People in Transit

The minor People in Transit is the evolution of the minor Automotive Design. The encompassing mobility domain is more complex and challenging than it ever has been, both from an internal as from an external perspective. It is because of the latter that we can no longer regard automotive design, or that of any other transport modality, solely in its own right.

How to design mobility means that are meaningful within society that address both individual and collective concerns? This fundamental question dictates a holistic design approach, because of which a context driven design process is the underlayer of this minor.

This autonomous programme provides knowledge on automotive and mobility design and technology, and an understanding thereof in specific societal contexts. Because of the complexity of the human mobility domain and the high level of design execution in mobility-design, all knowledge, insights and experience derived from this minor, are applicable and valuable in other complex systems and domains.

For whom
This minor is developed for university students of the designing faculties, i.e. aerospace, mechanical engineering, architecture and industrial design engineering. In order to participate, students must have acquired at least 80 EC in their bachelor. Students must have design experience as may be expected after two years in their respected bachelor programmes. They must also have an interest in mobility societal issues, be academically curious, willing to work in multidisciplinary teams and expect to be pushed out of their comfort zones.

Minors of the faculty of Industrial Design Engineering are open only for students from academic programmes.

The programme
Students execute three project courses, which are growing in depth, width and weight, from automotive styling and technology to the design of an integrated mobility system. Those three projects together are framed by, and structured through, Vision in Design. Together they are one full walk-through of this context driven design process. Necessary knowledge is acquired through lectures and research. Necessary skills are being developed in parallel.

• Human mobility
This guiding course runs throughout the programme and frames the three project courses, safeguarding their coherence and connection. Lectures address context driven design, design project management and programme coherence. Students compose their own reader, which is their final individual deliverable in this minor.
• **Automotive styling**
In this first (individual) ‘outside-in’ project students learn to unravel vehicle form, understand the complexity of vehicle styling and how that expresses ‘what’s underneath’. How do people perceive and value the styling of a vehicle? Your assignment is to restyle an existing vehicle. The goal is to understand automotive design ‘language’ and the ‘level of expertise’ that is required to be able to communicate with and within the field of automotive and mobility design. Lectures include aesthetics, branding and aerodynamics.

• **Automotive technology**
In this ‘inside-out’ team project students design vehicles that enable people to fulfil their mobility needs in a meaningful way, in a specific context and for the short-term future. Product-user interaction is investigated qualitatively as much as quantitatively. Lectures include ergonomics, safety, vehicle dynamics, technology and structures, package design and near future developments such as car sharing and autonomous driving. The outcome of this project is the design of a full vehicle package, and its reflection on the styling, i.e. the coherence between ‘under the skin’ requirements and styling.

• **Mobility systems design**
In this project the previous projects come together in the design of a long-term future mobility system design. It starts from the idea that every specific context triggers specific end-user behaviour. Ethical choices on sustainability and inclusion help the designer understand how to take a moral stand, and which behaviour is appropriate. Newly designed mobility means, bringing together technology, usability and styling, will elicit what the designer wants to accomplish with and for people. Lectures include the taxonomy of human goals, mobility systems (policies, services and products), safety, sustainability and the build environment.

This final project kicks off in small teams, researching a future context and designing an integrated mobility system. After the team phase, each team member individually designs a vehicle for that specific future context.

• **Automotive skills**
Involves sketching and drawing, CAD modelling, prototyping, animation, VR as a design tool and the interaction between all of those. It runs in parallel with the project courses for the duration of the minor. The intensive exercises are related to the projects.

**Registration and application**
This is a selection minor. We aim for a balance between students of the various designing faculties. The procedure is the same for all applicants.

In addition to your registration (Osiris or International Office), please send a brief motivation to automotivedesign-io@tudelft.nl including a description and a representative image of an (of the shelf) project that you are proud of. This should represent your thinking, design or engineering skills. It does not have to be a mobility related project.