



Título: Automated Verification of Care Pathways Using Constraint Programming

Data: 19/04/2018

Horário: 13:00h

Local: Hall do Centro de Ciências - Bloco 902

Resumo:

Care Pathways are used to standardize medical treatments. These pathways work as finite state machines, where a state is connected to others through several sequences. Some of the sequences has a guard condition that must be satisfied to follow to next state. The poor construction of this guard condition can lead to satisfiability problems during pathways executions. This paper proposes an application to check four possible problems that might happen: states in deadlock, non-determinism, inaccessible steps and sequences with logically equivalent guard conditions. We used a Free Open-Source Java library dedicated to constraint programming to encode and verify the operations in guard conditions. Some of real clinical pathways were submitted to application and some of them really had some satisfiability problems. This approach seem to be a great way to analyze possible problems in the construction of clinical pathways. It could contribute to the audit and management of these pathways.

Defesa de Qualificação de Mestrado: Renan Pereira de Figueiredo

Escrito por Administrator

Qua, 18 de Abril de 2018 00:00

Banca:

- Prof. Dr. João Bosco Ferreira Filho (MDCC/UFC - Orientador)
- Prof. Dr. João Fernando Lima Alcântara (MDCC/UFC)
- Prof. Dr. Lincoln Souza Rocha (MDCC/UFC)