## A TELEMEDICINE SYSTEM USING PETRI NETS

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## **Abstract:**

Several technologies in electronics and informatics have been merged into medicine field. It is commonly called telemedicine. Specifically, this work proposes to scenario and an environment which a specific protocol of physical rehabilitation process can be executed and applied to a patient by a healthcare specialist who are geographically distant one another. In this sense, a Service Oriented Architecture (SOA) was designed and analyzed, trying to ensure the right communication process. Colored Petri Nets was used as a formal modelling tool. Finally, a brief mathematical approach is shown aiming to validate the architecture specifications.

## **Keywords**

Mathematical approach, Petri nets, Physical rehab, SOA, Telemedicine