

2. For  $m$ -layer, local induced gradient  $\delta_m$  will be:

$$\delta_{m1} = \phi'(N_{m1}) \leq \delta_P W_{Pm1}$$

$$\delta_{m2} = \phi'(N_{m2}) \leq \delta_P W_{Pm2}$$

$$\delta_{m3} = \phi'(N_{m3}) \leq \delta_P W_{Pm3}$$

$$\delta_{m4} = \phi'(N_{m4}) \leq \delta_P W_{Pm4}$$

$$\delta_{m5} = \phi'(N_{m5}) \leq \delta_P W_{Pm5}$$

$$\delta_{m6} = \phi'(N_{m6}) \leq \delta_P W_{Pm6}$$

For  $p$ -layer,

$$\delta_{P1} = \phi'(N_{P1}) \leq \delta_h W_{hP1}$$

$$\delta_{P2} = \phi'(N_{P2}) \leq \delta_h W_{hP2}$$

$$\delta_{P3} = \phi'(N_{P3}) \leq \delta_h W_{hP3}$$

$$\delta_{P4} = \phi'(N_{P4}) \leq \delta_h W_{hP4}$$

$$\delta_{P5} = \phi'(N_{P5}) \leq \delta_h W_{hP5}$$

For h-layer,

$$\delta_{h1} = \phi'(\nu_{h1}) \leq \delta_f w_{fh1}$$

$$\delta_{h2} = \phi'(\nu_{h2}) \leq \delta_f w_{fh2}$$

$$\delta_{h3} = \phi'(\nu_{h3}) \leq \delta_f w_{fh3}$$

$$\delta_{h4} = \phi'(\nu_{h4}) \leq \delta_f w_{fh4}$$

for f-layer,

$$\delta_{f1} = e_{f1} \phi'(\nu_{f1})$$

$$\delta_{f2} = e_{f2} \phi'(\nu_{f2})$$

$$\delta_{f3} = e_{f3} \phi'(\nu_{f3})$$