

# Tutorial - 5

- 1. The dimension of a coaxial transmission line are  $a = 4\text{mm}$ ,  $b = 17.5\text{mm}$  and  $c = 20\text{mm}$ . The conductivity of the inner and the outer conductors is  $2 \times 10^7 \text{ S/m}$  and the dielectric properties are  $\mu_r = 1$ ,  $\epsilon_r = 3$  and  $\sigma/\omega\epsilon = 0.025$ . Determine  $L$ ,  $C$ ,  $R$ ,  $G$  and  $Z_0$  at  $150 \text{ MHz}$**