

R&D data - Holmarc Opto-mechatronics Pvt Ltd

R&D Physics -Members list

1. Muhammad Shafi(Head)
2. Ajith C A
3. Lageesh Madhu
4. Manu Edwin
5. Vishnu Prasad T C

R&D Mechanical -Members list

- 1.Eby M Cherian (Head)
- 2.Villy Varghese T V
- 3.Pramod P
- 4.Shafiq

Facilities

1. R&D lab.
2. Design Lab with Auto CAD
3. Dark room Facility
4. 0 to 4 KG Gauss meter
5. Axial probe type Gauss meter 0-2 KG
6. Digital vernier Caliper
7. Spectrum Sources for wavelength testing-Hg,Na, Ar.
8. He-Ne laser 632.8 nm polarized
9. DPSS laser 532 nm
10. Digital weighing scale 300 gms max.
11. Mercury Thermometer
12. TiO₂ sample for reference thin film thickness measurement
13. CCD spectrometer for wavelength measurement
14. Halogen and Xenon light sources for monochromatic application
15. Narrow band Interference filters
16. IR Filters
17. Optical Fibre cables
18. Power meter for laser power measurement
19. Optical breadboard with support
20. Dedicated thin film coating lab with Vacuum coating machines (PVD), clean room etc.
21. He-Cd laser
22. Holography lab(Recording and reconstruction)
23. Abbe Refractometer

R&D Products List

- | | |
|--|--------------------------|
| 1. Fluorescence spectrometer | [New System] |
| 2. Double Beam Spectrophotometer UV-VIS-IR | [New System] |
| 3. NNSR Advanced model with monochromator & xenon source | [New System] |
| 4. Scanning Fabry-Perot Interferometer | [New System] |
| 5. Confocal Raman Microscope | [Up gradation Required] |

Development of a new product –Step by Step process

A. Identifying a product

Before developing a new system in to product line we must create a priority category which product to develop. Few steps for this is

1. Identify the Right product by knowing current research activities in a field (whether science/Engineering)
2. direct enquiry from the customer

B. Initial Assessment for the project

1. Time period required for the completion of the project
2. Profit/Fund required for the project.
3. Outsourcing material list
4. Material required within the company premises

C. Creating R&D team for completion of the project

1. Project Head Incharge (Physics R&D member]
2. Structural/Mechanical design [Mechanical R&D Member]
3. Electronics design & circuit Analysis [Electronics R&D member]
4. Optics layout/design [Physics/Optics R&D member]
5. Detailed theory, Instrumentation, Testing &Analysis [Physics R&D member]

D. Final Inspection

QC Analysis [Physics, R&D member]

E. QA Conveyance

Quality Assurance with Product Making, Experimental reports, Functional Analysis from QC as per ISO standards