

No. A - 20215963



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राष्ट्रीय प्रौद्योगिकी संस्थान कालिकट  
National Institute of Technology Calicut

*upon the recommendation of the Senate, hereby confers on*

**MUTHAVARAPU ASWINI KUMAR**

*the degree of*

**Doctor of Philosophy**

in the year 2021

Based on the thesis entitled:

**DESIGN SPACE EXPLORATION OF CAPACITOR VOLTAGE BALANCING  
AND MODULATION METHODS FOR MODULAR MULTILEVEL  
CONVERTERS**

*Given at the National Institute of Technology Calicut*

on October 30, 2021



*S. L. L.*  
**PRINCIPAL  
ADITYA ENGINEERING COLLEGE  
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