Programme Expected Learning Outcome of
Doctor of Engineering in Electrical and Computer Engineering

Expected Learning Outcome of Doctoral Program (Doctor of Engineeringin Electrical and Computer Engineering)

Plan 1.1 and 1.2
Subjected Specific ELOs
1. Explain **advance** phenomena in Electrical and Computer Engineering by referring theories in Electrical and Computer Engineering
2. Analyze and find reasons to explain relationships between **research** experimental results and theory in Electrical and Computer Engineering
3. Apply stem knowledge (science, technology, engineering and mathematics) for **solving advance problems, conducting research and building new knowledge** in Electrical and Computer Engineering
4. Build or adapt models for solving **complicated** problems including conducting research and **building new knowledge** in Electrical and Computer Engineering
5. Design and build electrical circuits, systems, or software using specific knowledge in Electrical and Computer Engineering that are applicable **and used in research work**, follows safety principles in Electrical and Computer Engineering and relevant industry standards
Generic ELOs
6. Demonstrate self-reliance **and project management skill** for defining and solving specific problems in Electrical and Computer Engineering
7. Demonstrate skills of interpersonal communication, **in order to convey advanced technique or novel idea,** and presenting works in Electrical and Computer Engineering to publics
8. **Read, review, and comprehend including synthetic analysis contents in literature** in Electrical and Computer Engineering
9. Indicate and show good attitude and professional ethics in Electrical and Computer Engineering **and research conduct**

Subjected specific ELOs

ECE theories ➡ **ELO 1**
Explain advance ECE phenomena

➡ **ELO 2**
What is the relationship between theory and research experimental results?

➡ **ELO 3**
Apply knowledge in solving advance ECE problems ➡ Conduct research ➡ Build new knowledge

ECE implementation skills ➡ **ELO 4**
Build /adapt models to solve ECE complicate problems

Applicable, follow ECE safety principle, and industrial relevant

➡ **ELO 5**
Design and build ECE systems used in research work

Generic ELOs

Personal skills ➡ **ELO 6**
Self-reliance and project management skills

➡ **ELO 8**
Read, review, comprehend, and synthetic analysis ECE academic contend and research articles

➡ **ELO 9**
Good attitude and professional ethics in ECE and research conduct

Interpersonal skills ➡ **ELO 7**
Communication and presentation to convey advance ideas