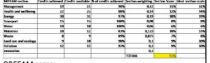
Synthesis of the process architecture

Sustainable Development Goals (SDG)

To measure our project's level of sustainability, we demarcated multiple SDG's, which were afterwards gauged using the BREEAM method. BREEAM is a method to measure sustainability for both new and existing constructions or projects. The assessment is based on various criteria: management, health, energy, transport, water, materials, waste, land use and ecology, and pollution.

SDG's linked to BREEAM

The method departs from predefined criteria to which values are linked. A specific score per criterium is given below for the project. On the basis of the BREEAM manual it can be checked whether the specific project component is sufficient and whether credits can be awarded. Subsequently, the credits obtained are converted to a percentage ratio in relation to the maximum achievable score. The proposed development of Brecht gets a total score of 91%.



BREEAM score

Below, the relevance to the SDG's can be retrieved.

Project relevance to SDG's

Contribution to the Citylab Student Competition as part of the conference **'Caribbean Education for Sustainable Urban Development'** organized in the framework of the Erasmus+ project **Citylab CAR: Engaging students in Sustainable Caribbean Cities**

Co-funded by the Erasmus+ Programme of the European Union

Citylab Student Competition

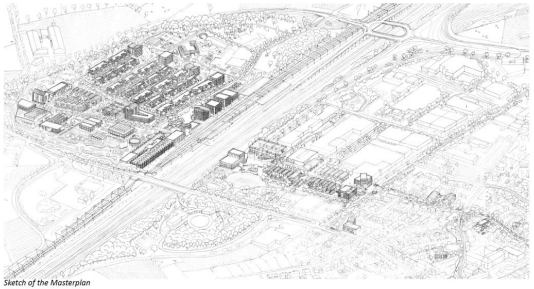
1 october 2020

PROJECT

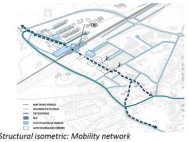
University of Antwerp
Design studio 3
Chiem Jacobs, Janic Rodriguez
Chris den Heijer, Milo Keunen

Universiteit Antwerpen

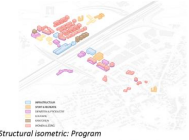
Project area: Brecht (province of Antwerp, Belgium)



Sketch of the Masterplan



Structural isometric: Mobility network



Structural isometric: Program

Structural isometric: Landscape

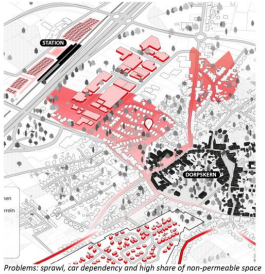
Brecht - a link between city and countryside

The municipality of Brecht, a rural village in the Campine region of Flanders, may be seen as just a footnote in comparison to nearby cities as Antwerp. However, it is precisely this village that may contribute to the transition to a more sustainable use of space and transportation.

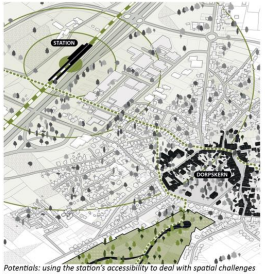
Especially the train station Noorderkempen that opened in 2011 plays a major part in Brecht's potential. Since its opening, this station grew in popularity among commuters of Brecht and its neighbouring villages as the only multimodal gateway to Antwerp. In 2018 this gateway function became international, as the station started serving the line between cities as Brussels, Rotterdam, Den Haag, and Amsterdam. Station Noorderkempen is thus hyper-accessible, yet no development came forward to reflect this quality.

To deal with the challenges of growing space consumption and car dependency, we designed a project that makes use of this station's exceptional accessibility. Based on the core principles of transit-oriented development we charge the station environment with housing, office spaces and social amenities at high densities, without losing Brecht's rural identity out of sight. Meanwhile we connect Brecht's historic centre with the train station through the introduction of a new mobility spine, solely reserved for slow modes of transportation. Between centre and station, we focus on densifying the spatial fabric surrounding this new spine, while upgrading the range of local amenities.

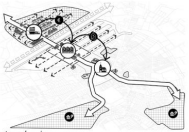
The station environment serves as a financial lever: profit generated through its development, will flow back to the community by investing it in public space and local amenities, and by using it to safeguard the threatened open space surrounding the historic centre of Brecht. The first brick of this project will be laid in 2020. Eventually, in 2032, Brecht will be able to announce that it offers a home to 1.500 new inhabitants who can enjoy the service of the train station and a much greater assortment of amenities, all within a few minutes of walking or cycling from their doorstep.



Problems: sprawl, car dependency and high share of non-permeable space



Potentials: using the station's accessibility to deal with spatial challenges



Strategy drawing

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Final Citylab Car Conference

POLITO

P4
Politecnico
di Torino

Italy

Winner for *Collaboration with local stakeholders*

Citylab Student Competition

1 october 2020

Politecnico di Torino
A case of urban restoration
Hospital "Città della scienza e della salute"in Turin
Maria Isabella Gallo, Emma Gelsi, Laura Ghio

LEARNING EXPERIENCE

CITYLAB MODULE

Name of the Institution: Politecnico di Torino

Name of the Citylab module: Citylab Car "Engaging students in sustainable caribbean cities"

Program: Master Degree in "Architecture for restoration and enhancement of heritage"

Name of supervisors: Rocco Curto; Manuela Mattone; Alice Barreca; Diana Rolando, Nadia Frullo, Rossella Taraglio, Maria Cristina Azzolino, Diego Giuseppe Ferrando

Name of the students: Maria Isabella Gallo; Emma Gelsi; Laura Ghio

Modality: Semestral course

Total member of students(approximately): 35 students

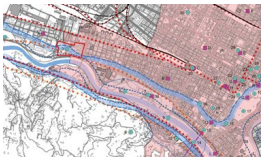
Number of students per group: 2/3 students per group

Number of stakeholders involved: 13 coming from different background

Sda Goal(s): Redevelopment and refocusing of the hospital complex of San Giovanni Battista, increasing public services for the community and repairing the urban context.

LEARNING EXPERIENCE

The PBL method has been used to address the architectural design laboratory in order to identify at first what were the **problems** of the area under study and in the second place to develop an effective design idea and in line with the premises of the course.
The key words used to address the phases of analysis and design were **sustainability** and **coherence** with the urban fabric, with a particular focus on the stitching of the neighborhood.
In order to identify the problems, the various analyses carried out on the urban fabric and on the territory have been compared, associating them with socio-economic data obtained for the area. So it was crucial to study both the building itself and its relationship with the surroundings area.The problems encountered are those that are easily found in wider range in Italy, as there is a huge amount of buildings with historical and architectural recognition that are in conditions of **degradation** or partial neglect,these buildings are commonly **abandoned** in favour of new buildings, resulting in the creation of an increasingly vast heritage of abandoned architectural heritage and causing an enormous **loss of resources both from the economic point of view and the landscape.**
Once found the main problems and needs of the site , we proceeded with the identification of a proposal that could respond to the problems encountered and in doing so, field research and the **identification of real subjects** who might be interested in the implementation of our project were extrimely important.



