

## Human bug stymies traffic technology

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**By Sarmad Qazi**

USER-OPTED cell phones sending precise locations to a centralised traffic control room, coupled with low-cost wireless sensors on the roads are developments that could actually lead to less congestion on the road.

There is a problem though: Humans.

According to Professor Hani S Mahmassani, the William Patterson Distinguished Chair in Transportation at the Northwestern University, US, the intelligent transport systems (ITS) available now are certainly at a cusp of a jump, barring human cognitive and behavioural limitations.

“Human drivers are at the root of system inefficiency, thanks to their perception time lags, reaction times, and a natural tendency towards over-reaction under stressful situations or risks that are solely perceived,” said Prof Mahmassani, who received his PhD from MIT.

This, according to him, results in volatility, congestion, frustrating stop-and-go patterns, ‘phantom bottlenecks’ – where drivers stuck in jams ‘assume’ there must be an accident ahead, and capacity loss.

“Initially people were also worried about their privacy (unauthorised users accessing your precise location from your phone) but that is changing now with the kind of social networking environment that we have now, vis-à-vis the facebook phenomenon,” Mahmassani told Gulf Times.

Then there is the multi-level, multi-jurisdictional bureaucracy – humans again – who naturally get into turf wars, and a “lack of co-ordination that often hinders successful implementation of traffic network management approaches”, said Prof Mahmassani, who was a keynote speaker yesterday on the opening day of the 4th International Gulf Conference on Roads.

“So what you’ve got to do is to involve institutional frameworks that can support and evolve the processes to sustain and improve the transportation system over the short, medium and long runs,” he said.

According to him, private car use continues to increase in the region, and elsewhere in the world leading to traffic congestion, environmental degradation and high fuel consumption.

The reality - existing mass transit in large cities, crushing densities and crawling speeds.

And unless the traffic system is ‘reliable’ and carefully managed chances are business is suffering.

“Lack of travel-time predictability affects your ability to schedule business and personal activities causing delays and loss of productivity. This is a critical factor for business and services that rely on physical mobility,” he added.

When asked if Doha is heading that way, he said: “Not yet! The infrastructural changes happening now can be combined with the will and a ‘Dubai’ can certainly be avoided.”

The recipe, Prof thought was “the aggressive use of tools for economically efficient (but fair) allocation of resources, flexible operational strategies, management of spatial and temporal pattern of demand and strategic connection between transport infrastructure and services and land use development for a successful traffic network management”.



[A ‘phantom bottleneck’, when the traffic is simply waiting at a signal](#)

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