

TEAM ASTROS

The logo consists of the word "TEAM" in a light blue, sans-serif font above the word "ASTROS" in a larger, bold, dark blue, sans-serif font. The letter "O" in "ASTROS" is replaced by a stylized robot head. The robot head is circular, split vertically into light blue (left) and dark blue (right) halves. It has two white eyes with black pupils and a small antenna on top.

Introduction:- Higher education is a centuries old institution made up of three main functions: education, research and service. The modern tech-market requires graduates ability to operate such technologies and knowledge that meet the needs of the information society, prepare young people for new roles in this society. All over the world, educational institutions implementing new ideas, methods, technology based innovations to enhance their full potential. Innovation is the eternal theme of human development. The so-called innovation is the generation of new knowledge, ideas and the creation of new things, which requires keen insight and creative imagination as well as exploring and inquisitive spirits. The attentiveness and craving of the students of SAOE for the world of robotics and automation technology was the thing to be considered for the new innovations in the field. Giving attention to the thought of STEM ROBOTICS (Science, Technology, Engineering and Mathematics) and the growth of robotics industry, The college management recognized the worldwide popularity of the robotics competition and events and The TEAM ASTROS was formed in the year 2014 by a group of second year students . Mrs. M M Patil and EnTC department HOD Prof. M.M.Sardeshmukh are the prime support to the team. Their support vitalizes the vision and the innovative ideas in the team to perform their best. Team Astros is a power packed team of steadfast and hardworking students from Sinhgad Academy of Engineering with a great fervor for robotics, aiming to acquire the ABU Robocon Champions Title. The team was formed in the year 2014 by a group of second year students with a passion for Robotics and a zeal for learning engineering and technology beyond the simple classroom curriculum. The Team provides students a way to

showcase their knowledge and creativity in the field of Robotics by training the newly recruited members and motivating them to implement their ideas and encouraging innovation within themselves. It also inculcates the value of team spirit and working in coordination with other members of the team, a value that is greatly appreciated in students in the corporate world.

Objectives

- To explain the concepts of electronics in a practical way and help them to gain knowledge.
- To provide a platform for the students to give a shape to their innovative ideas.
 - To practice the latest technological advancements in the field of robotics.
 - To provide the students with thought provoking questions & makes them to think about it.
- To form a discussion boards on latest trends of robotics which indeed improve their communication skills
- To provide a hands on training for students.
- To provide a virtual bridge between the present global industries and the department.
- To enhance the knowledge of every team member in mechanical ,computer, and electronics so they can individually able to perform any task give to them.
- To enhance the qualities like team work, creative thinking, develop their management skills and train them for situation handling.
- Through projects done in Robo-club, increase the true hands-on student learning experience and enhance their conceptual understanding,
- Through multidisciplinary robotics projects, Increase students' ability, competency and teamwork skills on dealing with real-life engineering problems,
- To develop professional engineering skills among the students which will help them in the professional life.
- To provide them competitions and workshops so they can upgrade themselves.
- To arrange weekly activities which will help them in overall build up .

Selection And Recruitment In Team : A flawless project is made by the efforts of each and every member of the team. As the team represented by the members in it, it is very essential part of the team leaders to choose the appropriate team members so that team can function smooth and steady. SAOE is rewarded with the talented and innovative minds which makes the leaders to choose some of the best, sincere and extra ordinary members for the team. The recruitment process begins with the introductory sessions so that new students in campus can learn and know about the team, after this an online quiz test is conducted and the top performing students would get rewards. Here comes the main event of the recruitment a workshop is conducted where students need to participate ,participated students are first taught by seniors about basics of coding and given mini project kits so that they can make a functioning Robot and then the interested members can apply for the interview process where the team leaders recruit them based on their skills.

College support (Staff): TEAM ASTROS has been blessed with the helpful and supportive staff and The great mentor Ms. M.M PATIL Mam. The staff not just helps to overcome the technical difficulties of the students while building the ROBOTS but also boost their confidence during the hard times. Our teachers and faculty members have always been guiding us to continuously improve the every part of team to take it to perfection. They give us the thorough knowledge to understand the concepts and logic behind it so that we can apply it while building our ROBOTS. Faculty members also motivate us when team fall back during the competition, they boost our moral and help us to overcome the difficulties in all possible ways to reach victory. Teams have been doing good in all our competition is all due to the support provided by the college Faculties and staff. The staff is always supportive to the students of the motorsports club and always encourages them to be a part of it, as it makes the students stand out from the crowd and moreover the confidence of the knowledge is all that matters. Along with HOD and faculty advisor/coordinators all the faculties help students in development of Robotics projects.

