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An ASP based Solution for Operating Room Scheduling with Surgical Teams in Hospital Environments

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The optimization of daily Operating Room (OR) surgery schedules can be problematic because of many constraints, like to determine the start time of different surgeries and allocating the required resources including the availability of surgical teams for complete surgical procedures. Recently, Answer Set Programming (ASP) has been successfully employed for addressing and solving real-life scheduling problems in the health domain. In this talk will present our ASP solution for scheduling ORs taking explicitly into account availability of surgical teams that include a surgeon and an anesthetist for the entire surgery duration. Results of the solution with realistic parameters tested on different benchmarks will also be presented.

BIO

Muhammad Kamran Khan is a second year PhD student in Computer Science under the supervision of Prof. Marco Maratea (DIBRIS) and Giuseppe Galatà(SurgiQ). His current research is focused on applications of Artificial Intelligence declarative methods in health-care domain.