



# **World Conference on Transport Research 2019 Young Researcher's Conference**

## **Activity Report**

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# 1 Introduction

## Overview of the Young Researchers' Initiative of WCTRS and of the Young conference

The "Young Researchers' Initiative" was created by the World Conference on Transport Research Society under the leadership of Professor Ali Huzayyin, in view of the 2013 WCTR Rio conference. It includes three activities: the organization of a conference by and for young members; the provision of PhD students' grants; and the management of online dissemination and networking activities (see below).

In 2019, the WCTRS-Y conference took place for the third time. It is a one-day conference dedicated to the next generation of professionals and experts. The main aim of the WCTRS-Y conference is to give the opportunity to Ph.D. students, post-doctoral fellows, and young researchers to organize a conference in a professional manner, to present their work and achievements, and to play a major role in discussing and interchanging new developments and ideas in transportation.

The conference is entirely organized and run by young researchers.

The third edition of the WCTRS-Y conference was held on the first day of the 25<sup>th</sup> World Conference on Transport Research (WCTR) in Mumbai, India. The main theme of WCTRS-Y 2019 was "The Future of Transportation," which spanned to the following topics:

- Smart Cities and Future Mobility
- Mobility as a Service (MaaS)
- Green Transport
- Integrated Planning for Transportation (Including Freight Transportation) and Resilient Transport Systems
- Advanced Traffic Management, Operations, and Safety

In addition to the presentation of conference articles, WCTRS-Y included a special session targeted towards the academic and professional development during which young researchers were able to interact and learn from their seniors.

## 2 WCTRS-Y and WCTRS-Y team

Since its launch in 2013, the Young Researchers' Initiative (WCTRS-Y) has aimed to involve young members and let them enjoy the full benefits of society membership. WCTRS-Y allows young members to get acquainted with conference organization and networking with international colleagues. By doing this, WCTRS prepares a new generation of young colleagues who will gradually take the lead and renovate the Society.

WCTRS-Y covers three main activities: WCTRS-YI, a one-day conference to accompany each main world conference, WCTRS-YII providing grants to inspire Ph.D. students to develop their research; and WCTRS-YIII, developing dissemination and networking activities online.

On the occasion of every World conference, five volunteers are selected and appointed to lead the Young Initiative. Young activities are run under the Steering Committee of the Society and coordinated by the **WCTRS-Y Leader, Dr. Laetitia Dablanc**, University of Paris-East/IFSTTAR.

For this edition, the conference was organized by **Digvijay S. Pawar**, Indian Institute of Technology Hyderabad as the Conference chair. The conference chair was supported by two conference volunteers, **Milena Janjevic**, Massachusetts Institute of Technology (MIT), and **Thiago Guimarães**, University of Leeds. This team of three has organized the WCTRS-YI conference.

**Sara Abd Alla**, University of Genoa, and **Adrien Beziat**, Transport Urban Planning Economics Laboratory (LAET), were in charge of running the WCTRS-YIII online facilities such as the newsletters and the social media pages.

Even if they are following separate tasks, the five volunteers work in synergy to animate the young WCTRS community. The Young Initiative is an opportunity to encourage young members of the Society to raise their capabilities and to become acquainted with the key activities undertaken and managed by senior members.

		
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### 3 Preparation of the WCTRS-Y conference

#### 3.1 Scientific coordination of the WCTRS-Y conference

The submission of papers to the WCTR-Y conference was subject to specific eligibility criteria. To give priority to young researchers, it was required that all submitted papers be exclusively authored and presented by young members. Here, young members include persons under the age of 35 before the conference date or those who have completed their Ph.D. no more than four years prior to this date.

The submission process involved an extensive review process that was managed by the conference organizers with the support of 10 young reviewers and three WCTR-Y senior advisors. Accepted papers went through two rounds of reviews.

In the first round, authors have submitted an extended abstract. This abstract went through a double-blind peer-review process by other young members, who provided their assessment of the paper and comments to the authors. A total of 27 abstracts were received, and 18 of them were accepted for further consideration.

In the second round of reviews, authors have submitted a full manuscript. Manuscripts underwent an additional, more extensive double-blind peer review process by other young members. In addition, manuscripts were reviewed by senior advisors of WCTR-Y initiative who provided their comments and the assessment. In total, 15 manuscripts were received and accepted. 14 of those were presented during the conference.

#### 3.2 Promotion of the WCTRS-Y conference

The WCTRS-Y conference was promoted in several moments:

- During the first Call for Extended Abstracts, to ensure that enough young researchers will apply for the academic conference track
- Throughout the preparatory stages of the conference to ensure the visibility of the event
- Right before the conference day to ensure participation at the event

The promotion was done through multiple channels. In the following, we summarise the main communication channels used.

