

Statement of Research Interest

Why along with construction of roads we still have terrible transportation problems in terms of congestion, pollutions, safety? For instance, Kabul; the capital city, has been suffering for a decade from heavy traffic congestion, and this traffic congestion, also being the leading cause of the air pollution, has led us to severe problem that has directly lowered the quality of life in Kabul city. Heavy traffic congestion, and rapid expansion of unplanned urban area will also cause additional costs of high fuel consumption to motorists, as well as an increase in noise pollution, longer travel time to destination and so on. Life in Kabul city has been adversely affected as a result of no effective decision regarding the mentioned problems for a decade. There are many factors that contribute to traffic congestion and its hazardous effects in Kabul; poor planning, poor management, and shortage of professional, technical and academic personnel in related field are among the most important contributing factors. Furthermore, it is an almost worldwide problem that traffic demand gets higher and higher and more roads are needed. And again more motorized travels are generated. This cycle results in an unplanned growth of cities with large urban problems. So, the main goal is to plan to go towards a sustainable transport in which many route and mode choices are available for users. Existence and accuracy of transport models in one hand, and how we use our land on the other hand are the two factors with great influences on transportation conditions. We don't have transport models and "land use" policies in Kabul city to work with each other in an integrated way to make efficient transportation oriented decisions, forecast future demand, encourage public transport and non-motorized travels (walking and cycling). So, from this regards all, I am eager to start my journey towards becoming a professional in the field of transportation planning and management for dwindling of the existing challenges in Afghanistan specifically in Kabul, the capital city.

As previously stated, traffic congestion is the leading cause for air pollution, longer travel time to destination, and so on. These crucial problems in Kabul city would not be annihilated, and even would not be declined without having a sustainable transport system and professional personnel in this related field. To have a sustainable, and cost-effective transport system, and for getting rid of these current challenges, Intelligent Transportation System (ITS) is a key option. That is, by implementation of ITS, we will observe considerable reduction in travel time, fuel consumption, CO₂ emission, traffic accidents, poverty and any other chronically burden condition, and start to come to the right track to go towards a desired and sustainable transport system. As ESCAP (Economic and Social Commission for Asia and the Pacific) states, "by implementation of ITS we can reduce congestion and improve traffic efficiency, and thereby public transportation (via rail, bus and taxi) become ever more punctual and reliable, inducing rising public trust in, and use of, those services". Additionally, implementing of ITS, encourages the use of public transport, resulting in reduction in CO₂ emission and other air borne pollutants such as small particles. ESCAP states that, "an annual CO₂ reduction of 19,000 tones is anticipated when ITS are implemented for 1,000 km of the national highway network". ITS can also contribute to poverty reduction by improving the travel time and travel costs for poorer city dwellers, providing them with new economic opportunities in distant areas of their cities. As cost effective and efficient mobility or transport system is an essential facilitator of economic development for a nation or country, so by implementing of ITS we can annihilate the noted problems, and thereby we will enhance our economic growth, and decreased the poverty in our motherland, Afghanistan.

Points presented above have given me a vision and have added to my passion to plan to be a leading professional in the field of transportation engineering with focus on transportation planning and management, particularly studying the efficiency of Intelligent Transportation System (ITS) for Kabul city's transportation system.

On my return to Afghanistan, I have short and long term plans. First, I will continue to work as a lecturer at Salam University, and will train, motivate and share my knowledge with civil engineering

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students. Meanwhile to become a positive influencer in my community and contribute to solve the existing challenges in the field of transportation planning and management. Besides, I will also continue my studies to receive a PhD degree, to be a leading professional in this field and to become an instrumental asset to my homeland, Afghanistan. Second, I will join transport-related agencies and policy makers, to contribute in: collecting data, making policies and transportation models, implementing ITS (Intelligent Transportation System) principles and procedures, and to work for my people along with my people to make this country a better place and be involved in academic exchange with the world.

As previously stated, I am lecturer in one of the universities of Afghanistan, so I can have a determinate role in rehabilitation and development of Afghanistan not only as professional in transport planning and management but also as teacher in teaching and transferring my knowledge to others, in addition since I have enough experience in teaching and consultation, I will be very effective in teaching my skills and knowledge that I will get through this scholarship program to young scholars by teaching in university.

Finally, I want to indicate that this experience of studying as your program scholar will bring me great changes in my leadership and management skills. This scholarship program will be furthering very well my future plans, educational goals and career. This scholarship program will open a new door of opportunities for me to develop my professional career, my teaching and management skills by being part of your academic environment. It is also important to notice that your offering will definitely meet my very old ambitious and it's a new page for me to discover new goals.