Alumni Seniors Support : In building Robots from scratch and to avoid many small mistakes there is a need of proper guidance from experienced people who already faced it already, so it is very important for any team that their alumni should be to much supportive. TEAM ASTROS has been blessed with great alumni, every time when team feels a support they helps in whatever way they can. Also they has been visited Team whenever they will get free time and motivate us when team fall back during the competition, they boost our moral and help us to overcome the difficulties in all possible ways to reach victory. From workshop to their life in college and also the problems which they faced, they have been shared everything so Team will not face same issues again. Transfer of Knowledge: As the most senior members of the team are near to the completion of their degree they ensure that the juniors should not just have the knowledge to run the team but also do some good advancement in the algorithms and structures. Few days' workshops are also conducted for the whole college, totally free of cost to deliver the practical on-field knowledge of the Electronics and Coding to the interested students of the college so that they may also join in the next recruitments if interested. The team comprises students from first year to 3rd year engineering. The senior students guide the next batches in Coding and electronics so juniors can boost their knowledge easily. Till the time First year students reach final year he has gained experience more than 3 years and they can apply his knowledge to build and develop Robots. The new students are given technical books to read and understand the design concepts. To increase get best ideas for making robots for given task, team gives everyone from juniors to seniors chances to pitch their idea and also equipments to implement it so everyone will get chance to lead. For implementation team taking top 4 ideas and starts working on them by dividing team into 4 parts so at the end everyone gets experience of work and list of mistake to avoid next time. It also helps in for juniors to get knowledge how to build bots from scratch so next time they are able to apply this experience with lot of knowledge.

Glimpse of Robo-Events: Team Astros is a power packed team of steadfast and hardworking students from Sinhgad Academy of Engineering with a great fervor for robotics, aiming to acquire the ABU Robocon Champions Title. The team was formed by a group of second year students with a passion for Robotics and a zeal for learning engineering and technology beyond the simple classroom curriculum. The Team provides students a way to showcase their knowledge and creativity in the field of Robotics by training the newly recruited members and motivating them to implement their ideas and encouraging innovation within themselves.

Robocon 2017:

Theme: Asobi-The Landing Disc

About: The ABU Robocon 2017 was held in August in Tokyo, Japan. The theme was "Asobi: The Landing Disc". In this theme we built a bot which was able to throw discs which were supposed to land on the poles of different height and at different distances. We needed at least one disc to land on each pole to win the game.

Team AIR: 27



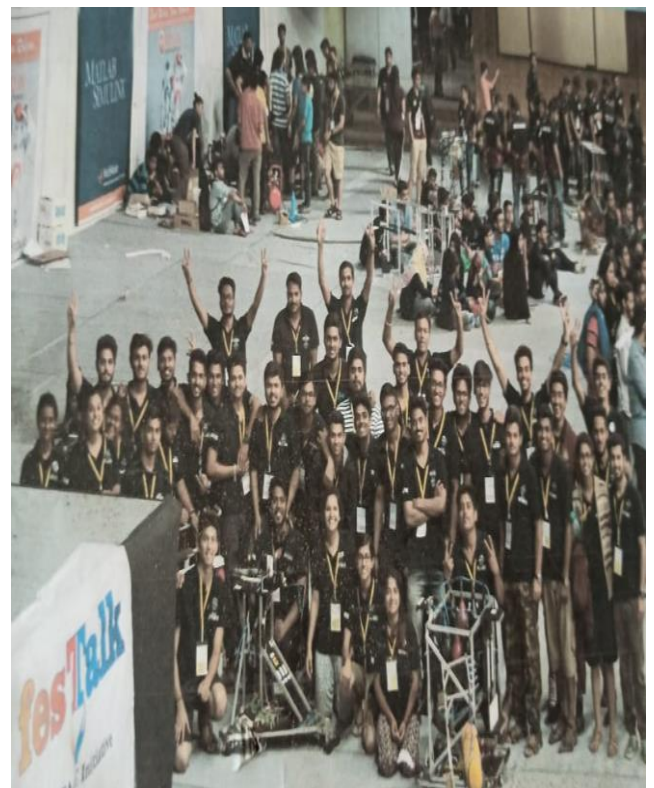
Robocon 2018:

Theme: NémCòn-Throwing Shuttlecocks

About: The ABU Robocon 2018 was held in August in Ninh Binh, Vietnam. The contest theme was "NémCòn-Throwing Shuttlecocks". In this theme we built a manual robot which needs to hand the shuttlecocks to the automatic robot, throws the shuttlecocks through the rings.

