SMART ROAD is a high-end road designing application that helps users to generate effective and accurate road designs. With an extensive set of features and a simple, easy to use interface Smart Road saves you a lot of time and money by producing automated design and detailing of almost any road type.

The software has been developed using state of the art technologies that conform to the highest international standards while also including all standard norms set by The Department of Local Infrastructure Development and Agricultural Roads (DoLIDAR), Department of Roads (DoR).

SMART ROAD offers almost all kinds of road design options. It supports both baseline survey method (DTM) and centerline survey method and covers a wide range of functionalities including functions, data collections, terrain modelling, contouring, volumes, profiles and cross-sections. In spite of being a robust software, Smart Road’s user interface has been carefully engineered to enable the most elaborate road design operations at the push of a button.

SMART ROAD KEY FEATURES:

DESIGN CREATIVITY
The dynamic placement and change functionality in smart road speeds the creation of alignments. “Rubber Band” flexibility allows user to place and edit alignments, encourages creativity and fast assessment of design and with feature like zoom/pan “at mouse wheel” providing ease and comfort while design. With cut/fill calculations “On the fly” the end result is informed decisions, prompting better quality design.

PAVEMENT LAYER AND SUB-GRADE DESIGN
Pavement layer generator modals the entire road pavement complete with variable pavement configurations. Volumes are produced as a by-product of the design process delivering information required when needed.

CROSS-SECTION DESIGN
SMART ROAD can update cross-section from the horizontal and vertical alignments automatically and promptly. It provides variety of standard structures by default, which can also be customized as per the user’s requirement. Also these customized structures can be used time and again. As smart road is very powerful software, it can promptly update the cross-section along with the changes made in any parameter with preview.

FINAL REPORT
SMART ROAD gives interactive AutoCAD compatible drawings of plan, profile and cross-section with proper frames and sheet management. It can promptly calculate quantities and has easy and fast processing of large number of data. User can customize drawing frames with page numbers and markings.

SMART PLOTTER
As found in other softwares, printing has always been a tedious job in preparing design report specially drawings (Plan, profile and sections). Smart plotter which comes with smart road enables users to print as much pages as wanted with a single command from any AutoCAD versions itself.
Smart Road plays a significant role in the process of road design and are left aside by the currently available road designing software packages. Some of these are listed below under their respective module heads:

**DATA INPUT**
- Co-ordinate data and bearing data are interconvertible
- Both offset and stepping method support with auto conversion from cross-section
- Bench mark and surface data input

**PROFILE**
- Extensive parameters display option in profile such as design level, ground level, cut/fill, soil type, side drain, super elevation.
- Chainage and R1 reflection in drawing window
- Real time reflection of vertical alignment with grade during movement
- Possibility of locating the relative cross-section and plan from profile window
- Real time reflection of design change done in the cross-section.

**CROSS-SECTION**
- Customize cut/fill lines
- Customize structures like drains, walls with GUI.
- Customize drainage structures with typical drawing
- Custom cut/fill area
- Copy paste any structure in any cross-section
- Edit existing cross-section data from same window
- Copy structures and ground level from adjacent cross-section
- Updating cross-section with preview

**PLAN**
- Easy alignment placement and movement with real time curve reference generation during IP.
- Extensive parameters display option in plan such as road width, walls, drains, extra widening, Cut/fill details etc.

**PRINTING**
- Customizable drawing frames and proper sheet management.

**SYSTEM REQUIREMENTS**
- Software: Microsoft .net framework 3.5, AutoCAD 2007 or higher
- Processor: Pentium 900Hz minimum, Pentium P4 1.5Ghz or equivalent and higher
- Operating System: Windows XP, Vista, Windows 7
- Memory: 512MB minimum, 1GB or higher recommended
- Disk space: 1GB
- Input Device: Mouse/Keyboard

Smart Tech is a dynamic, multipurpose IT outsourcing company based in Kathmandu, Nepal, which comes with over six years of experience in overall web design and CAD application development. With an impressive lineup of experienced professionals who are committed to client satisfaction.