

Corrigendum

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202331059420 A

(19) INDIA

(22) Date of filing of Application :04/09/2023

(43) Publication Date : 29/09/2023

(54) Title of the invention : Line Criticality based Dynamic Security Assessment of Power System using Pattern Recognition Approach"

(51) International classification :G06F21/00
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

1)SWAMI VIVEKANANDA UNIVERSITY

Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Barrackpore -----

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Dr. Rituparna Mukherjee

Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Barrackpore -----

2)Mr. Abhishek Dhar

Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Barrackpore -----

3)Mr. Saurabh Adhikari

Address of Applicant :SWAMI VIVEKANANDA UNIVERSITY Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121, India. Barrackpore -----

4) Prof. (Dr.) Subhranil Som, Principal,

Address of Applicant : BHAIRAB GANGULY COLLEGE 2, Feeder Rd, Beehive Garden,Belghoria, Kolkata, West Bengal - 700056, India -----

(57) Abstract :

Assessment of the current operating conditions and prediction of future insecurity is crucial to ensure secure operation of bulk power systems. Real-time assessment of dynamic security requires fast and efficient computations. The existing methods of power system dynamic security assessment are computationally heavy and slow, making them unsuitable for online and real-time computation. Pattern recognition and machine learning (ML) approach can be a viable alternative to the existing computation-intensive methods to recognize the correlation between system's current operating conditions and its future dynamic security state. This paper presents a fast and reliable framework for dynamic security assessment (DSA), which is expected to fulfil real-time operational requirements of modern power systems and mitigate possible security challenges. DSA typically considers severe disturbing events in power system, which may lead to potentially unstable or quasi-stable state of operation for long duration, resulting in unintended triggering of system's protection and isolation mechanisms like relays and circuit breakers, which may lead to cascaded tripping of major equipment and system outages eventually risking the system security.

No. of Pages : 26 No. of Claims : 5