The winner can be achieved by points, or by immediate knockout if the robots successfully throw the shuttlecocks through three rings, and for the highest ring, the shuttlecock lands on a golden disk on the opposite side.

Team AIR: 37

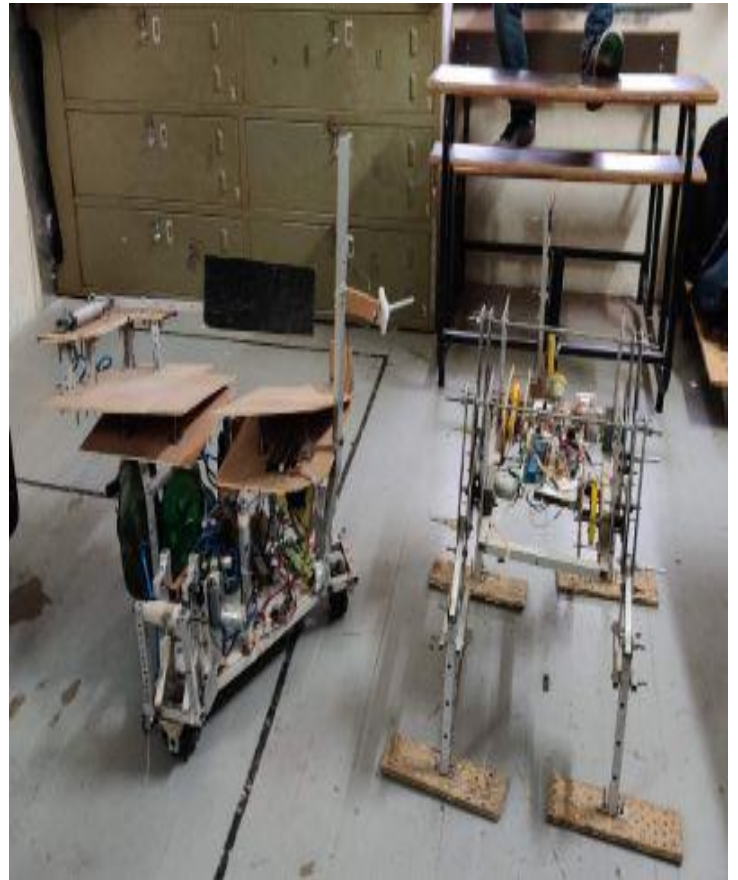


Robocon 2019:

Theme :Great Urtuu-Sharing the Knowledge

About:The ABU Robocon 2019 was held in August in Ulaanbaatar, Mongolia. The contest theme was "Great Urtuu-Sharing the Knowledge". The mission of the ABU Robocon 2019 Ulaanbaatar was to deliver information fast by using a relay messenger system - the Urtuu, first innovated by the nomadic Mongolians. For this theme we built two robots. The first robot was called MR1 and it had to cross various obstacles like crossing a river and a bridge. The MR1 then passes the gereg to MR2. MR2 was a four legged automatic robot which had to cross a sand dune and tussock and reach the Uukhai Zone. The match was played between the Red and Blue Teams. The team which reached the "Uukhai" zone was declared as the winner by way of knockout. If no team reached the Uukhai zone, then the team with most points was declared as the winner.

Team AIR-29



Robocon 2020:

Theme: **-Robo Rugby 7s**

About: In this game, each team designs two robots, one as pass robot, and another as try robot. Each can either be manual or automated. The pass robot will pick up the rugby balls, and the try robot needs to either place them to the trying spot, or to kick the ball passing through a pole. Team scores points depending on the step and the zone location, but points can be awarded to the opponent's team if the kicking ball lands on the opponent's zone. The game ends when three minutes had passed, or when all seven kicking balls (shared for both teams) have been kicked.