Element of landscape relevances
Historical settlement structure
Project area
Main road network

INTERDISCIPLINARITY

The project was carried out within two different modules of the same course, the first whose name was **"Urban and landscape restoration"** and the second "**Economic enhancement**", the cooperation of the two modules made it possible to deal with the project with a more complete approach, breaking away from the academic approach usually used and making it more concrete. The possibility of addressing different aspects of the project, has made possible a greater understanding of the case study and in the final phase of the design has allowed to realize a project with **concrete premises**, capable of having a **positive impact on the community** and **self-sustaining**. Thanks to the interaction of the two modules it was also possible to carry out an **energy efficiency** operation that allowed to improve the energy capacity of the building, in order to make our **project sustainable both economically and environmentally.**

INVOLVEMENT OF LOCAL STAKEHOLDERS

The starting point of the project was to respond to a real problem of the country, in the field of urban planning, land occupation and retraining. It was possible to reach this conclusion thanks to two different types of analysis, the first one more theoretical linked to the data sought within the portals of the **Region** and the **city of Turin**. the second practice, carried out through field research. Field research has been used at different stages of project development depending on the needs of the moment.
Initial research was carried out in the preliminary phase, through talks with **members of the community**, the neighborhood and the **local merchants** it was understood that disruption of the intended use of the facility would have caused serious fractures in the economic fabric of the neighbourhood, when most of the surrounding tertiary activities are closely linked to the hospital function of the complex. A second fact emerged from the first comparison with the community was the lack of attractive activities of the area linked to the mainly residential connotation. There was also, in the preliminary phase of the project, the opportunity to get in touch with **experts in the field and members of the municipality** thanks to interventions made during the lessons.
The second moment in which the research on the field has been essential has been in the planning phase, thanks to **the involvement of a real company with characteristics similar to those imagined for our project** it has been possible to make the plan more concrete and flexible.

Stakeholder involved: PoliTo teachers arch G.Roccasalva, prof FDe Pieri, prof P. Castelnovi. External teachers: arch L. Milan(Comunicarch), arch G. Tagliasacchi(Fondazione Contrada Torino). LAMSA Lab-PoliTo: arch R. Taraglio, M. Azzolino, Mollino database: arch. Bodrato. Member of the board of the "Città della Salute e della Scienza": eng. S. Petruzzi, arch C.Rossi. Memeber of SABAP-TO: arch E. Frugoni, L. Accurti. City of Turin official: arch G. Leonardi.

Two working moments within the course, the first one during the first site visit, the second one during the world café that was held in the classroom to deepen the problems encountered.

SDG goal(s)

Thanks to the methodology adopted, namely the sustainable choice to redevelop an existing architectural asset,improving its energy performance and improving the relationship of the asset with the district where it is located, our intervention responds to the characteristics necessary to achieve the **SDGoal 11 "Sustainable Cities and communities"** whose primary objective is to make cities and human settlements more inclusive, safe, resilient and sustainable.
In particular, it provides sub-objectives 11.3 that require **sustainable and inclusive urbanization,** 11.4 that urges to p**rotect the cultural and natural heritage of the nation**, in part 11.6 that invites to try to **reduce the environmental impact of cities** and 11.7 calling for **secure and inclusive access to green areas and public areas.**
The project is also committed to supporting the economy that neighborhood and improving its quality of life. Within the masterplan in fact are being upgraded infrastructure for the neighborhood, with the aim of creating new attractive and receptive jobs and activities for the resident of the area, thanks to which the goal number 8 is reached.

Contribution to the Citylab Student Competition as part of the conference **'Caribbean Education for Sustainable Urban Development'** organized in the framework of the Erasmus+ project **Citylab CAR: Engaging students in Sustainable Caribbean Cities**

Co-funded by the Erasmus+ Programme of the European Union

Final Citylab Car Conference

Citylab Student Competition

1 october 2020

Politecnico di Torino
A case of urban restoration:
Hospital «Città della scienza e della salute» in Turin
Maria Isabella Gallo, Emma Gelsi, Laura Ghio

PROJECT

THE SUSTANABILITY PROBLEM

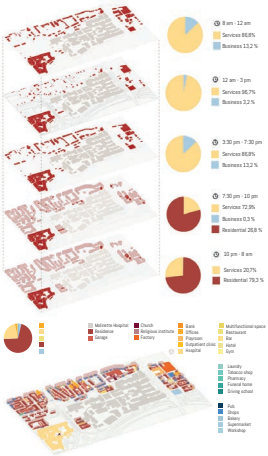
The current state of deterioration of the Le Molinette hospital is an example of a lack of maintenance that affects many 19th century buildings in Italy. The unbridled expansion of the suburbs, which often took place through a construction that was not attentive to environmental issues and the well-being of the population, has neglected the economic benefits that a careful redevelopment of existing buildings would bring to the city.

Starting from the project theme, the group specifically analyzed the Odontostomatology pavilion, but in relation both to the other buildings of the complex and to the urban context in its entirety. An overall vision of the neighborhood and the city is essential in the ambition to consolidate truly sustainable communities and cities.

WHAT WE OBSERVED

From the inspection, the state of decay of the structure was immediately evident, especially in its external spaces. The green areas resulted in semi-abandoned conditions, partly inaccessible due to temporary fences.

From the analyzes carried out on the neighborhood, the predominantly residential vocation of the area is evident, which corresponds to the presence of active services in the daytime areas, while there is a lack of meeting places open in the evening. The most widespread activities are those dedicated to the medical and health sector, in close relation with the hospital function of the Molinette complex.



GOALS

With the aim of defining an integrated proposal in the analyzed context, our working group focused on how the central role of hospital activity can be reflected on the organization of the neighborhood, establishing itself as an aspect to be considered also in a perspective of urban redevelopment.

The main objectives of the project include:
- The integration of the complex in the network of existing activities, defining a function suitable to meet the needs of individuals of different ages so that the whole community can take part in a process of renewal on an urban scale as participatory as possible.
- The study of a series of accesses to the structure in dialogue with the project public green areas around the pavilion, designed with the aim of improving the urban microclimate and the quality of life in the neighborhood.
- Maintaining a link with the health sector which is the most widespread in the area, as emerged from the analysis of the context.
- Focus on the economic factor of the intervention, so that it can represent an opportunity for inclusive, sustained and sustainable economic growth, as underlined by the eighth point of the Sustainable Development Goals (SDG).

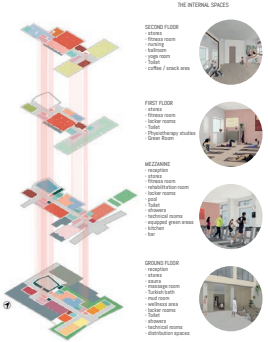
WHAT WE DID

The inspection revealed the presence of numerous sports complexes in the reference area, linked to rehabilitation and leisure activities. The health-sports theme represented a valid possibility for the redevelopment of the Odontostomatopology pavilion, as it is located in a large free area of the complex.

THE EXTERNAL AREAS

The analysis conducted in the landscape field led to the collection of important information on the basis of which a project idea was developed aimed at seeking a dialogue between the system of urban green spaces that flank the river Po and the intervention area, currently circumscribed by walls that hinder its integration with the context. The proposed intervention is developed by alternating paved surfaces with green areas in continuity with Viale Paolo Thaon di Revel which is directly accessible through pedestrian and cycle crossings along Corso Achille Massimo Dogliotti.
The study of the existing viability proved to be one of the starting points for the urban scale design, in which the project building is inserted as a single component of a complex managed through a network of paths that partly follow the traces of the original project. The existing covered connections between the buildings are in fact maintained, thus maintaining one of the peculiar characteristics of the area under study.

