

## ***AITPM Young Professional Award 2021***

### ***Jessica Athayde | Graduate Transport Planner, Arup***

*Background: Bachelor of Civil Engineering (First Class Honours) & Bachelor of Commerce with Distinction (Major in Business Strategy and Economic Management)*

I've been greatly interested in the transport industry for several years. I'm currently a second-year graduate in the Transport Planning team at Arup and worked in Roads and Highways in the Detailed Design team at SMEC for two years prior as an undergraduate. I am deeply passionate and interested in active transport planning; particularly the role it plays in relation to land use integration, urban spaces and strategic city planning. I have a strong foundation and developing interest and curiosity in human centred design and the adoption in the transport planning industry. I have been fortunate to develop these interests and skills through project work, training courses and research during my years at Arup.

#### **Transport-Affiliated Awards**

- ***Speaker at AITPM National Conference 2019, Adelaide*** (Land Use Modelling stream)
- ***Recipient of ITE-ANZ Undergraduate Student Award 2019*** (Institute of Transportation Engineers Australia & New Zealand prize for most outstanding piece of individual work, sponsored by GHD)
- ***Final Year Prize in the Transport Discipline 2018*** (UNSW School of Civil Engineering sponsored by Turnbull Engineering)

#### **Other Career Snapshots**

- ***Research Assistant at UNSW, 2019*** - casual contract with the Research Centre for Integrated Transport Innovation (rCITI)
- ***Winners of the Arup Graduate Research Challenge, 2020*** - A budget to continue research to Explore the Office of Tomorrow through human centred design consisting of one-on-one interviews, a regional survey, analysis and presentation of key recommendations to the Sydney Office leader and the Regional Business Leader
- ***Competition of 6-week Online Course: Unravelling the Cycling City with Coursera, 2020*** - offered by Marco te Brömmelstroet from the University of Amsterdam with learning materials consisting of global lessons learnt
- ***Service Design Elevate 10-week Part-time Course with Academy XI, 2021*** – currently enrolled in a course to learn and upskill in service design to better understand customer journey mapping, human centred perspectives and stakeholder engagement through service design frameworks in a practical manner

#### **Passion in Active Transport and Human Centred Design**

My passion in active transport began in my exchange to Copenhagen Business School to study Consumer Behaviour and Social Marketing. Here, I fell in love with cycling in Danish country and undertook a research assignment on commuter behaviour in Copenhagen.

At Arup, I've been fortunate to work on projects with a strong focus on active transport. In particular, I've worked on 3 confidential major projects in the strategic planning space that adopted the TfNSW Movement and Place framework. A major highlight of my career at Arup has been working on the Sydney Metro West Secure Bikes Research Project. The project was pivotal as it utilized human centred design processes to serve a broader purpose to increase the active mode share through encouraging cycling to metro stations.

The Bikes Research Project for Sydney Metro West was an incredibly unique project at the forefront of innovation across all facets: seeking to employ human centred design to create a safe and secure bike storage solution for stations along the Sydney Metro West rail corridor.

The project was run in cycles with an agile structure and my role on the project in each phase was as follows:

- *Research and Literature Review*: In this phase I undertook review of local standards, including the TfNSW Cycleway Toolkit.
- *Case Study Analysis*: In this phase, a long-list of global case studies which was reduced to a short-list through assessing which ones were most interesting and relevant to the project. My role was to create highlight cards showcasing each example.
- *Design Research Interviews with Customers*: In this phase, I was trained to lead interviews with customers, non-customers and potential customers, using the case study examples to build and develop an understanding of customer mental models with respect to bike parking at stations
- *Product Design Workshop*: The literature review, case study analysis and customer mental models from the interviews were presented back to a working group consisting of client representatives, subject matter experts and the project team who workshopped ideas to feed into the product design
- *Development of Product Concept*: A product concept was developed by Arup's architecture team which took into account the workshop findings
- *Design Validation Interviews with Customers*: In this phase, I led interviews with new customers/non-customers and a select few repeats from the first phase. I sought feedback on the concept design which was fed back to the architecture team to develop the product concept.
- *Subject Matter Expert Input*: Subject matter expert feedback was sought again before the final design was submitted
- *Presentation of Final Design to client*

Not only does this project champion sustainability as the core driver was to increase cycling mode share, but it paves the way for future project design through the integration of customer experience and input in design from the very beginning and continuing throughout. I believe that the lessons learnt from this project are pivotal and industry-shaping and I aspire for more projects to utilise human centred design principles.

### **Involvement with AITPM**

I first heard of the AITPM through Kasun, my thesis supervisor at UNSW, who reached out about organising a YPN kick off event at SMEC. Following that, I was extremely fortunate to have my honours thesis accepted to present at the AITPM National Conference in Adelaide in 2019. I have since been a member of the AITPM and enjoyed attending a variety of social, networking and information-sharing events.

Currently, I am involved in the AITPM Buddy Program Pilot as a mentor which has been a great opportunity to share experiences and work towards common goals. I am also part of the 2022 Sydney National Conference organization committee and a recent member of the NSW State Branch Committee.

Attending the 2019 National Conference was an incredible highlight that peaked my interest in the transport planning industry. When I wasn't presenting my research, I took every opportunity to listen to different presentations I found interesting and meet new people in the industry through the social events and networking opportunities between sessions. I have never felt more excited and

motivated to work in the transport planning industry, alongside a huge network of equally motivated individuals and organisations who share the same passions for knowledge-sharing, research and innovations.

It would be an incredible honour to be a recipient of the AITPM Young Professional Award. I wish to convey my strong passion and willingness to learn as much as I can about innovations in transport planning from across the country, as well as an eager determination to bring forward ideas for collaboration and engagement as a member of the NSW State committee branch. Attending the National Conference is something I would endeavour to make the most of and an opportunity that makes me very excited, through learning about innovations in the industry and engaging with like-minded professionals.

### **Passion for Transport**

My interests in the field of transport are diverse and characterised by unrelenting curiosity. I appreciate the complexity of transport planning: a field with a large multitude of road users that have highly differentiated and unique needs who often interact in a limited and shared road space. I also appreciate the inherent integration of movement and place, which is shaped by land-use policy and economic development planning. Transport affects the wider economy through its capacity to shape an entire city and region. Ultimately, in a field that's characterized by its complexity, the design methods and planning practices adopted in the industry are constantly evolving and hence continuing to pursue innovations in the industry is pivotal.

I am constantly motivated to continue learning about new innovations and particularly in industry-focused research in order to work towards shaping a better world not only for road users, but for broader society. Currently (and topically), I am particularly interested in projects, plans and methods to increase cycling mode share in Australian cities. I believe the social and underlying behavioural influences remain untapped and require further exploration in order to uncover the conscious and subconscious reasons behind the individual choice to walk/cycle/drive/catch public transport. I believe this will not only help explain mode share on a city level based on preferences, but also serve to inform strategic policies and interventions to ultimately create more sustainable cities.