### **WCTRS-Y newsletters**

The WCTRS-Y newsletters aimed to address young researcher concerns and animate a network of young members. Three issues were published on November 2018, February 2019 and May 2019. The choice was made to build on the first newsletters published for previous Young conferences. Therefore, issues broadcasted for the 2019 WCTRS-Y conference were numbered 4, 5 and 6.

The newsletter structure consisted of an editorial letter followed by one or more interviews for senior members that highlight the strategic role of youth in the society. Furthermore, the newsletters shared information about up-to-date job offers and vacancies, an important challenge for young members.

- Issue 4 presented a general overview of the WCTRS-Y initiative. It brought an editorial letter from Prof. Krishna Rao (IIT Bombay, director, and organizer of the 2019 WCTR) as well as an interview with Prof. Ali Huzayyin (Cairo University, founder of the WCTRS-Y initiative).
- Issue 5 highlighted the works of WCTRS-Y II initiative grants' recipients: Andrés Fielbaum (PhD Candidate at Universidad de Chile), Gaurav Mittal (Graduate Fellow at the National University of Singapore), Nazmul Arefin Khan (PhD Candidate at Dalhousie University), Manu Sasidharan (Research Fellow at the University of Birmingham), and Jeroen Bastiaanssen (PhD Candidate at the University of Leeds).
- Issue 6 contained a welcome letter by Digvijay S. Pawar (Assistant Professor at IIT Bombay and co-organizer of the WCTRS-Y conference), as well as an editorial letter from Prof. Lóránt Tavasszy (Delft University of Technology and chairman of the WCTR Scientific Committee). It also highlighted interviews with Prof. Sergio Jara-Díaz (Universidad de Chile, Vice-President of Prizes in the WCTRS) and Prof. Pan Haixiao (Tongji University, local organizing chairperson of the 2016 WCTRS-Y conference). Finally, it published an interview with Greg Marsden (Secretary General of WCTRS) and Jennie Stones (administrative officer of the WCTR secretariat).

### **WCTRS-Y webpage**

A webpage on the WCTRS conference has been set up in order to reach more readers and allow them to have access to the Newsletters as well as any further update concerning the Young Conference.

Established early on in the process (in July 2018), it gave an overview of the one-day WCTRS-Y conference. The webpage highlighted the theme and various topics of the 2019 edition. It also specifies the eligibility conditions for participation, the criteria for review and potential publications and awards. Important dates (deadlines for submission of abstracts and papers, author registration, etc.) were outlined in details.

Finally, information was provided on the conference's venue (IIT Bombay and the city of Mumbai in general) and the registration process. Contact to the organizing team info was also provided. The link to the webpage is <https://www.wctrs-society.com/wctrs-y-initiative/wctrs-young-researcher-conference>.

## **Social media**

Nowadays, social media are a very important mean of mass communication. A Facebook page and a Twitter account have been created. Young members could follow up all updates and contact the Online Facility Team for any concern. In addition to the Newsletter, social media allowed to share more easily job opportunities that often have a close deadline. Furthermore, the Twitter page was used specifically to advertise for other transport-related conferences, events, and opportunities such as grants and scholarships. The like-count for the Facebook page is now 103, while the Twitter account was followed by 72 people.

The Facebook and Twitter pages were also used on the day of the conference. There was a live-tweet of the event, and many pictures were shared on the Facebook page. Each presentation, as well as the Q&A session and closing speech, were photographed and posted on the pages. Through Twitter, we were also able to retweet many posts depicting the general conference in the days following the event for Young Researchers.

## **Direct mailing**

In order to promote the conference through the regional and national mailing lists related to transportation research, the WCTRS-Y organizing team has reached out to the Country and Area Representatives (CAR) of the WCTR Society. In total, 53 CARs were contacted with the request to disseminate the Call for Extended Abstracts. Around half of them has responded positively to the request to help with the dissemination of the conference. Some of the CARs further forwarded the request for dissemination to their colleagues. We, therefore, estimate that the promotion of the conference was made through at least 20 to 30 national or regional mailing lists related to transportation research.

## 4 WCTRS-Y conference day

### 4.1 Introduction

The WCTRS-Y conference was held on Sunday, May 26, 2019, at the Indian Institute of Technology Bombay in Prof. B. Nag Auditorium. Around 200 persons attended the conference with a peak of attendance estimated at about 170 persons at the same time. Although the event was targeted at young researchers, it was also well attended by more experienced researchers.

**Group picture of the WCTRS-Y conference**



### 4.2 Overview of the conference program

The conference had the following types of sessions:

- Opening and closing sessions by WCTRS President, WCTRS-Y Leader and WCTRS-Y organising team
- Four paper presentation sessions with a total of 14 academic papers presented
- A dedicated Professional Development panel session

The overview of the conference program is provided in the Table below. In the next sections, we provide more detail about the academic sessions and the Professional Development panel session.