THE INTERNAL SPACES



The presence of different activities within the structure (wellness center, rehabilitation center and sports activities) required a careful forecast of the costs necessary for the general operation. Through cost-income and Life Cycle Costing analyzes it was possible to define a general framework of expenses and revenues which confirmed the economic sustainability of the intervention.
The proposed hypotheses were found to be suitable for supporting the launch of a recovery program for the area, with a view to a redevelopment that extends from the detail to the entire city of Turin, in accordance with the urban development projects promoted by the municipality.

Integration in the context
Environmental **sustainability**
Participation of users in the urban project
Collaborative approach on an urban scale
Promotion of a replicable and global intervention **model**
Development of small and medium-sized enterprises

Contribution to the Citylab Student Competition as part of the conference **'Caribbean Education for Sustainable Urban Development'**
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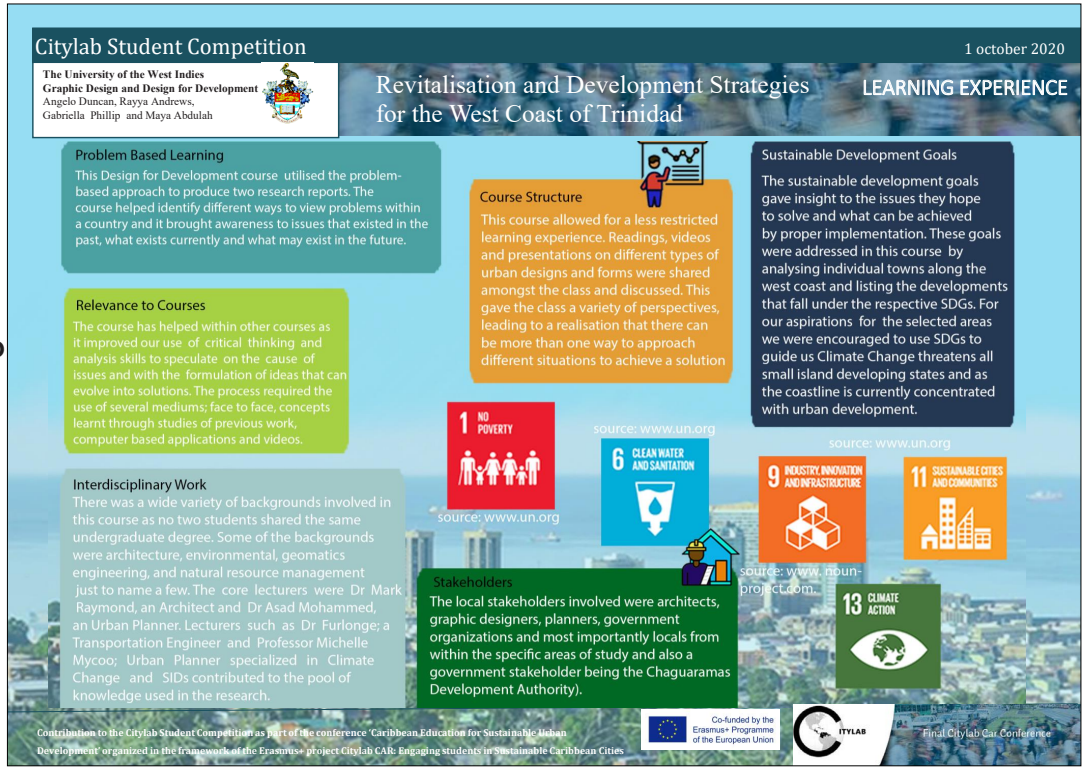
Co-funded by the Erasmus+ Programme of the European Union

UWI1

P6
University of the West Indies
Team 1

Trinidad and Tobago



Citylab Student Competition

1 october 2020

The University of the West Indies
Graphic Design and Design for Development
Angelo Duncan, Rayya Andrews,
Gabriella Phillip and Maya Abdulah

Revitalisation and Development Strategies for the West Coast of Trinidad

PROJECT

Problem Definition

The western coastline of Trinidad faces sustainable development challenges due to factors such as urbanization, extractive industries and coastal attractions.

Goal

To propose development and revitalization strategies for the Western Coast of Trinidad.

Preliminary Research

The research process started with primary and secondary sources.

Understanding the spatial plans for development laws guiding bodies in the area or industries and relevant policies.

The culture of the area, major celebrations or attractions

Residents' experience and insight into the community

Local newspapers for past and present development or changes to area

The commonalities of North West Peninsula, La Brea and Point Fortin were used to create the themes 'Environment and Extractive Industries' which led to the discovery of revitalization and development strategies.

Methodology

Site Visits to the Western Coast of Trinidad

Three areas were chosen to investigate and analyse issues on the western coast

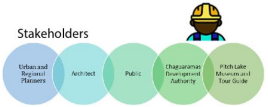
The history and culture of the areas were researched.

View the plans that guide the development of the area. The relevant policies were analysed.

Local Stakeholders were interviewed on their experience and issues in their community.

Images, sketches and videos were used to reflect the landscape, current issues and coastal interactions.

Stakeholders



Kingston Jamaica coastline by geneimages

Barbados Coastline by Anton Ivanov

Fieldwork

Site Visits

1 – Group visit to Fort George, Point Lisas and the San Fernando waterfront along the western coast

2 – Individual site visit to locations on the coast before choosing area of interest

3 – Group visit to the individual sites– North West Peninsula, Point Fortin and La Brea

4 - Individual site visit to acquire photos and video footage

5 – Groups site visit to conduct interviews with stakeholders

6 – Additional site visits for any details that was not acquired

Relevance to the Caribbean

source: www. noun-project.com.

Coastal development trends can be found throughout the Caribbean. Two examples of these can be observed in Barbados and Jamaica.

Poor land management in the Caribbean has led to coastal flooding , land degradation and increased settlement density.

Small Island Developing States are vulnerable to the effects of climate change, especially sea level rise and the frequency of storms.

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Final Citylab Car Conference

UWI2

P6a
University of the West Indies
Team 2

Trinidad and Tobago

Winner for *Problem Based Learning Experience*

Citylab Student Competition

1 October 2020

University of the West, St Augstine

The Power of People and Maps:
Co-designing DRR at UWI,St Augustine

Joshua Ali, Vikki Lee, Sergio Camejo, and Samuel Preddie.

UWI

PROJECT

Introduction

Preamble:
Established in 1948, the University of the West Indies (UWI) St. Augustine Campus has become the premier choice for tertiary education in Trinidad and Tobago and the Caribbean. This has created diverse regional and international stakeholders who all, prior to COVID-19, spent several days of their week in this space.

Problem definition:
Community violence and flooding are two seasonal hazards which persistently affect the quality of life of both campus and non-campus stakeholders. Within the past years, several instances of sexual assault, sexual misconduct, robberies, car theft and recently, attempted kidnappings at gunpoint were reported at many common areas on campus. The campus floods habitually every year during the rainy season, which not only damages property, but disrupts social order and permits criminal activities through vulnerable individuals and property, decreased surveillance and various stresses that may push an offender to commit the act. As students ourselves, the psychological burden of functioning in this multi-hazard environment pushed us into action, not only for ourselves , but for any institution that may be experiencing these issues.

Image of flooding near the Alma Jordan Libarry

Goals of the project
1) Utilize participatory mapping to generate public discussion and to collect data on the major issues facing the stakeholders of the UWI campus, including but not limited to the students, employees and visitors of the campus.

