NOTATION

$S$ Set of sensor nodes
$T$ Set of targets
$s_r$ Sensing Range
$c_r$ Communication Range
$m$ Number of sensor nodes
$n$ Number of targets
$u$ Upper bound of network lifetime
$p$ Probability
$ST$ Coverage matrix
$CT$ Connectivity matrix
$b$ Remaining battery power of sensor nodes
$w$ Weight of sensor node
$E_{\text{min}}$ Minimum usable energy
$e$ Energy consumption rate
$B$ Set of bees
$nb$ Number of bees
$nlife$ Network lifetime
$\alpha$ Physical medium characteristics
$d_{ij}$ Distance between sensor node $S_i$ and target $T_j$
$C$ Set of sensor covers