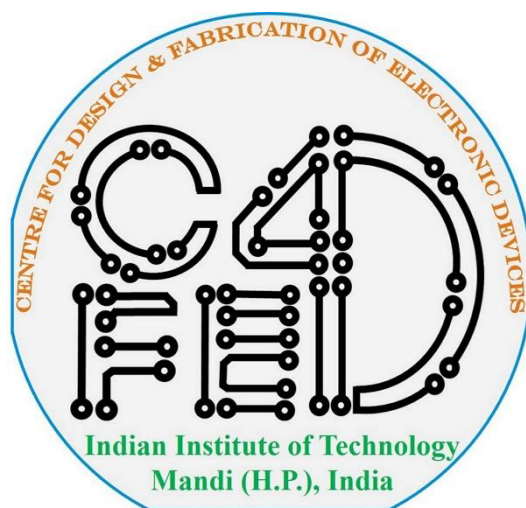


C4DFED User Policy



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Companion document	C4DFED Safety Manual

Centre for Design & Fabrication of Electronic Devices
Indian Institute of Technology Mandi

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PART 0 — THE TEN RULES

Everything else in this document follows from these. If you read nothing else, read this page.

1. **Operate only what you are certified on.** Your name must be on the Authorised User List (Level 2 (L2)/ Level 3 (L3)) posted at the instrument.
2. **Book before you operate.** No booking, no run — this applies to staff and TAs too.
3. **Fill the logbook, every run, before you leave.**
4. **Declare your materials honestly.** Nothing enters an instrument that is not on its Approved Materials List.
5. **Report faults and damage within 30 minutes.** Honest reporting carries no penalty. Concealment may carry a six-month ban.
6. **Never work alone with HF, and never outside working hours without a L2/L3 buddy who has agreed to be your buddy.**
7. **Ask a TA for help only through the written service queue / booking form.** Never in person, never by message.
8. **Nothing leaves the facility without a register entry at C4DFED office.** Not a tweezer, not a chemical, not a wafer box.
9. **Your fingerprint is yours alone.** Do not lend it, and do not hold the door open for unauthorized individuals.
10. **Acknowledge C4DFED — and/or any TA who ran your samples —** in every paper and thesis for the facility and support provided.

PART A — USER RULES

1. Scope

C4DFED is a shared fabrication and characterisation facility of various technology laboratories (TL) and many sophisticated / sensitive instruments. This policy applies to everyone who enters the facility or whose samples are processed there: faculty, research scholars, project staff, TAs, course students, interns, external academic users and industrial clients.

Signing the booking form and/or independent user form is a condition of access.

The facility is provided as it is. C4DFED does not guarantee any research outcome, and does not accept liability for injury or illness arising from a user's own actions. Every user is personally responsible for their own safety.

2. User Categories and Access Levels

Categories

Code	Who	Max level	Rate
User1 (U1)	IIT Mandi faculty, scholars, project staff	Level 3 (L3)	Internal
User2 (U2)	Course students	Level 0 (L0), escorted	Course budget

Code	Who	Max level	Rate
User3 (U3)	Interns and visitors (< 6 months)	Level 1 (L1)	Internal
User4 (U4)	External academic	Level 2 (L2)	External academic
User5 (U5)	Industry	Level 0 (L0)	Commercial

U3, U4 and U5 users need a named internal faculty sponsor who signs their registration and accepts liability for their conduct and for recoverable damage.

Levels — certification is *per instrument*. You may be L3 on one tool and L0 on another.

Level	Title	What you may do
L0	Service user	Submit samples through the queue (§7). Operate nothing.
L1	Supervised user	Operate only with an L2/L3 member beside you.
L2	Independent user	Book and operate alone, in working hours + Train L0/L1.
L3	Super-user	L2, + Train others and work extended hours.