2) Design feasible solutions to the threats produced by prior to, during and after these hazard events that can adequately address stakeholder goals in a timely fashion, with minimal disruption of community dynamics.

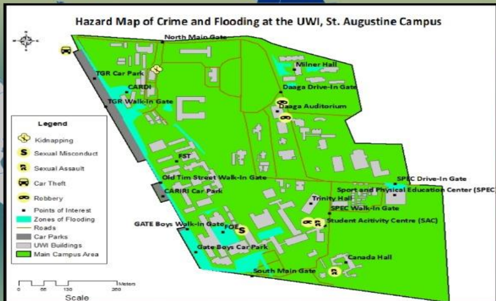
Methodology

A Participatory map was used to aid in the visualization of the hazards. The map is a key element to plan feasible solutions as is ensures that human and financial resources are optimally allocated. The experiences of students and staff from other faculties were recorded through 10 interviews and 90 surveys, which were further supplemented by online reports.

Results

Interviews revealed that spikes in crime tend to occur in the first semester. It was a general consensus that respondents assumed criminals were trying to take advantage of the unfamiliarity of new students, however no respondents considered that the stress and economic losses associated with natural hazards could be a potential catalyst. Access control, a major challenge for universities where hundreds of people visit daily, was identified as an overlapping problem for both hazards. Coupled with flooding, the issue of violence became a major concern with respect to mobility, not only on foot, but via vehicles as well. The poor management of access points on campus during flood events often results in a minimum of thirty minutes in traffic congestion as the entire campus tries to evacuate from two exits, thus increasing stakeholder vulnerability to crime. Five strategies were identified to reduce the risk associated with these two hazards:

- Improve management of access points through recordkeeping of all visitors and increased identification checks.
- Address vulnerabilities through improved lighting, increased patrols and other supplementary security measures, such as cameras.
- Improvement of population disaster risk perception, resilience and social cohesion to decrease their vulnerability to criminal activities through safety briefings, community events and community/ student watches. The use of participatory mapping is an essential component of this step so that students become more alert when they are in high risk areas
- Inclusion of more soft engineering approaches and reinforcing current hard engineering strategies, such as increasing the capacity of the retention pond and drainage system.
- Implementation of an effective vehicular evacuation strategy which utilizes all exits. Supported by early warning flood systems within the community, this will ensure students have ample time to evacuate and lower the risk of them being present at the height of the flood event.



Addressing Local Actors

Social cohesion and trust are critical unseen elements of a community and may be the solutions in the fight against natural disasters. Regions with high social cohesion are frequently more resilient (Patel and Gleason 2018) as this shared moral community provides a social security. In the case of Trinidad, which consistently ranks poorly on social cohesion indices, and where 95% of individuals do not trust one another (Larsen 2014), this is a major cause for concern.

The campus is also used recreationally by various residents and it is critical that they are not excluded from campus access. Extending campus services and other forms of inclusion of the non-campus community will increase the functional and social value of the campus, and thus create a vested interest in the community.

Relevance to the Caribbean

A violent environment is highly unsustainable as it negatively affects mental health, decreases quality of life and attacks the family unit. According to the World Bank (2018) the Caribbean and Latin American region has been dubbed the most violent region in the world and accounted for 23% of all global homicides in 2012, while representing just 8% of the world's population. Jaitman and Machin (2016) note that crime in the region is higher than expected considering, the region's income poverty and inequality, hence there must be some other factors that are proliferating this issue. Statistics become even more concerning when acknowledging that crime is concentrated in densely populated countries such as Jamaica, Trinidad and the Dominican Republic, which have large non-national populations.

Several studies quote crime, violence and lawlessness as one of, if not the most important, push factors for Caribbean migration. In this study, all but one respondent, acknowledged they intend to live abroad, with crime being consistently one of the top three incentives to do so. Addressing crime in the Caribbean, especially when it occurs during an individual's formative years, is one of many important steps that must be taken in the fight against migration and brain drain.

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ITYLAB

Final Citylab Car Conference

UTT

P7
University of Trinidad and Tobago

Trinidad and Tobago

Citylab Student Competition

1 october 2020

[University of Trinidad and Tobago]
[Research Methodology]
[Robert Quarless
Simone Leon]

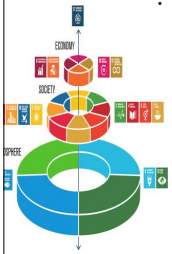
Interdisciplinary Work

- The students in the course are conducting research in different disciplines of Information Communications Technology (ICT), Marine Sciences, Environmental Engineering, Education, Health and Public Policy
- Guest Lectures were conducted by two lecturers from Biomedical Engineering Department and Environmental Studies.
- These lecturers were a good resource to the students as they shared their research experience – challenges, how they overcame these challenges and made themselves available to answer questions.

Problem-based Learning Experience

- We believe this approach is better than traditional teaching strategies as it allowed for greater insight into the research problem – going through a continuous process of refining the problem
- It encouraged me to do more critical thinking
- It's a more efficient use of learning as it makes allowances for continuous learning and the opportunity to apply the skills learned to other situations.
- Being a working individuals with a families to take care of and attending classes after a long day of work, we really liked the problem-based learning approach because we were more engaged and had a more active role throughout the semester and it made the course more interesting
- You get experience using the information you are learning which helps it be retained.
- You have to utilize other skills including teamwork

Sustainable Development



- Introductory lecture on sustainable development and the SDGs and how students can align and frame their research along the SDGs.
  An interactive session with a representative from Ministry of Planning and Development is heavily involved in implementing the SDGs in Trinidad and Tobago
  The session was very important for students as the majority of us had no prior exposure to the SDGs or even the concept of sustainable development.
  Students were also able to establish a relationship with the Ministry by submitting their emails to be on the listing for updates on SDGs.
  This project focused on:
  - **GOAL 10: REDUCED INEQUALITIES.**
  - **GOAL 9: INDUSTRY, INNOVATION, AND INFRASTRUCTURE**

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Citylab Student Competition

1 october 2020

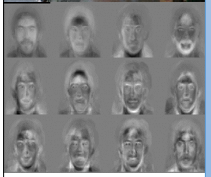
PROJECT

University of Trinidad and Tobago]

[A novel approach and process for detecting and recognizing facial images with particular emphasis on faces of colour.

[Robert Quarless and Simone leon]

Research Question: How can we better detect and recognize the facial characteristics of persons of colour?

