Redline Racing

K.S.Institute of Technology

Team redline racing from K.S.Institute of Technology, Bangalore has successfully designed and fabricated an off road buggy for a competition conducted by BAJA SAEINDIA.

The team initially had to qualify the virtual round, where they had to submit the design and analysis of the buggy along with all the other specifications of the sub-systems being used. All the necessary calculations pertaining to the subsystems such as braking, steering, drive train, acceleration etc. were submitted during the virtual round. Four members of the twenty five member team had been to Ahmedabad to attend the virtual round, which was held on 16th August 2014. The team successfully cleared the virtual round and was selected for the main competition. Redline Racing was one among the 120 teams out of 350 teams selected, to take part in the main event held at NATRIP, Pithampur.

The fabrication of the Buggy started during the month of December. Initially all the sub-systems along with the roll cage materials had to be procured before the fabrication could begin. The fabrication of the buggy was completely done in the college, under the guidance of Mr.Nagaprasad.K.S and Mrs.Sree Sudha.

The off road buggy, is powered by a Briggs and Stratton engine which generates 10BHP and 20Nm of torque. This has been coupled to a suitable gear box, which has the capability to handle the generated torque and also has the desired gear ratios. This buggy has the capability to climb high gradeability in any terrain. This buggy finds its applications in rough off-road environment, such as mines.

The main event was held at NATRAX facility of Natrip at Pithampur. The competition was scheduled from 18th to 22nd February 2015. Many static and dynamic events such as design report, cost report, sales presentation, hill climb, maneuverability and acceleration we conducted before the final endurance race, held on the final day. Redline Racing won the runner up award for the best buggy produced in the least cost.