

## Government Polytechnic Pabau, Pauri Garhwal

Following list of Application and System Software (open source ) link

| Sr No                | Name Of Software            | About Application   | Link  |
|----------------------|-----------------------------|---|---|
| Application Software |                             |   |   |
| 1                    | LibreOffice Suite           | basic computer usage skills like Word processing, Spreadsheet, Presentation using the LibreOffice components <b>Writer, Calc</b> and <b>Impress</b> . One can also learn other useful components like <b>Draw, Math</b> and <b>Base</b> in this series.     | <a href="https://lireoffice.org/">https://lireoffice.org/</a>   |
| 2                    | Apache OpenOffice           | Apache OpenOffice features six personal productivity applications: a word processor (and its web-authoring component), spreadsheet, presentation graphics, drawing, equation editor, and database. OpenOffice is released on Windows, Linux.                | <a href="https://openoffice.apache.org/downloads.html">https://openoffice.apache.org/downloads.html</a> |
| 3                    | Avogadro                    | <b>Avogadro</b> is a free and open source, advanced molecule editor and visualizer designed for cross-platform use in computational chemistry, bioinformatics, etc. It offers flexible high quality rendering.  | <a href="https://avogadro.cc/">https://avogadro.cc/</a>   |
| 4                    | Blender                     | Open source equivalent to Maya and 3DMax. Useful to create 3D Animation for Architecture & Animation students.  | <a href="https://blender.org/">https://blender.org/</a>   |
| 5                    | Chemcollective Virtual Labs | <b>ChemCollective Virtual Labs</b> is a simulation of a chemistry laboratory. It allows students to explore and reinforce fundamental concepts, select various standard reagents (aqueous) and use them as they use in a real laboratory.                   | <a href="https://www.chemcollective.org">https://www.chemcollective.org</a>                             |
| 6                    | DWSIW                       | DWSIM is an open-source CAPE-OPEN compliant chemical process simulator. It allows us to conduct experiments and analyze data using advanced models and operations. Useful for run the simulations and get a better understanding on a phenomenon.           | <a href="https://dwsim.fossee.in/downloads">https://dwsim.fossee.in/downloads</a>                       |
| 7                    | Expeyes                     | ExpEYES stands for Experiments for Young Engineers. It is used to perform basic Physics and Electronics experiments.  | <a href="https://expeyes.in/">https://expeyes.in/</a>   |
| 8                    | GIMP                        | Graphics art and design software application for the editing and creation of original images, icons, graphical elements of web pages and art for user interface elements. Useful for all graphic related work. Open source equivalent of <b>Photoshop</b> . | <a href="https://www.gimp.org">https://www.gimp.org</a>   |

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| 9  | JMOL App     | Learn how to create 3D chemical, crystal and biomolecules structures. Very useful to teach and learn abstract chemistry concepts.   | <a href="http://jmol.sourceforge.net/download/">http://jmol.sourceforge.net/download/</a>                   |
| 10 | LaTeX & XFig | <b>LaTeX</b> is a typesetting software for preparing reports, letters and presentations - specially useful for engaged in writing/ publishing documents from science/ arts/ commerce fields. <b>Xfig</b> is a free and open source vector graphics editor. In <b>Xfig</b> , figures may be drawn using objects such as circles, boxes, lines, spline curves, text, etc. ... and used in <b>LaTeX</b> and other documents.   | <a href="http://mcj.sourceforge.net/latex_and_xfig.html">http://mcj.sourceforge.net/latex_and_xfig.html</a> |
| 11 | OpenFOAM     | Open source/ free CFD (Computational Fluid Dynamics) software available for solving and analyzing problems and to create a real world fluid flow movie. Open source equivalent to FLUENT. Widely used in Academics and is gaining popularity in Industry as well- Companies including AUDI, Useful for Mechanical, Civil, Chemical Engineering students in 3rd and 4th year.  | <a href="https://openfoam.org/download">https://openfoam.org/download</a>                                   |
| 12 | Python       | Numerical computational software for Science and Engineering Education - used in 3D animation and Gaming industry, Artificial Intelligence, YouTube,  | <a href="https://www.python.org/">https://www.python.org/</a>   |
| 13 | QCAD         | <b>QCAD</b> is a free, open source application for computer aided drafting (CAD) in two dimensions (2D). Learn to create technical drawings such as plans for buildings, interiors, mechanical parts or schematics and diagrams using <b>QCAD</b> .   | <a href="https://www.qcad.org/en/">https://www.qcad.org/en/</a>   |
| 14 | RDBMS        | RDBMS stands for Relational Database Management System. RDBMS is the basis for SQL, and for all modern database systems like MS SQL Server, IBM DB2, Oracle, MySQL, PostgreSQL and Microsoft Access. PostgreSQL is a powerful, open source relational database system. It runs on all major operating systems, including Linux, Windows and Mac OS. It supports most SQL data types, foreign keys, joins, views, triggers and stored procedures. It has programming interfaces for C/C++, Java, Perl, Python, Ruby etc. | <a href="https://www.microsoft.com/en-in/download">https://www.microsoft.com/en-in/download</a>             |
| 15 | Scilab       | Mathematical and scientific calculation software, open source substitute for MATLAB, very useful for all science and engineering students, in academics particularly.   | <a href="https://www.scilab.org/">https://www.scilab.org/</a>   |
| 16 | KTouch       | Typing tutor - teaches how to type using an online interactive keyboard. Learn typing at your own pace. Gradually increase your typing speed and along with it,   | <a href="https://apps.kde.org/en/ktouch">https://apps.kde.org/en/ktouch</a>                                 |