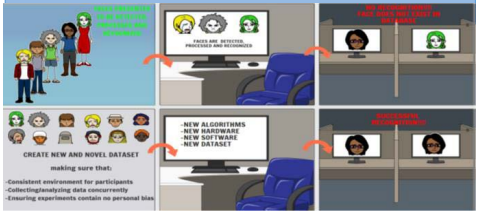


Introduction

- Facial Recognition (FR) and its relationship to faces of colour is a critical issue -*Studies have shown that black faces, especially black women's faces are statistically more likely to be incorrectly recognized and as a result incorrectly categorized than any other face*
- This is also a societal and technology problem, as more and more functions are being handled by artificial intelligence systems, which are supposed to augment, enhance, and replace human interaction –e.g. work contracts, awardees of loans, length of time spent in incarceration
- All activities conventionally pronounced on and performed by humans, are more and more being decided by software.
- Therefore more and more some forms of discrimination, gender inequality, and lower standards of living can be directly attributed, and indeed made possible by, the failure of technology to be consistently accurate and inherently unbiased
- **This study is of particular importance to Caribbean Region where the technology is growing the majority of the population are persons of Colour**

Methodology

- Primary and Secondary Data collection of faces to test, modify and analyze – specifically faces of colour
- Primary data collection:
  - Ask public to submit faces with the total assertion that anonymity is key
  - Invite persons to come in and pose
  - Offer some form of inducement/perk
  - Have total quality control of settings (background, pixel quality, lighting, distance)
- Secondary data collection: Existing sources (Cambridge University, Yale faces, FERET); Harvest social media – Facebook, Flickr, surf websites; and Google images



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UG

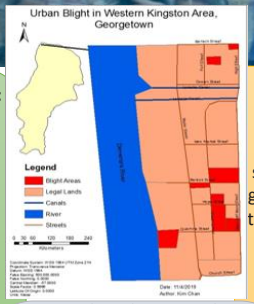
P8
University
of Guyana

Guyana

Citylab Student Competition

1 October 2020

UNIVERSITY OF GUYANA
DEPARTMENT OF GEOGRAPHY
GEO 3112- URBAN GEOGRAPHY
PRUDENCE ARCHER, KIM CHAN
QUINITA FRIESCO, ONIELL STEPHENSON



LEARNING EXPERIENCE

Experience of the Problem Based methodology:
During Urban Geography course, groups were challenged to identify problems affecting the urban landscape in Georgetown, Guyana. Groups were formed and teams brainstormed to decide on noteworthy problem affecting Georgetown. Learning more of the problem involved data gathering from the residents via interviews and pictorial analysis, then consultation interviews with relevant stakeholders and planning authorities.

Stakeholder involvement:
Residents and Relevant authorities were consulted for data gathering and solution proposals. Local stakeholders were mainly involved in facilitating the gathering of information to inform the completion of the field-based urban problem assignment in the city of Georgetown. Two such stakeholders were the Mayor and City Council of Georgetown and the Central Housing and Planning Authority.

Course structure and relation to other courses in curriculum:
The course introduces urban process, urban form, spatial structure and historical and cross-cultural perspectives related to urban growth. Emphasis is on addressing urban challenges/problems in the 21st. century through the examination of case studies and other practical work. It builds on the concepts of introductory Human Geography, and prepares students to advance to Urban Planning.

Interdisciplinary work:
The process of data gathering for collaborative group field work allows for some interdisciplinary input from areas such as urban architecture. In this regard, the Architecture Department of the Faculty of Technology is involved. In fact, within the Group there were Architecture students of the Faculty of Technology. Some group members also did previous studies in the field of Architecture.

Sustainable Development Goals addressed:
Lectures in relation to 21st century urban problems/challenges were delivered in the context of the recognized global push towards more sustainable urban development in line with Sustainable Development Goals No. 11 (Sustainable Cities and Communities). As students, we were introduced to the key sustainability principles in the urban context. These principles were applied in our project work which focused on SDG 11.

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Citylab Student Competition

1 October 2020

UNIVERSITY OF GUYANA
DEPARTMENT OF GEOGRAPHY
GEO 3112- URBAN GEOGRAPHY
PRUDENCE ARCHER, KIM CHAN
QUINITA FRIESCO, ONIELL STEPHENSON

UNIVERSITY of GUYANA

PROJECT
URBAN BLIGHT-KINGSTON, GEORGETOWN

PROBLEM:
Urban Blight in Kingston, Georgetown (degraded infrastructure and slum forming)

GOALS:
To identify problem, its impact on urban environment and, propose solutions.

METHODOLOGY:
1. Site was Visited, Pictures were taken, Observations recorded and interviews were conducted with residents.
2. GIS was used to create maps of the observed blighted areas in Kingston.
3. Interviews were conducted with key stakeholders from Central Housing and Planning Authority, and Mayor and City Council and other regulating bodies.
4. Team regrouped to collate and analyze data while brainstorming solutions to the recorded problems.
5. Solutions were proposed using Revit ArchiCAD software.

RESULTS:
The problem of Urban Blight was recorded notably to have a great effect on the urban landscape as it was determined that added to the deplorable living conditions of residents, a stigma was also formed which placed a stain on the perception of Georgetown.

PROBLEM **SOLUTION**

LOCAL DYNAMICS:
Solutions highlight the needs for business, residents and the regulatory agencies. For residents, interest in securing livelihood in urban spaces is preserved through the creation of higher housing densities. Physical improvement of the blight areas encourages more businesses to locate in city sites and improve revenue base by improved conditions proposed is consistent with overcoming the stigma urban blight areas.

RELEVANCE TO CARIBBEAN REGION:
Urbanization in the Caribbean encourages the need for improving the functioning of the urban environment. The Project is particularly relevant due to it being consistent with the Caribbean Urban Agenda recognition of the need for Caribbean countries to achieve safe, resilient and sustainable urban environments. Further, the high incidence of urban poverty among Caribbean countries demands that we seek to improve the urban environment without unnecessarily disturbing livelihoods.

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Final Citylab Car Conference

ADEKU

P10
Anton de Kom University of Suriname

Suriname

Winner Relevance in the Caribbean region

Citylab Student Competition

1 october 2020

Anton De Kom University of Suriname
Spatial Planning and the Environment
Kalloe S. ;Ramdien S. ;Poeran R. ;Chotelal S.

LEARNING EXPERIENCE

Our experience with the Problem-Based learning method (PBL):

- The focus was on development our critical thinking skills, problem-solving abilities, and communication skills
- it pushed us to enlarge our boundaries and work independently, individually and as team
- it required more extensive research than we were used to and it was also more independent work
- during our research we were faced with many challenges some of which caught us off guard
- we had to push ourselves to a whole new level of critical thinking. We had never done something like this before
- the entire research process definitely was an adventurous ride and it wasn't easy as it required a lot of hard work and time, but we also learned a lot from it on a personal and academic level.
- we have also learned a lot about other topics while doing this research and gathering the needed information.
- while it may have been stressful at the time to constantly ponder over problems and trying to figure out a solution we are happy that we got to do this, because now we have a lot more experience which we appreciate.

The group conducting literature study

Interdisciplinary work:

- The variety of themes and all the issues that were observed and explained by the stakeholders required interdisciplinary work. E.g. within every team there was a need for someone with more social knowledge to e.g. understand the behavior of inhabitants.
- There were 5 teams working on urbanization, public heath, water management, energy and nature. All students were technology students.

Finalizing the recordings in the studio

The group examining the culverts

The course was structured as followed:

- The lecture gave introductory lectures: the research assignment was explained and the topics were explained in detail.
- the research and teaching methodology PBL was explained and the assignment for a online course on this was given
- the assignments were explained: a research poster and paper for the Caribbean Urban Forum and a video by the best team for the PBL closing seminar.
- lots of independent research involved as a team. We divided the work among us and helped each other when needed.
- independent field work: observation of the area; stakeholders interviews; lots of literature study
- planned project team meetings
- the teacher guided us through every step on our way in the research process. Every time we got stuck on something or weren't sure about something we were free to ask her.
- there were also regular update meetings that were held between us and the teacher so we could keep her updated as to what we were doing and she would then give us pointers on what to improve.
- during the feedback moments we also learned from the other teams.

Involvement of local stakeholders:

- The local stakeholders were involved due to the interviews with them and the social talk we had while doing observations.
- the persons responsible for the waterworks (pumping stations) in the area were local. They gave us a better insight of the problem.