3. Becoming a User

3.1 The six steps

Step	What	Who runs it
1	Registration — Booking Form or Independent User form with supervisor/sponsor signature acknowledging C4DFED user policy and safety manual.	C4DFED Office
2	C4DFED Safety Entrance Test — facility rules, gowning, chemicals, emergencies, booking. Pass mark >80% ; retake as often as needed. Validity 05 years. C4DFED familiarization training follows after clearing the test.	C4DFED Office (upto twice every month)
3	Process Approval —submit your intended process flow and full material stack for review before any tool training (§3.3)	Endorsed by supervisor and approved by CAC
4	Instrument training — theory and supervised runs: 3+ sessions for L1/L2, and 6+ sessions for L3	L3 trains L2, and L2 trains L1
5	Practical assessment — a full run start to finish, unaided, including logbook. Any unsafe act is a fail. May be recommended for more supervised runs but reattempt is must.	L3 recommends L2/L1 and L2 recommends L1 elevation; to be approved by coordinator.

You are certified when your name is posted on the Authorised User List at the instrument. Access credentials follow certification, not the other way round.

Training elsewhere does not transfer. Experience on the same model of instrument at another institution is not a substitute for certification here.

3.2 Staying certified

- **Lapses after 12 months of non-use** of certified instrument. Restoration needs one supervised refresher run, not the whole pathway.
- **Lapses immediately on a 100-point violation**, or on leaving the Institute.
- After a major repair or relocation, the Coordinator or L3 user may require all users to be re-briefed.

3.3 Process Approval

Before running any process involving multiple instruments, submit the **Process Approval Form**: what you intend to make, the full material stack, the steps, and the instruments involved. This exists because most instrument damage and nearly all cross-contamination originate in a process nobody reviewed, not in an operator error. **If your materials or process change, submit a revision before running it.** Running an unauthorized material or process is a **30-point violation**.

3.4 Course students

Course batches work as a group, supervised by the instructor or a L3 User or staff member, on pre-declared instruments, in slots blocked one week in advance. No individual credential, booking right or service quota arises from a course. Course blocks may not exceed 15% of any instrument's monthly hours without CAC approval, and are charged to the course budget.

4. Access Credentials

4.1 What the single door can and cannot do

C4DFED has **one biometric door**, and most technology laboratories are internally connected. Anyone who enters can reach any instrument and any bench.

The door can	The door cannot
Decide who is inside	Decide which lab they enter
Record who was inside, and when	Stop an uncertified person reaching an instrument
Restrict <i>when</i> someone may be inside	Stop anything being carried out

Two consequences. First, because entry is unzoned, a credential grants the whole facility — so the eligibility list below is tighter than it would be in a zoned building. Second, **competence is enforced by the posted Authorised User Lists, the logbooks and the monthly audit — never by the door.**

4.2 Who gets a credential

Who	Credential	Hours
Technical Staff and Coordinator	Yes	All
L3 users	Yes	Standard + Extended hours (\$6.4)
L2 users	Yes	Standard hours only (\$6.4)
L1/L0 users	No — escorted for sample handover	—
Course students	No — escorted as a batch	Booked blocks
External academic (U4)	Yes — for L2 only, time-boxed to sanctioned dates	Standard

Who	Credential	Hours
Industry clients (U5)	No — escorted throughout	By appointment
Faculty	Yes, on L2 terms	Standard; extended only if L3
Building management	Yes	Maintenance windows (\$6.4)
Housekeeping	No — escorted	Scheduled

Two points the CAC will be asked to waive, and should not:

- **L0 users get no credential.** They operate nothing; their work reaches them through the queue. This is the single largest reduction in exposure available in an unzoned facility, and costs their research nothing.
- **Faculty are not automatically enrolled.** A faculty member certified on no instrument has no operational reason to be inside unaccompanied. Faculty wanting independent access should certify, like anyone else. However, during C4DFED facility visit in the presence of centre coordinator or L3 user, the visitors up to 15 numbers in one batch are allowed inside.

4.3 Time profiles

Configure these on the controller before anything else. With one door, this is the only electronic control worth having.

