NOMENCLATURE USED [1,2]

S. No.	Description	Symbol	Unit
1.	Soil resistivity	ρ	$\Omega - m$
2.	Surface Gravel layer (crushed rock resistivity)	ρs	$\Omega - m$
3.	Symmetrical fault current in substation	I_f	A
4.	Total area enclosed by ground grid	A	m^2
5.	Surface layer de-rating factor	C_s	
6.	Diameter of grid conductor	d	m
7.	Spacing between parallel conductors	D	m
8.	Attainable Touch Voltage	E_m	V
9.	Attainable Step Voltage	E_s	V
10.	Tolerable step voltage for human with 50 kg body weight	$E_{step\ 50}$	V
11.	Tolerable touch voltage for human with 50 kg body weight	$E_{touch\ 50}$	V
12.	Tolerable step voltage for human with 70 kg body weight	$E_{step\ 70}$	V
13.	Tolerable touch voltage for human with 70 kg body weight	$E_{touch\ 70}$	V
14.	Depth of Burial of earth material	h	m
15.	Surface Gravel layer thickness	h_s	m
16.	Maximum grid current that flows between	I_G	A

	ground grid and surrounding		
17.	Symmetrical grid current	I_g	A
18.	Reflection factor between different resistivity	K	
19.	Corrective weighting factor that emphasizes the effects of grid depth	K_h	
20.	Correction factor for grid geometry	K_i	
21.	Corrective weighting factor that adjusts for the effects of inner conductors	K_{ii}	
22.	Spacing factor for mesh voltage	K_m	
23.	Spacing factor for step voltage	K_s	
24.	Total length of grid conductor	L_C	m
25.	Effective length of L_C+ L_R for mesh voltage	L_M	m
26.	Periphery Length of the grounding equivalent area	L_P	m
27.	Total length of ground rods	L_R	m
28.	Length of ground rod at each location	L_r	m
29.	Effective length of $L_C + L_R$ for step voltage	L_S	m
30.	Total effective length of grounding system conductor, including grid conductor	L_T	m
31.	Maximum length of grid conductor in x direction	$L=L_x$	m
32.	Maximum length of grid conductors in y direction	$W = L_y$	m
33.	Geometric factor composed of factors n_a , n_b , n_c, and n_d	n	

34.	Number of rod in switchyard	N_r	
35.	Resistance of grounding system	R_g	Ω
36.	Duration of shock for determining allowable body current	t_s	second
37.	Max value of metal to metal voltage difference on and between GIS enclosure	E_{tomax}	volt