The Sustainable Development Goals

- SDG 11 Sustainable Cities and Communities was leading in this course
- the 5 different research themes of the 5 research groups covered different other SDG's
- In our research about water management the focus was on SDG 6 Clean water and Sanitation and SDG 13 Climate action. A good water management system, clean water and hygiene are very important for human wellbeing.

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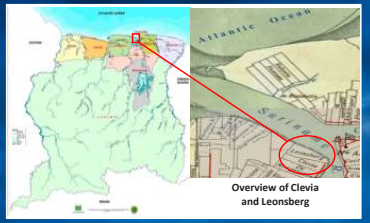
1 October 2020

PROJECT

Anton De Kom University of Suriname
WATER MANAGEMENT IN AN URBAN CONTEXT
Kalloe S. ;Ramdien S. ;Poeran R. ;Chotelal S.

Introduction

The research is conducted in the most north eastern part of Paramaribo, the capital of Suriname, within the neighborhoods Leonsberg and Clevia. This area is originally a swamp area with rich ecosystems, with a coastal protection function and a rich biodiversity. Centuries ago the southern part was developed as coffee and cocoa plantations, whereby the plantation structure has been preserved. Over the years, the area was urbanized, without a proper planning. The urbanization resulted in challenges with regards to accessibility, water management, sanitation, electrification, sustainable coastal protection and accessibility in services. This research will focus on the growing water management problem in the research area. The water management problem is a result of a poor drainage system. On one hand, because the basic infrastructure was not calculated for urbanization purposes and on the other, because of the impact of climate change. Inundation of areas can be a threat to public health and causes damage to the neighborhood and infrastructure. For obvious necessity of a solution, the Ministry of Public Works had taken some actions in these areas such as building a water pump underground, but due to certain circumstances, these methods are not working efficiently.



Overview of Clevia and Leonsberg

Clevia's sluice between the Djamoe Street and the Kasoedjie Street

Objective

This research intends to investigate the water management problem in the Clevia, Leonsberg and surroundings and to propose affordable and sustainable solutions.

Method

The research was carried out by means of the problem based learning educational method. Which required adequate

- literature study on water management in an urban context.
- field visits, area inspections and observations and data collection.
- interviews some experts on this topic and with locals
- And feedback moments with the lecturers and peers.

Results and Discussion

- The area is very low-lying. is located close to the Suriname River and therefore vulnerable to the impact of climate change, due to the destruction of its natural protections.
- The urbanization of this area threatens the protection of the surrounding area against the impact of climate change.
- Due to urbanization and an increase of subdivision of land, the need for storage capacity of surface water is increasing. This due to the increase of site preparation and the increase of paved surface on parcel level.
- The area has a poor drainage system, whereby there is no consistency in the accessibility to supporting waterworks. Leonsberg has a pumping station, Clevia does not have a pumping station, it only has an old sluice which only works when it is low tide, so in the rainy season, when the area is submerged, the water lingers.
- Some residents have placed the culverts without following the government regulation and the needed technical specifications, which caused a difference in size and height which results in an inadequate drainage of the water.
- Some residents have illegally dumped or closed off the discharges passing through their premises.
- There is an absence of topographic data in the area which is necessary for a dewatering system.

Conclusions and Recommendations

- There should be stricter supervision for placing and closing off discharges. Culverts must consist of one size and be placed at the same height.
- A pumping station should be installed near the sluice at Clevia so it won't be a problem when the sluice cannot function properly when the area starts to submerge and when the tide is high.
- Another pumping station must be installed at the citrus plantation past the Powisi street at Cherics Special Event Facility, because their sluice is currently out of order due to a higher sea level rise in the Suriname River compared to that on the western side.
- Water storage must be created where the Leonsberg pump is located, so that the water flows constantly to the storage location and the pump can continue pumping, because the water supply in the pump must be at a constant rate.
- The maintenance of the drainage system is required.
- It is important to regulate the further development and investments in the area. The most effective solution is to stop the further urbanization and prohibit sub divisions.

The solutions are expensive, but the investment can be sustainable if the property owners strictly apply the laws and regulations.

Leonsberg's pumping station at the Pommerak Street

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PTC

P11
Polytechnic
College
Suriname

Suriname

Citylab Student Competition

1 october 2020

Polytchnic College Suriname
Practical Work 1
Jialal T., Joeloemsingh K. , Mangrey M.

POLYTECHNIC COLLEGE SURINAME
INSTITUTE FOR HIGHER VOCATIONAL EDUCATION

LEARNING EXPERIENCE

Experienced and learning moments
- Skills on how to identify problems in a residential area;
- Independently look up and process relevant information;
- Problem solving across disciplines;
- Working in a team;
- Self-awareness to make a division of tasks within the team:
- Applying course content to real-world problems.

Course based on interdisciplinary work
- University and colleges of Caribbean countries

Disciplines and roles of different students
- Make the assignment properly;
- Work with guidelines;
- Work within a given time;
- Shaper, Implementer, Completer-Finisher, Coordinator, Researcher

Disciplines of teachers
- Give guidelines and feedback;
- Be willing to answer unclear questions.

The course structure,relation to other courses
- Make a report by working independently on an open-ended project;
- Create technical drawings;
- Project presentation;
- Apply the obtained information to other courses;
- The course 'technical drawings' helped out making the drawings;
- The course 'technical reading and writing' helped out making this project report.

Stakeholders
- Ministry of Public Works;
- Commisioner office;
- Water supply company;
- Collaborated through whatsapp and got information
- To find out what their perspective on the problem and solution is after choosing one problem in a urban area.

Sustainable Development Goals
- Housing and basics service;
- Green and public spaces: stimulating a healthier environment with less pollution and a natural ecosystem, without the use of modern mechanical installations.

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Citylab Student Competition

1 october 2020

Polytchnic College Suriname
Practical Work 1
Jialal T., Joeloemsingh K. , Mangrey M.

POLYTECHNIC COLLEGE SURINAME
INSTITUTE FOR HIGHER VOCATIONAL EDUCATION

LEARNING EXPERIENCE

CityLab Car Project 2020

Urban area: Maretraite project

Problems

Improper use of the sanitary sewage system.

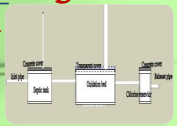
In closed drainage system, there is no overview of where there may be blockages.

Almost all divers are blocked or silted up.

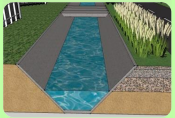
The gutters are overgrown with weed. No water purification system

Green Solutions

Applying an oxidation bed with a transparent septic tank lid.



Use open sewers instead of closed sewers with prefabricated concrete canals.



Use prefabricated concrete bridges. 100% chance of flow of the water.

No weed after cleaning up the gutters and proper use of the sewage system.

End result: a healthier environment with less pollution.

