

Expression of Interest for setting up Virtual Labs Nodal Centre 2023

Eligibility

1. The Virtual Labs Nodal center (VLNC) should be a Central/State University or Institute/college approved by **AICTE/UGC**.
 2. The Institute has to provide a designated/common lab space having **45 PCs or more**, with a minimum **30 Mbps internet broadband connection**, A.V facility and a multimedia projector.
 3. In the event that the internet network operates behind a firewall, the VLNC undertakes to open specific communication ports to facilitate VLab network traffic. Specifically ports 3306, 5900, 5902, and 8700 will need to be opened.
 4. <http://www.java.com/en/download/index.jsp> must be downloadable through the internet.
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Terms & Conditions

1. There is **no financial liability** of any party for using Virtual Labs. It is free to use.
 2. The VLNC cannot charge students for the use of Virtual Labs.
 3. One Nodal Coordinator & Nodal Technical Coordinator, for Virtual Labs should be nominated by the Head of the Institute (Director / Principal) at the respective Nodal Centre.
 4. Renewal of EOI form is subjected to fair usage of the Virtual Labs.
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Nominations and Responsibilities of the Nodal Centre

1. Nodal Coordinator and Nodal Technical Coordinator will be appointed at each Nodal Centre by the Head of the Institution.
 2. He/she should continue with his/her responsibilities for at least one semester.
 3. Requests for change of Nodal Coordinator and Nodal Technical Coordinator will not be accepted in the middle of the semester, except in extreme circumstances, for example where the Coordinator proceeds on leave or quits the Institute. Nomination of a new Nodal Coordinator and Nodal Technical Coordinator will be accepted upon receiving confirmation from the previous Nodal Coordinator and Nodal Technical Coordinator.
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Roles & Responsibilities of the Nodal Coordinator /VLNCC

1. The Nodal Coordinator (NC) will be the main interface between the Outreach Team of Virtual Labs, IIT Bombay and the Nodal Centre.
 2. He/She will **conduct training** sessions for students and faculty members in his/her Institute.
 3. NC may take help from other faculty members and support staff to coordinate training programmes in their respective institutes.
 4. He/She is required to work towards **making Virtual Labs popular** among the students.
 5. He/She is required to help in **Field Testing** the labs and in collation of end-user **Feedback** for the experiments of different Labs.
 6. He/She is required to help in testing and debugging Virtual Labs while using them.
 - 7. A monthly progress report regarding Virtual Labs usage by the students must be submitted by the Nodal Coordinator to the IIT Bombay, duly signed by the Director/Principal of the Institute.**
 8. Should conduct outreach workshops. The targeted attendees should be approximately 100. The list of participants should be shared with IIT Bombay.
 9. RNCs will coordinate workshops. If required, the Outreach team from IIT Bombay may be invited, expenses of which to be incurred by the Nodal centre.
 10. The number of lab usages is expected to be greater than **8000** per year.
 11. The Outreach Team, IIT Bombay should be informed about workshop dates and other training sessions organised by the Nodal Centre.
 12. The Nodal Coordinator should **submit a report** of each workshop conducted, with relevant photographs. A template for the report will be shared by IIT Bombay.
 13. The NCCs will be responsible for engaging with the nearby Polytechnic Colleges. This will be followed by extensive on-site workshops and training.
 14. The exchange of ideas and discussions take place during the NCCs meetings, which will be held regularly. Regular workshops and teacher-training would also form a part of this activity.
 15. Maintain a regular communication with IITB, Regional Coordinator and the Regional Technical Coordinator.
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Roles & Responsibilities of the Nodal Technical Coordinator (VLNCTC)

