PAPER NUMBER 2

TITLE: Parameter Identification of Flexible Supercapacitors with Fractional Cuckoo Search

ABSTRACT:

In this paper, we identify the model parameters of flexible supercapacitors from time-domain data using fractional cuckoo search. The time-domain data are five galvanostatic charging/discharging (GCD) curves of reduced graphene oxidebased flexible supercapacitor at different exfoliated-graphenemediated graphene oxide (EGM-rGO) relative content. These time-domain curves are used the parameters of three wellknown supercapacitor models: Rs-CP E, Rp-Rs-CP E, and RsC-CP E. The extracted parameters are summarized, and the effect of EGM-rGO relative content is discussed. Based on these discussions, one model is recommended for each EGM-rGO relative content.

CONTRIBUTION OF THE APPLICANT:
- Literature review.
- Ideas involved.
- The mathematical model and its solution..
- Analysis of the results.
- Writing up the manuscript.

CONTRIBUTION PERCENTAGE AND SIGNATURES OF COAUTHORS:

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