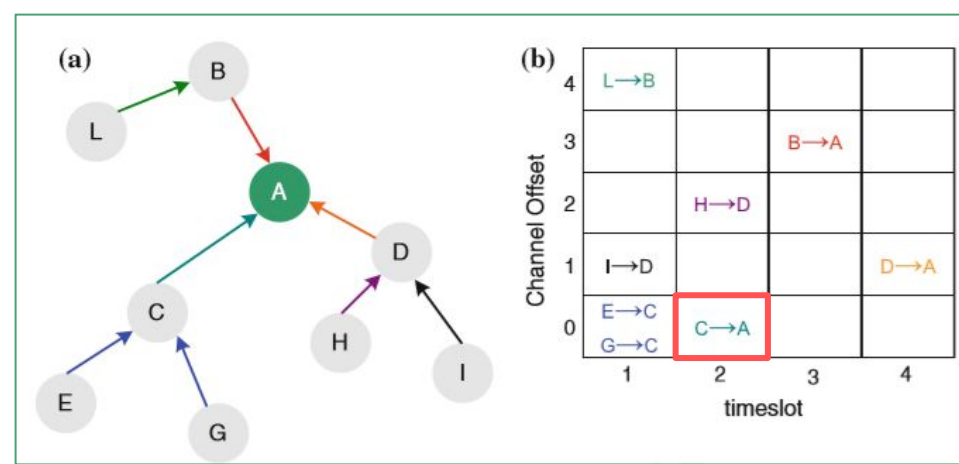


Subject

IEEE 802.15.4e-2015 amendment to satisfy the requirements of industry 4.0 in terms of:

- Energy efficiency
- Quality of Service (delay, reliability, determinism and robustness)



Example of a TSCH schedule
(Giuseppe Anastasi et al, 2014)

Introduction of Time Slotted Channel Hopping (TSCH) among other channel access modes

- The specification of the schedule is left to higher protocol layers → a complex task
- Several TSCH scheduling algorithms have been proposed.
- They can be distributed or centralized.

Subject



Aim of the thesis

- ★ Explore some ML techniques (Reinforcement learning + Deep learning) to design an AI based link scheduler that satisfies the requirements of an IIoT application while being energy efficient