



ICPAS-2016

2<sup>nd</sup> International Conference on Pure & Applied  
Sciences 01-05 June 2016

# PROCEEDINGS

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Prof. Mahmoud Abdel-Aty

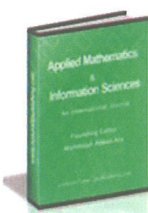
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Prof. Mustafa Bayram

Uskudar University

Assoc. Prof. Aydin Secer

Yildiz Technical University



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## **A Novel method based on generalized Laguerre polynomials for pantograph-type functional differential equations with mixed proportional and variable delays**

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**Abstract:** In this work, we introduce a new kind numerical method based on generalized Laguerre polynomials for solving high-order linear pantograph-type functional differential equations with mixed proportional and variable delays. The technique we have used is essentially related to generalized Laguerre series and its matrix forms along with collocation points. Also, by using some error estimation techniques and by applying to problems with mixed conditions, the pertinent features and applicability of the method are demonstrated [1-3].

## **References**

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ISBN: 978-9944-5868-5-6

