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### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Department of Computer Science & Engineering, NIT, Rourkela was established in 1982. Since its inception, the Department is under dynamic progress and is able to establish the reputation for imparting quality education both at undergraduate and graduate programmes. The department has well equipped modern laboratories such as Software Engineering, Distributed Object Systems, Information Security & Data Communication, Image Processing & Cluster Computing and Advanced Database Engineering Labs for pursuing research keeping in view of the technological advancement.



# NATIONAL WORKSHOP on FREE and OPEN SOURCE SOFTWARE TOOLS for SOFTWARE ENGINEERING

(Co-Sponsored by FOSS Project,

MHRD, IIT Kharagpur)

14<sup>th</sup> May 2015

Dr. Durga Prasad Mohapatra

Convener

Dr. Suchismita Chinara

Co-convener



Department of Computer Science &  
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National Institute of Technology,

Rourkela-769 008, Odisha

<http://www.nitrkl.ac.in>

# ABOUT THE WORKSHOP

The Workshop on Open Source Tools for Software Engineering Applications is supported by MHRD in order to popularize the existing open source tools. This workshop will provide a forum for the advanced open source tools required for software development and testing. The main goal of this workshop is to create awareness among the academicians, researchers, software developers and students about use of the recent open source tools which will enable them to make the academic and research activities hassle free.

The workshop mainly includes lectures and hands on for the open source tools like Eclipse, JMeter, Selenium, MILU, Jumble, Corbetura, PlantUML, GanttProject, etc.

Eclipse is an Integrated Development Environment (IDE). It works with a base workspace with supported and extensible plugin system for customizing different environments. The main purpose of eclipse is to develop applications using Java.

JMeter is an Apache project that can be used as a load testing tool for analyzing and measuring the performance of a variety of services, with a focus on web applications.

Selenium is a portable software testing framework for web applications. Selenium provides a record/playback tool for authoring tests without learning a test scripting language.

MILU, a C mutation testing tool designed for both first order and higher order mutation testing.

Jumble is a class level mutation testing tool that works in conjunction with JUnit. Jumble is a Java application that mutates a Java class at the bytecode level and runs its corresponding unit test to determine the number of killed mutants. If no tests failed, the mutant lives.

Cobertura is a coverage tool which ensures the coverage of lines of code. It also checks how good the regressions tests are. Cobertura is meant to be used with ant, but it also works with the command line and plugins under Eclipse.

PlantUML is an open-source tool allowing users to create UML diagrams from a plain text language. The language of PlantUML is an example of a Application Specific Language. It uses Graphviz software to layout its diagrams.

GanttProject is a GPL-licensed freeware Java based project management software that runs under the Windows, Linux and Mac OS X operating systems.

The workshop also includes a panel discussion on the acceptance of open source tools in research and software development. The panel will consist of eminent academicians and industry experts.

## Resource Persons:

1. Prof. Kannan N. Iyer, IIT, Bombay.
2. Prof. Rajib Mall, IIT, Kharagpur.
3. Dr. Durga Prasad Mohapatra, NIT, Rourkela.
4. Dr. Srinivas Prasad, GMR Institute, Andhra Pradesh.
5. Dr. Abhishek Ray, KIIT University, Bhubaneswar.

## REGISTRATION & FEE PARTICULARS

Applications in the prescribed format and the registration fee as given below in the form of a DD, drawn in favour of "FOSST-2015" payable at SBI, NIT Branch, Rourkela - 8 (Code-2109) must reach the Convener on or before 4<sup>th</sup> May 2015. Registration fee includes boarding, lodging and workshop materials. Due to Limited number of seats registrations will be done based on first come first serve basis.

Employees from Industry and R&D Organizations Rs.2,000/-

Faculty from Academic Institutions Rs.1,000/-

Full Time Research Scholars and Students \* Rs.5,00/-

\*Research scholars and students of NIT, Rourkela need not pay any registration fee.



# National Workshop On Free and Open Source Software Tools for Software Engineering 14<sup>th</sup> May 2015 Registration Form

1. Name:.....
2. Designation: .....
3. Organization: .....
4. Specialization:.....
5. Address:.....

.....

Phone:.....Mob: .....

E-mail:.....

6. Accommodation Required: YES/NO

7. Gender: Male/Female

8. Registration Fee Details:

Amount: Rs .....

DD No: .....Drawn on.....  
Branch.....

Place:

Date: ..... Signature of the Applicant

Signature of Sponsoring Authority (With Seal)

Copies of this form can be made, if necessary. Please send the duly filled in form to the Convener on or before 27<sup>th</sup> April 2015.

The details of the workshop & the form can also be downloaded from our website: <http://www.nitrkl.ac.in>.