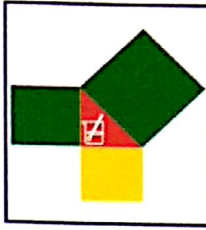


**A . S . E**



**ANALYTICS**



## Project Completion Certificate

1. **Project Name:** Design Fabrication and Testing of Auto Sampler
2. **Implementing Agency:** Don Bosco Institute of Technology.  
(Dept. of Mechanical Engg. & Dept. of EXTC Engg.)
3. **Final project consultancy charges:** INR 75,000.
4. **Duration of project:** 15-July-2016 to 15-October-2018
5. **Final date of completion:** 23 January 2019

MJ

Sr. No.	Assets proposed to be created in the project	Description of the deliverables
1	Design and development of liquid sampler based on gantry xyz robotic frame	Design was developed based on xyz gantry robotic frame pattern requirement analysis carried out for mechanical parts and components which include linear guides, linear rails, link, connecting plates, screws, accessories, cable carriers, DIN rails, base rubbers and adjustments, stirrer motors, bracket design for stirrer motor, drag chain and its base plate, beaker tray with locking arrangement, rubber base, metal base for vertical columns
2	Combine design development & fabrication of liquid sampler based on gantry xyz robotic frame	design development & fabrication was combined to make first prototype 25 beakers and 25 positions and gantry designed and fabricated for same Mechanical testing for flatness, vibration of entire system and total load on motors was tested for several hours for functioning of x y z motions. Report is prepared for flatness test and vibration test. System is based on bolted joints so can be easily dismantled and re assembled again even by layman (aluminium brazing not required as threaded joints as strong enough) Machine exterior was designed and fabricated with the help of final year students and is ready Identifying and finalizing electronic components like sensors, drives, motors, PCB fabrication, mounting arrangements for DIN rails Android application is developed for controlling 25 beaker positions System electronics wiring is done and all components are tested for proper required functioning

Certified that I have satisfied myself that the conditions and purpose of the project have been completed by DBIT

Date: 23/01/2019  
Place: Mumbai

Page 2 of 2



*Mallik N Joshi*

Authorized Signatory  
(Seal of organization)

Mallik N Joshi  
Partner & CEO