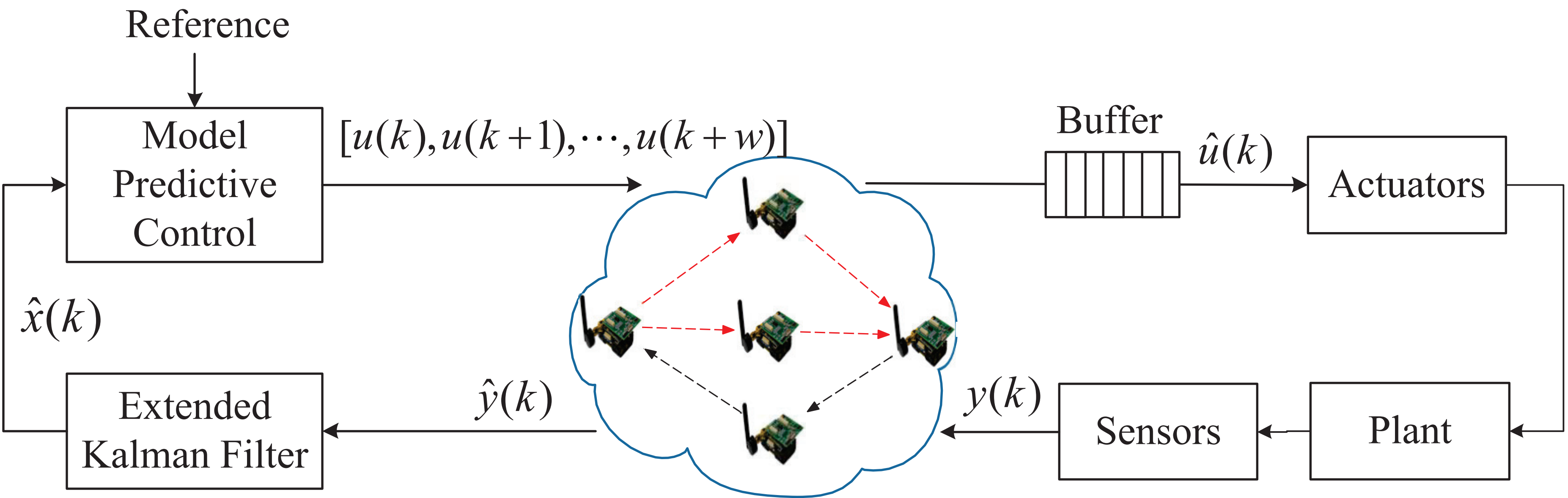

Reference
Model Predictive Control
$[u(k), u(k+1), \cdots, u(k+w)]$
Buffer
$\hat{u}(k)$
Actuators
$\hat{x}(k)$
Extended Kalman Filter
$\hat{y}(k)$
$y(k)$
Sensors
Plant