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National  
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Mission



Centre for  
Development of  
Advanced Computing

Distributed for the course “HPC Shiksha: Basics of High Performance Computing”  
Course Website: <https://www.iitgoa.ac.in/hpcshiksha/>

### Installation Steps on Linux Systems

1. Linux distribution: Ubuntu/Debian/Fedora (Ubuntu 16.04 and above preferred)
2. Ensure that a C compiler such as gcc is available in your system (which gcc)
3. `sudo apt-get install mpich` (easiest way to install on Ubuntu)

OR

- (i) Download MPICH from [here](#)
- (ii) Read the [installation guide](#), it includes simple installation steps --  
`./configure [optionally specify -prefix=<INSTALL_PATH>]`  
 [Check that the last few lines of config.log does not contain errors, this is optional]  
`make`  
`make install` [*which mpirun* should show you the location of mpirun]

### Installation Steps on Windows Systems

Not recommended

### Installation Steps on Linux on Windows Systems

1. Virtualization software: Any free software such as VMware
2. Refer to steps for Linux above

OR

Install Windows subsystem for Linux (only for windows 10):

- (i) Installation guide is available [here](#), it includes all the steps to have a Linux (eg. Ubuntu 20.04) basic terminal set up.
- (ii) Update the system using ‘`sudo apt update && sudo apt upgrade`’ without quotes.
- (iii) Install commonly used compilers and libraries ‘`sudo apt install build-essential`’.

(iv) Install a MPI library such as MPICH 'sudo apt install mpich'.

### **Installation Steps on Mac Systems**

1. brew install mpich

For other instructions (including binaries for other operating systems), please refer to the [official website](#) of MPICH (an MPI library).