As one of the biggest reforms, the National Highway Authority of India (NHAI) under Ministry of Road Transport and Highways has gone ‘Fully Digital’, with the launch of unique cloud based and Artificial Intelligence powered Big Data Analytics platform – Data Lake and Project Management Software. The entire project management work flow of NHAI is transformed from manual to online portal based, wherein the complete project execution operations including ‘workflow with time lines’ and ‘alert mechanism’ have been configured. All project documentation, contractual decisions and approvals are now being done through portal only.

With advance analytics, the Data Lake software will forecast the delays, likely disputes and will give advance alerts. Thus apart from expediting the decision making, it will also facilitate in taking correct and timely decisions as the system is likely to predict financial impacts of different alternatives based on the historical data. This will reduce a lot of disputes.

NHAI has a history of having large number of arbitration cases pending with huge amount of claims and counter claims. Majority of the disputes are generic in nature like delay in handing over of encumbrance free site, shifting of utilities, idling charges of plant, machinery, equipment, manpower and delay in decisions etc. These disputes can be minimized as the Data Lake software has provisions to keep track and check on all these constraints and will ensure work is carried out within the deadlines in a transparent manner. As all processes are going to be portal-based, decision-making is going to be faster and will eventually diminish chances of litigation in future.

The complete project documents and correspondences will be stored in Digital format in the cloud-based ‘Data Lake’ linked with GIS tagging and Unique Project ID, so that the project data can be easily retrieved as and when required from any location. NHAI’s all contractors/ concessionaires/consultants/Authority Engineers (AE)/ Independent Engineers (IE) and Project Directors (PDs)/ Regional Officers (ROs) have already started using it extensively. NHAI’s e-Office module is also integrated in the system so that all correspondences can flow digitally in a secured manner from field units to HQ seamlessly.

In the current Covid-19 pandemic scenario, when most of the organizations are facing serious challenges in working, NHAI employees are continuing their works undeterred and happily without any fear of physical contacts and touching of physical files. Rather, lockdown period was used by NHAI to train its employees about using Data Lake.

The Data Lake will bring revolutionary changes to NHAI with benefits like No delays, Quick decision making, No question of missing records, Work from anywhere/anytime. It will enhance transparency, as all officers and stakeholders, connected with the project can see what is going on real time basis which will amount to concurrent performance audit by
the seniors.