Profile	Window	Who
P1 (L2) Standard	Mon–Fri 09:00–18:00	All L2 credential holders
P2 (L3) Extended	P1 Standard + Sat 09:00–18:00 Mon–Sat 18:00–22:00	L3, named list. In presence of a L3 buddy and never alone.
P3 (L3) Restricted	P2 Extended + Sunday 09:00–18:00 + Mon–Sat Night 22:00–09:00	Named individuals with an end date. Never a standing list.

Extended-hours access is earned per instrument. You are added to P2 for a given instrument only after **20 logged independent hours** on it. Being L3 is necessary but not sufficient. Users after a 100-point violation are removed from P2 and P3.

4.4 Records and expiry

- The entry log is extracted weekly and kept for 03 years. **Exit must be recorded as well as entry** — run a manual sign-in/sign-out sheet at the door in addition to the biometric entry.
- Credentials are time-limited to tenure, campaign or project end. They do not renew automatically. Any credential unused for 01 year is deactivated.
- Quarterly reconciliation of active credentials against active registrations by the C4DFED Office.
- **When a user leaves a research group, the user/supervisor must notify the C4DFED Office immediately.** Costs arising from misuse by a user who has left, and whose departure was not notified, are billed to the supervisor.
- **Lending your credential or holding the door for someone is a 30-point violation.** Most people hold doors out of courtesy — this must be explained at induction as a records offence, because tailgating destroys the only forensic record the facility has.

5. Instrument Classes

Class	Meaning	To operate alone
A — Critical	High value (>INR 50 Lakhs), long repair lead time, or high hazard	L2, L3; extended hours in presence of buddy; no unattended running; no parameter changing.
B — Restricted	Moderate value (<INR 50 Lakhs) and risk	L3, L2; supervised operation allowed at L1
C — Open	Less value (<INR 50K), Robust, low risk	L3, L2; supervised operation allowed at L1

6. Booking and Operating

6.1 Booking rules

Advance booking	>05 days
Slot length	1–4 h
Open bookings per user per week (up to)	4 slots
Free cancellation before (except in case of instrument failure)	24 hr

Bookings are displayed on shared google calendar for each technology laboratory (one per lab).

6.2 Booking etiquette — and what breaks it

- Book what you will realistically use, and **release a slot as soon as you know you cannot use it**. Released slots go to the waitlist.
- Do not log on and off without using the slot.
- **Cancelling more than 30% of your slots in a month** is a violation in itself.
- **Three no-shows on an instrument** in a semester **suspends your booking on that instrument for 30 days**, independent of points.

6.3 Running an instrument

- **Before** — valid booking in your own name; check the UP/DOWN status tag; confirm you are on the posted Authorised User List; confirm your material is approved; read the last logbook entry.
- **During** — stay inside the approved SOP and parameter window. Do not leave a Class A instrument running unattended unless its SOP allows it. On any alarm, pressure excursion, arcing, unusual noise, smell, leak or reading, or a sequence that will not complete: bring the tool to its safe state and stop. Never attempt a repair, open an enclosure, or bypass an interlock.
- **After** — restore the idle state; complete the logbook; remove all samples, carriers, chemicals and waste; clean the bench and the tool surfaces. Items left more than 07 days may be disposed of.

6.4 Hours

- **Standard:** 09:00–18:00 Mon–Fri.
- **Extended:** 09:00–22:00 Mon–Sat. L3 +20 logged hours. Buddy rule applies.
- **Restricted:** Nights (22:00–09:00) and Sunday (09:00–18:00): written recommendation of the faculty supervisor and approval of the CAC. L3 only and buddy rule. No wet chemistry, no HF, no gas cylinder changes outside standard hours.

- **Maintenance window:** the facility maintenance windows are predeclared by e-mail to the C4DFED users and faculty.

7. Asking for Help — the Service Queue

7.1 Why this exists

Users ask TAs for help because asking is free while learning is costly. That starves utilisation and logged slots. An overloaded operator/user runs unfamiliar samples.