**Overview of the conference program**

Timing	Session
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8:30 - 9:30	<i>Participant Registration</i>
9:30 - 9:40	<b>Welcome and opening speech</b> by Yoshi Hayashi, WCTRS President
9:40 - 9:50	<b>Introduction and presentation of conference theme</b> by WCTRS-Y Chair Digvijay S. Pawar
9:50 - 10:00	<b>Presentation of WCTRS-Y 2019</b> by Milena Janjevic and Thiago Guimarães, WCTRS-Y conference organizing volunteers
10:00 - 11:15	<b>Session 1</b> (4 paper presentations)
11:15 - 11:30	<i>Coffee Break</i>
11:30 - 12:45	<b>Session 2</b> (4 paper presentations)
12:45 - 13:45	<i>Lunch</i>
13:45 - 14:45	<b>Session 3</b> (3 paper presentations)
14:45 - 15:00	<i>Coffee Break</i>
15:00 - 16:00	<b>Session 4</b> (3 paper presentations)
16:00 - 16:45	<b>Professional development panel</b>
16:45 - 17:00	<b>Conference Closing</b> by Laetitia Dablanc and Ali Huzayyin, current and former WCTRS-Y leaders

### 4.3 Paper presentation sessions

In total, 14 papers were presented during the four presentation sessions. Each session was chaired by a volunteer young researcher. **Erreur ! Nous n'avons pas trouvé la source du renvoi.** provides an overview of the paper presentation sessions.

The grouping of the papers in the session and the selection of the session chairs were based on the general paper theme and the relevant experience of the session chairs.

#### Presentations of academic papers



Works presented at the conference were subjected to a two-stage single-blind review process. The assessment of extended abstracts (up to 1,500 words) and full papers was based on the same 4-tier grading system utilized in the main conference. Assessment criteria included: adherence to the conference main theme, overall contribution to the state-of-the-art or practice, methodological soundness, among others. Reviewers were volunteers who also participated in the conference, and the whole process was supervised and assisted by members of the Steering Committee.

As the Table below shows, the selected papers covered a wide range of topics within the overall theme. Conference organizers attempted to cluster these papers according to their

thematic relatedness and methodological approach, also aiming to achieve an equitable distribution of the number of works presented in each slot.

### Overview of the paper presentation sessions

#### Session 1 (Chair: Bhavathrathan Bhattiyil Kuzhiyamkunnath0)

- Traffic equivalency factor for mixed traffic to estimate the saturation flow at signalized junctions, Pinakin N. Patel & Ashish Dhamaniya
- Speed prediction model: An Indian city case study, Satyajit Mondal
- Proposal of Policy Frame for Road Space Reallocation that Contributes to Pedestrian Priority by Information and Communication Technology, Koki Takayama
- Simulation-based joint optimization framework for congestion mitigation in multimodal urban network: A macroscopic approach, Takao Dantsuji

#### Session 2 (Chair: Ioanna Moscholidou)

- Intra-port coopetition for container terminal pricing and collaborative berth sharing, Chathumi Ayanthi Kavirathna
- Planning urban freight and logistics: duality in the logistics real estate market, the case of the Paris Metropolitan area, Adeline Heitz
- Modelling Non-Response in Establishment-based Freight Surveys: A Sampling Tool for Statewide Freight Data Collection in Middle-Income Countries, Agnivesh Pani & Prasanta K. Sahu
- How passenger's location and behavior in urban public transport express their needs - The place as a socio-spatial structure, Stéphanie H. Gosset

#### Session 3 (Chair: Prasanta K. Sahu)

- New indicators of density and diversity to understand travel behavior in Indian cities, Deepty Jain
- Identification and prioritization of operational requirements related to battery-electric-bus (BEB) operation in Indian setting, Bandhan Bandhu Majumdar & Prasanta K. Sahu
- Modelling filtering behavior of motorized two-wheelers and cars in disordered traffic systems using decision trees? Sanhita Das

#### Session 4 (Chair: Sara Abd Alla)

- Characterizing City Sprawl and its Impact on Urban Freight Movement, Bhavesh Dhonde
- Integrated Planning and Frequency Optimisation of Bus and Paratransit Services in Indian Cities, Ravi Gadepalli
- Agglomeration Economies, Transport Accessibility and Productivity: Evidence from Toulouse Metropolitan Area, Celia Ruiz Mejia

## 4.4 Professional Development panel session

The Professional Development panel session has been tailored specifically towards young researchers with the goal to allow them to interact with senior researchers. It was moderated by Milena Janjevic and Thiago Guimarães, conference organizing volunteers.

