PhD topic #4**: Simulation-driven machine learning for transportation operations**

Transportation systems are a typical example of complex industrial systems. The freight transportation issue arises because of the geographical distribution of resources, producers and customers. In contrast to "transportation planning", freight operations are highly dynamic and subject to uncertainty. This makes using conventional management methods for transportation operations optimization unsuccessful. The aim of this thesis is to advance the state of the art in simulation-driven machine learning for freight transportation by: i) simulating and modelling freight transportation operations, ii) exploring possibilities to combine machine learning with simulation modelling, iii) building an Intelligent Transportation System (ITS)

- The doctoral candidate will be supervised by Dr Mustapha Oudani and Dr Mounir Ghogho.
- Applicants must have a Master (or equivalent) in operational research, computer science, applied mathematics, industrial engineering or equivalent field.
- Good skills in optimisation, modelling, machine learning and programming (Python or Java), and a good command of English are required. Prior research experience is viewed positively but is not necessary.
- Applications should be emailed to ticlab-admin@uir.ac.ma and doctorat@uir.ac.ma