7.2 How to request service

- Submit the **Instrument Requisition Form** to the C4DFED office. It requires your details, the instrument name, undertaking and **signatures**, etc.
- The queue is public and served in order. Requests are acknowledged in 3 working days and scheduled within 10 working days.
- **Never ask a User or TA in person, by phone or by message.** A TA may decline any request not in the queue, without explanation.
- Instrument Training slot of 1-4 hours at least once a week can be allotted for one instrument based on the booking form and availability of L2/L3 user. Instrument Training is on paid basis per user as per the instrument slot charges.
- **An L2+ user must not request service on an instrument they are certified for.** Once you can do it, you do it.

7.3 Doing work for other people

- **No user may run samples for another user without the instrument booking form. Both parties are penalised** — the person who asked and the person who agreed. This rule exists to protect L2/L3 users and staff, not to catch users. It gives anyone under pressure from a senior colleague a rule to point at instead of a refusal to justify.
- The L2/L3 user may direct the new users to ask for process approval from CAC if the material or stack or process mentioned in booking form is expected to cause contamination or damage to the instrument.

7.4 Facility duty of L3 & L2 users

Duty	Hours/week
Training and Certification — booked first (promotes new users)	04
Service Slots for L0 (up to)	03
Instrument care — checks, logbook audit, monthly tally	01

- Training hours may not drop below 3 without CAC approval. If service demand outruns supply, cut the service quota — never the training hours.
- **Protection of L3/L2 Users:** No verbal requests. No work outside rostered hours. No instrument a L3/L2 User is not certified on. A TA may refuse any undeclared or unapproved sample, and that refusal is not appealable to the requester. Pressuring or repeatedly soliciting a L3/L2 User is a 10-point violation and is reported to the user's supervisor.

- **Recognition of L3/L2 Users:** Named acknowledgement in any publication/thesis using their service work — mandatory. Authorship to be discussed with the L3/L2 User and supervisor where the contribution went beyond routine operation. 04 hours a week of priority booking on their instruments.
- **Certificate of Facility Duty:** Certificate signed by the C4DFED Coordinator listing the instruments they are qualified on — a real asset for fabrication-industry recruitment.
- **Super-user (L3) is a competence level, not a duty:** Only an L2/L3 user may train L0/L1; Only L3/Vendor can train L2, and recommend a user for certification. Training by anyone else is a **30-point violation** for both parties. A trainer is answerable for damage caused by their trainee during supervised runs.
- Becoming L3 requires training by another L3/Vendor and a practical assessment on system maintenance and operation safely during extended hours (§4.3).

8. Contamination, Materials and Facility Property

8.1 Contamination levels

Cross-contamination is the dominant cause of permanent loss of capability in a shared facility, and it is invisible until months of results have been ruined. Every instrument is assigned a contamination level, and **samples may not move upward between levels:**

Level	Typical use	Rule
C1 — Clean silicon	Front-end: SiO ₂ or Oxide Tube, ALD, Lithography, “Clean” Wet Process	Only virgin or C1-history substrates. No metals allowed (except those on the approved list).
C2 — Standard process	Sputtering, Evaporation, RIE, “Standard” Wet processing	Approved metals permitted.
C3 — General	Characterisation, packaging, general microscopy, dicing	Most materials, declared.
C4 — Dirty / exploratory	Dedicated tools for novel materials, polymers, biologicals	Nothing returns to C1–C3 from here.

A sample processed at a lower level **never** goes back up without written approval from the CAC/Coordinator and a documented clean. This is the one rule most likely to be broken by accident, and it is the one that quietly destroys a facility.

8.2 Materials

Each instrument has an **Approved Materials List**. Anything else a **New Material Approval** (Annexure E) needs to be endorsed by the faculty supervisor and approved by the Coordinator and CAC, for Class A.

Prohibited without explicit written approval and, where applicable, dedicated consumables: alkali metals (Na, K, Li); Cu, Au, Ag and other fast diffusers in furnace and front-end tools; halides; biological and tissue samples; resist-coated or polymer samples in vacuum and high-temperature tools; anything wet, outgassing, powdered or loose in vacuum systems; any sample of unknown composition.

