

(12) PATENT APPLICATION PUBLICATION

(21) Application No.834/DELNP/2014 A

(19) INDIA

(22) Date of filing of Application :05/02/2014

(43) Publication Date : 09/01/2015

(54) Title of the invention : AN ADAPTIVE VOLTAGE DIVIDER WITH CORRECTED FREQUENCY CHARACTERISTIC FOR MEASURING HIGH VOLTAGES

(51) International classification :G01R1/067,G01R15/04,H03H7/24
(31) Priority Document No :396031
(32) Priority Date :19/08/2011
(33) Name of priority country :Poland
(86) International Application No :PCT/EP2012/066147
Filing Date :17/08/2012
(87) International Publication No :WO 2013/026805
(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)AKADEMIA GORNICZO HUTNICZA IM. STANISLAWA STASZICA W KRAKOWIE
Address of Applicant :Al. Mickiewicza 30 PL 30 059 Krakow
Poland
(72)Name of Inventor :
1)NABIELEC Jerzy

(57) Abstract :

An adaptive voltage divider for measuring a high voltage between a ground terminal (GND) and a measurement terminal (U). It comprises a first branch comprising a first set of impedance elements (Z R) forming a voltage divider circuit connected between the ground terminals (GND) and the measurement terminal (U) and a voltage meter (AD2) configured to measure voltage on one of the impedance elements (Z R) of the first branch. Furthermore it comprises a second branch comprising a second set of impedance elements (Q P) connected between the ground terminal (GND) and the measurement terminal (U) and switchable between a plurality of configurations wherein in at least one configuration the second set of impedance elements (Q P) forms a voltage divider circuit and voltage meters (AD1 AD3) configured to measure voltage on at least one of the impedance elements (Q P) of the second branch. Moreover a control circuit (DCSS) is configured to consecutively switch the configuration of the second branch between the plurality of configurations thereof such that the relationships between the values of impedance elements (Z R) of the first branch and the values of impedance elements (Q P) of the second branch can be determined for consecutive configurations of the second branch as a function of the outputs of the voltage meters (AD1 AD2 AD3) and the total transmittance of the voltage divider can be determined at any instance as a function of the outputs of the voltage meters (AD1 AD2 AD3).

No. of Pages : 28 No. of Claims : 7