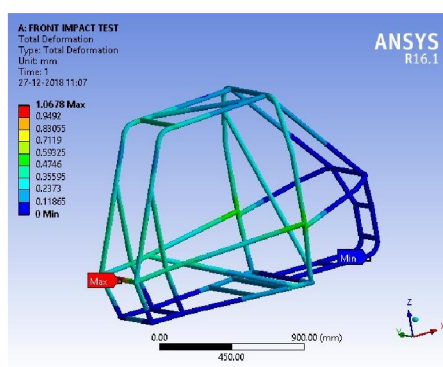
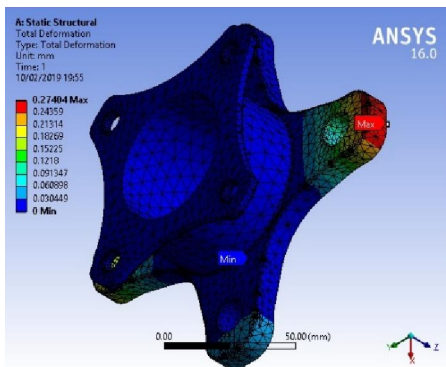
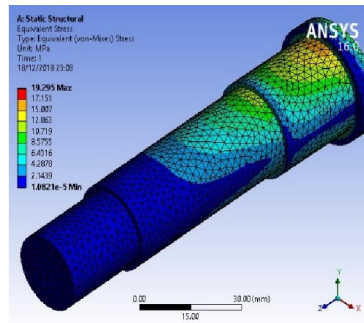
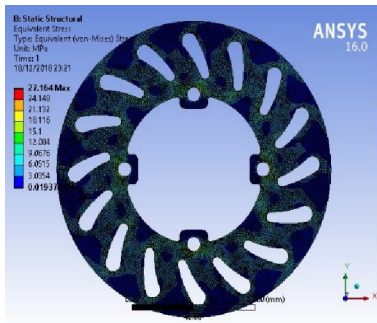


MAHINDRA SAE BAJA INDIA 2018-19

TEAM RAGING ASHURA, NMIMS SHIRPUR.

TEAM RAGING ASHURA, GOT AN OPPORTUNITY TO REPRESENT SVKM'S NMIMS MPSTME SHIRPUR CAMPUS AT THE PRESTIGIOUS NATIONAL LEVEL MAHINDRA-SAE BAJA EVENT.



SPECIFICATIONS OF THE ALL TERRAIN VEHICLE

MATERIAL USED - AISI 4130.

PROPERTIES – TENSILE STRENGTH 435MPa, MODULUS OF ELASTICITY 205 GPa.

WEIGHT OF VEHICLE – 224.2KG.

ENGINE SPECIFICATIONS –

- MODEL – BRIGGS AND STRATTON VANGUARD M19 OHV
- ENGINE DISPLACEMENT – 305 cc
- MAX TORQUE – 19.2 N.m
- GROSS POWER – 10 BHP
- MAX RPM – 3800 RPM
- IGNITION TYPE – MAGNETRON SPARK IGNITION

GEARBOX GEAR RATIO – 11.5

INTERMIDIATORY TRANSMISSION TYPE – CVT (CONTINUOUSLY VARIABLE TRANSMISSION)

BRAKE SPECIFICATIONS –

- MASTER CYLINDER TYPE – BOSCH TANDEM MASTER CYLINDER 4 PORTS
- BRAKE OIL – TVS DOT 4

STEERING SPECIFICATIONS –

- STEERING GEOMETRY – ANTI -ACKERMANN
- STEERING MECHANISM – RACK AND PINION
- STEERING RATIO – 9:1

SUSPENSION SYSTEM

- FRONT – DOUBLE WISHBONE SUSPENSION SYSTEM
- REAR – SEMI-TRAILING ARM
- SUSPENSION TRAVEL – (FRONT 4”), (REAR 5”).
- FOX SUSPENSION SYSTEM – (FRONT – FLOAT 3 = 17.2” EYE TO EYE LENGTH)
- FOX SUSPENSION SYSTEM – (REAR – FLOAT 3 EVOL R = 18.2” EYE TO EYE LENGTH)

TEAM MEMBERS-

FACULTY ADVISOR – Dr. RAJNISH KATARNE.

Sr.No	Name	Year	Branch
1	Rut Madgeri	IV	B.Tech Mechanical Engineering
2	Suraj Jain	IV	B.Tech Mechanical Engineering
3	Vedansh Arora	IV	B.Tech Mechanical Engineering
4	Achint Tikkas	IV	B.Tech Mechanical Engineering
5	Sanchit Nevatia	IV	B.Tech Mechanical Engineering
6	Bhavesh Nandpure	IV	B.Tech Mechanical Engineering
7	Himanshu Goyal	IV	B.Tech Mechanical Engineering
8	Romil Ghelani	IV	B.Tech Mechanical Engineering
9	Shashank Jha	IV	B.Tech Mechanical Engineering
10	Karan Khara	IV	B.Tech Mechanical Engineering
11	Darsh Mehta	IV	B.Tech Mechanical Engineering
12	Shreyas Kasabe	IV	B.Tech Mechanical Engineering
13	Shubham Nayak	III	B.Tech Mechanical Engineering
14	Haaroon Afroz	III	B.Tech Mechanical Engineering
15	Vidhaan Shrivastava	III	B.Tech Mechanical Engineering
16	Abir Qureshi	III	B.Tech Mechanical Engineering
17	Tejas Fulwala	III	B.Tech Mechanical Engineering
18	Bhavik Makwana	III	B.Tech Mechanical Engineering
19	Ayush Jain	III	B.Tech Mechanical Engineering
20	Aniket Londhe	III	B.Tech Mechanical Engineering
21	Hardik Jain	III	B.Tech Mechanical Engineering
22	Vedish Belani	III	B.Tech Mechanical Engineering
23	Anirudh Sharma	III	B.Tech Mechanical Engineering
24	Abhishek Gupta	III	MBA.Tech Mechanical Engineering
25	Mohit Mistry	III	MBA.Tech Mechanical Engineering

14-JAN-2019



ABOUT THE COMPETITION

1. SAE BAJA is an intercollegiate design and manufacturing competition run by the society of automotive engineers SAE.
2. Teams of students from universities design and build small off-road cars that can withstand the harshest elements of rough terrain.
3. The objective of the competition is to simulate real world engineering design products and their related challenges.
4. Following events and tests were held
 - Safety and Scrutiny test
 - Engine test
 - Weight calculation
 - Brake test
 - Acceleration test
 - Rock and Roll (dynamic event)
 - Suspension and traction (dynamic event)
 - Final Endurance race

Innovations

- Inboard braking system was used.