Undeclared or misdeclared material in a Class A instrument is a 30-point violation, and the group bears the full cost of chamber clean, requalification and lost facility time.

8.3 Records that replace software

The instruments are manual and there is no logging software, so control rests on four things — all cheap, none requiring procurement.

1. Logbook: Bound and page-numbered, at the instrument. Every run: date, times in and out, name and group, sample and full material stack, parameters, outcome, condition on leaving, signature. Ink only; errors struck through once and initialled, never erased. No loose sheets; no pages removed. The TA photographs the week's pages each Friday. *Missing or incomplete entry or Falsified entry is a violation.*

2. Authorised User List: A shared google sheet detailing every Class A and Class B instrument naming current certified users and levels (refreshed monthly by C4DFED Office). This is the most effective control available without software, because it makes unauthorised operation visible to everyone in the room. Any user may challenge operation by someone not on the list, and challenging in good faith is never penalised, even if mistaken.

3. Status tags: A shared google sheet detailing instrument status: **GREEN** available, **YELLOW** restricted/partially working (stated limitation, L2+ only), **RED** out of service/not working. Any user may inform the C4DFED office to set RED on suspicion of a fault and carries no penalty if not found. Only the C4DFED staff or the Centre Coordinator may clear it.

4. Monthly audit against the entry log: The L3/L2 users and/or C4DFED office spot-audits at least 20% of entries against booking sheets and logbooks. Discrepancies — present with no booking, booked with no logbook entry, logbook entry by someone not on the Authorised User List. The audit is random, and its existence is published: deterrence comes from users knowing it happens.

8.4 Facility property

Portable property — tweezers, carriers, wafer boxes, glassware, targets, masks, substrates, gloves, wipes, chemicals, small tools — is Institute property. Its unrecorded migration into individual research labs is a recurring loss, and corrosive beyond its rupee value: a facility that cannot keep its tweezers cannot credibly ask for a new instrument.

- **Consumables Issue:** Materials/Chemicals/Consumables are issued in working quantities only, against the Issue Register maintained by the C4DFED office. Returnable items are issued against signature with a return date.
- **Gowning boundary:** Bags, backpacks, and jackets outside the entrance. Nothing personal passes the gowning boundary except you, your phone and your notebook or clean room paper. This is standard cleanroom practice on contamination grounds. The penalty for not following is listed in **§10.3**.
- **Verification:** Portable Asset Register per lab maintained by C4DFED office; physical verification annually by the coordinator. Losses reported to the CAC by coordinator.
- **Recovery from the group:** Property migrates to a research lab for that group's benefit, so pursuing the student who carried it is both unjust and ineffective. The CAC issues a written return notice to the PI, 14 days to comply; then replacement cost is recovered from the group's project account. Before any of this is enforced, declare a **30-day return window** — anything returned, by anyone, no questions, no names, no consequence. Most of what is missing left over years of informal borrowing by people who did not think of it as taking. Open with an accusation and none of it comes back; open with an amnesty and most of it returns in a fortnight.

9. Safety

The C4DFED Safety Manual (C4DFED/SAF/01) is a separate document and forms part of this policy. Read it before your first entry. It carries the emergency procedures, chemical hazards, gowning and PPE detail, and the spill and exposure responses.

9.1 Cardinal Safety Rules

These are absolute. Each is a 30-point violation (**§10.3**).

1. **Never work alone with HF or HF-containing etchants** (BOE and similar). A second HF-cleared person must be present and must have *agreed* to be your buddy; in-date calcium gluconate gel verified and within reach before you start; both of you knowing the exposure procedure.
2. **Never bypass, defeat or override an interlock or safety device.**
3. **Never operate an instrument you are not certified on**, and never let anyone else operate on your certification.
4. **Never operate a RED-tagged instrument.**
5. **Never conceal an incident, injury, near miss, spill or damage.**
6. **Never handle process gas cylinders** — toxic, pyrophoric or flammable. Staff and vendor only.
7. **Never introduce an undeclared or prohibited material into a Class A instrument.**

9.2 The buddy rule

Required for all extended-hours and out-of-hours work, and for all wet chemistry at any hour.

