



**Muhammad Kamran Khan**

# **An ASP-based Framework for Operating Room Scheduling with Beds Management**

**5 December 14:30, VP Conference room 3rd floor**

The Operating Room Scheduling (ORS) problem is the task of assigning patients to operating rooms, taking into account different specialties, the length and priority score of each planned surgery, operating room shift durations and the availability of beds for the entire length of stay in the Intensive Care Unit and in the wards. A proper solution to the ORS problem is extremely important for improving the quality and satisfaction of patients in hospital environments.

Recently, Answer Set Programming (ASP) a declarative programming paradigm has been employed for solving real-life scheduling and planning problems. In this talk, I will present an improved solution to the problem based on ASP that takes explicitly into account beds management. Further I will discuss preliminary results of an experimental analysis, conducted on benchmarks with realistic sizes.



## **BIO**

Muhammad Kamran Khan is a first-year PhD student in Computer Science under the supervision of Prof. Marco Maratea (DIBRIS) and Giuseppe Galatà (SurgiQ). He obtained Bachelor in Computer Science in 2005 from Department of Computer Science, University of Peshawar, Pakistan and his Master in Information Technology in 2009 from University of Applied Sciences, Lemgo, Germany. His current research is focused on applications of Artificial Intelligence declarative methods in health-care Domain.