# Process of (research) investigation of geodetic engineering for the designing of ...

Science, Physics

# Process of (research) investigation of geodetic Engineering for the designing of high speed (train) main railway line

Geodetic Engineering for the Design of High Speed Train Geodetic Engineering for the Design of a High Speed Train To makea remarkable improvement in the transport sector, there is a need to keep networking places. This is to improve the movement from one place to another and make transport even cheaper. Since the world has been concentrating on construction of roads in most of their economic activities, reverting to construction of railway lines would be an improvement to the transport system (Fischinger, 2000). In most of the developed countries, many people have reverted to using rail as a form of transport. This is due to the development of the networking in these countries, especially in relation to railway transport. In many instances, high speed trains reconsidered cost effective as compared to road transport. This is partially due to the volume of the train, which carries a large number of people at a time. Similarly, trains do not encounter traffic as they have exceptional rail lines. Therefore, use of geodetic railway constitution is a positive approach towards improvement of the railway connection (Torge, 2001). Banking on this system would improve the railway transport to a high notch.

In making this a reality, transport engineers have to embark on various activities that are geared towards establishment of an affordable transport system. First, they have to engineer tracks, where the transport system will be based. These tracks are made through all the basic terminals. The issue of making terminals is to ease movement of the people from one place to

another. Apparently, terminals are the places where people wait to board the transport system. Therefore, terminals that are centrally placed make it easier to access the transport system. This is followed by analyzing and designing all the models that are required in the transport system. This includes land, air and sea. This will ensure the transport system is not affected by these natural features. For instance, some railway tracks are drilled through mountains, tunnels and rocks (Sansò, 2006). This is an involving task which requires highly credentialed engineers. Therefore, engineers have to plan, design, and manage and operate the railway system at high standards while offering top notch services.

Geodetic engineers have a task in using technology to make an improvement in the railway system. They use various technologies to measure and develop inventory research on land and other resources to ensure each is not affected while constructing rails. However, many of these factors were not considered during the construction of railway lines. As such, many issues were cropping up as most of the tracks were not following the stipulated guidelines. To reduce the occurrence of such incidences, the European Terrestrial System stipulated guidelines, which should be used in railway construction. This was an approach that would give fresh rules that would improve the construction of railway lines. The specified requirements were elaborate and straight to the point, giving open views on railway construction (Woldman and Frick, 2000). The coordination of these guidelines was the way forward as it would improve the construction of railway lines, to last for a longer time. Similarly, the guidelines would ensure

the rail lines would be used for a long time.

The European Terrestrial Reference System (ETRF 89) stated the various procedures that should be used in railway construction. First, they embarked on data structure, which was the initial part of the project. The data structure explained all the requirements that would be used in railway construction. The data structure included feasibility studies, research and gathered information about railway construction. Secondly, there was the standard interface. This meant that geodetic construction of rails would be graded to ensure the standards are met (Seeber, 2003). For instance, the distance between the two rail lines should be standardized in all the tracks. This would make it easier to construct rail lines throughout the intended area.

References

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