- A buddy is a **qualified user (L2/L3)** who has agreed to be your buddy. Someone who merely happens to be in the lab is not your buddy.
- Your buddy must be physically present, know what you are doing, and be able to help — walk you to the shower, rinse your gloves, call for help.
- Check in with each other at least every 15 minutes.
- If your buddy leaves, stop all hazardous work until they return or another buddy agrees.

9.3 Conduct in the laboratories

- Closed shoes always. No shorts, no skirts, no open footwear. No contact lenses. No cosmetics.
- **Prohibited past the gowning boundary:** bags, food, drink, earphones and Bluetooth devices, and any personal item other than your phone and notebook.
- Never unzip or open your gown inside a laboratory.
- No personal use of instrument-connected computers — no browsing, no games, no media.
- No photography of another user's samples, screens or logbooks.
- Do not run. Do not work while fatigued, unwell, or under the influence of anything affecting judgement.
- Do not leave chemicals unattended for more than 15 minutes. If you must, label the container with contents, your name and the time.
- Segregate all waste into the designated labelled containers. Nothing goes into any sink or drain.
- Pregnant users, and users with relevant medical conditions, should consult the Centre Coordinator confidentially before starting work involving chemical or radiation exposure. Seek medical advice before entering if you have a condition that could be affected.

9.4 Anyone may stop anything

Any qualified person (Staff / L3) may stop any operation in the facility on **safety grounds**, at any time, without justifying it first. No points ever arise from a good-faith stop. Staff may halt any run without prior consultation.

9.5 Visitors

A visitor must be over 18, may not operate anything, and must be escorted at all times by their host, who is responsible for their safety. The Visitor book must be signed by the visitor and/or a staff member before/after the visit. Bringing any person into the facility without approval is a violation (**\$10.3**).

10. Points System

10.1 How it works

- Every user starts at zero. The scale runs to **100 points, at which a six-month facility ban follows automatically.**
- Points are awarded by the Centre Coordinator/C4DFED Office on a report from a Lab Coordinator/TA or staff member, or from the monthly audit.
- **Each demerit expires 12 months after it is awarded** — a clean year clears the slate.
- **A repeat of the identical violation carries double points.**
- Every award is notified in writing to the user and supervisor within 5 working days, with the reason and the evidence.
- Individual balances are visible to the user. Only aggregate figures are published.

10.2 Thresholds

Points Violation	Consequence
25	Written warning to user and supervisor.
50	Independent booking suspended 15 days (supervised work still allowed). Re-attend General Induction. Removed from P2/P3.
75	All access suspended 30 days. Re-certification required before restoration. Meeting with Centre Coordinator and supervisor.
100	Six-month facility ban. Credential deactivated. Referred to CAC. Full re-certification from step 1 on return.
200 over tenure	CAC considers permanent debarment. For U4/U5, termination of the MoU or work order.

Proportionality. On appeal the CAC may substitute supervised-only (L1) access for part of a ban where a full ban would end a research programme and where nobody was endangered. Not available for HF, interlock bypass, concealment or falsification. Cost recovery is unaffected.

10.3 Demerits

- **05 points — records and housekeeping**
 - Logbook entry missing, incomplete or illegible
 - bench not cleaned, samples or chemicals left
 - Slot overrun beyond 30 minutes without notice/booking
 - Minor gowning or PPE lapse
 - Bag or prohibited personal item past the gowning boundary
 - Personal use of an Instrument PC
 - Personal storage left in a lab beyond 02 days.

