

Guidelines for Optimum Utilization of the Resources Available in Central Universities/Higher Educational Institutions

Resource forms the basis of fueling any developmental activity including education. Optimum utilization of existing resources will increase the output without the investment of additional resources. Cooperation and collaboration among higher educational institutions in terms of sharing their academic as well as infrastructural resources will go a long way in providing an accessible and equitable education to the masses. In this regard, the following process and manner of sharing resources between the **host institution** (the institution which is sharing its resources) and **guest institution** (the institution which is going to utilize the resources of the host institution) may be as follows:

1. Degree of ease of access to resources

At the outset, it is very important to determine the available resources of the host institution which can be shared with the guest institution and thereafter steps be taken to facilitate the process of sharing.

1.1. Determination of the available resources of the host institution

- 1.1.1. Determine the capacity of the host institution to accommodate guest students at different levels, namely undergraduate, post-graduate and research. Effective timetable (no classroom should remain unoccupied at any point in time)
- 1.1.2. The information of resources/facilities of the host institution which are open for sharing with guest institutions should be made readily available on the website of the host institution.
- 1.1.3. Common minimum charges for specific resources should be made available.

1.2. Initiating the process of resource sharing

- 1.2.1. Memorandum of understanding (MoU) should be drawn up between the collaborating institutions and signed by the authorized representatives of the two institutions.
- 1.2.2. Such MoU should provide the following:

- 1.2.2.1. Constitution of a coordination committee which will look into the details of the collaboration, such as formulation of an effective timetable (no

classroom should remain unoccupied at any point in time) and synchronize it with the collaborating institution; minimise overlapping between the host and guest institutions regarding the use of the resources.

1.2.2.2. A single point of access should be identified in each institution.

1.2.2.3. Mechanism of the on-boarding of the guest students (means students of the guest institution) to enable access to the resources of the host institution, such as issuance of unique identity cards etc.

1.2.2.4. A formula be devised for the sharing of maintenance and upkeep cost as well as operational costs, such as lab assistants, security personnel and soon.

2. Facilities to be opened for sharing (when collaborating institutions are in the same city i.e. City model)

The facilities that may be opened for sharing in the case of educational institutions which are within the same city or physically closely located may be categorised as follows:

- 2.1. Resource sharing at the **Research level** may be between peer to peer or lab to lab (i.e. Principal Investigator to Principal Investigator) or department to department.
- 2.2. Resource sharing at the **Postgraduate level** may be between department to department or at the institutional level.
- 2.3. Resource sharing at the **Undergraduate level** may be between institution to institution.
- 2.4. Sharing of high end equipment - e.g. CIF (Central instrumentation facility), on a minimum and no-profit no-loss, cost sharing basis.
- 2.5. Library resources (on premise sharing) may be done between institution to institution (e.g. reading space).
- 2.6. E-books, databases, online resources may be provided access to the students of both institutions through central licenses applicable to all the collaborating universities. It should be ensured that sharing of resources does not give rise to copy-right violations or data-privacy infringements etc. Sharing parties need to be clearly identified.

In the context of electronic resources including Anti-plagiarism software, it is desirable that INFLIBNET provides a single point of access to all. This shall reduce the amount spent by individual institutions to get access to electronic resources.

2.7. Classrooms and their infrastructure may be shared between institution to institution (within local boundaries).

2.8. Sports grounds, stadium, conference halls etc. may be shared on a need/requirement basis.

3. Layering/categorization of the resources in terms of their skills and requirements(UG/PG/Ph.D.)

Usage of resources such as those available in a laboratory depends on the level of the experiment to be conducted, which again has a direct correlation with the level of program the guest students (who are going to use the facilities of the host institution) are enrolled in. Accordingly, layering or categorization of the resources may be done for the purpose of resource sharing, appropriate to the level of guest students. In the case of sciences (laboratory specific), the resources may be identified and shared based on the skill mapping between the collaborating institutions for the below mentioned levels:

- Ph.D./research
- P.G.level
- U.G.level

While in the case of resources pertaining to non-sciences, the facilities of the host institutions that are not academic level specific, may be shared with the guest students of the guest institution at all levels (i.e.UG/PG/Ph.D.)

4. Terms & Conditions of the use of host institution's facilities(financial implications and logistics)

4.1. The overall philosophy of sharing resources is driven by the optimum utilization of machines and manpower resources so that the tendency to "monopolise" among stakeholders is reduced. At the same time, "sharing right" cannot be demanded, but rather negotiated. Keeping in view this philosophy, it is important that both the collaborating institutions at the start are clear about what is to be shared, how it is to be shared, and the financial liability and cost, if any, that are to be shared.

4.2. Few points on which consensus between the collaborating institutions is required are as follows:

4.2.1. For effective time sharing of resources, there should be

- Mutually agreeable academic calendars
- non-overlapping timetables

4.2.2. Amount to be paid towards consumables, maintenance, including wear, tear or damage of equipment.

5. **Sharing of facilities between distantly located collaborating institutions (Distant model)**

- 5.1. When collaborating institutions are distantly situated, the sharing of physical infrastructure is foreclosed and the only possibility of sharing is that of academic resources. Such academic resources which may be shared include institutional learning repositories viz. online lectures, videos, learning materials, and access to LMS (Learning Management Systems).
- 5.2. The Registration/ Onboarding process of guest students shall be through online platform.
- 5.3. Training of teachers or Faculty development programmes may be held in collaboration.

6. **Cost analysis for sharing resources– methods and factors for determining the cost**

- 6.1. The principle guiding the costing for usage under this collaboration should be no profit no loss basis.
- 6.2. Based on the usage pattern of the equipment/experiments at different levels, the cost may be determined in terms of the maintenance cost and consumables per usage for the entire academic calendar (semester/annual).
- 6.3. The cost analysis may also have to be worked on per use basis.

7. **Collaborative funded research**

- 7.1. There is also a possibility of resource sharing between two higher educational institutions for research purposes. To promote such research collaborations, the following may be kept in view:
 - 7.1.1. One single platform is required where there can be mapping of the needs of the HEIs (intra & inter) and industries. Such platform shall also promote knowledge sharing, knowledge transfer, technology development, capacity building and capacity sharing.
 - 7.1.2. Wherever large-scale and extensive long-term sharing of resources/platforms is involved, it is advisable that the partners either enter into an MOU or set up a collaboration on mutually agreeable terms.
 - 7.1.3. The type of collaborations that may be developed can be in the areas of technology, biosciences, sciences, applied sciences, agricultural management etc. and the reason for collaboration may be any one or more of the following:
 - Funded research

- Joint research-Creation of IP and ownership
- Prototype development
- Modelling and simulation
- Data analysis and visualization
- Commercialization of research finding
- Emerging areas

8. Operation of the classrooms and laboratory facilities

For optimum utilization of resources, the classrooms and laboratory facilities be opened at least from 8 a.m. to 8 p.m. on all working days.