# ESSENTIAL DIFFERENCES BETWEEN ENGD AND PHD

| | EngD | PhD |
|---|---|---|
| *Purpose* | To develop highly qualified personnel for deeply technical industrial research that can be translated into innovative products and services. | To develop highly qualified personnel who may be future academics or industry researchers. |
| *Residence at Company* | Expected to spend more than half the time at the company's premises. | No expectation for projects to be linked to companies unless it is an IPP. |
| *Thesis Topics* | Either one major research project, or a portfolio of related projects (typically 3) | One single major research project |
| *Thesis Characteristics* | <ul><li>Addresses problems of interest to industry partner</li><li>Proposed solutions feature "deep technology" but not necessarily theoretical elegance</li><li>Publications may be in the form of patents and magazine articles, not only academic conference and journal papers</li><li>Work must exhibit sufficient complexity and intellectual depth to justify award of a doctoral degree</li><li>Thesis need not cohesively address one line of investigation, and can comprise several loosely connected ones</li></ul> | <ul><li>Addresses problems that may be of more academic than industrial interest</li><li>Proposed solutions emphasize theoretical elegance and depth, possibly at the expense of model realism</li><li>Publications are in academic conferences and journals</li><li>Work must exhibit sufficient complexity and intellectual depth to justify award of a doctoral degree</li><li>Thesis must cohesively address one line of investigation</li></ul> |
| *Coursework* | 32 Units (8 Course equivalent). Compulsory MOT/Business/Industrial Engineering courses (at least 50%) | 24 Units (6 Course equivalent). Usually no management courses taken. |
| *Research Output* | Academic papers, patents, trade journal papers | Emphasis is on publication in academic journals and conferences |