- **10 points — Scheduling**
 - No-show without release of slot
 - Failure to supply samples for a scheduled service request
 - Cancelling more than 30% of slots in a month
 - Logging on and off without using the slot
- **20 points — Conduct, Process, Operational, and Avoidable damage**
 - Damage to an instrument through failure to follow the approved procedure
 - Operating without a valid booking
 - Booking in another's name, booking for another user, or transferring a slot (*both parties*)
 - Failing to acknowledge the facility in a publication
 - Failure to return an issued item (minor item) within 03 months from date of issue
 - Taking a consumable or tool without an issue entry
 - Exceeding the 35% group cap after notice.
 - Running an unapproved material or process, or a parameter change outside the approved window
 - Operating at L1 without a certified supervisor present
 - Training someone without being L2/L3 (*both parties*)
 - Running samples for another user without written approval or requisition form (*both parties*)
 - Leaving a Class A instrument unattended against its SOP
 - Operating a YELLOW-tagged instrument outside its restriction
 - Failing to report a malfunction or hazard
- **30 points — Serious**
 - **Any Cardinal Safety Rules (§9.1):** Working alone with HF or HF-containing etchants (BOE and similar), without a second HF-cleared buddy. Bypass, defeat or override an interlock or safety device. Operating an instrument, you are not certified on. Letting anyone else operate on your certification. Operating RED-tagged instrument. Hiding an incident, injury, spill or damage. Handling process gas cylinders — toxic, pyrophoric or flammable without Staff and/or vendor. Introducing an undeclared or prohibited material into a Class A instrument.
 - Tampering with the biometric system or cameras
 - Bringing a person in without approval
 - Falsifying a logbook, certification record or service request
 - Removing facility property without an issue record in C4DFED office
 - Bringing unauthorised equipment or material
- **When Total reaches 100 points — Six-month ban**
 - Demerits relax to 50 points after the expiry of six-month ban.
 - Demerits relax to 0 points at the start of each year 01st Jan (*except for the active 100-point violation case*).

Cost recovery under §11 is independent of points and is not reduced by them.

10.4 Merit points

Contribution	Merit
Certifying at L2 on a new instrument	+10 each
Training a user to L2 certification (L2 only)	+5 each, max +25/year
Training a user to L3 certification (L3 only)	+5 each, max +25/year
Reporting a first author publication that acknowledges the facility	+10 each
Writing or revising an SOP the facility adopts (L3 only)	+5 each

Limits. Merit never shortens a suspension already triggered, and never reduces a balance below the level set by a 100-point violation. For **offsetting**, merit accumulates across the current year i.e. Merit expires at the end of the academic year (01 Jan – 31 Dec).

10.5 Priority tiers

Tier	Qualification	Privilege
Priority	L3	Priority booking of 01 slot of up to 04 hours per week

10.6 Fairness

- Appeal a demerit award to the Centre Coordinator within 07 days; a six-month suspension to the CAC within 15 days. The CAC's decision is final.
- Points apply to every user — L0/L1/L2/L3.
- **No points ever arise from an honest report under §11.1, or from a good-faith safety stop under §9.4.**

11. Damage, Faults and Cost

11.1 Report it, and there is no penalty

Anyone who causes, sees or suspects damage, a fault, a spill, contamination or a near miss: bring the tool to a safe state, tag it **RED**, tell the TA or C4DFED office within 30 minutes and before leaving the facility, and file the Incident Report at C4DFED office within 24 hours.

Amnesty. Report promptly and honestly and you receive **no demerit points for the incident**, except in gross negligence or wilful breach. **Concealment or non-reporting is a 30-point violation in every case, however trivial the damage.**

The asymmetry is deliberate and should be explained at every induction. A reported error costs one repair; a concealed one costs the next several users' results and a far larger repair.

11.2 Who pays

- Damage from correct operation inside an approved SOP is a **facility cost**. Users must be told this plainly, or they will conceal faults.
- **Damage from a policy violation:** repair, spares, engineer visit and requalification recovered from the group, and countersigned by the supervisor. For U4/U5, from the sponsor under the MoU.

11.3 Review

Every incident on a Class A instrument is reviewed by the Centre Coordinator, closing with a written outcome — SOP change, training change, engineering control, or no action with reasons — circulated to all certified users of that instrument.