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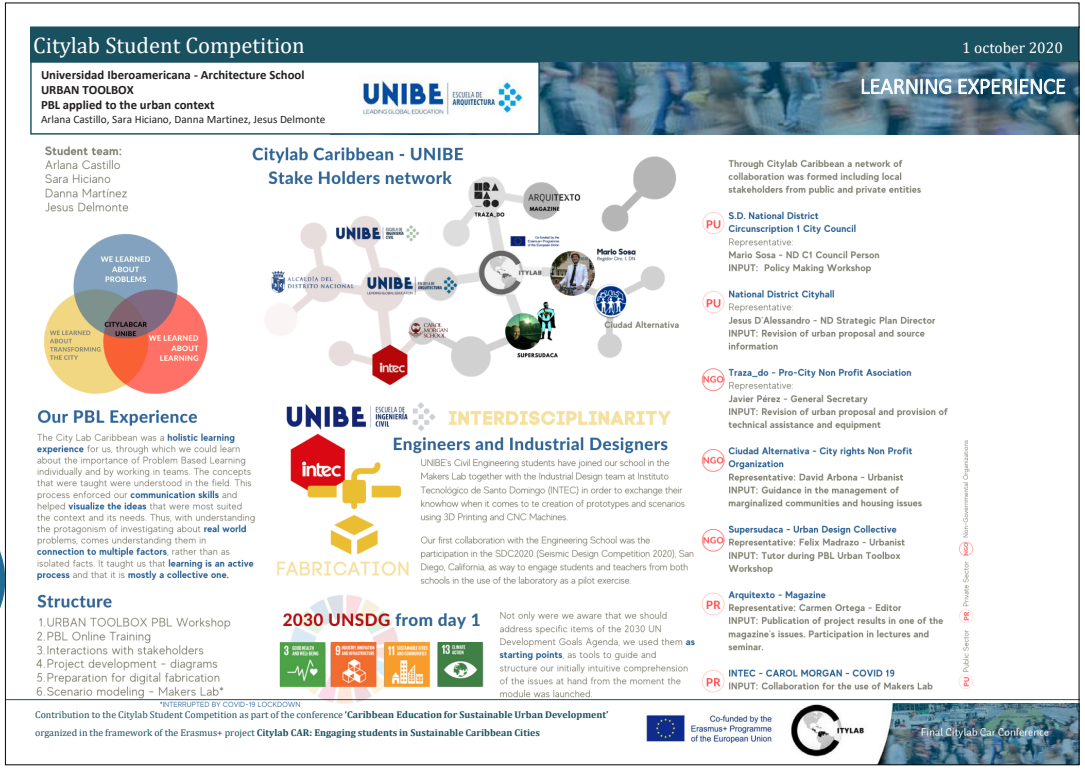
Final Citylab Car Conference

