

User Agreement

National Nano Fabrication Centre (NNFC)
Centre for Nano Science and Engineering,
Indian Institute of Science, Bengaluru -560012



The National Nanofabrication Centre (NNFC), also referred to as the Nanofab or the Fab, is a multi-user facility serving the needs of students, staff, faculty, INUP participants and industrial visitors. The Nanofab houses many expensive pieces of sensitive equipment. It also houses many chemicals and compressed gases which pose significant hazard if handled incorrectly.

All users of the Nanofab are expected to go through the protocols, procedures and guidelines given below and detailed in various documents posted on the NNFC website, the information resource of the Centre. It is impossible, however, to define a policy or a rule for every conceivable situation. Under these circumstances, the users are expected to act in a professional manner displaying courtesy and respect to the staff members of NNFC and to other users, and to exercise discipline to enable smooth and safe functioning of the facility.

User Guidelines

1. Essential documents

Please read all reference documents listed below. Please note that these documents change from time to time and the users are required to keep themselves aware of the changes, in consultation with the Technologists in the Fab. Note that each piece of equipment in the Fab has an “owner” who is on the Fab staff.

- a) Cleanroom Protocols and Gowning procedure
- b) Chemical Safety and Protocols
- c) Emergency Evacuation Procedure
- d) Equipment Rules and Regulations applicable to the equipment. Trained independent users are expected to go through the equipment manuals in addition to the operating procedures in order to be able to handle the equipment in the absence of Technologists.
- e) When you are not sure of anything connected with using any equipment/facility in the NNFC, consult the NNFC staff before proceeding further.

2. Responsibility

- a) Each user is responsible for the equipment and the facilities he/she uses.
- b) Do not use any equipment without first reserving it with the online scheduler.
- c) Report to the NNFC staff if you find equipment/its accessories was left in inappropriate condition by the previous user. Report any missing accessories or malfunctioning equipment. Do not try to repair or change other than user settings without checking with the equipment owner.
- d) Leave all equipment in the same condition as when you began work, or in a better condition. Fill out the log book after use.
- e) Report any potential safety hazards to a member of the Fab staff.
- f) A user *may not* carry out work in NNFC on behalf of anyone else, without obtaining prior permission from NNFC staff to do so.

3. Accountability

Violations of Nanofab protocol and procedures will result in penalty points and restricted access and privileges. A brief list of common violations is given in Annexure 1 to this agreement. Please note that this list is only indicative and all violations will attract punitive measures even if not listed here.

The disciplinary measures that will be applied are shown in the following table. NNFC management reserves the right to change or impose additional penalties from time to time.

Cumulative penalty points	Disciplinary action
>=30 points	1-week suspension
>60 points	2-week suspension
>90 points	3-week suspension
>100 points	Barred from access to the cleanroom.

Any user who has accumulated 100 penalty points and is barred from access to NNFC will be referred to NNFC disciplinary committee which will decide on the future course of action in each case.

4. Billing and Payment

NNFC is a paid usage facility. Bills for the previous month's usage will be sent by the 15th of every month. It is the responsibility of the Supervisor to make sure that the bills are signed and returned to the appropriate authority after verifying the authenticity of the billing account. Pending bills of more than 2 months will automatically lead to the suspension of the tool booking account of all the users under the supervisor.

By signing below, the user/Supervisor of the user warrants that they have read, understands and agrees to abide by the usage rules and safety provisions of the Centre. While the users will be made aware of the general chemical safety and in the operation of the particular processing equipment required for their work, the users assume primary responsibility for their personal safety. CeNSE assumes no liability for any injury or illness suffered by the users during the course of their work at the NNFC. The user undertakes to operate all equipment and tools in a safe and professional manner, consistent with the operating instructions and Fab rules. The user understands that they will be held responsible for any damage caused if they fail to follow proper procedures.

The user agrees to acknowledge NNFC in all publications, presentations or any other form of technical documents based on work done partially or fully at the NNFC. Suggested text of the acknowledgement is "This work/part of this work was carried out at the National Nanofabrication Centre (NNFC) located at the Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore, supported by Government of India."

Note: All project owners are responsible for regularly backing up their critical data. Server will be reset for data on last working day of the month. The CeNSE IT Team will not be responsible for any data loss.

User's signature:
Name:
Designation:
Department:
Email ID and Phone:

Supervisor's signature:
Name:
Department:
Email ID and phone:
Debit code to be used for payment:

Access applied for:

NNFC cleanroom:

NNFC Annex:

ANNEXURE 1

Violations that attract 15 penalty points

1. Not following the lab entry and gowning procedures
(Wearing skirts, sleeveless, shorts, cleanroom gown procedure etc)
2. Carrying prohibited personal belongings
(bags, purses, food, drinks, laptop bags, notebooks, texts etc)
3. Doing personal work or browsing the net using equipment interfaced PC
4. **More than 40% cancellation of slots 24hrs before the start time, in a month**
5. Use of equipment without reservation
6. Not showing up for a booked slot without prior intimation to equipment owner
7. Failure to clean workspace after your slot (class 1000 area)
8. **Process Request not closed on time**
9. **Failure to report instrument problem through FOM**

Violations that attract 30 penalty points

1. Failure to follow Standard Operating Procedures (SOP) while using the equipment (will also lead to termination of independent access)
2. Carrying out work on behalf of others without obtaining permission
3. **Failure to clean workspace after your slot (class 100 area)**
4. Failure to immediately respond to and /or report equipment problems, injuries or safety hazards

Violations that attract 100 penalty points

1. Using equipment, not trained on or authorized to use
2. Unauthorized removal /bringing of equipment or associated accessories/materials to or from the fab premises
3. Handling chemicals without using the recommended Personnel Protective Equipment (PPE)
4. Entering Speciality gas storage area without staff approval and training
5. Tampering with Bio metric entry system or security cameras
6. **Inappropriate tool usage leading to tool damage**
7. **Bringing visitors into the cleanroom without permission (will also lead to immediate loss of biometric access)**

❖ Note: Repetition of same mistake will attract double the penalty point