12. Charges

- Published tariffs at three rates: internal academic, external academic, and industry. Approved by CAC.
- Internal users are billed to the user/supervisor declared at registration (Student Contingency or Faculty PDF/PDA/FRF/Project fund). U4/U5 pay in advance; credentials/booking follow cleared payment.
- Charging is by booked time, subject to the cancellation rules.
- Consumables cost (if any) is extra as declared by C4DFED office on recommendation of L3 users/Staff. Consumables can be user-supplied with prior approval.
- Bills are issued each month/quarter. Supervisors verify and return signed billing documents. Dues unpaid after 06 months suspend every account under that supervisor.

13. Data, IP and Acknowledgement

- You own the data from your own samples. Transfer it to your own storage at the end of the session; data left on instrument PCs may be purged after 30 days. Back up your own work.
 - Process flows, recipes and metrology methods developed at C4DFED facility are IIT Mandi's intellectual property and follows institute norms.
 - This is a shared facility. Vendors and service engineers also enter it. Protect your own samples, data and documents accordingly. C4DFED is not responsible for any data leak.
 - Every publication, thesis, patent and presentation arising from work at C4DFED shall acknowledge the facility in the prescribed form, cite the funding agency, and/or name any TA who ran service work. Report outputs to the Facility Office within 30 days or at least share the data for the annual report.
 - Do not access, share, photograph or copy another user's work, recipes or data. Industrial users' work is confidential per their agreement. Report any breach immediately.
 - Non-acknowledgement is a violation (**§10.3**). Publication output is the evidence base for future capital, staffing and TA sanctions — every unacknowledged paper is a sanction the facility will not receive.
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PART B — ADMINISTRATION

This part is for the Centre Coordinator, staff and the Centre Advisory Committee (CAC). The users need not read it.

14. Governance

- **Director:** Authority to approve the annual funding to the C4DFED facility, new instrument proposals, and AMC proposals.
- **Centre Advisory Committee (CAC):** Dean SRIC, CAC Chair, Previous C4DFED Coordinator, & Members (4–6 frequent faculty users) nominated by the Centre Coordinator. Meets physically at least once per year. Approves any changes in policy, tariffs, classification, suspensions beyond 30 days, capital, appeals, process and material requests, reviews incident notes, new instrument proposals, and AMC proposals. The CAC does not operate instruments and is not expected in the lab. *Email approval is valid. If any CAC member does not respond within seven working days, the Centre Coordinator's recommendation stands.*
- **Centre Coordinator/Chair:** Manages the centre operations and staff as head. Proposes annual funding & its utilization. Approves procurement of day-to-day consumables for smooth running of the C4DFED facility. Authority to grant, suspend and restore access, subject to appeal.
- **Centre Technical Staff:** Technical staff's key responsibility includes Operation and Maintenance of Class A instruments, service slots for internal/external users, and ensure facility's safety standard.
- **Centre Admin Staff:** responsible for *documentation* (Registration & Forms, Credentials & Entry Log, Procurement, Stock Entry, Equipment Status, C4DFED Users Status, Annual Report); *communications* (Vendors, users, staff, institute officials); and *inspection/monitoring* (CCTV).
- **Technology Lab Coordinator / TA:** the Custody is assigned per laboratory, not per instrument to people who are physically present — Technical Staff and Senior Super-Users appointed as TA's per semester. Each holds their lab's instrument register, Authorised User Lists, logbooks, status tags, weekly checks, monthly tally, and first response to faults.

No faculty owns an instrument not even the centre coordinator: *The facility is central facility for supporting the research work of student's setup through public funding. So, the approval authority sits with the Centre Coordinator and Committee (CAC). While the operational custody sits with the staff/users.*

15. Transition

Since this is the first C4DFED user policy therefore existing operators who can demonstrate competence to the Centre Coordinator are certified by C4DFED coordinator at the appropriate level without the full pathway, and posted to the Authorised User Lists.