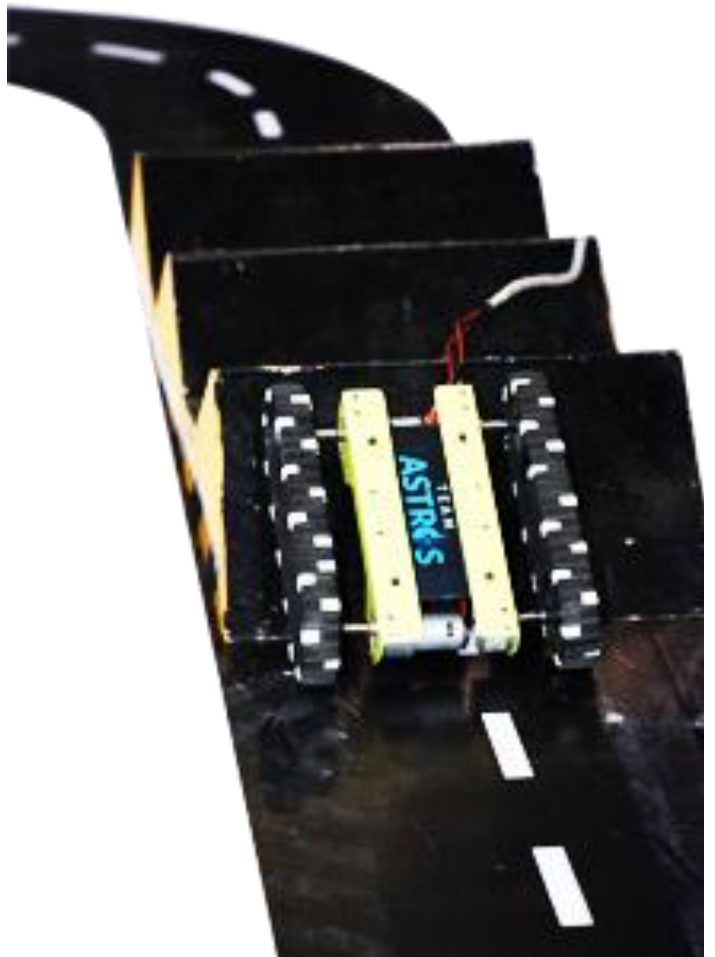
Stage 1 Result 93/100

Stage 2 : Could not participate due to COVID-19

Technoxian 2020:

We also participated in Technoxian(Robo Race) where the challenge is to build a robot in order to achieve the maximum speed to beat other robots on the given track and reach the finishing line in minimum time. The robot was manually controlled, and it was capable of traversing over different terrain and hurdles without going outside the track. Separate points were awarded for overcoming the hurdles.

Rank: 4th





Team Astros : Robotics Club
List Of Team Members (AY 2016-17)

Sr No.	Name	Role	Branch
	Prof M M Patil	Coordinator	
1	Sumit Hinduja	Captain	COMP
2	Kartik Naik	Vice-Captain	E&TC
3	Rushi Somvanshi	Treasurer	E&TC
4	Mayuri Chavan	LR	E&TC
5	Ahad Siddique	Team Member	E&TC
6	Akshay Pachore	Team Member	COMP
7	Amar Amjawala	Team Member	COMP
8	Ankit Sharma	Team Member	E&TC
9	Karan Sonavane	Team Member	COMP
10	Kiran Kumbhar	Team Member	MECH
11	Nikhil Jadhav	Team Member	MECH
12	Shubham Bankar	Team Member	MECH
13	Shubham Shinde	Team Member	MECH
14	Soumya Singh	Team Member	COMP
15	Suraj Gunjal	Team Member	MECH
16	Yashashree Gangavane	Team Member	COMP
17	Atish Waghmare	Team Member	E&TC
18	Bhalchandra	Team Member	E&TC
19	MOHD. Sayed	Team Member	E&TC
20	Omkar Parab	Team Member	E&TC
21	Saurabh Patil	Team Member	COMP

Team Astros : Robotics Club
List Of Team Members (AY 2017-18)

Sr No.	Name	Role	Branch
	Prof M M Patil	Coordinator	
1	Sumit Hinduja	Captain	COMP
2	Kartik Naik	Vice-Captain	E&TC
3	Rushi Somvanshi	Treasurer	E&TC
4	Atish Waghmare	Team Member	E&TC
5	Omkar Parab	Team Member	COMP
6	Amir Suhail	Team Member	COMP
7	Amit Dusane	Team Member	E&TC
8	Deepak Chemate	Team Member	COMP
9	Pranab Despande	Team Member	COMP
10	Mohit Dhake	Team Member	E&TC
11	Drishti Singh	Team Member	COMP
12	Edunath Venghatesan	Team Member	COMP
13	Jayant Waghmare	Team Member	COMP
14	Kartik Kaul	Team Member	E&TC
15	Kiran Dhole	Team Member	COMP
16	Mayuri Chavan	Team Member	COMP
17	Nishant Pawar	Team Member	E&TC
18	Pawan Sharma	Team Member	E&TC
19	Pratik Dethe	Team Member	MECH
20	Rishab Mishra	Team Member	COMP
21	Ruban Sayyed	Team Member	MECH
22	Shubam Nadkarni	Team Member	E&TC
23	Yogeshwar Chaudhari	Team Member	E&TC
24	Yogita Bhapkar	Team Member	COMP
25	Dheeraj Salgotra	Team Member	E&TC
26	Ishaq Polishwala	Team Member	COMP
27	Pragya Malhotra	Team Member	COMP
28	Saurabh Mohite	Team Member	MECH
29	Omkar Ibitkar	Team Member	E&TC
30	Abul Hasan Khan	Team Member	E&TC

