Finite State Machine (SFM) model of the traffic lights system. The Emergency state is omitted to simplify the model. The states $S_{GreenP3S2}$ and $S_{GreenP3}$ correspond to one state $S_{GreenP3}$, states $S_{GreenG1S2}$ and $S_{GreenG1}$ correspond to one state $S_{GreenG1}$, and states $S_{Green3S2}$ and S_{Green3} correspond to one state S_{Green3} (they have been split because of the no-memory restrictions imposed by the FSM model