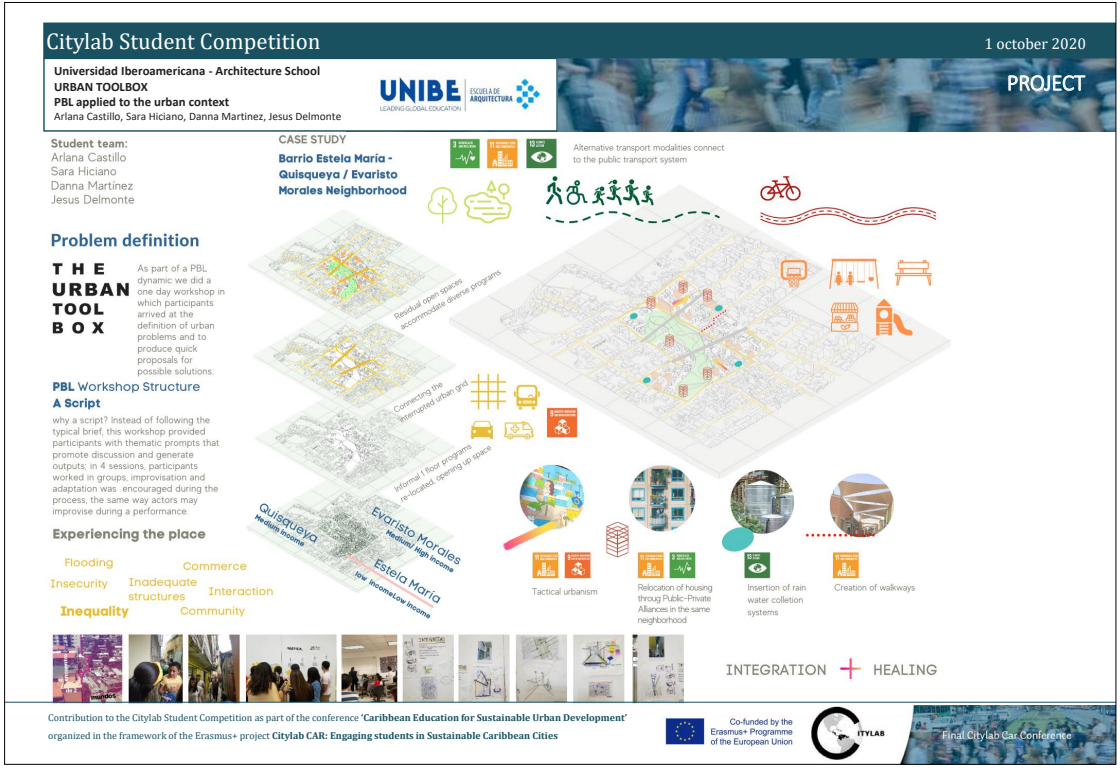
UNIBE

P12
Universidad
Iberoamericana

Dominican Republic

Winner
Addressing the Sustainable Development Goals



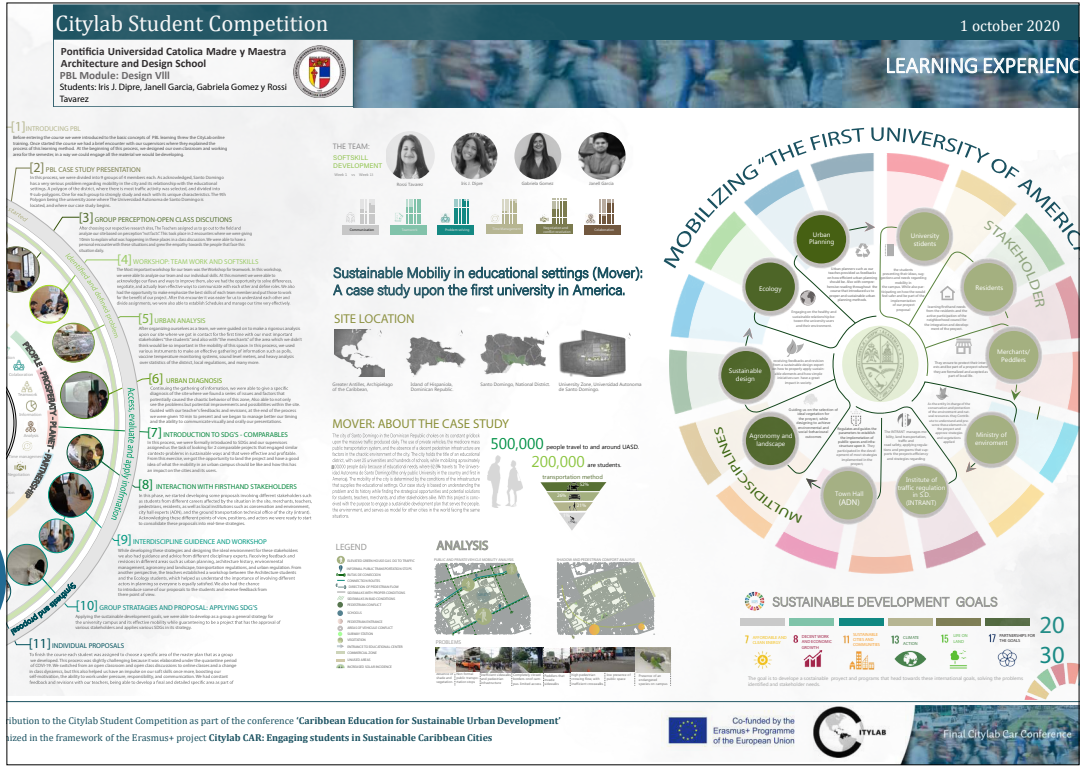

Citylab Student Competition
1 october 2020
Universidad Iberoamericana - Architecture School
URBAN TOOLBOX
PBL applied to the urban context
Arlana Castillo, Sara Hiciano, Danna Martinez, Jesus Delmonte
UNIBE
ESCUELA DE ARQUITECTURA
PROJECT
Student team:
Arlana Castillo
Sara Hiciano
Danna Martínez
Jesus Delmonte
CASE STUDY
Barrio Estela María - Quisqueya / Evaristo Morales Neighborhood
Alternative transport modalities connect to the public transport system
Problem definition
THE URBAN TOOL BOX
As part of a PBL dynamic we did a one day workshop in which participants arrived at the definition of urban problems and to produce quick proposals for possible solutions.
PBL Workshop Structure
A Script
why a script? Instead of following the typical brief, this workshop provided participants with thematic prompts that promote discussion and generate outputs; in 4 sessions, participants worked in groups, improvisation and adaptation was encouraged during the process, the same way actors may improvise during a performance.
Residual open spaces accommodate diverse programs
Connecting the interrupted urban grid
Informal 1 floor programs re-located, opening up space
Experiencing the place
Flooding
Commerce
Insecurity
Inadequate structures
Interaction
Inequality
Community
Quisqueya
Evaristo Morales
Estela María
Tactical urbanism
Relocation of housing throug Public-Private Alliances in the same neighborhood
Insertion of rain water colletion systems
Creation of walkways
INTEGRATION + HEALING
Contribution to the Citylab Student Competition as part of the conference 'Caribbean Education for Sustainable Urban Development' organized in the framework of the Erasmus+ project Citylab CAR: Engaging students in Sustainable Caribbean Cities
Co-funded by the Erasmus+ Programme of the European Union
Final Citylab Car Conference

PUCMM

P13
Pontificia
Universidad
Catolica
Madre y
Maestra

Dominican Republic

Overall Winner & Public's Favourite Award




Citylab Student Competition
1 october 2020
Pontificia Universidad Catolica Madre y Maestra
Project: UPARK
Students: Iris J. Dipre, Janell Garcia, Gabriela Gomez y Rossi Tavarez
PROJECT
UASD PARK
UPARK+UASD
GOALS
OPEN BORDER
TRANSPORTATION REGULARIZATION
PEDALERS RELOCATION
RESTORE INFRASTRUCTURE AND GENERATE TRADE
PROGRAMS
DOMINICAN/HAITI HABITAT
REHABILITATION OF PEDELERS
RECYCLING OF BUILDINGS
PLASTIC BOTTLES FOR TICKETS
AMIN ABEL HASBUN
REVITALIZATION OF PUBLIC TRANSPORTATION
UPARK MASTERPLAN
19.8%
INCREASE IN PUBLIC SPACE THROUGOUT THE UNIVERSITY WITH UPARK+UASD
Boulleward: interaction between residents and the university life
Ventralis Park and Parrot Habitat
Student Residents: Mix use buildings with commercial activities
G. Eloy Alfaro Infant Park
Recreational area for medical students
Public transportation Stops
Open Campus project (Buffer zone from noisy streets and the setting)
Multipal relocation of peddelars throughout the project
Amin Abel Hasbun Park
URBAN EQUIPMENT
125.44 km/h
VENTRALIS PARK
VENTRALIS PARK VIEW
Proposal of Endemic vegetation
Flamboyan
Caoba
Almacigo
Caimito
Coralillo
Caimoni
15 LIFE ON LAND
11 SUSTAINABLE CITIES AND COMMUNITIES
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UTech

P14
University of technology

Jamaica

Citylab Student Competition

1 october 2020

University of Technology, Jamaica
Faculty of the Built Environment
Kingston Waterfront
Serena Williams, Tracy Peltier, Jordan Bryan, Garciano McCalla,

LEARNING EXPERIENCE

Identify Outcome or Assessment

We identified outcomes by collaborating, engaging and initiating research and problem-solving activities in relation to the redevelopment of the Kingston Harbour.

Assessment

PBL approach has proven successful in the research process . If introduced earlier, it would be more effective.

Design the Scenario

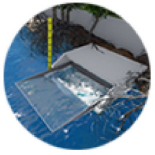
Our group participated in brainstorming activities by utilizing a multi-disciplinary approach to the design of our project. Stakeholders from the University and associated agencies were incorporated. We utilized project management skills

Introduce PBL

PBL was introduced through exposure to real life situations in relation to the study areas.Situations were relatable, interactive and specific to our discipline. Brainstorming techniques were linked to problem surrounding the degradation of the harbor, which created greater understanding.
Prepare and propose solutions on issues found in the Kingston Harbour.

Research

Each group member were given separate tasks according to our individual disciplines and areas of interest. A multi-dimensional approach was utilized to address our study area in tandem with SDG 11, 14 and 15. Brainstorming was also utilized in the research stage, which helped to identified ways in which to solve problems



Product Performance

The team established creative ways to save the harbor, which was matched against an already established harbor in Singapore whose ways of mitigating waste proved fruitful and effective. Recycling of waste

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CMU

P15
Caribbean
Maritime
University

Jamaica

Citylab Student Competition

1 october 2020

Caribbean Maritime University
Faculty of Logistcs, Engineering
Logistics Management
Kelliah East, Jade Barnett, Shamar Bucknor, Amoy Walker

The collection and reusing of plastic waste from the Kingston Harbour

PROJECT

Problem Definition: Kingston Harbour has been constantly polluted by plastics and other debris for decades, this is having been the result of poor land recycling practices. The implications of this have resulted in severe degradation of the environment and poor water quality of the harbour.

Goal: The aim of this project is to produce an environmentally practical solution to reduce the waste entering the Kingston Harbour.

Methodology: The project is conducted through the participation of university students from the Caribbean Maritime University. These students were drawn from the engineering and logistics faulty. Therefore, the students applied both practical a theoretical reviews along with environmental impact assessments on the Kingston harbour so as to find a practical environmental solution.

Field Work: Students conducted geographical assessments of the harbour and created image mappings of locations in the harbour which had the highest concentration of pollution. The result of which highlighted the levels of environmental damage in the harbour

Interest of local actors: The project study provided valuable solutions for Kingston Harbour and its surrounding communities (residents, businesses, government agencies). The restoration of the aquatic environment is seen as a vital part of having a more diverse environment, thus efforts are place in a more controlled manner of ridding the environment of plastic waste.

Community Needs: The project will provide a sustainable environmental solution which will benefit the various stakeholders who gain from the use of the harbour. Whereby the commercial activities conducted in the harbour include fishing and tourism which will be preserved. While the flora and fauna located within the harbour will be given a chance for their numbers to improve.

Project Relevance: This project is appropriate for the Caribbean whereby Jamaica is a coastal state and economically dependent on maritime activities furthermore the solutions derived from this project can be replicated for other Caribbean islands. Importantly this project ties into the thrust to improve the environment which is guided by the United Nations Sustainable development goals.

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Problem Based Learning