

## Course Descriptions CiE

**Course code:** IF-I-FWP53

**Course title :** Computer Clusters

**Hours per week:** 4

**Number of ECTS Credits allocated/work load:** 5 ECTS credits

**Semester:** 4<sup>th</sup> or higher semester

**Course contents:** This course covers the concepts and technologies of computer clusters. After briefly discussing SMP and MPP systems, the characteristic features of clusters will be covered: high availability, scalability, load balancing and central system management. The characteristics of the cluster implementations by different manufacturers will be presented, and the technical realization by a particular cluster model will be discussed in detail. In the lab sessions a cluster according to this model will be installed, configured and tested.

**Prerequisites:** Knowledge about Operating Systems

**Objective of the course/learning outcome:** Ability to understand and assess various cluster models and technologies and their possible applications. Ability to install, configure, and test a specific implementation of a computer cluster.

**Recommended Reading:** Gregory Pfister: In Search of Clusters, 2<sup>nd</sup> ed., Pearson 1998  
Documentation for the Microsoft Failover Clusters in Windows Server 2008.

**Teaching methods:** Interactive Lectures with Lab Sessions

**Assessment methods:** Successful Solution of Lab Assignments  
Written Examination

**Language of instruction:** English

**Name of lecturer:** Christian Vogt

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**Link:** will be placed on the page [www.cs.hm.edu/~vogt](http://www.cs.hm.edu/~vogt)