1. Should be a faculty with technical experience in Networking, Troubleshooting & Web Programming Skills.
 2. Must assist the Nodal Center's technical set-up (computer lab/centre) during the workshops.
 3. Mentor students & faculties towards new virtual labs development (developing web based animations, using HTML, Javascript & other FOSS technologies).
 4. Should help the other Nodal Center, as well as the departments (in-house) in smooth conduction of the Virtual Labs activities.
 5. Should demonstrate team building, problem solving skills and provide technical assistance during the new virtual labs development, at the Nodal Center.
 6. Should be ready to travel to the other Nodal centres as required, or or as per the directives from IIT Bombay, for the meetings & workshops.
 7. Maintain regular communication with the technical & development team of IIT Bombay.
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Responsibility of the Outreach Team

1. To provide training and hands-on practice on Virtual Labs to Nodal Coordinators and supporting staff.
2. Training / Meeting session will be conducted at any Nodal Centre or at IIT Bombay, as per the advertised date and time.
3. Maximum two members with Nodal Coordinator from each Nodal centre may attend the training session.
4. No TA/DA will be given to Nodal Coordinators and supporting staff for attending training sessions.
5. Onsite support may be given upon request by Regional Nodal centres.
6. The Outreach team will keep the Nodal centres informed about the Labs under development and newly developed Labs in Virtual Labs.
7. The Outreach team may visit Nodal centres on workshop day to ensure smooth conduct of the workshop.

Disclaimer: The terms for the next phase are reviewed by MoE. These terms are therefore potentially subject to change. Currently being reviewed by MoE.

Field Trial Methodology

1. Virtual Labs Team organises Workshop as well as hands on practice sessions on Virtual Labs for various Science & Engineering Institutions, at a Nodal centre / Regional Centre.
2. Department wise demonstrations are given to the students by Nodal/Regional coordinators.
3. Labs are demonstrated according to the syllabus of the ongoing semester.
4. Faculty members of the concerned department should be present during the demonstration.
5. After the demo of the Virtual Labs, hands-on sessions are conducted.
6. On completion of the demo and hands on, the faculty members and the students have to submit the feedback forms to the Virtual Labs team.
7. Faculty members participate in the workshop and are encouraged to express their interest, nominating their institutes as Nodal centre for Virtual Labs.

(By sending the Head of the institute's Email, Phone, Full Name and Name of the Institute, to IITB Team/Nodal Coordinator).

IIT Bombay holds the final decision for the approval of the institute as a Nodal centre/Regional centre.

8. There is a provision of EOI (Expression of Interest) form to become a Nodal centre of Virtual Labs.
 9. The EOI form contains all the details, eligibility criteria, role of Nodal centre as well as the Nodal coordinator. The Credentials to fill the same shall be sent to the Head of the Institute.
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Methodology for conducting workshop/lab session at Nodal Centre

Before workshop/Lab Session

While planning the activity, we follow the procedure given below:

1. Upload the **Semester Planner** well in Advance before conducting the workshop.
2. **Identify Labs** for students related to their syllabus.
3. In case a complete Lab is not available, a mixed combination of experiments to match their studies is listed by respective department coordinators.
4. **Sort out 10-15 such experiments and test it** on random machines in the computer lab.
5. Nodal Coordinator to login to their account and must Add Workshop for more details visit the outreach portal and look for Tutorials.
6. Conduction of workshop.

*** For more details refer the tutorial on the outreachportal**

On the day of workshop/Lab:

Being Nodal/Departmental Coordinator, you can address the students on following points (With approximate timeline):

1. Addressing Students (Welcome to (your college name and about your college). (1 minute)
2. Introduction to Virtual Labs. (2 minutes)
3. Introduction to Website vlab.co.in. (1 minute)
4. Instruction for Feedback Form. (2 minutes), Students must be shown the Feedback form link : <http://vlabs.iitb.ac.in/feedback/>
5. Respective subject department Coordinator/faculty then briefs them about experiments assigned. List out all experiments to them, to be filled in the online Feedback form. (1 min)
6. Hands on Session (1 hrs, 30 minutes) under the guidance of the Team.
8. Submission of the online Feedback Form by the Users.
9. Nodal coordinators/faculty. Make sure the forms are duly filled (form the online dashboard).

