



Student ID Number: D00941008

National Taiwan University

on the recommendation of the faculty of
the Graduate Institute of Photonics and Optoelectronics
College of Electrical Engineering and Computer Science

has conferred upon

CHEN, YU-FAN

(陳昱帆)

the degree of Doctor of Philosophy

together with all the honors, rights and privileges belonging to that degree. In witness whereof,
this diploma is issued with the University seal in the month of June, two thousand and eighteen.

Tei-Wai Kuo

Acting President

Hung-Chi Kuo

Dean of Academic Affairs

Mi-Ch

Dean, College of Electrical Engineering and Computer Science

J. R. Lee

Director of the Graduate Institute