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कण्णन मणि मौद्गल्या
इरेच तथा मेहरु मेहता
प्रगत शिक्षा प्रौद्योगिकी
पीठासीन प्राध्यापक
रासायनिक अभियांत्रिकी विभाग
भारतीय प्रौद्योगिकी संस्थान मुंबई
पवई, मुंबई 400 076, भारत.



February 13, 2019

Dear District Collector,

I am writing this letter to inform you about a FOSSEE Summer Fellowship scheme, to be carried out at IIT Bombay and a few sister institutions, for a period of 6–8 weeks, during the summer of 2019. FOSSEE stands for Free/Libre and Open Source Software for Education.

Students to be selected for this Fellowship can be from any college, pursuing any degree, and at any stage of their graduation. The only criterion for selection is the successful completion of a useful project. At the back of this letter, I have given samples of projects that can be undertaken at the district level.

Students desirous of getting selected for this Fellowship will have to learn a Free/Libre and Open Source Software, using which, solve a problem of utility to the community. These problems are not very complicated, and can be done over a period of two to four weeks. Moreover, self learning audio-video tutorials, called Spoken Tutorials, are available on most of the software proposed for this work. These tutorials are typically dubbed in many languages of our country, available free of cost, and can be used without Internet.

Both FOSSEE and Spoken Tutorials are projects carried out at IIT Bombay, with funding from the National Mission on Education through ICT, MHRD, Govt. of India.

As the problems proposed to be solved are from the local community, they are realistic, which benefits the students. The community also benefits, by the availability of capable and young work force at the disposal of local governments. A possible partial list of topics a student desiring to be selected as a FOSSEE Fellow is given at the back of this letter. A complete list of topics is available at <https://fossee.in/fellowship/2019>. We will be happy to add more topics to this list, if found suitable.

We are displaying a poster on this scheme in 30,000 College Departments, through their Heads, which could result in a viewership of about 30 lakh students. It is likely, however, that our poster may not reach a large cross section of students, as our country is a lot bigger. I seek your help in bringing the content of this letter to nearby colleges. Please encourage students who contact you to work on a topic that is of interest to your district.

A soft copy of this letter is available at the URL given above. We look forward to your enthusiastic participation in this nation building project.

Yours sincerely,

Prof. Kannan Moudgalya

cc: The Education Secretary,
with a request to help promote this scheme through all official channels

A **partial list** of projects that can be executed by students for their District Collector's office is given below. More details are available at <https://fossee.in/fellowship/2019>.

- I Collect any few variables relevant to your district suggested by your District Collector, and use the statistical software R to study possible correlations between them. A small sample set is given at the end of this page, and many more are possible.
- II This is similar to the previous problem statement, with the additional information on geographic location using the QGIS software. For a block in your District, collect data for relevant variables (eg. dengue incidence and water levels in ponds) in spreadsheet (CSV) format, and analyse the correlation between them using QGIS maps and the analysis tools that come with QGIS.
- III Enter catalog/metadata information of 1,000 books from a nearby public library using Koha, and create a virtual library.
- IV Using the Lokavidya App and your mobile phone, create a five minute video of any place of worship of any faith, or a public monument, etc., in your district. Emphasis should be on architectural beauty/uniqueness or special customs, etc. Selfies and controversial speeches that hurt sentiments of people are not permitted.

A partial list of variables for tasks I and II mentioned above is listed below:

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|--|---|
| 1. Gross District Domestic Product (GDDP) in value terms | (urban /rural) |
| 2. Below Poverty Line Households - number of households | (d) Number of electricity connections (agriculture /commercial /domestic) |
| 3. Fair Price Shops - Ration shops; availability and the number of it. | 9. Number of registered Bore-wells |
| 4. Storage: | 10. Number of tube well connections (run by electricity using non-renewable and renewable sources of energy) |
| (a) Cold Storage - number and availability | 11. Number of diesel pumping sets |
| (b) Godowns - number and availability | 12. Number of MBBS Doctors |
| 5. Natural Calamities: (drought /flood /hailstorm /wind /fire etc.) | 13. Tourism : |
| (a) Property damage (value or numbers by type) due to natural calamities | (a) Tourist destinations number of attractions |
| (b) Human damage due to natural calamities-death/injury | (b) Number of tourists in a year |
| 6. Court: | (c) Total revenue from tourism in a year |
| (a) Number of Judges in District courts | 14. Swachh Bharat Mission Implementation (Very clean, Clean and Dirty areas in your locality) |
| (b) Number of cases open in District courts | 15. Your College with the following: Campus boundary, Main Building, Canteen, Play/sports grounds, Main road and Inset map of your city |
| 7. Fire incidents number and magnitude | 16. Rain Water Harvesting and Green Roof Initiative |
| 8. Electricity: | 17. Malnutrition data |
| (a) Total electricity Consumption (urban /rural) in appropriate units | 18. Industry (Labour, Raw materials and Ownership) |
| (b) Total electricity consumption (agriculture /commercial /domestic) in appropriate units | 19. Education (Schools, colleges and Higher education institutes) |
| (c) Number of electricity connections | 20. Green coverage |

Processes/Conditions to participate in the Fellowship are available at the URL given above.