After the workshop/Lab Session:

1. Nodal Coordinators must validate the feedback forms, check if the number of Feedbacks are equivalent to the users in the attendance sheet.
 2. Prepare the Usage reports. Get it signed by the Head of the Institute. (a copy to be kept with Nodal Coordinator) For instructions see the tutorial on the Outreach Portal website.
 3. Upload the softcopy on the outreach portal & post the duly signed hard copies to IITB address.
 4. Upload One picture of the event (group photos of workshop) and upload one event notification image/photo.
 5. Report if any issues occurred for conducting experiments to IITB Vlabs team.
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Additional Policies

1. The Nodal Centre cannot use IIT Bombay's brand name in any form (text, logo , photo) for the promotion of Virtual Labs without seeking official permission for workshops, events or any kind of promotions.
 2. The Nodal Centre cannot use Virtual Labs Logo for workshops, events or any kind of promotions without seeking official permission from IIT Bombay.
 3. Any event Rollout/Outreach to be conducted needs to be logged on the outreach portal well in advance.
 4. The Nodal centre has to inform and seek permission well in advance before publishing the Press Release, Event Brochures/Flyers, Research Papers, Any kind of advertisement on Print and Online media (Social Media)
 5. The Nodal Centre has to share the details of the participants and the organiser of any event related to Virtual Labs, with the IIT Bombay.
 6. Nodal Centres cannot promote contents from VLabs with an intention to monetize/commercialise.
 7. IIT Bombay may disapprove the Nodal Centre, if found violating the above mentioned policies and the T&C.
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Expression of Interest for setting up Virtual Labs Nodal Centre - 2023

Full name of Institute: ABMSPs Anantrao Pawar College of Engineering and Research

Institute Acronym: APCOER **Latitude:** 18.4907 **Longitude:** 73.8434

Address: 103 Parvati-Ramana, Shahu College Road, Pune 411009, Pune - 411009, Maharashtra

Affiliated to: Savitribai Phule Pune University

Approved By: AICTE **Approval Number:** 1-765361541

AISHE Code: C-41484

Branch of Engineering/Science and Number of Students / Faculties:

Artificial Intelligence and Data Science - 60 / 3

Civil Engineering - 180 / 10

Computer Engineering - 180 / 10

Electronics and Communications - 92 / 6

Information Technology - 180 / 9

Mechanical Engineering - 180 / 12

Others - 240 / 6

Total: 1112 / 56

Total number of computers in lab (one or more labs) within the institute: 461

Total number of computers available for Virtual Labs use: 400

Internet Bandwidth (in mbps): 48

Head of Institute/Principal: Dr Sunil Thakare

Email: prof_sbthakare@rediffmail.com **Mobile:** 9923217056

Nodal Coordinator: Prof Sharad Jagtap

Email: sharad.jagtap@abmspcorpune.org **Mobile:** 9730616145

Department: Electronics and Telecommunication Engineering

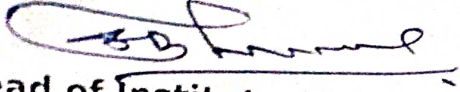
Nodal Technical Coordinator: Prof Ramesh Lavhe

Email: ramesh.lavhe@abmspcorpune.org **Mobile:** 9022210643

Department: Information Technology Engineering

Certified that

- The institute is recognized by AICTE/UGC.
- The institute has necessary and adequate infrastructure to host Virtual Labs.
- Strict adherence to standard lab procedures and cyber security laws will be followed.
- Virtual Labs, IIT Bombay may withdraw/stop connectivity without giving any prior notice or reasons.
- This EOI for Virtual Labs usage is valid upto 31st December 2023 and requires renewal by IIT Bombay for continued support.



Head of Institute / Principal

Signature & Stamp



Date: Dec 15, 2022

**Scan and upload the duly signed ORIGINAL SOFT COPY of this EOI.
Keep the HARD COPY with you in a Virtual Labs file for the record.**