

Team Techno was founded with the sole intent of progressing within the field of robotics and becoming familiar with the new wave of automation that was accompanying the 4th Industrial Revolution. Its founders, a group of undergraduate students from Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI), were a passionate bunch whose determination finally paid off when the team came into being in 2015. Captain for the tenure of 2023-24 was Haris Abdullah and the Captain for the tenure of 2024-25 is Ali Ahmed Mir. The Manager for the tenure of 2024-25 is Abdur Rehman, technical lead is Saud Ahmed.

The team had a humble beginning with only a handful of student body forming the student body. Today the team boasts a network of 30+ alumni spread across different continents along with more than 50+ active members engaged within the different modules and domains of the team.

Our main technical domains include electrical ,mechanical, Automation and robotics integration. In electrical we focus on the hardware such as integrated circuits, Arduino , esp32 and microcontrollers and the director electrical is Hassan Khan. Mechanical domain Director is Anees Shehbaz and this domain focus on the designing and manufacturing of the robots. Autonomy and robotic integration domain Director is Maham Shehzadi and in this domain we focus on the path planning algorithms and other maze solver, line following , and rc cars algorithms with the best efficiency.

Our main non technical domains include sponsorship, documentation, and marketing. Sponsorship domain deals with meeting with different company aligned with teams objectives and interest. They focus on making the sponsorship package tailored for different packages for the companies. Domain head is the manager of team ie Abdur Rehman. Marketing domain is focused on making the posters, and post for the social media and engage the companies for the sponsorship through different marketing techniques. Documentation director is Haris Cheema and this domain is focused on documenting each and every thing regarding the robots each and every thing about the electrical parts used, algorithm used and then the designing of robots.

Our main modules include line following, obstacle avoidance, rc cars outdoor and indoor, futsal, sumo, antboat, and battlebot.

Team Techno has actively participated in national competitions throughout its existence and across numerous national events held at different universities. IEEE-GIKI Chapter's NEO (National Electronics Olympiad) and NUST-Islamabad's NERC (National Engineering Robotics Contest), Uet Peshawar YRT (Youth Robotics Competition), kalam Robo Tech are the chief competitions the team takes part in and also has the distinction of being the winners of the last edition of the Neo.

Team Techno is setting its sights high in 2025, gearing up to participate and showcase its innovative robotics prowess in two prestigious international competitions:

University Rover Challenge (URC): Held in the USA, the URC is a premier robotics competition specifically designed for university students. It simulates the challenges of real-world Martian exploration, pushing teams to design and build rovers capable of navigating harsh terrain, performing scientific tasks, and demonstrating overall mission autonomy. Participating in the URC will be a fantastic opportunity for Team Techno to benchmark their skills against the brightest minds in robotics from across the globe. They can gain valuable experience in competition strategy, rover design optimization, and adapting to a

simulated Martian environment. A strong performance at the URC could also garner significant recognition and potentially open doors for future collaborations or sponsorships.

European Rover Challenge (ERC): Taking place in Poland, the ERC is another top-tier robotics competition specifically targeted towards university teams. Similar to the URC, the ERC challenges teams to design and build rovers capable of overcoming obstacles, performing simulated scientific tasks, and showcasing their overall autonomy. Participating in the ERC allows Team Techno to showcase their skills on a European stage, potentially competing against teams from across the continent. A successful showing at the ERC could further bolster Team Techno's reputation and attract new members, sponsors, and research opportunities.