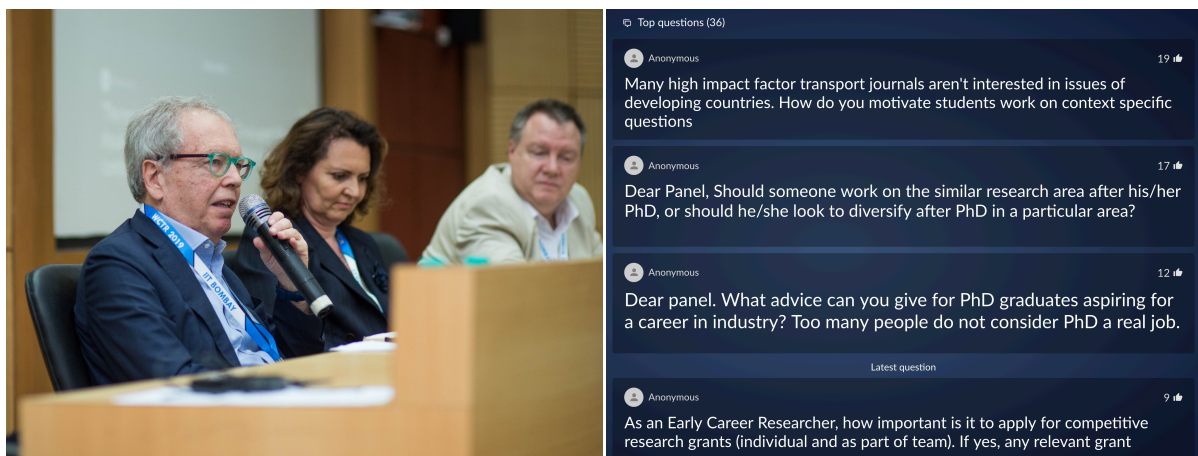
The panel was composed of:

- Laetitia Dablanc, WCTRS-Y leader
- Antonio Musso, WCTRS-Y senior advisor
- Tom O'Brien, external observer, chosen for his extensive experience in education and pedagogical skills in transport studies

The session was composed of two parts. First, panelists provided their feedback and impressions with regards to the WCTRS-Y conference. Second, an open questions-and-answers (Q&A) session was organised with the audience. Here, questions covered a range of topics, such as how to write good papers, what are the promising areas of research or how to advance the academic career. To streamline the Q&A part of the session, an online tool allowing to collect questions from audience was used. This tool allowed the audience to write their questions (using their name or anonymously) and to vote for other questions. Consequently, session moderators were able to select the most popular questions from the audience.

In total, 42 questions were received from the audience and 234 votes on questions were received. The panel was able to address the 17 most popular questions.

### Professional Development panelists and screenshot of the online tool



## 5 Conclusion and recommendations for next editions

The third edition of the WCTRS-Y conference was a very successful event. The overall program was followed as planned. Apart from some delays and problems with the projection technology, which were rapidly resolved, no major occurrence damaged the conference flow.

Organizers managed the whole preparation and the conduction of the conference without major problems. The entire process initiated several months before the event and was coordinated mainly through virtual meetings every week. Support by the WCTRS steering committee was vital.

This year's conference was attended by an unprecedented number of young researchers. Also benefiting from the expertise cumulated with the organization of previous editions, the estimated number of attendees reached 200. The high attendance was well accommodated in the spacious and modern auditorium, which was timely booked.

Papers accepted for presentation at the conference were of good quality. Presenters were in general well prepared for the verbal delivery within the time windows allocated to them.

The professional development session closed the conference in an excellent way. The panelists reflected the challenges typically faced by young researchers in a light conversational manner and embedded in their own experiences. The high interest from the audience was reflected in the intensive interaction with the panelists. Organizers considered this session as a highlight, and the recommendation is that it should be continued. However, enough time should be dedicated to this planning of this part of the conference.

**Some aspects could be improved** in future editions of the WCTRS-Y conference. The exact number and the profile of the conference's attendees remain largely unknown. **A simple registration system** could be used for capturing key information on attendees. This could facilitate profiling better the audience and its interests and also help organizers to better dimension the size of the needed facilities.

Also, the total number of papers was deemed adequate, given that the conference also comprised a professional development session. However, the conference would probably benefit from a **slightly lower number of papers**. This would allow increasing the time available for questions and answers at the end of each session, putting the overall progress of the conference under less pressure, and, importantly, enhancing the opportunities for informal exchange between participants, for instance during the coffee and lunch breaks.

Organizers evaluated that, despite efforts, each session comprised papers on quite dissimilar topics, and this may have been not optimal from the perspective of the attendees. Selection of papers should emphasize **closer coherence towards the general theme of the Conference**, which may need to be more specific.

The **professional development session** was very appreciated and may be given more time in future Conferences.

In addition, valuable insights for upcoming editions could potentially be gathered from the audience. Although organizers received informally positive feedbacks from several participants, their satisfaction and inputs could also be assessed more systematically for instance by means of a **short survey**.

**The team of WCTRS-Y 2019**

