

ICRERA 2024
13th INTERNATIONAL CONFERENCE ON RENEWABLE
ENERGY RESEARCH AND APPLICATIONS

Speaker's name and affiliation

Dr. Shinzo Tamai, Senior Fellow,
Toshiba Mitsubishi-Electric Industrial Corporation
(TMEIC)
Power Electronics Systems Division
Kobe, Hyogo, Japan (TAMAI.shinzo@tmeic.co.jp)



Tutorial title

PWM Control of Three-Level Neutral Point Clamped Converters for High Power Applications

Abstract:

There are some PWM control methods proposed for three-level neutral-point-clamped (NPC) converters. In large capacity converters, the switching frequency of power semiconductors is relatively low. I will share some PWM control methods and their harmonics characteristics in the output voltage within large capacity converter constraints.

Keywords treated in the tutorial

- 1) three-level NPC converters
- 2) PWM control
- 3) Large capacity converters
- 4) Motor drives
- 5) STATCOMs, BTBs