The booking of the PLD facility is to be done online. The booking process is as follows:

1. The student who wants to use PLD facility for their research work first needs to send a request for training. The request for training with suitable justification can be made using the following link: https://forms.gle/mnk1Zjqd5rcS15n26

2. The student needs to bring their own target for deposition. No targets are provided from the department facility.

3. There are two PLD chambers, which are labeled as UHV-PLD and HV-PLD. For deposition of oxide materials, the UHV-PLD chamber is used. For all other materials, the HV-PLD chamber is used. UHV-PLD chamber also has a load-lock chamber. The student should decide on which chamber to use for their work.

4. The training of the students will be done with the help of existing trained users. A list of certified trained users is available at the following link: https://docs.google.com/spreadsheets/d/1ScDhQw1Q52nNSor5mhpVVF4q2KLOrv82UW7IXeFoMG0/edit?usp=sharing

5. In order to become a certified trained user, the student must attend several growth sessions and learn all the processes of PLD growth, such as refilling of the Gas for the Laser, use of Laser (with all safety protocols), and every detail of the operation of the growth chamber and it’s components (Gases, MFC operation, Gauges, Pumps etc.). They also need to demonstrate the growth independently in the presence of an existing trained user.

6. Detailed instruction on the steps for using PLD is found here.

7. Once training is complete, the user will be provided with a username and password to book the PLD system at following site (different from other departmental facilities) http://bhautik.physics.iitd.ac.in/mrbsa

8. The booking of the system can be made for several days. It is suggested that the trained users book the system for a maximum period of 3-4 days. It is also possible to book both chambers simultaneously by different users.

9. During the booking days, the student is expected to be present in the PLD lab and use the time effectively without leaving the system unutilized. The presence of the user in the lab will be monitored, and if the student is not found, then the booking may be canceled.

10. While using the PLD facility the trained users have a responsibility to look after the operation of lab in general and follow all the guidelines as mentioned in the Lab file. Every detail of growth must be entered in the Lab log book.

Coordinator, PLD
(P K Muduli)