

Centre for Innovation (Mechanical Engineering)

Centre for Innovation (Mechanical Engineering) is a facility created in the department where students undertake the following types of work:

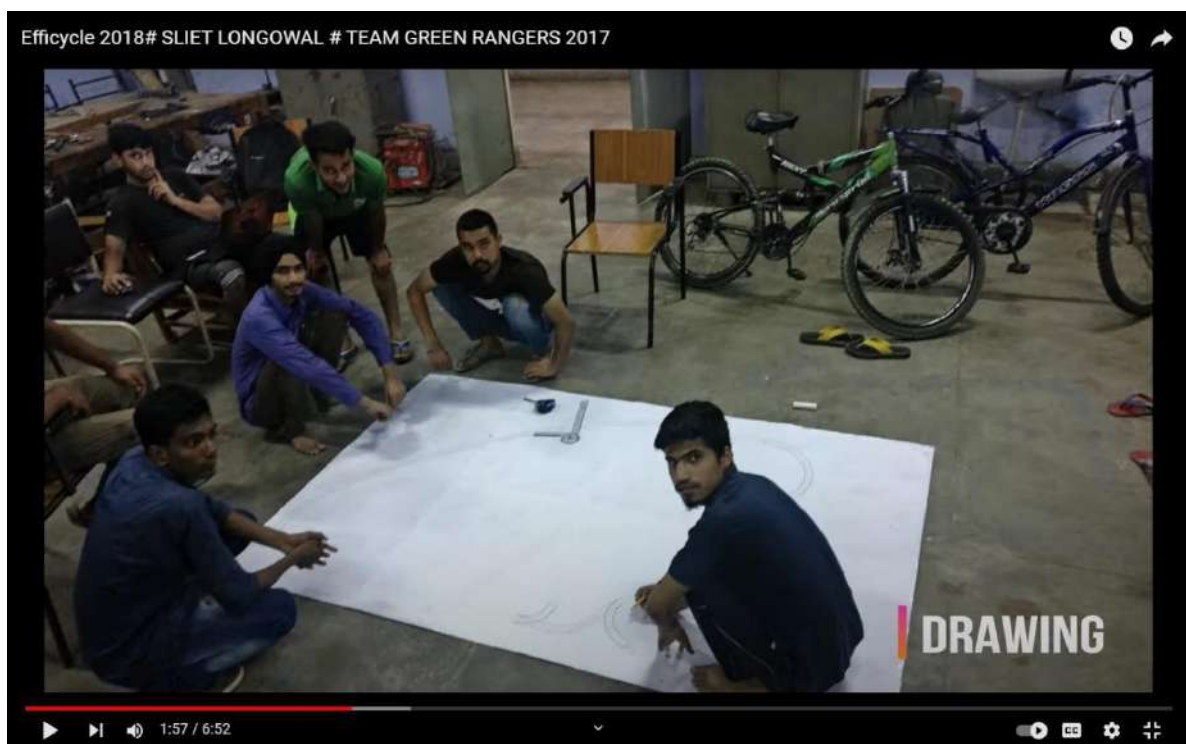
- Doing fabrication work related to various Projects especially UG & PG, Competitive events like Go-Cart, Efficyle.
- Basic equipments like Welding, Machining, Casting, Power hacksaw besides other tooling are housed in this centre which caters to fabrication needs of various projects.
- Students are encouraged to have hands-on learning on these equipments to develop passion towards thinking about innovative ideas and then fabricate the same as a proof-of concept for those ideas.

This facility is made available to the students where they are allowed to work independently (24×7).

Some of the examples showing the type of innovative work done in this Centre are mentioned as below:

(1) **Team 'GREEN RANGERS'**: The SLIET team 'GREEN RANGERS' has been participating at Efficyle events since 2014. The team designs and fabricates a three wheeled hybrid human powered vehicle, which has the capacity to act as a good viable option for local transportation.

<http://mech.sliet.ac.in/files/2021/04/Team-Green-Rangers.pdf>



Efficycle 2018# SLIET LONGOWAL # TEAM GREEN RANGERS 2017



BENDING

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Efficycle 2018# SLIET LONGOWAL # TEAM GREEN RANGERS 2017



FABRICATION

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(2) TEAM 'JUGGERNAUTS'

SLIET team 'JUGGERNAUTS' comprising of student members has been participating in the following Go kart Championship since 2016 where designing, fabricating, and conceiving have used to make the Go-kart breaking the traditional way by adopting out of the box approach.

<http://mech.sliet.ac.in/files/2021/04/Team-Juggernauts.pdf>





- (a) Establishment of state-of -art testing/invention Centre/laboratory: Types of testing/invention involved (Brief note) along with the names of equipment and its importance for research, innovation, and extension.
- Mechanical testing: The department has a laboratories that are well equipped with range of testing facilities like Computerized tensile testing machine, Impact tester, Computerized fatigue testing machine, Rotating beam Fatigue tester. (Used for mechanical properties evaluation).
 - Wear testing: High temperature tribometer, Slurry abrasion test rig, Jet erosion test rig. (Used for testing of wear properties)
 - Corrosion testing: Electrochemical workstation used for corrosion testing of materials.
 - Welding machines like SMAW, GTAW, GMAW, SAW, Robotic Cold metal transfer machine (Used for fabrication, research and consultancy work).
 - Software: ANSYS with CFD, Metallurgical software (used for research work).