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Research Article

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Dynamical Computations of the FitzHugh- Nagumo Equation

Published On: September 01, 2021 | Pages: 027 - 036

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The Hodgkin-Huxley model is one of the most widely studied biological systems of nonlinear differential equations that is applied to explore nerve cells activities via electrical communications. In this paper we consider some numerical aspects of a simplified version of this model known as the FitzHugh-Nagumo (FHN) equation. Dynamical experiments conducted herein not o ...

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Supercritical fluids state of CO₂ and its the technological performance

Published On: May 27, 2021 | Pages: 022 - 026

Author(s): NR Barakaev, MT Kurbonov, BT Mukhamadiev and Fayzullayev Asqar*

The prospect considered of the using Super Critical Fluids (SCF) for extraction fat, ethereal oil from seed grape. Possibility of the use is shown for this and its problems bound by accessibility of the high-priced equipment. In the last decennial event in developed country of the world is actively developed problem of the rational use material in supercritical condi ...

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Data mining and data visualization for analysing the rate of bed availability at hospitals due to COVID 19

Published On: March 18, 2021 | Pages: 001 - 004

Author(s): Thanuj Kumar S*, Vinitha Dominic K and Sumathi V

This study started in July 2020 during the COVID 19 pandemic period to analyze & visually illustrate insights of data of biomedical facilities' information. The objective of this study is to present major issues faced, solutions found, and a roadmap for future work in developing visual analytics for interactive & data visualization for biomedical facility applications ...

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Literature Review

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Parametric study for optimizing winglet efficiency and comparative analysis of aerodynamic performance of a wing with no winglet and with different types of winglets for lighter aircraft

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Author(s): Parametric study for optimizing winglet efficiency and comparative analysis of aerodynamic performance of a wing with no winglet and with different types of winglets for lighter aircraft

Aircraft performance is highly affected by induced drag caused by wingtip vortices. Winglets are wing tip extensions and are used to minimise vortices formation to improve fuel efficiency. They are usually used in heavier transport aircraft due to higher operation costs and higher fuel consumption due to higher range missions. The research conducted for this thesis wa ...

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