

Defining OOMF Targets for the FOSSEE project

FOSSEE Project: The Free/Libre and Open Source Software for Education (FOSSEE) project promotes the use of FLOSS (Free/Libre and Open Source Software) tools to improve the quality of education in our country. We aim to reduce dependency on proprietary software in educational institutions. We encourage the use of FLOSS tools through various activities to ensure commercial software is replaced by equivalent FLOSS tools. We also develop new FLOSS tools and upgrade existing tools to meet requirements in academia and research. This project is supported by the Ministry of Education through the National Mission on Education through ICT.

Targets for the project:

The target set for the project for the year 2020-21 is to reach out to 1,100 institutions. In 2021-22, we will try to reach out to 1,200 institutions.

What is meant by one institution is explained below. It is based on our philosophy of arriving at the metric on the basis of the output of the students/teachers we train. In other words, we don't count only on the basis of the number of people we train, but by analysing the effectiveness of training, measured by the output they create for the society. The role of FOSSEE is to (1) to train students/teachers to the levels wherein they can contribute (2) curating the content they create and (3) making the content available to the whole community free of cost.

We are promoting FLOSS through various activities like Textbook Companions, Lab Migrations, Workshops, etc., which are available through <https://fossee.in>. The definition of 'What is meant by an institution', depends on the activity, and is explained below.

- **One submission/ activity equivalent to 1 institution**
 1. Each lab course migrated will be considered as one institution
 2. Following activities will be considered as 1 institution
 - a. A Custom Model created in DWSIM
 - b. A Case Study in OpenFOAM and R
 - c. A Power System Simulation using OpenModelica
 - d. A chemical process Flowsheet created in OpenModelica
 3. FOSSEE reaches out to many colleges/universities for the FOSSEE Summer Fellowship. The registrants are assigned a screening task. Students study or get familiar with a FLOSS and complete the task in 6 weeks time. Hence each successful submission of the screening task from the student is considered as one institution.
 4. In events like Hackathons we reach out to participants from all over the country. We mentor the teams for the development of a FLOSS, which in turn

results in contribution to the open source community. Each successful submission from the teams will be considered as one institution.

5. Using Yaksh, the online test interface developed by FOSSEE, for one semester in one course will be considered as one institution.
 6. Coordinators workshop: Coordinators from remote centres attended the blended workshop and they in turn conduct the main workshop at their remote centres. One coordinator from a remote centre is equivalent to one institution.
 7. One week workshops: Each participant of this workshop will be equivalent to one institution, as they are completing a one week assignment.
- **Five submission or activity equivalent to 1 institution**
 1. Five Textbook Companions will be considered as one institution.
 2. Following niche software activities, five submissions will be considered as 1 institution
 - a. Circuit simulations in eSim
 - b. Flowsheeting in DWSIM
 - c. Contributions in Jmol and FOCAL
 - **25 participants equivalent to 1 institution**
 1. Every 25 participants in a workshop/conference will be considered as one institution.
 - **100 participants equivalent to 1 institution**
 1. FOSSEE also conducts a number of self paced workshops. The participants can take these workshops at their own convenience. 100 participants in self workshops will be equivalent to 1 institution.
 - **One activity equivalent to 10 institutions**
 2. Collaborative content creation: FOSSEE writes technical articles in peer reviewed journals and conferences on some of their notable achievements. These papers help publicise these activities to several institutions, and help them adopt good practices. One paper will be equivalent to 10 institutions.
 3. Recognising FOSSEE activities on the software interface by a FLOSS is considered as 10 institutions. For example, on the DWSIM software interface the FOSSEE flowsheeting activity is mentioned, which showcases the work of our students from various colleges to industry practitioners throughout the world.
 4. Officially including FOSSEE resources in an affiliating university syllabus is taken equivalent to 10 institutions. If mentioned in the syllabus of an autonomous institution, then it is equivalent to one institution.

The above metric has been arrived at after doing a lot of experiments, and analysing the impact on students/teachers across many colleges in India.