High Performance Computing Center Stuttgart
University of Stuttgart

Systems & Software
Head of Parallel Computing
– Training and Application Services

Dr. Rolf Rabenseifner
Nobelstr. 19 • 70550 Stuttgart
(Office: Room 1.307)
rabenseifner@hlrs.de
www.hlrs.de/people/rabenseifner/
Tel. ++49 (0)711 / 685 - 65530
Dec. 2, 2020 / rab

Mr.
Chowdadenahalli sathyanarayana,
Srikanth

Confirmation of participation

--

We hereby confirm that Srikanth Chowdadenahalli sathyanarayana took part in the online course

Advanced Parallel Programming with MPI and OpenMP

held by the **Jülich Supercomputing Centre (JSC)** from Nov. 30 - Dec. 2, 2020.

The course contains lectures and practical of 22 hours (= 29 lecture units, each 45 Minutes, breaks excluded) on following topics:

- Advanced MPI / MPI-3.1
    - Nonblocking Point-to-Point
    - Advanced Collective Communication
    - Groups & Communicators, Environment Management
    - Virtual Topologies
    - Neighborhood Collective communication
    - Optimization through reordering
    - One-sided Communication
    - Shared memory one–sided communication
    - Memory models and synchronization rules
    - Derived Datatypes
    - Resizing, long counts…
    - Error handling
    - Overview on parallel MPI file I/O
    - Probe, Persistent Requests, Cancel
    - MPI and Threads
    - Process Creation and Management
    - Other MPI features
    - The new Fortran module mpi_f08
    - Best practice
- OpenMP- 4.0, 4.5 and 5.0 Extensions
- Verifying an OpenMP parallelization with the Intel Inspector XE

The lectures and exercises were taught by Dr. Rolf Rabenseifner (HLRS, Universität Stuttgart).

Dr. Rolf Rabenseifner,
HLRS, University of Stuttgart
(Course instructor)