TRAINING OFFERINGS ON HPC TOPICS

AVAILABLE VIA HPCMP

The Program's User Productivity Enhancement, Technology Transfer and Training (PETTT) initiative supports our scientists and engineers by enabling them to take full advantage of Department of Defense (DOD) high-performance computing (HPC) resources in response to executing their mission. PETTT enhances the capability and productivity of the Program's user community through training, collaboration, tool and software development, technology tracking and transfer, and other resources available to users.

Links to the following course topics are currently available in the *"**PETTT Virtual Workshop Resources**"* section of the Online Knowledge Center (OKC) at https://okc.erdc.hpc.mil/okc/index.jsp. NOTE: This web site is restricted to government personnel or DoD contractors with a Common Access Card (CAC) or YubiKey (a small keyboard that provides a secure login code.)

- Linux
- Introduction to C Programming
- Introduction to Fortran Programming Course
- Python for High Performance Computing
- Parallel Programming Concepts
- Message-Passing Interface (MPI) Basics
- MPI Point-to-Point Communications
- MPI Collective Communications
- MPI Advanced Topics
- OpenMP
- MATLAB Programming
- Profiling and Debugging

AVAILABLE ONLINE

There are a number of "free" offerings on high performance computing topics available at online on subjects such as program languages (including Linux, C, Fortran, Python, R, MATLAB, GPGPU and CUDA), parallel computing, code improvement (debugging and scalability), data analysis tools (including Paraview and Hadoop). Most of the links provide modules for the novice to the advanced user.

CI-Tutor: https://www.citutor.org CI-Tutor (University of Illinois at Urbana-Champaign) requires everyone to register to take a tutorial. The service is free and login information is only used to track the number and type of registered users on their site.

Cornell Virtual Workshop: https://www.cac.cornell.edu/VW/topics.aspx

Purdue University Research Computing (RCAC):
http://www.rcac.purdue.edu/tutorials

Lawrence Livermore National Laboratory: https://computing.llnl.gov/tutorials

National Institute for Computational Sciences/University of Tennessee:
https://nics.tennessee.edu/hpc-seminar-series

Tutorialspoint: http://www.tutorialspoint.com A large online tutorials library with a collection of tutorials on various technical and non-technical subjects.

HPC University Resources: http://www.hpcuniversity.org/trainingMaterials

Linux.org: http://www.linux.org. Offers a number of free online Linux beginner, intermediate and advanced tutorials

FortranTutorial: http://www.fortrantutorial.com/index.php. A "hands-on" introduction to programming using Fortran.

Google: https://developers.google.com/edu/python Introduction to Python programming.

MPITutorial.com: *http://mpitutorial.com* Information needed to learn MPI and progress to topics such as parallel I/O and hybrid parallel programming.

OSCER: http://oscer.ou.edu/education.php Oklahoma University offers a tutorial titled: "Supercomputing in Plain English"

University of Tennessee: https://nics.tennessee.edu/hpc-seminar-series Tutorial titled: "Supercomputing today, why it's important for you"