
Construction of $\alpha$-language from the language of a QDPDA of order “$n$”. (English)

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Summary: In [10], A. Jain et al. introduced the notion of quasideterministic pushdown automata (QDPDA) of order “$n$” as a generalization of already known deterministic pushdown automata (DPDA). The authors also introduced there a new family of language viz. $\alpha$-language of order $n$ as a subclass of context-free language and have shown that given an $\alpha$-language of order $n$, there exists an equivalent QDPDA of the same order that accepts exactly the given $\alpha$-language of order $n$. In continuation of that work, in this paper, we show that given the language of a QDPDA of order $n$, there exists an equivalent $\alpha$-language of order “$n$”.

MSC:
68T99 Artificial intelligence
68Q45 Formal languages and automata

Keywords:
nondeterministic pushdown automata; deterministic pushdown automata; context-free grammar

Full Text: Link

References:
[19] Tibanga, Iligan City Philippines E-mail: gaudencio.petalcorin@g.msuit.edu.ph (Received: December, 2021; Revised: May, 2022)

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