



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

College of Professional and
Continuing Education

Specialist Certificate

in Power and Clean Energy



SPECIALIST CERTIFICATES

Specialist certificates enable working adults to update their knowledge and upgrade their skills required in key growth sectors to keep pace with the fast-changing economy. Each specialist certificate comprises of modules which are taken from the Undergraduate Full Degree Programme in key growth sectors including power and clean energy. These modular courses can also be taken individually and each course lasts for one semester of 13 weeks.

Each course is credit bearing and can be stackable to the relevant degree. There will be continuous assessments during course period and a final exam at the end of the course which contribute to a final grade. The maximum candidature period for earning a Specialist Certificate is 3 years from the first enrolled Specialist Certificate course under the specific certificate. A certificate will be awarded to the successful participants upon completion of courses.

Specialist Certificate in POWER AND CLEAN ENERGY

LEARNING OBJECTIVES

- Gain a good understanding of the applications of power electronic devices and the fundamental techniques of power conversion.
- Clean energy harvesting and production, energy conversion processes and sub-systems, power electronic converters and energy storage subsystems.
- Understanding the operational aspect of renewable energy generations, and the various issues pertaining to their interconnections to the distribution grids.

PROGRAMME STRUCTURE

This Specialist Certificate comprises of the following 3 modules (*Modules can be taken individually*):

1. [EE4504 Design of Clean Energy Systems](#)
2. [EE4534 Modern Distribution Systems with Renewable Resources](#)
3. [EE4532 Power Electronics and Drives](#)

ADMISSION CRITERIA

- At least 21 years of age
- Have 2 years of full-time work experience, or have fully discharged full-time NS liability, or are currently employed on a full-time basis
- Degree in Engineering/Science or Polytechnic Diploma with relevant working experience
- Selective module(s) require relevant prerequisite modules or can be substituted with relevant work/industry experience

WHO SHOULD ATTEND

- Practicing engineers interested to enhance their career opportunities in the utility sector such as industrial power systems and building services, and manufacturing industry such as hard disk drives, telecommunication equipment power supplies, motor drives, robotics and automation.

FEES AND SUBSIDIES

- Total course fee of around S\$4,000 before any applicable subsidy
- MOE Skills-based Modular fee subsidy
- Additional 60% fee subsidy under SkillsFuture Mid-Career Enhanced Subsidy (MCES)
- e2i fee subsidy
- Up to S\$250 course fee subsidy under NTUC UTAP
- Eligible for SkillsFuture Study Award

Log on to www.copace.ntu.edu.sg to apply

Applications for Specialist Certificates are open all year round

Academic Semester 1: August to December
(Process in May)

Academic Semester 2: January to May
(Process in October)