Team Astros : Robotics Club
List Of Team Members (AY 2018-19)

Sr No.	Name	Role	Branch
	Prof M M Patil	Coordinator	
1	Dheeraj Salgotra	Captain	E&TC
2	Isahq Polishwala	Vice-Captain	COMP
3	Abul Hassan Khan	Treasurer	E&TC
4	Pragya Malhotra	LR	COMP
5	Edunath Venghatesan	Team Member	COMP
6	Jayant Waghmare	Team Member	COMP
7	Amir Suhail	Team Member	COMP
8	Amit Dusane	Team Member	E&TC
9	Drishti Singh	Team Member	COMP
10	Mayuri Chavan	Team Member	COMP
11	Yogeshwar Chaudhari	Team Member	E&TC
12	Yogita Bhapkar	Team Member	COMP
13	Kiran Dhole	Team Member	COMP
14	Uzair Baig	Team Member	E&TC
15	Saurabh Mohite	Team Member	E&TC
16	Omkar Ibitkar	Team Member	E&TC
17	Shubam Nadkarni	Team Member	E&TC
18	Nikita Bagrecha	Team Member	COMP
19	Hussain Mithaiwala	Team Member	E&TTC
20	Murtaza Mithaiwala	Team Member	E&TC
21	Ankush Thakare	Team Member	E&TC
22	Shamoil Arsiwala	Team Member	COMP
23	Aayush Bhansali	Team Member	COMP
24	Aditi Srivastava	Team Member	COMP
25	Raksha Pawar	Team Member	COMP
26	Kartik Gangavati	Team Member	E&TC
27	Chinmay Dwivedi	Team Member	E&TC
28	Vaibhav Pardhi	Team Member	E&TC
29	Rupesh Patil	Team Member	MECH
30	Vinayak Chikkali	Team Member	MECH
31	Aacim Zia	Team Member	MECH

Team Astros : Robotics Club
List Of Team Members (AY 2019-20)

Sr No.	Name	Role	Branch
	Prof M M Patil	Coordinator	
1	Dheeraj Salgotra	Captain	E&TC
2	Isahq Polishwala	Vice-Captain	COMP
3	Abul Hassan Khan	Treasurer	E&TC
4	Pragya Malhotra	LR	COMP
5	Nikita Bagrecha	Team Member	COMP
6	Hussain Mithaiwala	Team Member	E&TTC
7	Murtaza Mithaiwala	Team Member	E&TC
8	Ankush Thakare	Team Member	E&TC
9	Shamoil Arsiwala	Team Member	COMP
10	Aayush Bhansali	Team Member	COMP
11	Aditi Srivastava	Team Member	COMP
12	Raksha Pawar	Team Member	COMP
13	Kartik Gangavati	Team Member	E&TC
14	Chinmay Dwivedi	Team Member	E&TC
15	Vaibhav Pardhi	Team Member	E&TC
16	Rupesh Patil	Team Member	MECH
17	Vinayak Chikkali	Team Member	MECH
18	Aacim Zia	Team Member	MECH
19	Aliasgar Pardawala	Team Member	COMP
20	Ruttik Trymbake	Team Member	COMP
21	Pratik Belote	Team Member	IT
22	Payal Tadvipatel	Team Member	MECH
23	Tejas Dekate	Team Member	E&TC
24	Abhishek Murgunde	Team Member	COMP
25	Shubham Kalme	Team Member	E&TC

Team Astros : Robotics Club
List Of Team Members (AY 2020-21)

Sr No.	Name	Role	Branch
	Prof M M Patil	Coordinator	
1	Aayush Bhansali	Captain	COMP
2	Kartik Gangavati	Vice-Captain	COMP
3	Shamoil Arsiwala	Treasurer	COMP
4	Raksha Pawar	LR	COMP
5	Aditi Srivastava	Team Member	E&TC
6	Acim Zia	Team Member	MECH
7	Aayesha Shaikh	Team Member	E&TC
8	Aliasgar Pardawala	Team Member	COMP
9	Ruttik Trymbake	Team Member	COMP
10	Pratik Belote	Team Member	IT
11	Aaditya EkuInkar	Team Member	COMP