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|    |                        | your accuracy.   |   |
| 17 | 7-Zip                  | <b>7-Zip</b> is <b>free software</b> with <b>open source</b> . High compression ratio in <a href="#">7z format</a> with <b>LZMA</b> and <b>LZMA2</b> compression. • Supported formats: Packing / unpacking: 7z, XZ, BZIP2, GZIP, TAR, ZIP and WIM-Unpacking only: AR, ARJ, CAB, CHM, CPIO, CramFS, DMG, EXT, FAT, GPT, HFS, IHEX, ISO, LZH, LZMA, MBR, MSI, NSIS, NTFS, QCOW2, RAR, RPM, SquashFS, UDF, EFI, VDI, VHD, VMDK, WIM, XAR and Z.- For ZIP and GZIP formats, <b>7-Zip</b> provides a compression ratio that is 2-10 % better than the ratio | <a href="https://www.7-zip.org/">https://www.7-zip.org/</a>                                       |
| 18 | RasMol and Open RasMol | RasMol is a program for molecular graphics visualisation originally developed by Roger Sayle. This site is provided for the convenience of users of RasMol and developers of open source versions of   | <a href="http://www.openrasmol.org/">http://www.openrasmol.org/</a>                               |
| 19 | LibreCAD               | LibreCAD is an open-source cross-platform 2D CAD program   | <a href="https://librecad.org">https://librecad.org</a>   |
| 20 | Klavaro TTTutor        | A very efficient tutor.A touches typing tutor very flexible, supporting customizable keyboard layouts. You can edit and save new or unknown keyboard layouts, as the basic course was designed to not depend on specific ones. Also, there are some charts about the learning process.   | <a href="https://sourceforge.net/projects/klavaro/">https://sourceforge.net/projects/klavaro/</a> |
| 21 | Matplotlib             | Matplotlib is a python library for making publication quality plots using a syntax familiar to MATLAB users. Matplotlib uses numpy for numeric's. Output formats include PDF, Postscript, SVG, and PNG, as well as screen display. As of matplotlib version 1.5, we are no longer making file releases available on SourceForge. Please visit <a href="http://matplotlib.org/users/installing.html">http://matplotlib.org/users/installing.html</a> for help obtaining matplotlib.   | <a href="https://matplotlib.org">https://matplotlib.org</a>                                       |
| 22 | FreeCAD                | FreeCAD is an open sourced 2D/3D parametric modeler with a multitude of features comparable to most commercial products. The software is still under initial development, but the early feature list includes most of what you would need as an DIY or individual developer.Civil Engg   | <a href="https://freecadweb.org">https://freecadweb.org</a>                                       |
| 23 | Symbolab               | ymbolab is a more comprehensive step-by-step solver for complex mathematics including integrals, limit functions, matrices, etc. The software provides plotting of the functions requested as well as a vast amount of examples to help you get started.   | <a href="https://www.symbolab.com/">https://www.symbolab.com/</a>                                 |
| 24 | Code-Aster             | Quality free solutions for all FEA physics is tough to find because there is so much fragmentation. Code-Aster is a free software program that offers structural analysis and thermodynamic analysis. Their documentation shows a very large list  | <a href="https://code-aster.org">https://code-aster.org</a>                                       |

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|    |                 | of nonlinear analysis capabilities including internal couplings analysis, mechanical and thermal loadings, dynamics (modal analysis, linear transient response, etc.), thermal analysis, geotechnical civil engineering, and much more. |   |
| 25 | SQL Server      | SQL Server For Relational Database Management System with .NET is Microsoft's open-source, general-purpose development framework for building cross-platform apps.  | <a href="https://www.microsoft.com/en-in/download">https://www.microsoft.com/en-in/download</a>                           |
| 26 | Visual Studio   | Full-featured IDE to code, debug, test, and deploy to any platform  | <a href="https://visualstudio.microsoft.com/">https://visualstudio.microsoft.com/</a>                                     |
| 27 | Sumatra PDF     | Sumatra is a <b>free and open source PDF reader</b> that has a simple, intuitive user-interface, and is <b>light on your computer's resources</b>   | <a href="https://www.sumatrapdfreader.org/free-pdf-reader.html">https://www.sumatrapdfreader.org/free-pdf-reader.html</a> |
| 28 | Firefox         | <i>Firefox</i> . Although Chrome is now the most popular <i>browser</i> , <i>Mozilla Firefox</i> is the one that started the whole <i>open source web browser</i> sensation.  | <a href="https://www.mozilla.org/en-US/firefox/download/">https://www.mozilla.org/en-US/firefox/download/</a>             |
| 29 | Chrome          | The Chromium projects include Chromium and Chromium OS, the <i>open-source</i> projects behind the Google <i>Chrome browser</i> and Google <i>Chrome OS</i> , ...   | <a href="https://www.google.com/chrome/">https://www.google.com/chrome/</a>   |
|    | System Software |   |   |
| 1  | Linux & Ubuntu  | Free operating system, almost neutral to virus attacks and no hassles for licensing issues.OS   | <a href="http://www.ubuntu.com/download">http://www.ubuntu.com/download</a>   |
| 2  | Windows         | Win-7,Win-8,Win-10 are used operating system.   |   |
| 3  | DOS             | Open source projects and samples from Microsoft   | <a href="https://github.com/microsoft">https://github.com/microsoft</a>   |