## 11.Feladat : Szinkron sorrendi hálózatok időbeli működésének vizsgálata

Név: Arnóczy László

Neptun kód (ha van): YKQEYD

Kapcsolási rajz:

A képen diagram, Műszaki rajz, Tervrajz, sematikus rajz látható

Automatikusan generált leírás

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| --- | --- |
| **D** | **Qn** |
| **0** | **0** |
| **1** | **1** |

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| **T** | **Qn** |
| **0** | **Qn-1** |
| **1** |  |

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| **J** | **K** | **Qn** |
| **0** | **0** | **Qn-1** |
| **0** | **1** | **0** |
| **1** | **0** | **1** |
| **1** | **1** |  |

1.Visszafejtés

Flip-flop-ok bemeneteinek vezérlő függvényei:

esetén:

* **A hálózat aszinkron kezdőérték beállítással rendelkezik.**

hatására 1 -be lép a hálózat

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|  | **DC** | **TB** | **JA** | **KA** | **QC** | **QB** | **QA** |  |
| **RES** | **-** | **-** | **-** | **-** | **0** | **0** | **1** | **1** |
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és esetén:

és esetén:

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| **n. állapot** | | | | **flip-flop-ok bemenetei** | | | | **n+1. állapot** | | | |
|  | **QC** | **QB** | **QA** | **DC** | **TB** | **JA** | **KA** | **QC** | **QB** | **QA** |  |
| **RES →** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **0** | **0** | **1** | **1** |
| **1** | **0** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **2** |
| **2** | **0** | **1** | **0** | **1** | **1** | **1** | **1** | **1** | **0** | **1** | **5** |
| **5** | **1** | **0** | **1** | **1** | **1** | **0** | **1** | **1** | **1** | **0** | **6** |
| **6** | **1** | **1** | **0** | **1** | **0** | **1** | **1** | **1** | **1** | **1** | **7** |
| **7** | **1** | **1** | **1** | **0** | **1** | **1** | **1** | **0** | **0** | **0** | **0** |
| **0** | **0** | **0** | **0** | **1** | **0** | **0** | **1** | **1** | **0** | **0** | **4** |
| **4** | **1** | **0** | **0** | **0** | **1** | **0** | **1** | **0** | **1** | **0** | **2** |

Bejárt állapotok:

* **RES → 1, 2, 5, 6, 7, 0, 4 és újra 2**

2.Idődiagram:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **CLK** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **RES** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **E** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **QC** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **QB** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **QA** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **DC** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **TB** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **JA** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **KA** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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