



# ACHIEVEMENTS

- One of the few teams nationwide to develop a complete custom transmission system from scratch.
- One of the lightest vehicles standing at 142kgs.
- **2014:** 7<sup>th</sup> team to clear Technical Inspection at BAJA SAE India.
- **2015:**
  - Won the “**BEST MANUFACTURING AWARD**” at the International Series of Karting.
  - 3<sup>rd</sup> in Skid Pad Test.
  - 7<sup>th</sup> Overall Ranking.
- **2016:** Stood 2<sup>nd</sup> in Mumbai and 13<sup>th</sup> in Suspension-Traction at BAJA SAE India.
- **2017:**
  - 19<sup>th</sup> AIR among 123 teams at Enduro Student India.
  - 8<sup>th</sup> in Sales Report, 15<sup>th</sup> in Endurance Race, 19<sup>th</sup> in Maneuvering at BAJA SAE India.
- **2019:**
  - Major improvement in ranking @ **35<sup>th</sup> AIR among 250+ teams** and 3<sup>rd</sup> in Mumbai at BAJA SAE India.
  - 15<sup>th</sup> Design Presentation, 17<sup>th</sup> Rock Crawl, 22<sup>nd</sup> Acceleration at BAJA SAE India.
  - **17<sup>th</sup> AIR** among 100 teams and **1<sup>st</sup> in Mumbai** at Mega ATV Championship.

# PROBLEM STATEMENT

To conceptualize, design, manufacture and scrutinize a One-Manned All-Terrain Vehicle capable of comfortably commute 90 percentile of the population through any type of terrain sustainably for extended periods of time.

To master the cost analysis, design scrutiny and sales caliber with concern to this particular vehicle.



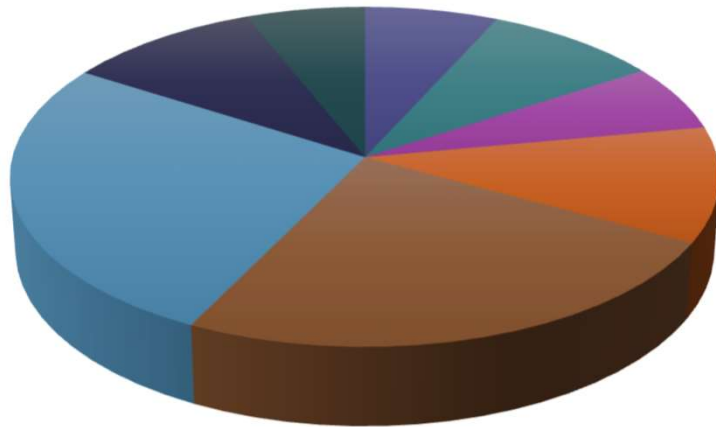
# COMPETITION DETAILS

- BAJA SAE INDIA is the largest technical competition for under-graduates in the world.
- It is held annually in two phases:
  - First phase in NATRAX, Pithampur in Madhya Pradesh.
  - Second phase in Chitkara University, Rajpura in Punjab.
- Teams first have to qualify for the competition in Virtual Round where the CAD models, Simulation reports, Technical Parameters and general automobile knowledge of the team is tested.
- BAJA is organized and judged by experienced dignitaries from organizations like Mahindra&Mahindra, General Motor, Ansys, Mathworks, Anand Group, etc.
- Over 250 teams participate annually in this competition.



# FUNDING REQUIREMENTS

**Total Project Cost: 3,87,000**  
All figures in thousands



■ STEERING	(Rs. 28)
■ DRIVE	(Rs. 37)
■ BRAKES	(Rs. 26)
■ FRAME	(Rs. 45)
■ TRANSMISSION	(Rs. 100)
■ SUSPENSION	(Rs. 110)
■ SAFETY	(Rs. 41)
■ SAVINGS	(Rs. 25)

# WORK COMPLETED THIS SEASON

- The vehicle is functional and testing is underway at a site in Virar East.
- Preparations of Cost Report, Design Report and Sales Report have commenced.
- However, the procurement of critical suspension parts and tyres is still pending due to lack of funding.



# MAJOR SPONSORS



PT Instruments, Andheri



Mutual Engineering, Vasai



Niton Valve Group, Ghatkopar